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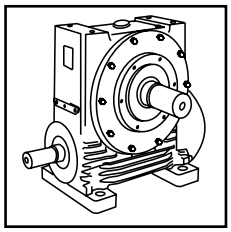
with you at every turn

Series H Industrial Gearbox

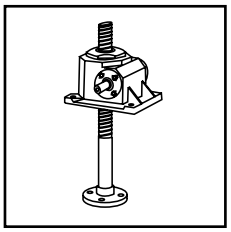
Industrial Gearbox
CH-2.00GB1211

PRODUCTS IN THE RANGE

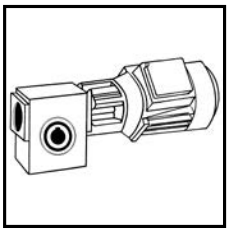
Serving an entire spectrum of mechanical drive applications from food, energy, mining and metal; to automotive, aerospace and marine propulsion, we are here to make a positive difference to the supply of drive solutions.



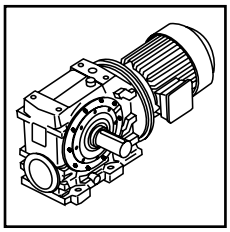
Series A
Worm Gear units and geared motors in single & double reduction types



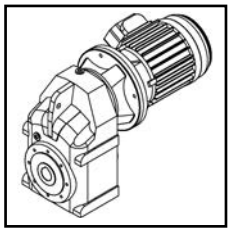
Series BD
Screwjack worm gear unit



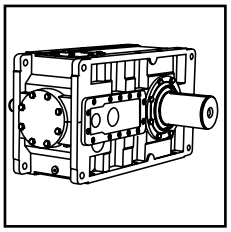
Series BS
Worm gear unit



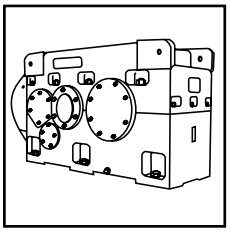
Series C
Right angle drive helical worm geared motors & reducers



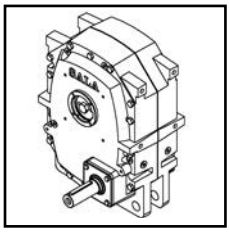
Series F
Parallel angle helical bevel helical geared motors & reducers



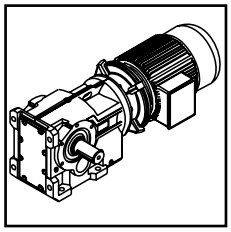
Series G
Helical parallel shaft & bevel helical right angle drive gear units



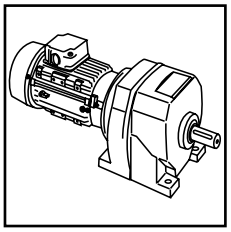
Series H
Large helical parallel shaft & bevel helical right angle drive units



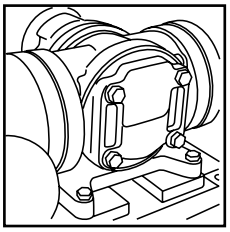
Series J
Shaft mounted helical speed reducers



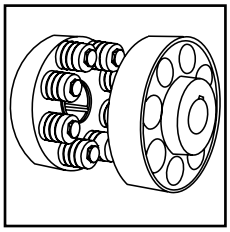
Series K
Right angle helical bevel helical geared motors & reducers



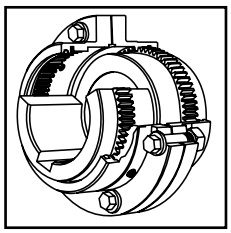
Series M
In-line helical geared motors & reducers



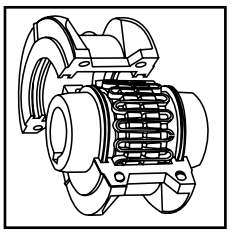
Roloid Gear Pump
Lubrication and fluid transportation pump



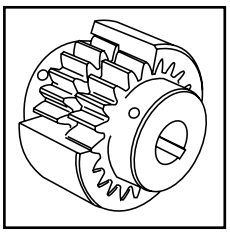
Series X
Cone Ring
Pin and bush elastomer coupling



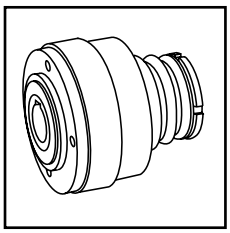
Series X
Gear
Torsionally rigid, high torque coupling



Series X
Grid
Double flexing steel grid coupling



Series X
Nylicon
Gear coupling with nylon sleeve



Series X
Torque Limiter
Overload protection device

We offer a wide range of repair services and many years experience of repairing demanding and highly critical transmissions in numerous industries.

We can create custom engineered transmission solutions of any size and configuration.

ATEX
Compliance Assured

Total compliance with the ATEX Directive safeguarding the use of industrial equipment in potentially explosive atmospheres is assured for users of our geared products.

Certification is available for standard gearboxes and geared motors with badging displaying the CE Mark and the Ex mark, name and location of the manufacturer, designation of series or type, serial number, year of manufacture, Ex symbol and equipment group/category.

ATEX directive 94/9/EC (also known as ATEX 95 or ATEX 100A) and the CE Marking Directive are enforced in all EC member states. Compliance is compulsory for designers, manufacturers or suppliers of electrical and non-electrical equipment for use in potentially explosive atmospheres created by the presence of flammable gases, vapours, mists or dusts.

Ex compliant standard gearboxes can be supplied against Groups 2 or 3 for surface industries in designated hazardous location Zones 1 and 2 for gases, vapours and mists; and in Zones 21 and 22 for dusts.

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GENERAL DESCRIPTION

Radicon Series H

Series H gear units are available in in-line and right angle versions in single, double, triple and quadruple reduction gear stages having a maximum power capacity exceeding 8300 kW.

The modular design and construction of the Series H offers many engineering and performance benefits including a high degree of interchangeability of parts and sub assemblies. This in turn provides considerable economies of production whilst maintaining the highest standard of component integrity

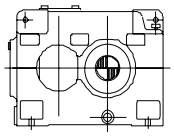
The Range Includes

- 11 sizes of units with a ratio coverage of 1.22:1 to 130:1.
- Series H gear units are fully metric.
- Shaft extensions are to BS 4506 : 1970 (1991)-ISOR775.
- Output shaft bores are to BS EN 20286-1 : 1993, ISO 286-1 : 1988
- Pulling down bolt holes are to BS EN 20273 : 1992, ISO R273, medium fit series.

Design Features Include

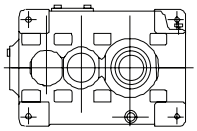
- Profile ground helical gears
- High level of surface finish for quiet running
- Units can be offered in horizontal mounting positions or alternatively vertical mounting
- Specially designed units are available for cooling tower applications or heavy duty stirrer applications.
- All units are also available with hollow bore for output shaft mounting. Output bores can be connected by shrink disc.

As improvements in design are being made continually this specification is not to be regarded as binding in detail and drawings and capacities are subject to alteration without notice. Certified drawings will be sent on request.



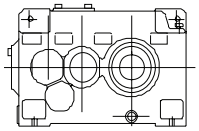
Single reduction
Foot mounted parallel shafts

* H 1 1 4 0



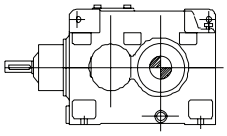
Double reduction
Shaft mounted parallel shafts

* H 2 S 2 0 0



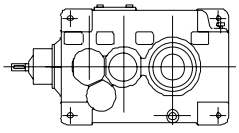
Triple reduction
Foot/Shaft mounted parallel shafts

* H 3 S/F 2 5 0



Double reduction
Foot mounted right angle shafts

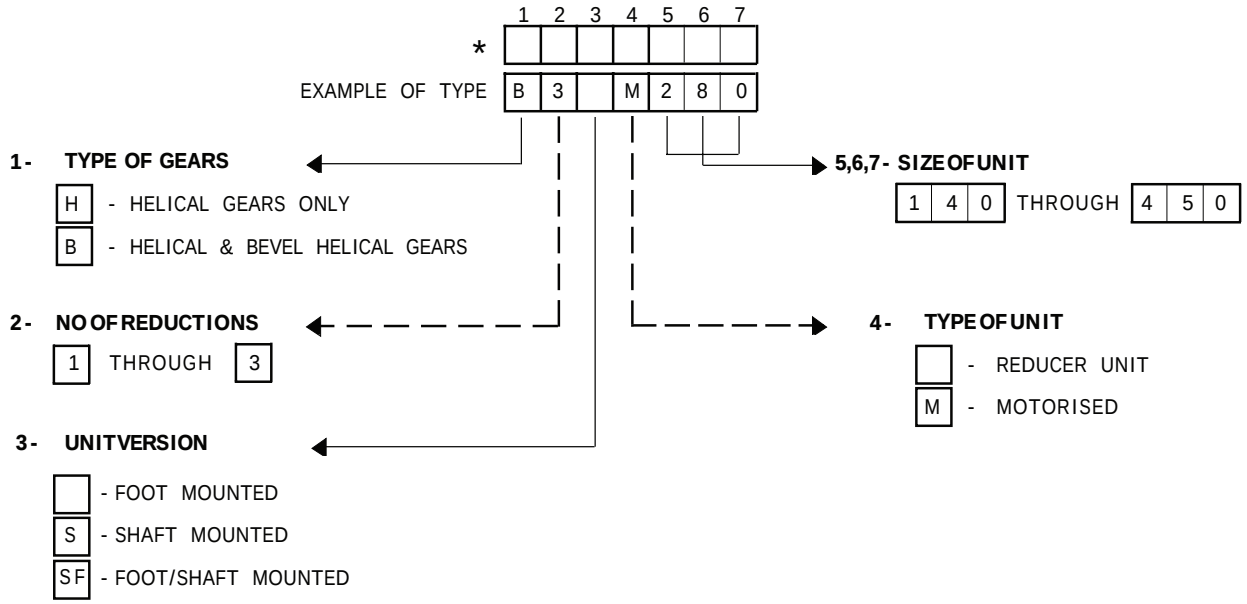
* B 2 3 1 5



Triple reduction
Shaft mounted right angle shafts

* B 3 S 4 0 0

* Typical unit designations



INFORMATION REQUIRED WHEN ORDERING UNITS

PRIME MOVER

- Type - electric motor or engine, for example 4 cylinder internal combustion engine	
- Power rating in kW	
- Output speed. if variable, indicate speed range and frequency of variation	
- Dimensions of prime mover	
- Are bedplate and/or couplings required	

DRIVEN MACHINE

- Type, for example, stirrer, cooling tower, fan, etc	
- Power rating in kW	
- Speed	
- Service - hours per day, running time in any hour, details of reversals if applicable, type of loading, ambient temperature etc	

GEAR UNIT

- Type, for example, VB3	
- Size, for example, 400	
- Ratio	
- Shaft handing. Refer to dimension pages and quote reference	
- Direction of rotation (For units with right angle shafts refer to handling diagrams on dimension pages)	

SHAFT CONNECTIONS

- Couplings. Quote shaft diameters with tolerances or coupling bores	
- Details of overhung loads, including diameter and type of pulley, sprocket or pinion, axial thrust loads and bending moments applied to the outputshafts	

ANY ADDITIONAL INFORMATION	

* THIS PAGE MAY BE PHOTOCOPIED ALLOWING THE CUSTOMER TO ENTER THEIR ORDER

Shaft Mounted Units

Shaft mounted units are of two designs, the first of which is mounted on the driven machine shaft extension and connected to the foundation by torque arm, supplied as an optional extra.

Additionally, the foot/shaft design is available for mounting on a baseplate with motor and coupling, the complete assembly being mounted on the driven machine shaft extension and connected to the foundation by a torque arm.

All gear units are fitted with a 'shrink disc' device to provide positive clamping on the driven machine shaft extension. It is positioned on the input side of the gear unit.

Motorised Gear Units

Gear units of double and triple reduction types are available as standard assemblies comprising British Standard metric flanged motors direct mounted on gearcase input shaft housings by adaptors. Motor and gear unit shafts are connected by flexible couplings.

Baseplates

Standard baseplates can be supplied for units with parallel or right angle shafts. Assemblies comprise gear units and foot mounted motors correctly aligned in manufacture and connected by Radicon flexible couplings. Coupling guards are fitted.

Baseplates for right angle shaft gear units are designed for use with either foot or shaft mounted arrangements, and provision is made for attaching torque arms where required.

Designs provide ample stiffness to prevent distortion under load. Full details are available from Radicon.

Holdbacks

Holdbacks can be fitted to all Series H gear units, with the exception of H1 single reduction type, where required to operate in non-reversing drives. They are located on helical pinion shafts and have adequate capacities to deal with full rated torques. Lubrication is provided automatically from the oil in the gear unit. Changing the direction of locking rotation is a simple operation.

Preservation / Protection

Series H gear units are despatched without oil.

Prior to despatch they are test run with a rust preventative oil giving adequate protection to internal parts for a period of six months covering normal transport in the UK and overseas and covered storage.

Shaft extensions and hollow output shafts are protected with a rust inhibitor which is proof against sea water and suitable for under-cover storage up to 12 months.

Note: Where gear units are to operate in abnormal conditions, or where they are to stand for long periods without running, eg in plant installation, Radicon must be notified so that suitable protective arrangements can be made.

Series H Gear Units are fully metric

Shaft extensions are to BS 4506 : 1970 (1991), ISO R775
Output shaft bores are to BS EN 20286-1 : 1993, ISO 286-1 : 1988
Holding down bolt holes are to BS EN 20273 : 1992, ISO R273, medium fit series

Gears

High quality alloy case hardening materials provide long life wear resistance and fatigue strength.

Profile ground single helical gears and spiral bevel gears lapped in pairs ensure high standards of accuracy, surface finish and quiet running characteristics. Helical gears are fitted in parallel shaft units with shafts at right angles incorporate spiral bevel and helical gears.

Bearings

Roller bearings are used throughout.

Gearcases

Gearcases are of rigid cast iron construction with modern styling.
Casings are split in the horizontal plane.
Inspection covers are provided for viewing gear contacts.
Oil level dipsticks, ventilators and drain plugs are fitted.

Gearcase Finish

Internal and external surfaces are painted with linear epoxy primer.
External surfaces are finished with a styrenated modified alkyd with aluminium, blue hammer finish.
These paints are resistant to dilute acids and alkalis, oils and solvents, sea water and temperatures up to 140°C.

External Dimensions

Centre distances are chosen from ISO preferred number series.
Shaft extensions and hollow wheelshaft bores are to ISO metric standards.
Fasteners are metric.

Lubrication

Lubrication in most instances is by the transfer of oil by gears dipping in the sumps of gear unit bases. Where high pitch line speeds could cause churning of the lubricant, case baffles are fitted as indicated on rating tables. Spray lubrication is necessary where shown and complete systems can be supplied when required.

The unit oil grade and change period will be stamped on the nameplate. The change period will be 6 months for mineral oil based lubricants and 18 months for synthetic oil based lubricants. These figures assume a sump temperature of 110°C. Oil change periods can be extended for lower sump temperatures see installation and maintenance leaflet.

Units are provided with combined dipsticks and ventilators, and drain plugs.

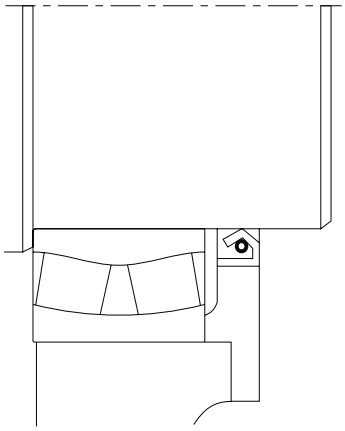
Cooling

Depending on the application standard gear units are cooled by:-
- Normal heat dissipation by convection from external surfaces.
- Fans fitted to high speed or intermediate shafts.
- Cooling water coil fitted in gear unit base.
- Fan and cooling coil.
- Separate oil cooler incorporated in forced lubrication system.

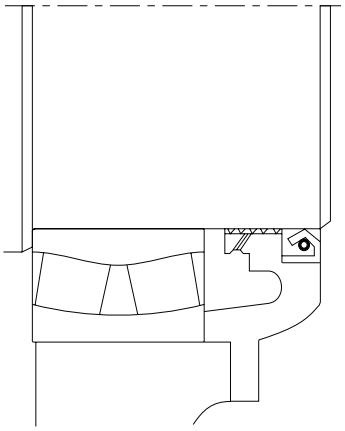
As improvements in design are being made continually this specification is not to be regarded as binding in detail and drawings and capacities are subject to alteration without notice. Certified drawings will be sent on request.

SHAFT SEALING ARRANGEMENTS OF HORIZONTAL MOUNTED GEAR UNITS

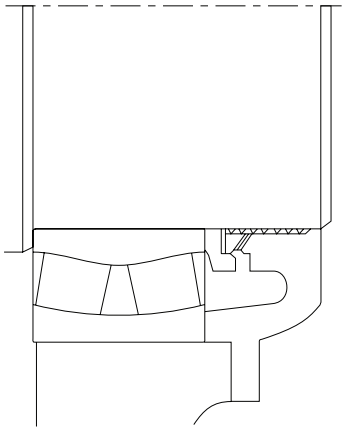
Oil seal lip



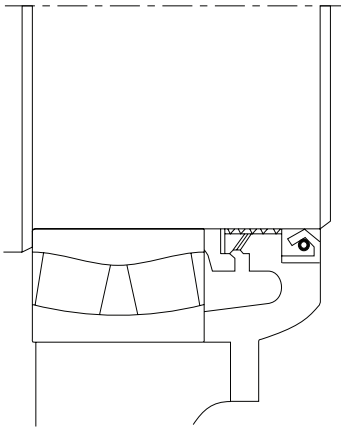
Labyrinth and Oil seal



Labyrinth and Flinger



Labyrinth, Flinger and Oil seal



Type	Shaft	Unit Size										
		140	160	180	200	225	250	280	315	355	400	450
H1	Input	<- - - - - - - - - - Oil lip seal - - - - - - - - - ->					<- - - - - - - - - - Labyrinth and Flinger - - - - - - - - ->					
	Ouput	<- Labyrinth, Flinger and Oil seal ->										
H2	Input	<- - - - - - - - - - - - - - - - Oil lip seal - - - - - - - - - - - - - - - - >							<- - - Labyrinth and Flinger - - ->			
	Ouput	<- Labyrinth and Oil seal - >										
H3	Input	<- Oil lip seal - >										
	Ouput	<- Labyrinth and Oil seal - >										
B2	Input	<- - - - - - - - - - - - - - - - Oil lip seal - - - - - - - - - - - - - - - - ->							<- - - Labyrinth and Flinger - - ->			
	Ouput	<- Labyrinth and Oil seal - >										
B3	Input	<- Oil lip seal - >										
	Ouput	<- Labyrinth and Oil seal - >										

An additional oil seal, felt seal or grease lubricated seal, may be necessary for certain applications, Please refer to Radicon.

1.0 Basic Ratings

The catalogue mechanical and thermal rating capacity of the Series H gear units are based on a standard set of service operating conditions. The conditions are:

i) The unit operates at a uniform absorbed power for 10 hours per day and with no more than one unidirectional start per hour at twice the absorbed power at input shaft to the gear unit.

ii) It operates in a large indoor space at an ambient temperature of 20°C with ambient air velocity of 1.4m/sec.

iii) The sump bulk oil temperature is 110°C when transmitting the power associated with the thermal capacity limit.

iv) The air density is that at sea level

v) When cooling fans are fitted it is assumed two are fitted to the H1 and H2 units and one to all other units

vi) When cooling water coils are fitted the cooling water is supplied at 20°C and the flow rate is as follows:

a) Sizes 140 - 180 inclusive 5.7 litres/min
b) Sizes 200 - 450 inclusive 9.1 litres/min

vii) When a forced lubrication system is required the thermal rating given is for a unit where the oil is taken from sump sprayed onto the teeth and bearings and drains back into the sump.

When the service conditions vary from those above factors are provided to enable the ratings to be modified to reflect the service operating conditions. Therefore selection of the gear unit is made by comparing the required power capacity (P_R) with the unit basic rating P_M mechanical, P_T thermal both suitably factored for the service operating conditions.

2.0 Gear Unit Selection

2.1 Select Gearbox Type

i) Parallel shaft (helical)
or ii) Right angled drive (bevel/helical)

Either of which can be foot or shaft mounted (the shaft mounted unit can be with or without a foot mounting)

2.2 Calculate the Gear Unit Ratio

$$\text{Gear unit ratio} = \frac{\text{Input Speed}}{\text{Output Speed}}$$

2.3 Gear Unit Required Power (P_R)

Calculation of the gear unit required power (P_R) firstly requires determination of the type of drive which is classified as:

i) Uniform
ii) Moderate shock
or iii) Heavy shock

This is obtained from table 2 page 7

Knowledge of the type of drive allows determination of the mechanical service factor F_M this is obtained from table 1 below.

However if the overloads associated with the type of drive can be calculated or accurately assessed, actual loads should be used instead of F_M.

It maybe that an industry standard has been set for the particular application, hence F_M should be set to that value

NB Applications where high inertia loads are involved eg crane travel drives, slewing motions etc unit selection should be referred to Radicon Applications Engineers.

The gear unit required power (P_R) is given by

Required power $P_R = Pa \times Fm$ (kW)

Where Pa is the required absorbed power (kW)

Table 1. Mechanical Service Factor (Fm)

Prime mover	Duration of service- hrs per day	Load classification-driven machine		
		Uniform	Moderate Shock	Heavy Shock
Electric motor, steam turbine or hydraulic motor	Under 3	0.80	1.00	1.50
	3 to 10	1.00	1.25	1.75
	Over 10	1.25	1.50	2.00
Multi-cylinder internal combustion engine	Under 3	1.00	1.25	1.75
	3 to 10	1.25	1.50	2.00
	Over 10	1.50	1.75	2.25
Single cylinder internal combustion engine	Under 3	1.25	1.50	2.00
	3 to 10	1.50	1.75	2.25
	Over 10	1.75	2.00	2.50

Table 2. Load Classification by Applications

U = Uniform load

M = Moderate shock load

H = Heavy shock load

† = **Refer to Radicon**

Driven Machine	type of load
Agitators	
pure liquids	U
liquids and solids	M
liquids-variable density	M
Blowers	
centrifugal	U
lobe	M
vane	U
Brewing and distilling	
bottling machinery	U
brew kettles-continuous duty	U
cookers-continuous duty	U
mash tubs-continuous duty	U
scale hopper-frequent starts	M
Can filling machines	U
Cane knifes	M
Car dumpers	H
Car pullers	M
Clarifiers	U
Classifiers	M
Clay working machinery	
brick press	H
briquette machine	H
clay working machinery	M
pug mill	M
Compressors	
centrifugal	U
lobe	M
reciprocating	
multi-cylinder	M
single cylinder	H
Conveyors-uniformly loaded or fed	
apron	U
assembly	U
belt	U
bucket	U
chain	U
flight	U
oven	U
screw	U
Conveyors-heavy duty not uniformly fed	
apron	M
assembly	M
belt	M
bucket	M
chain	M
flight	M
live roll	†
oven	M
reciprocating	H
screw	M
shaker	H

Driven Machine	type of load
Cranes	
main hoists	U
bridge travel	†
trolley travel	†
Crusher	
ore	H
stone	H
sugar	H
Dredges	
cable reels	M
conveyors	M
cutter head drives	H
jig drives	H
manoeuvring winches	M
pumps	M
screen drive	H
stackers	M
utility winches	M
Dry dock cranes	
main hoist	†
auxiliary hoist	†
boom, luffing	†
rotating, swing or slew	†
tracking, drive wheels	†
Elevators	
bucket-uniform load	U
bucket-heavy load	M
bucket-continuous	U
centrifugal discharge	U
escalators	U
freight	M
gravity discharge	U
man lifts	†
passenger	†
Fans	
centrifugal	U
cooling towers	
induced draft	†
forced draft	†
induced draft	M
large, mine, etc	M
large, industrial	M
light, small diameter	U
Feeders	
apron	M
belt	M
disc	U
reciprocating	H
screw	M
Food industry	
beef slicer	M
cereal cooker	U
dough mixer	M
meat grinders	M
Generators-not welding	U
Hammer mills	H
Hoists	
heavy duty	H
medium duty	M
skip hoist	M
Laundry washers	
reversing	M
Laundry tumblers	M
Line shafts	
driving processing equipment	M
light	U
other line shafts	U
Lumber industry	
barkers-hydraulic-	
mechanical	M
burner conveyor	M
chain saw and drag saw	H
chain transfer	H
craneway transfer	H
de-barking drum	H
edger feed	M
gang feed	M
green chain	M
live rolls	H
log deck	H

Driven Machine	type of load
log haul-incline	H
log haul-well type	H
log turning device	H
main log conveyor	H
off bearing rolls	M
planer feed chains	M
planer floor chains	M
planer tilting hoist	M
re-saw merry-go-round conveyor	M
roll cases	H
slab conveyor	H
small waste conveyor-belt	U
small waste conveyor-chain	M
sorting table	M
tipple hoist conveyor	M
tipple hoist drive	M
transfer conveyors	M
transfer rolls	M
tray drive	M
trimmer feed	M
waste conveyor	M
Machine tools	
bending roll	M
punch press-gear driven	H
notching press- belt driven	†
plate planers	H
tapping machine	H
other machine tools	
main drives	M
auxiliary drives	U
Metal mills	
draw bench carriage and main drive	M
pinch, dryer and scrubber rolls-reversing	†
slitters	M
table conveyors	
non-reversing	
group drives	M
individual drives	H
reversing	
wire drawing and flattening machine	M
wire winding machine	M
Mill-rotary type ball	H
cement kilns	H
dryers and coolers	H
kilns, other than cement	H
pebble	H
rod	
plain	H
wedge bar	H
tumbling barrels	H
Mixers	
concrete mixers -continuous	M
concrete mixers -intermittent	M
constant density	U
variable density	M
Oil industry	
chillers	M
oil well pumping	†
paraffin filter press	M
rotary kilns	M
Paper mills	
agitators, (mixers)	M
barker-auxiliaries-	
hydraulic	M
barker-mechanical	H
barking drum	H
beater and pulper	M
bleacher	U
calenders	M
calenders-super	H
converting machine,	
except cutters, platers	M
conveyors	U
couch	M
cutters-plates	H
cylinders	M
dryers	M
felt stretcher	M
felt whipper	H
jordans	M

Driven Machine	type of load
log haul	H
presses	M
pulp machine reel	M
stock chest	M
suction roll	M
washers and thickeners	M
winders	M
Printing presses	†
Pullers	
barge haul	H
Pumps	
centrifugal	U
proportioning	M
reciprocating	
single acting; 3 or more cylinders	M
double acting; 2 or more cylinders	M
single acting; 1 or 2 cylinders	†
double acting; single cylinder	†
rotary	
gear type	U
lobe, vane	U
Rubber and plastics industries	
crackers	H
laboratory equipment	M
mixed mills	H
refiners	M
rubber calenders	M
rubber mill-2 on line	M
rubber mill-3 on line	M
sheeter	M
tire building machines	†
tire and tube press openers	†
tubers and strainers	M
warming mills	M
Sand muller	M
Sewage disposal equipment	
bar screens	U
chemical feeders	U
collectors	U
dewatering screws	M
scum breakers	M
slow or rapid mixers	M
thickeners	M
vacuum filters	M
Screens	
air washing	U
rotary-stone or gravel	M
travelling water intake	U
Slab pushers	M
Steering gear	†
Stokers	U
Sugar industry	
cane knives	M
crushers	M
mills	M
Textile industry	
batchers	M
calenders	M
cards	M
dry cans	M
dryers	M
dyeing machinery	M
knitting machines	†
looms	M
mangles	M
nappers	M
pads	M
range drives	†
slashers	M
soapers	M
spinners	M
tenter frames	M
washers	M
winders	M
Windlass	†

2.4 Selection of Gear Unit Size

Knowledge of the type of unit (Section 2.1) and the required power (section 2.3) allows selection of the size of gear unit required from the appropriate gear unit rating table pages 29 to 88.

2.5 Adjustment of Mechanical Rating for the Service Operating Conditions

Adjustment for duration of running has been done via the mechanical service factor Fm. The other adjustment required is for the number of starts or if unit is reversing, this factor Fs is obtained from table 3.

Table 3. Number of Starts Factor (Fs)

Start / Stops per hour (1)	Up to 1	3	5	10	20	40	60	100
Unidirectional	1.0	0.90	0.85	0.77	0.70	0.64	0.59	0.55
Reversing	0.71	0.65	0.61	0.55	0.50	0.46	0.42	0.39

Note: (1) Intermediate values are obtained by linear interpolation

2.6 Unit Capacity

The unit capacity (Pc) for the given service operating conditions is given by

$$Pc = Pm \times Fs \ (kW)$$

For the unit to be acceptable mechanically

$$Pc \geq P_R$$

3.0 Thermal Check

Having selected a gear unit which is acceptable mechanically for the application it is now necessary to ensure that the unit has adequate thermal capacity.

3.1 Basic Thermal Rating Capacity

The thermal capacity of the unit without additional cooling is given together with the mechanical ratings pages 29 to 88.

The thermal capacity with the following additional cooling

i) fitted with fan(s)
ii) fitted with a cooling water coil (with a water supply temperature of 20°C)
iii) fitted with fan(s) and cooling water coil

are given separately, also see pages 29 to 88 for each type of gear unit.

For units which need forced lubrication the thermal rating capacity are given for units where the oil is taken from the unit sump and sprayed onto the gears and returned to the sump.

3.2 Adjustment of Basic Thermal Capacity (P_T) for the Operating Service Conditions

The basic thermal rating (P_T) for the unit selected in section 2.0 above is compared, after adjustment for the operating service conditions, with the absorbed power Pa

(NB the mechanical service factor Fm is not included).

The thermal capacity for the operating service conditions (P_{TC}) is obtained as follows

$$P_{TC} = P_T \times Fa \times Fd \times Fv \times Fh \ (kW)$$

where Fa = the ambient temperature adjustment factor (table 4 page 9)
Fd = the intermittent duty factor (table 5 page 9)
Fv = the ambient air velocity correction factor (table 6 page 9)
Fh = the altitude correction factor (table 7 page 9)

For the unit to be acceptable thermally then

$$P_{TC} \geq Pa$$

Table 4. Ambient Temperature Adjustment Factor (Fa) (1)

Unit Type	Nominal Ratios Covered		Cooling Type	Ambient Temperature °C							
	From	To Including		-20	-10	0	10	20	30	40	50
H1	1.22	2.25	No additional cooling	2.33	2.00	1.67	1.33	1.00	0.67	0.33	0
H1	2.49	3.05	No additional cooling	2.0	1.75	1.50	1.25	1.00	0.75	0.5	0.25
	1.22	1.66	Fan(s) or cooling coil								
H2	5.60	8.40	No additional cooling								
B2	5.60	9.30	No additional cooling								
H1	3.38	5.06	No additional cooling	1.80	1.60	1.40	1.20	1.00	0.80	0.60	0.40
	1.84	2.49	Fan(s) or cooling coil								
H2	9.30	25.6	No additional cooling								
	5.60	9.30	Fan(s) or cooling coil								
H3	25.6	38.4	No additional cooling								
	25.6	28.4	Fan(s) or cooling coil								
B2	10.3	18.9	No additional cooling								
	5.06	10.3	Fan(s) or cooling coil								
B3	14	31.4	No additional cooling								
	14	23.2	Fan(s) or cooling coil								
H1	2.49	5.06	Fan(s) or cooling coil	1.67	1.50	1.33	1.17	1.00	0.83	0.67	0.50
	1.22	2.25	Fan(s) and cooling coil								
H2	10.3	25.6	Fan(s) or cooling coil								
	5.60	10.3	Fan(s) and cooling coil								
H3	42.5	63.8	No additional cooling								
	31.4	52.1	Fan(s) or cooling coil								
	25.6	42.5	Fan(s) and cooling coil								
B2	11.4	18.9	Fan(s) or cooling coil								
	5.06	11.4	Fan(s) and cooling coil								
B3	34.7	63.8	No additional cooling								
	25.6	47.1	Fan(s) or cooling coil								
	14.0	34.7	Fan(s) and cooling coil								
H1	2.49	5.06	Fan(s) and cooling coil	1.57	1.43	1.29	1.14	1.00	0.86	0.71	0.57
H2	11.4	25.6	Fan(s) and cooling coil								
H3	70.6	130	No additional cooling								
	57.7	130	Fan(s) or cooling coil								
	47.1	130	Fan(s) and cooling coil								
B2	12.6	18.9	Fan(s) and cooling coil								
B3	70.6	95.7	No additional cooling								
	52.1	95.7	Fan(s) or cooling coil								
	38.4	95.7	Fan(s) and cooling coil								

Table 5. Intermittent Duty Factor (Fd) (1)

Number of Reductions	% Running time per hour							
	10	25	50	60	70	80	90	100
3	2.24	1.91	1.50	1.36	1.27	1.18	1.09	1.00
2	1.66	1.51	1.31	1.24	1.18	1.12	1.07	1.00
1	1.24	1.14	1.03	1.01	1.00	1.00	1.00	1.00

Table 6. Ambient Air Velocity Correction Factor (Fv)

Air Velocity Vv m/sec	Factor Fv	Operating Area	If Vv is not known use this value for Fv
0 - 1.4	Fv = 0.1 Vv + 0.86	Small confined space	0.86
> 1.4 - < 6	Fv = 0.2 Vv + 0.72	Large indoor space	1.0
> 2 - < 6	Fv = 0.17 Vv + 0.9	Sheltered outdoor space	1.3
>2	Fv = 0.17 Vv + 0.9 (max Fv = 1.92)	Outdoor space	1.5

Table 7. Altitude Adjustment Factor (Fh) (1)

Altitude (m)	Factor Fh
Sea Level	1.0
500	0.97
1000	0.93
1500	0.90
2000	0.87
3000	0.81
4000	0.75
5000	0.70

Note: (1) Intermediate values are obtained by linear interpolation

EXAMPLE 1

A foot mounted parallel shaft speed reducer is to be direct coupled to a 750 kW, 1450 rev/min motor. The output shaft is to rotate at 350 rev/min and is coupled to a large centrifugal pump which absorbs 725 kW on 24 hours/day service. The unit is to operate in a large indoor space with an ambient temperature of 30°C situated 1000 meters above sea level.

1 Gearbox type

1.1 Parallel shaft type is specified - type H

1.2 Ratio = $\frac{1450}{350}$ = 4.14, type H1 (single reduction)

2 Mechanical capacity

2.1 From table 2 page 7 the application is uniform load

2.2 From table 1 page 6 the mechanical service factor Fm = 1.25

2.3 From table 3 page 8 running 24 hours per day Fs = 1.0

2.4 Given the absorbed power Pa = 725 kW and Fm = 1.25. The required mechanical capacity P_R is

$P_R = Pa \times Fm$

$= 725 \times 1.25$

$P_R = 906$ kW

2.5 From the H1 1450 rev/min rating table page 32 a H1-280 ratio 4.13 is adequate for the duty

ie $Pc = P_M \times Fs$

$Pc = 1120 \times 1.0$

$P_R < Pc$

3 Thermal capacity

3.1 The thermal capacity (P_{TC}) required at the above operating conditions requires the basic thermal rating P_T to be modified by the following factors

3.1:1 Ambient temperature factor
The unit operates in an ambient temperature of 30°C hence on examination of the thermal rating P_T page 34 and if the H1-280 is selected then additional cooling by the way of fan or cooling water coil is required. In either case the ambient temperature factor Fa = 0.83 (table 4 page 9) the unit will therefore require a cooling water coil to be fitted.

3.1:2 Intermittent duty factor Fd
The unit operates 24 hours per day therefore Fd = 1.0 (table 5 page 9).

3.1:3 Ambient air velocity factor (Fv)
All that is known is that the unit operates in a large indoor space therefore Fv = 1.0 (table 6 page 9).

3.1:4 Altitude correction factor (Fh)
The unit is to operate at an altitude of 1000m therefore from table 7 page 9 Fh = 0.93.

3.2 Thermal capacity of unit (P_{TC})

$P_{TC} = P_T \times Fa \times Fd \times Fv \times Fh$

$= 1070 \times 0.83 \times 1.0 \times 1.0 \times 0.93$

$P_{TC} = 826$ kW

$P_{TC} > 725$

the H1-280 fitted with a cooling coil will be adequate thermally for the application.

4 Check exact ratio is satisfactory see page 13

5 Order a gear unit type H1-280 fitted with a cooling water coil.

EXAMPLE 2

A shaft mounted gear unit with right angle shafts is required to drive a uniformly loaded belt conveyor running 24 hours/day at 77 rev/min. The unit must have feet for the attachment of a motor mounting baseplate. The motor is 75 kW at 1450 rev/min and the absorbed power at the conveyor headshaft is 65 kW. The ambient temperature on site which is a large indoor area is 20°C and situated at 300 metres above sea level.

1 Gearbox type

1.1 Foot/shaft mounted unit with right angle shafts.

1.2 Ratio = $\frac{1450}{77}$ = 18.8, type B2SF or B3SF could be used whichever is the more economical choice.

2 Mechanical capacity

2.1 From table 2 page 7 the application is uniform load

2.2 From table 1 page 6 the mechanical service factor Fm = 1.25

2.3 From table 3 page 8 running 24 hours per day Fs = 1.0

2.4 Given the absorbed power Pa = 65 kW. The power requirement of the unit P_R is

$P_R = 65 \times 1.25$

$P_R = 81$ kW

2.5 From the B2 1450 rev/min rating table page 69 a B2SF-225 is adequate for the duty

ie $P_c = P_M \times F_s$

$P_c = 93.2$ kW

$P_c > P_R$

3 Thermal capacity

3.1 The thermal capacity (P_{TC}) required at the above operating conditions requires the basic thermal rating P_T to be modified by the following factors

3.1:1 Ambient temperature factor Fa
Ambient temperature factor Fa = 1.0 (ambient temperature 20°C) (table 4 page 9).

3.1:2 Intermittent duty factor Fd
The unit operates 24 hours per day therefore Fd = 1.0 (table 5 page 9).

3.1:3 Ambient air velocity factor (Fv)
All that is known is that the unit operates in a large indoor space therefore FV = 1.0 (table 6 page 9).

3.1:4 Altitude correction factor (Fh)
The unit is to operate at an altitude of 300m above sea level.
Using linear interpolation Fh = 0.982 (table 7 page 9).

3.2 Thermal capacity of unit (P_{TC})

$P_{TC} = P_T \times Pa \times Pd \times Pv \times Ph$

$= 74.2 \times 1.0 \times 1.0 \times 1.0 \times 0.982$

$P_{TC} = 72.8$ k

$P_{TC} > 65$ kW

a B2SF-225 with no additional cooling is adequate for the application.

4 Check exact ratio is satisfactory see page 14

5 Order a gear unit type B2SF-225 with no additional cooling.

EXAMPLE 3

A gearbox operating at sea level is required to transmit power continuously from a horizontal foot mounted motor to a cooling tower fan, which is to be mounted directly on the output shaft and above the gearbox. The motor power is 110 kW at 1450 rev/min and the fan speed is 191 rev/min. the maximum ambient temperature is 25°C. The fan imparts an axial thrust of 14 kN to the gearbox output shaft. It is necessary to have added clearance for the fan, so a CT type is preferred.

The cooling tower fan has been calculated to create an ambient air velocity flow of 4.7 m/sec over the gear unit.

1 Gearbox type

1.1 Right angle shafts - type VB

1.2 Ratio $= \frac{1450}{191} =$ 7.59, type VB2 CT (double reduction)

2 Mechanical capacity

2.1 For cooling tower applications a mechanical service factor of Fm = 2.0 is usually used.

2.2 No absorbed power Pa is given the selection is based on the motor power.

2.3 The unit is running continuously therefore Fs = 1.0

2.4 The required power (PR) is therefore

$P_R = 110 \times 2.0$

$P_R = 220$ kW

2.5 From the B2 1450 rev/min rating table page 68 a VB2-225CT ratio 7.59:1 is adequate for the duty

ie $P_c = P_M \times F_s$

$P_c = 263 \times 1.0$

$P_c > P_R$

3 Thermal capacity

3.1 The following thermal service factors are required to adjust for the operating conditions.

3.1:1 Ambient temperature factor Fa
The unit is operating in an ambient temperature of 25°C Fa = 0.875 unfanned by linear interpolation (table 4 page 9)

3.1:2 Intermittent duty factor Fd
The unit operates 24 hours per day therefore Fd = 1.0 (table 5 page 9).

3.1:3 Ambient air velocity factor (Fv)
It has been calculated the ambient air flow velocity (Vv) over the gear unit will be 4.7 m/sec

$Fv = 0.2 \times Vv + 0.72$

$= 0.2 \times 4.7 + 0.72$

$Fv = 1.66$ (table 6 page 9).

3.1:4 Altitude correction factor (Fh)
The unit is to operate at sea level therefore Fh = 1.0 (table 7 page 9).

3.2 Thermal capacity of unit (P_{TC})

P_{TC} = P_T x Fa x Fd x Fv x Fh

= 82.2 x 0.875 x 1.0 x 1.66 x 1.0

P_{TC} = 119 kW

The VB2 - 225 CT with no additional cooling is adequate for the application

ie P_{TC} > 110 kW

4 From table 6 given on page 24 a permissible axial thrust of 16.2 kN can be accommodated by the output shaft. Hence the selected unit is satisfactory.

5 Check exact ratio is satisfactory see page 14.

6 Order a gear unit type VB2-225 CT exact ratio 7.76 with no additional cooling.

EXAMPLE 4

A gearbox with right-angle shafts is required to transmit 190 kW absorbed power from a 200 kW 1450 rev/min motor to a stirrer shaft at 55 rev/min starting once per day. The shaft is to be rigidly coupled to the gearbox output shaft and entirely supported by the gearbox bearings. The radial force at the paddle is 44 kN and it acts at a point 2.3 metres below the gearbox base. The paddle produces an upward axial thrust of 32 kN. The specified mechanical service factor is 2.0. The unit is to operate in a large indoor area at an ambient temperature of 20°C and the factory situated 800 metres above sea level.

1 Gearbox type

1.1 Right angle shaft type VB.

1.2 Ratio = $\frac{1450}{55}$ = 26.36, type VB3 (triple reduction)

2 Mechanical check

2.1 The mechanical service factor Fm = 2.0

2.2 The absorbed power Pa is 190 kW

2.3 The power required P_R is

P_R = 190 x 2.0

P_R = 380 kW

2.4 The unit is started less frequently than once per hour therefore Fs = 1.0

2.5 From the B3 1450 rev/min rating table see page 80 a B3-400 nominal ratio 25.6:1 is adequate for the duty (Fs = 1.0)

ie Pc = Pm x Fs

= 485 x 1.0

Pc = 485 kW

Pc > P_R

3 Thermal check

3.1 Thermal service factors
The following thermal service factors are required to adjust for the service operating conditions.

3.1:1 Ambient temperature is 20°C therefore Fa = 1.0 (table 4 page 9)

3.1:2 No information is available regarding duration of operation therefore Fd is set equal to 1.0

3.1:3 No ambient air velocity is given therefore Fv for a large indoor area is 1.0 (table 6 page 9)

3.1:4 The gear unit is to operate at an altitude of 800 metres above sea level. By linear interpolation Fh = 0.946 (table 7 page 9)

3.2 Gear unit required thermal capacity (P_{TC})
P_T for unit with fan 515 kW (page 82)

P_{TC} = P_T x Fa x Fd x Fv x Fh

= 515 x 1.0 x 1.0 x 1.0 x 0.946

P_{TC} = 487 kW

P_{TC} > 190 kW

As indicated in the rating table the thermal rating is based on the unit having spray lubrication with the oil pumped from the sump and returned to the sump ie no external lubrication system.

4 Bending moment check

4.1 The applied bending moment = 2.3 x 44 = 101.2 KN.M

4.2 From table 10 on page 26 the allowable bending moment limited by shaft stress is 93 KN.M for the standard unit and 143 KN.M for the Heavy Duty Stirrer.

4.3 From table 11 on page 26 the allowable bending moment limited by bearing life at 45 rev/min 156 KN.M for the SA type

5 Axial thrust capacity check

5.1 From table 7 page 25 the thrust limit for the cover bolts is 99 KN

5.2 From table 8 page 25 allowable thrust upwards limited by bearing life at 45 rev/min is 127 KN

6 Check that the exact ratio is satisfactory page 13 and 14.

7 Order a gear unit type VB3-400 SA exact ratio 26.389 with fan cooling and internal spray lubrication

EXACT RATIOS

Single Reduction Units Types H1

Nominal Ratio	UNITSIZE										
	140	160	180	200	225	250	280	315	355	400	450
1.22	1.220	1.234	1.226	1.229	1.231	1.216	1.220	1.229	1.231	1.229	1.231
1.36	1.359	1.364	1.360	1.364	1.351	1.343	1.359	1.364	1.351	1.364	1.351
1.50	1.500	1.500	1.511	1.484	1.486	1.500	1.500	1.484	1.514	1.484	1.486
1.66	1.647	1.667	1.659	1.655	1.667	1.667	1.647	1.655	1.667	1.655	1.667
1.84	1.844	1.838	1.829	1.852	1.839	1.828	1.844	1.815	1.833	1.852	1.839
2.03	2.033	2.029	2.026	2.038	2.034	2.037	2.033	2.040	2.034	2.038	2.034
2.25	2.250	2.250	2.259	2.250	2.259	2.240	2.250	2.261	2.259	2.250	2.259
2.49	2.500	2.500	2.520	2.500	2.520	2.478	2.500	2.500	2.480	2.500	2.520
2.76	2.750	2.762	2.739	2.762	2.739	2.769	2.750	2.778	2.739	2.762	2.739
3.05	3.091	3.053	3.095	3.053	3.045	3.050	3.045	3.053	3.095	3.053	3.045
3.38	3.333	3.389	3.400	3.389	3.400	3.444	3.333	3.391	3.350	3.389	3.400
3.74	3.737	3.750	3.762	3.800	3.778	3.706	3.750	3.750	3.778	3.800	3.778
4.13	4.111	4.176	4.118	4.158	4.190	4.158	4.056	4.150	4.118	4.158	4.118
4.57	4.563	4.563	4.500	4.550	4.500	4.647	4.563	4.611	4.667	4.647	4.500
5.06	5.056	5.059	5.105	5.063	5.056	5.063	5.056	5.059	5.053	5.063	5.056

Double Reduction Units Types H2, H2S, H2SF, VH2, VH2SA, VH2CT

Nominal Ratio	UNITSIZE										
	140	160	180	200	225	250	280	315	355	400	450
5.60	5.636	5.648	5.657	5.625	5.670	5.599	5.625	5.648	5.555	5.625	5.697
6.20	6.078	6.240	6.214	6.250	6.300	6.245	6.250	6.300	6.146	6.250	6.300
6.86	6.814	6.895	6.875	6.905	6.848	6.978	6.875	7.000	6.788	6.905	6.848
7.59	7.590	7.693	7.663	7.595	7.565	7.585	7.595	7.609	7.585	7.595	7.609
8.40	8.333	8.362	8.427	8.472	8.500	8.680	8.333	8.546	8.302	8.472	8.500
9.30	9.342	9.449	9.323	9.319	9.390	9.435	9.206	9.289	9.277	9.319	9.444
10.29	10.35	10.49	10.37	10.45	10.43	10.15	10.36	10.27	10.46	10.45	10.49
11.39	11.37	11.52	11.47	11.30	11.52	11.71	11.30	11.53	11.54	11.30	11.53
12.61	12.50	12.80	12.60	12.66	12.75	12.96	12.67	12.81	12.41	12.71	12.75
13.95	14.14	14.17	13.94	14.20	14.17	13.94	14.25	14.17	14.00	14.25	14.17
15.44	15.29	15.44	15.26	15.46	15.51	15.50	15.17	15.26	15.57	15.46	15.68
17.09	17.00	17.20	17.12	17.34	17.24	16.68	17.06	16.88	17.56	17.34	17.42
18.91	18.71	19.00	18.53	19.21	19.11	18.92	18.98	18.96	19.13	19.21	19.11
20.93	20.76	20.76	20.25	20.76	20.53	20.91	20.76	20.75	21.69	21.20	20.75
23.16	23.32	23.07	22.78	23.00	22.76	23.72	23.10	23.31	23.63	23.49	22.76
25.63	25.84	25.58	25.85	25.59	25.58	25.85	25.59	25.58	25.58	25.59	25.58

Triple Reduction Units Types H3, H3S, H3SF, VH3, VH3SA, VH3CT

Nominal Ratio	UNITSIZE										
	140	160	180	200	225	250	280	315	355	400	450
25.63	25.87	25.50	26.32	25.53	26.38	25.95	25.43	25.44	25.62	25.53	26.15
28.36	28.46	28.15	28.32	28.47	28.56	29.28	28.24	29.06	28.85	28.47	28.58
31.39	31.26	31.81	31.60	31.69	32.34	31.45	31.20	31.58	31.44	31.69	32.53
34.74	34.54	35.29	34.85	34.69	35.82	35.63	34.98	35.09	34.29	34.81	35.31
38.44	38.36	39.36	38.61	38.41	39.69	39.04	38.28	39.20	39.10	38.41	39.72
42.54	42.37	43.11	42.40	43.06	43.92	43.19	42.93	43.56	42.07	43.21	43.92
47.08	47.71	48.04	47.40	48.28	48.80	46.47	48.29	48.17	47.44	48.45	48.80
52.11	52.69	52.62	52.73	53.64	52.50	52.10	53.44	53.29	53.20	53.83	52.50
57.67	56.98	57.35	57.03	57.63	57.61	57.49	57.98	57.38	59.21	57.00	59.54
63.82	63.37	64.02	62.43	64.61	63.75	63.61	65.02	63.75	63.70	64.13	65.83
70.63	69.72	72.57	69.43	69.01	68.63	72.09	70.54	70.55	73.14	69.71	70.92
78.16	78.32	78.52	75.80	78.89	77.56	76.09	77.85	75.94	79.88	78.02	80.95
86.50	87.20	85.58	82.84	85.96	85.43	88.38	87.71	88.93	87.55	88.10	85.43
95.73	95.11	94.57	92.14	94.46	92.39	95.41	94.71	93.38	98.67	95.41	96.43
105.94	106.3	102.6	103.5	105.0	103.9	105.7	105.0	105.9	109.8	107.2	105.0
117.24	117.0	114.0	116.4	116.3	115.2	119.9	116.8	119.0	119.6	118.8	115.2
129.75	130.7	126.4	132.1	129.4	129.5	130.7	129.5	130.6	129.5	129.4	129.5

EXACT RATIOS

Double Reduction Units Types B2, B2S, B2SF, VB2, VB2SA, VB2CT

Nominal Ratio	UNIT SIZE										
	140	160	180	200	225	250	280	315	355	400	450
5.06	5.188	5.124	5.196	5.124	5.112	5.120	5.112	5.124	5.196	5.124	5.112
5.60	5.595	5.688	5.707	5.688	5.707	5.782	5.595	5.693	5.623	5.688	5.707
6.20	6.273	6.295	6.315	6.379	6.341	6.221	6.295	6.295	6.341	6.379	6.341
6.86	6.901	7.011	6.912	6.979	7.034	6.979	6.808	6.966	6.912	6.979	6.912
7.59	7.658	7.658	7.554	7.700	7.760	7.700	7.510	7.685	7.625	7.700	7.625
8.40	8.371	8.400	8.427	8.476	8.542	8.476	8.267	8.460	8.394	8.476	8.394
9.30	9.209	9.355	9.224	9.314	9.387	9.314	9.084	9.296	9.224	9.314	9.224
10.29	10.22	10.22	10.08	10.19	10.08	10.41	10.22	10.33	10.45	10.41	10.08
11.39	11.32	11.44	11.47	11.28	11.15	11.52	11.31	11.43	11.57	11.52	11.15
12.61	12.54	12.74	12.56	12.57	12.43	12.83	12.60	12.74	12.89	12.83	12.43
13.95	13.92	13.92	13.72	13.98	13.96	13.98	13.96	13.97	13.95	13.98	13.96
15.44	15.42	15.43	15.33	15.44	15.42	15.44	15.42	15.43	15.41	15.44	15.42
17.09	16.98	16.98	16.75	16.94	16.75	17.30	16.98	17.16	17.37	17.30	16.75
18.91	18.82	18.83	19.00	18.84	18.82	18.84	18.82	18.83	18.81	18.84	18.82

Triple Reduction Units Types B3, B3S, B3SF, VB3, VB3SA, VB3CT

Nominal Ratio	UNIT SIZE										
	140	160	180	200	225	250	280	315	355	400	450
13.95	13.99	14.04	14.60	14.14	14.25	14.31	13.97	14.09	14.08	14.14	14.33
15.44	15.49	15.86	15.85	15.86	15.83	15.40	15.71	15.58	15.87	15.86	15.92
17.09	17.37	17.61	17.41	17.14	17.48	17.77	17.14	17.49	17.51	17.14	17.49
18.91	19.08	19.34	19.26	19.22	19.42	19.12	19.28	19.34	19.74	19.22	19.44
20.93	20.99	21.49	21.75	21.26	21.40	21.75	21.26	21.51	20.84	21.33	21.40
23.16	23.73	23.78	23.40	23.84	23.78	23.40	23.92	23.78	23.50	23.92	23.78
25.63	25.66	25.92	26.26	26.30	26.23	25.82	26.39	26.23	25.93	26.39	26.23
28.36	28.23	28.64	28.42	29.10	28.93	27.99	28.64	28.33	29.47	29.10	29.24
31.39	31.66	31.73	31.10	32.11	31.92	30.88	31.60	31.25	32.51	32.11	32.26
34.74	34.24	34.59	35.04	35.13	35.41	34.65	34.17	34.58	35.44	35.13	35.16
38.44	37.67	38.52	37.92	38.67	38.97	38.14	37.62	38.07	39.01	38.67	38.70
42.54	41.90	42.57	41.51	42.49	42.83	41.91	41.33	41.83	42.86	42.49	42.53
47.08	46.63	46.50	45.36	47.01	47.38	46.37	45.73	46.28	47.42	47.01	47.05
52.11	51.30	52.45	51.63	52.39	52.80	51.68	50.96	51.58	52.85	52.39	52.44
57.67	57.05	57.30	56.51	57.86	58.31	57.07	56.28	56.96	58.36	57.86	57.91
63.82	63.29	63.32	61.76	63.32	62.62	63.78	63.32	63.29	66.14	64.67	63.29
70.63	69.63	70.73	68.97	70.61	71.17	69.64	68.69	69.51	71.22	70.61	70.67
78.16	78.21	77.27	75.38	77.27	76.42	77.84	77.27	77.24	80.72	78.92	77.24
86.50	85.62	85.86	84.80	85.62	84.74	88.31	85.97	86.77	87.94	87.45	84.74
95.73	96.18	95.20	96.20	95.27	95.20	96.20	95.27	95.20	95.21	95.27	95.20

LUBRICATION

0007

All Series H units are despatched without oil and therefore filled by the client. The Radicon grade and type of oil will be stamped on the nameplate in accordance with either of the types of oil from tables 3 or 4. The oil change period will be as stated in the lubrication section of Design Features page 4.

The approximate quantity of oil required is given in Table 1, but the unit should always be filled to the level marked on the dipstick. Warning: Do not overfill the unit as this can cause leakage and overheating.

Where possible run the unit without load for a short time to circulate the lubricant thoroughly, then stop the unit and recheck the oil level after allowing the unit to stand for 10 minutes and if necessary top up to the correct mark on the dipstick.

In addition where bearings are grease packed, the greases approved are given in table 2.

TABLE 1 LUBRICANT QUANTITY (Litres)

Unit Type	UNITSIZE										
	140	160	180	200	225	250	280	315	355	400	450
H1	6	9	13	18	25	35	45	70	95	130	180
H2	7	11	15	20	27	35	50	70	100	140	205
H2SF	7	11	15	20	27	35	50	70	100	140	205
H2S	-	-	-	19	25	32	45	55	90	125	175
VH2	-	-	-	21	29	40	55	76	105	150	210
VH2SA	-	-	-	21	29	40	55	76	105	150	210
VH2CT	-	-	-	21	29	40	55	76	105	150	210
H3	9	13	17	20	27	35	50	70	100	140	205
H3SF	9	13	17	20	27	35	50	70	100	140	205
H3S	-	-	-	19	25	32	45	55	90	125	175
VH3	-	-	-	21	29	40	55	76	105	150	210
VH3SA	-	-	-	21	29	40	55	76	105	150	210
VH3CT	-	-	-	21	29	40	55	76	105	150	210
B2	6	9	13	18	25	35	45	70	95	130	180
B2SF	6	9	13	18	25	35	45	70	95	130	180
B2S	-	-	-	17	22	30	40	50	80	115	165
VB2	-	-	-	18	25	34	47	65	92	130	180
VB2SA	-	-	-	18	25	34	47	65	92	130	180
VB2CT	-	-	-	18	25	34	47	65	92	130	180
B3	7	11	15	20	27	35	50	70	100	140	205
B3SF	7	11	15	20	27	35	50	70	100	140	205
B3S	-	-	-	19	25	32	45	55	90	125	175
VB3	-	-	-	21	29	40	55	76	105	150	210
VB3SA	-	-	-	21	29	40	55	76	105	150	210
VB3CT	-	-	-	21	29	40	55	76	105	150	210

TABLE 2 APPROVED BEARING GREASES

SUPPLIER	DESIGNATION	ALLOWABLE OPERATING TEMPERATURE RANGE °C	
		ABOVE	TO
BP Oil International Limited	Energrease LS-EP	-30	130
Caltex	Multifak EP	0	120
Castrol International	LMX Grease	-40	150
	Spheerol AP	-30	110
	Spheerol EPL	-10	120
Fuchs Lubricants	Renolit EP	-25	100
Klüber Lubrication	Klüberlub BE 41-542	-20	140
Mobil Oil Company Limited	Mobilgrease XHP	-15	150
	Mobilith SHC	-20	180
Omega Manufacturing Division	Omega 85	-40	230
Optimol Ölwerke GmbH	Longtime PD	-45	140
Shell Oils	Albida RL	-20	150
	Alvania EP B	-20	120
	Nerita HV	-30	130
Texaco Limited	Multifak All Purpose EP	-30	140

Notes: 1) All the above greases are NLGI grade 2.

2) Refer to Radicon Application Engineers if the unit is operating in an ambient temperature outside the range of -30°C to 50°C.

TABLE 3 APPROVED LUBRICANTS

Type E Mineral oil containing industrial EP additives. These have a high load carrying capacity

SUPPLIER	LUBRICANT RANGE	See notes page 17	RADICON GRADE NUMBERS		
			5E	6E	7E
			AMBIENT TEMPERATURE RANGE °C		
			-5 to 25	0 to 40	10 to 50
Batoyle Freedom Group	Remus	b	220 (-2)	320 (-2)	460 (-2)
Boxer Services / Millers Oils	Indus	b,e	220 (-10)	320 (-10)	460 (-10)
BP Oil International Limited	Energol GR-XF	b,c,e	220 (-16)	320 (-13)	460 (-1)
	Energol GR-XP	b,e	220 (-15)	320 (-10)	460 (-7)
Caltex	Meropa	b	220 (-4)	320 (-4)	460 (-4)
	RPM Borate EP Lubricant	b	220 (-7)	320 (-4)	460 (-7)
Carl Bechem GmbH	Berugear GS BM	b	220 (-20)	320 (-13)	460 (-10)
	Staroil G	b	220 (-13)	320 (-13)	460 (-10)
Castrol International	Alpha Max	b,c,e	220 (-19)	320 (-13)	460 (-10)
	Alpha SP	b,e	220 (-16)	320 (-16)	460 (-1)
Chevron Lubricants	Gear Comp EP (USA ver)	b	220 (-16)	320 (-13)	460 (-10)
	Gear CompEP (Eastern ver)	b	220 (-13)	320 (-13)	460 (-13)
	Ultra Gear	b	220 (-10)	320 (-7)	460 (-7)
Eko-Elda Abee	Eko Gearlub	b	220 (-13)	320 (-10)	460 (-1)
Engen Petroleum Limited	Gengear	b	220 (-13)	320 (-10)	460 (-1)
Esso	Spartan EP	b,c	220 (-16)	320 (-13)	460 (-7)
Esso/Exxon	Spartan EP	b,h	220 (-12)	320 (-12)	460 (-4)
Fuchs Lubricants	Powergear	b		P/Gear (-16)	M460 (-4)
	Renogear V	b	220EP (-13)	320EP (-4)	460EP (-4)
	Renogear WE	b	220 (-7)	320 (-4)	400 (-4)
	Renolin CLPF Super	b,d,e	6 (-13)	8 (-10)	10 (-10)
Klüber Lubrication	Klüberoil GEM1	b	220 (-5)	320 (-5)	460 (-5)
Kuwait Petroleum International	Q8 Goya	b	220 (-16)	320 (-13)	460 (-10)
Lubrication Engineers Inc	Almasol Vari-Purpose Gear	b	607 (-18)	605 (-13)	608 (-10)
Mobil Oil Company Limited	Mobil gear 600 Series	b	630 (-13)	632 (-13)	634 (-1)
	Mobil gear XMP	b,c	220 (-19)	320 (-13)	460 (-7)
Omega Manufacturing Division	Omega 690	b,e		85w/140 (-15)	
Optimol Ölwerke GmbH	Optigear BM	b	220 (-11)	320 (-10)	460 (-7)
	Optigear	b	220 (-18)	320 (-9)	460 (-7)
Pertamina (Indonesia)	Masri	b,e	220 (-4)	320 (-4)	460 (-4)
Petro-Canada	Ultima EP	b,e	220 (-22)	320 (-16)	460 (-10)
Rocol	Sapphire Hi-Torque	b,e	220 (-13)	320 (-13)	460 (-13)
Sasol Oil (Pty) Limited	Cobalt	b,e	220 (-4)	320 (-1)	460 (-4)
	Hemat	b,e	220 (-10)	320 (-7)	460 (-4)
Saudi Arabian Lubr. Oil Co.	Gear Lube EP	b,e	EP220 (-1)	EP320 (0)	EP460 (0)
Shell Oils	Omala	b	220 (-4)	320 (-4)	460 (-4)
	Omala F	b,c	220 (-13)	320 (-10)	460 (-4)
Texaco Limited	Meropa	b	220 (-16)	320 (-16)	460 (-10)
	Meropa WM	b, c	220 (-19)	320 (-16)	460 (-11)
Total	Carter EP	b	220 (-7)	320 (-7)	460 (-4)
	Carter VP/CS	b	220 (-16)	320 (-13)	460 (-7)
Tribol GmbH	Molub-Alloy Gear Oil	b,d	90 (-18)	690 (-16)	140 (-13)
	Tribol 1100	b	220 (-20)	320 (-18)	460 (-16)

DANGER

Numbers in brackets indicate recommended minimum operating temperature in °C.
THE UNIT MUST NOT RUN BELOW THIS TEMPERATURE.

TABLE 4 APPROVED LUBRICANTS

Type H Polyalphaolefin based synthetic lubricants with Anti-Wear or EP additives.
These have a medium to high load carrying capacity.

SUPPLIER	LUBRICANT RANGE	See notes page 17	RADICON GRADE NUMBERS		
			5H	6H	7H
			AMBIENT TEMPERATURE RANGE °C		
			-10 to 30	0 to 45	10 to 50
Batoyle Freedom Group	Titan	b	220 (-31)	320 (-28)	
Boxer Services / Millers Oils	Silkgear	b	220 (-35)	320 (-35)	460 (-35)
BP Oil International Limited	Enersyn EPX	b,e		320 (-28)	
Caltex	Pinnacle EP	b	220 (-43)	320 (-43)	460 (-37)
Carl Bechem GmbH	Berusynth GP	b	220 (-38)	320 (-35)	460 (-32)
Castrol International	Alphasyn EP	b,c	220 (-37)	320 (-31)	460 (-31)
	Alphasyn T	b	220 (-31)	320 (-28)	460 (-28)
Chevron Lubricants	Tegra	b	220 (-46)	320 (-33)	460 (-31)
Esso/Exxon	Spartan Synthetic EP	b,e	220 (-46)	320 (-43)	460 (-40)
Fuchs Lubricants	Renogear SG	b	220 (-32)	320 (-30)	
Klüber Lubrication	Klübersynth GEM 4	b	220 (-35)	320 (-35)	460 (-30)
Kuwait Petroleum International	Q8 EL Greco	b	220 (-22)	320 (-19)	460 (-16)
Lubrication Engineers Inc	Synolec Gear Lubricant	b	9920 (-40)		
Mobil Oil Company Limited	Mobilgear SHC	b	220 (-40)	320 (-37)	460 (-32)
	Mobilgear SHC XMP	b,c	220 (-40)	320 (-33)	460 (-31)
Optimol Ölwerke GmbH	Optigear Synthetic A	b	220 (-31)	320 (-31)	
Petro-Canada	Super Gear Fluid	b,e	220 (-43)	320 (-37)	460 (-37)
Shell Oils	Omala HD	b,c	220 (-43)	320 (-40)	460 (-37)
Texaco Limited	Pinnacle EP	b	220 (-43)	320 (-43)	460 (-37)
	Pinnacle WM	b,c	220 (-43)	320 (-40)	
Total	Carter SP	b	220 (-34)	320 (-31)	460 (-28)
Tribol GmbH	Tribol 1510	b	220 (-36)	320 (-33)	460 (-28)

NOTES: b) These lubricants should not be used in units fitted with trailing sprag or holdback devices without prior agreement with the manufacturer; the additives, or the base fluids may modify the coefficient of friction which these devices depend on.

c) These lubricants have been tested for micro-pitting (FZG Type C), test results are available.

d) These oils contains solid lubricants (eg MOS_2 or graphite) and must NOT be used in units fitted with any type of hold-back device which relies on friction for its operation.

e) These lubricants contain additives which may adversely affect silvered or white metal components; consult oil supplier.

h) Minimum operating temperatures of these lubricants are based on worst case values, lower operating temperatures may be available, please check with local stockist.

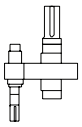
DANGER

Numbers in brackets indicate recommended minimum operating temperature in °C.
THE UNIT MUST NOT RUN BELOW THIS TEMPERATURE.

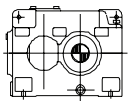
MOUNTING VERSIONS

9606

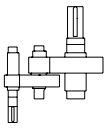
Single Reduction - Parallel Shafts



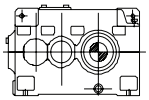
H1
Foot
Mounted



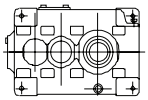
Double Reduction - Parallel Shafts



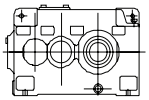
H2
Foot
Mounted



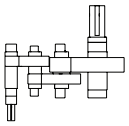
H2S
Shaft
Mounted



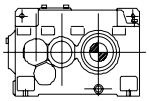
H2SF
Foot/Shaft
Mounted



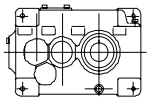
Triple Reduction - Parallel Shafts



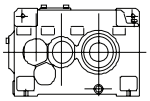
H3
Foot
Mounted



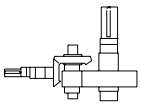
H3S
Shaft
Mounted



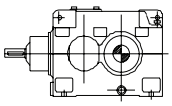
H3SF
Foot/Shaft
Mounted



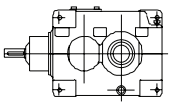
Double Reduction - Right Angle Shafts



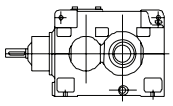
B2
Foot
Mounted



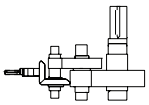
B2S
Shaft
Mounted



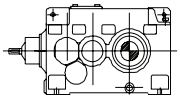
B2SF
Foot/Shaft
Mounted



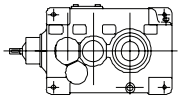
Triple Reduction - Right Angle Shafts



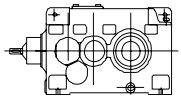
B3
Foot
Mounted



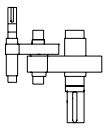
B3S
Shaft
Mounted



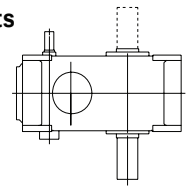
B3SF
Foot/Shaft
Mounted



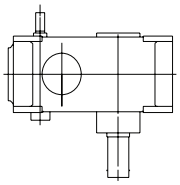
Double Reduction - Parallel Shafts



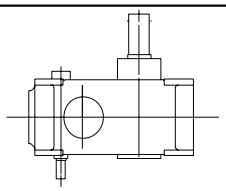
VH2
Standard
Units



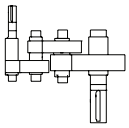
VH2 SA
Heavy Duty
Stirrer Drives



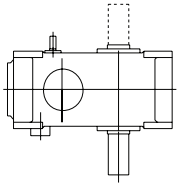
VH2 CT
Cooling
Tower
Drives



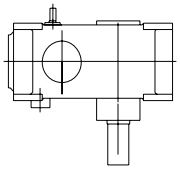
Triple Reduction - Parallel Shafts



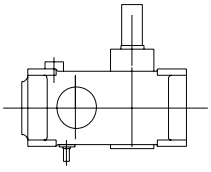
VH3
Standard
Units



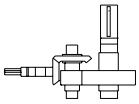
VH3 SA
Heavy Duty
Stirrer Drives



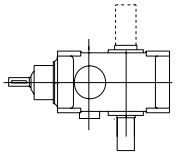
VH3 CT
Cooling
Tower
Drives



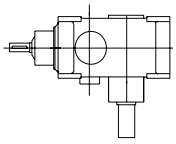
Double Reduction - Right Angle Shafts



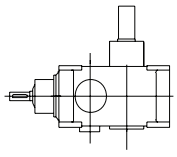
VB2
Standard
Units



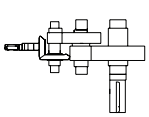
VB2 SA
Heavy Duty
Stirrer Drives



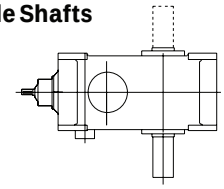
VB2CT
Cooling
Tower
Drives



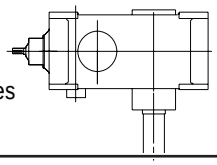
Triple Reduction - Right Angle Shafts



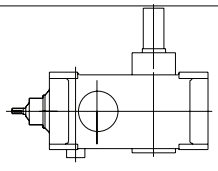
VB3
Standard
Units



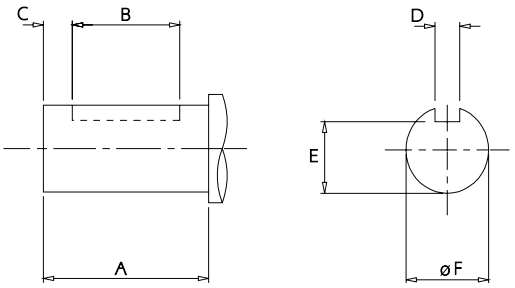
VB3 SA
Heavy Duty
Stirrer Drives



VB3 CT
Cooling
Tower
Drives



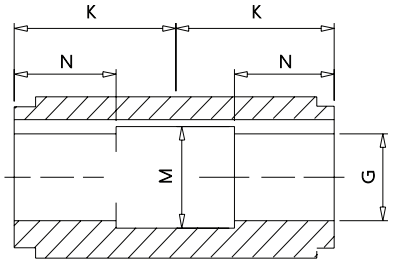
OUTPUTSHAFT OPTIONS



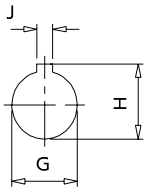
SIZE OF UNIT	TYPE OF OUTPUTSHAFT	DIMENSIONS IN MM (American Shaft in Inches)					
		A	B	C	D	E	øF
140	Standard	140	130	3	19.978 19.926	62.5 62.3	70.030 70.011
160	Standard	140	130	3	19.978 19.926	67.5 67.3	75.030 75.011
180	Standard	170	160	3	21.978 21.926	76.0 75.8	85.035 85.013
200	Standard	170	160	3	24.978 24.926	81.0 80.8	90.035 90.013
225	Standard	210	200	3	27.978 27.926	90.0 89.8	100.035 100.013
250	Standard	210	200	3	27.978 27.926	100.0 99.8	110.035 110.013
280	Standard	210	200	3	31.974 31.912	114.0 113.8	125.040 125.015
315	Standard	250	240	3	35.974 35.912	128.0 127.7	140.040 140.015
355	Standard	300	290	3	39.974 39.912	147.0 146.7	160.040 160.015
400	Standard	300	290	3	44.974 44.912	165.0 164.7	180.040 180.015
450	Standard	350	340	3	44.974 44.912	185.0 184.7	200.046 200.017
200	American	6.69	6.38	*	0.875	3.261	3.750
225	American	8.27	8.00	*	1.000	3.690	4.250
250	American	8.27	8.00	*	1.000	3.944	4.500
280	American	8.27	8.00	*	1.250	4.296	5.000
315	American	9.84	9.50	*	1.500	4.900	5.750
355	American	11.81	11.50	*	1.500	5.662	6.500
400	American	11.81	11.50	*	1.750	6.393	7.250
450	American	13.78	13.50	*	2.000	7.631	8.500

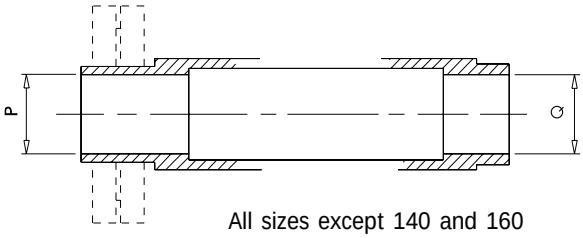
* American shaft has an open ended keyway, therefore no 'C' dimension is required

OUTPUTBORE OPTIONS



Sizes 140 and 160 only



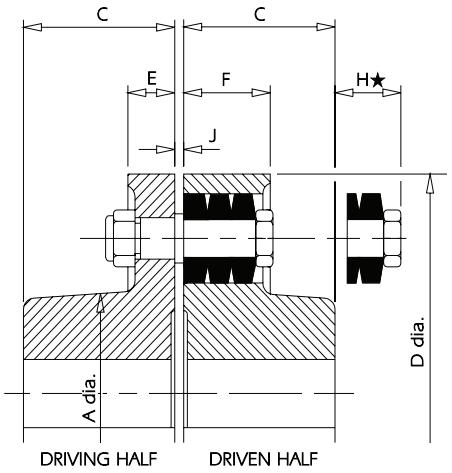


All sizes except 140 and 160

SIZE OF UNIT	TYPE OF OUTPUTBORE	DIMENSIONS IN MM (American Bore in Inches)							
		G	H	J	K	M	N	P	Q
140	Standard	75.060 75.030	80.1 79.9	20.026 19.974	140	76	75	-	-
160	Standard	85.071 85.036	90.6 90.4	22.026 21.974	160	86	85	-	-
180	Standard	-	-	-	-	-	-	85.035 85.000	90.047 90.012
200	Standard	-	-	-	-	-	-	95.035 95.000	100.047 100.012
225	Standard	-	-	-	-	-	-	115.035 115.000	120.047 120.012
250	Standard	-	-	-	-	-	-	125.040 125.000	130.054 130.014
280	Standard	-	-	-	-	-	-	140.040 140.000	145.054 145.014
315	Standard	-	-	-	-	-	-	160.040 160.000	165.054 165.014
355	Standard	-	-	-	-	-	-	170.040 170.000	175.054 175.014
400	Standard	-	-	-	-	-	-	190.046 190.000	200.061 200.015
450	Standard	-	-	-	-	-	-	220.046 220.000	230.061 230.015
200	American	-	-	-	-	-	-	3.7513 3.7500	3.9397 3.9385
225	American	-	-	-	-	-	-	4.5013 4.5000	4.7207 4.7195
250	American	-	-	-	-	-	-	4.9396 4.9380	5.1271 5.1256
280	American	-	-	-	-	-	-	5.5016 5.5000	5.7211 5.7196
315	American	-	-	-	-	-	-	6.3146 6.3130	6.5021 6.5006
355	American	-	-	-	-	-	-	6.6901 6.6886	6.9087 6.9071
400	American	-	-	-	-	-	-	7.5025 7.5006	7.8781 7.8762
450	American	-	-	-	-	-	-	8.6275 8.6256	9.0661 9.0642

CONERING
FLEXIBLE COUPLINGS

0008



This type of coupling compensates for normal angular and parallel misalignment of shafts, together with a limited freedom of axial movement. The conical section rubber rings provide greatly improved torsional flexibility in drives where shock or cyclic loadings are present.

Two types are available, MEDIUM DUTY and HEAVY DUTY. Medium duty couplings (types 612 and 614) are identical to heavy duty couplings (types 611 and 613) except that they are supplied with only half the standard number of pin and ring assemblies. This enables a useful cost saving to be made when the size of coupling is determined by the shaft diameter rather than the coupling's torque capacity.

Parallel Keyway to BS 4235 : Part 1 1972 (1986) with P9 width tolerance

Bore tolerance to ISO 286-2-1988(E) is M7 upto and incl. 50 mm
K7 over 50 mm

Coupling Size	A	D	E	F	H	H★	J
01	64	134	12	26	20	28	3
02	70	147	12	26	12	23	3
03	83	171	19	35	26	37	3
04	97	193	19	35	19	37	3
05	117	215	19	35	11	37	3
06	127	254	31	56	46	59	3
07	147	279	31	56	34	52	3
08	180	330	30	61	22	41	3
09	206	371	46	81	45	53	6
10	230	419	46	81	30	41	6
11	256	457	46	81	12	-	6
12	296	533	46	81	0	-	6

★ The coupling pin withdrawal distance is dimension H for straight bored couplings or dimension H★ for taper bushed couplings.

Reference number	Bore diameter
- - -	Pilot
018	18
019	19
020	20
022	22
024	24
025	25
028	28
030	30
032	32
035	35
038	38
040	40
042	42
045	45
048	48
050	50
055	55
056	56
060	60

Reference number	Bore diameter
063	63
065	65
070	70
071	71
075	75
080	80
085	85
090	90
095	95
100	100
110	110
115	115
120	120
125	125
130	130
140	140
150	150
160	160
170	170

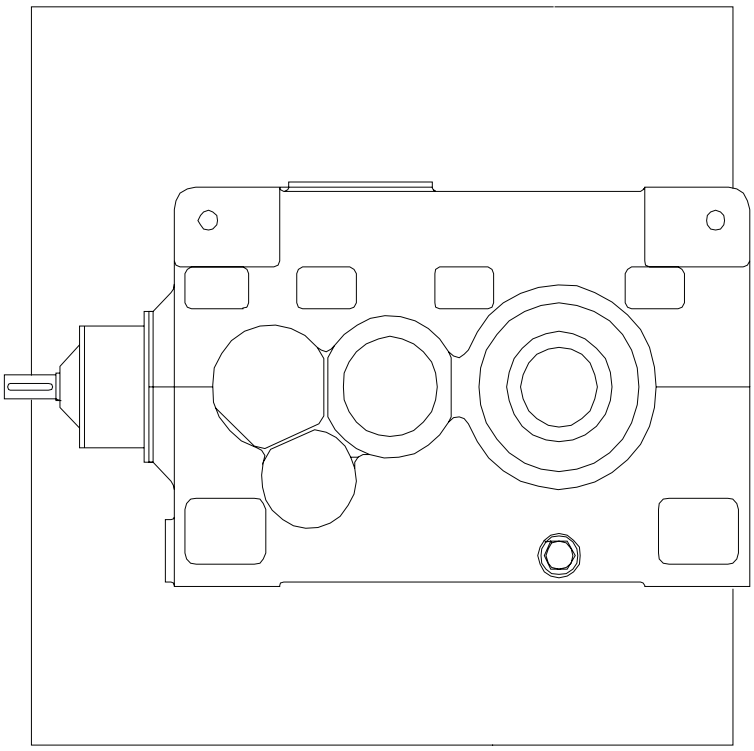
	Types 611 & 612 Straight bored				Types 613 & 614 Taper bushed				Types 612 & 614 Medium Duty				Types 611 & 613 Heavy Duty		
Coupling size	Max. bore	Min. bore		Hub length C	Max. bore	Min. bore	Hub length C	Taper bush length	Torque kNm	kW 100 rev/min	kW 960 rev/min	kW 1450 rev/min	Torque kNm	kW 100 rev/min	Max rev/min
		Driving half	Driven half												
01	38	*	19	48	25	9	40	22.3	0.090	0.95	9.1	13.7	0.181	1.89	4780
02	42	*	22	56	32	11	45	38.1	0.140	1.46	14.0	21.2	0.279	2.92	4335
03	48	*	25	61	40	14	50	38.1	0.232	2.43	23.4	35.3	0.465	4.87	3745
04	60	*	28	68	48	18	50	44.5	0.359	3.75	36.0	54.4	0.717	7.51	3320
05	70	*	32	76	60	16	50	44.5	0.509	5.33	51.2	77.3	1.018	10.7	3000
06	80	25	42	88	60	19	75	63.5	1.219	12.76	123	185	2.438	25.5	2520
07	90	30	55	100	75	35	82	76.2	1.681	17.60	169	255	3.362	35.2	2295
08	100	40	60	117	90	35	98	88.9	2.524	26.42	254	383	5.047	52.8	1940
09	120	50	65	132	110	55	124	114.3	4.217	44.15	424	640	8.433	88.3	1725
10	140	80	80	147	125	70	136	127	5.765	60.37	580	875	11.53	120.7	1530
11	150	90	90	165	-	-	-	-	7.530	78.85	757	-	15.06	157.7	1400
12	170	100	100	188	-	-	-	-	11.750	123.00	1181	-	23.50	246.1	1200

* Note: up to size 05 the Driving half hubs are solid.

All dimensions in mm

For applications in ambient temperatures above 80°C (176°F) or below -30°C (-22°F) refer to Radicon.

The depths of rectangular Imperial keyways to BS46 are generally greater than the equivalent metric keyways, hence the maximum bores given must be marginally reduced when using an Imperial inch system. Consult Radicon for details.



REDUCER

OVERHUNG & AXIAL LOADS (NEWTONS) ON SHAFTS

9606

Whenever a sprocket, gear or pulley is mounted on the shaft, a calculation should be made to determine the overhung load in kN on the shaft, using the formula:

$$P = \frac{kW \times 9545 \times K}{N \times R}$$

where

P = equivalent overhung load (kN)
kW = power carried by the shaft (kilowatts)
N = speed of shaft (rev/min)
R = pitch radius of sprocket, etc. (mm)
K = factor

Notes
1) Values are calculated for the most unfavourable direction of rotation. Consult Radicon for a detailed analysis in critical selections.
2) Overhung load values are for loads applied midway along shaft extension.

Overhung member	K (factor)
Sprocket for chain	1.00
Spur gear	1.25
Vee belt sheave	1.50
Flat belt pulley	3.00

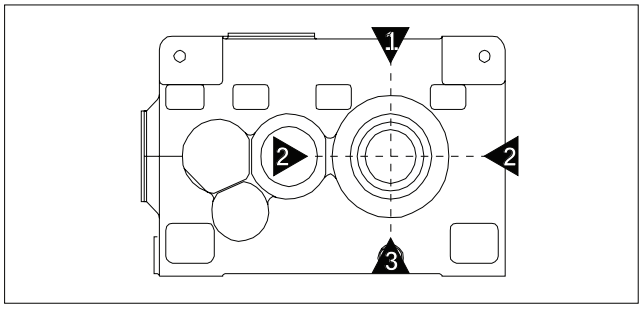


Table 1 Permissible overhung load (kN) on the high speed shaft at 1450 rev/min (Horizontal and Vertical)

Type of unit	Output speed rev/min	Unit size										
		140	160	180	200	225	250	280	315	355	400	450
H2, H2S & H2SF	<260	3.4	3.6	4.9	6.0	5.3	6.4	7.8	12.4	19.0	30.6	57.4
	<100	4.0	8.0	8.1	13.5	16.0	23.4	23.1	41.6	41.1	67.9	47.1
H3, H3S & H3SF	<60	2.9	3.0	4.0	6.4 (A1)	5.8	15.0 (A2)	12.0	20.0 (A2)	19.5	24.0	32.0
B2, B2S & B2SF	<290	6.3	6.5	11.6	12.1	10.9	14.9	19.7	27.8	22.5	21.8	24.1
	<130	7.7	6.9	13.6	22.2	26.2	30.2	36.7	40.6	56.2	68.6	76.4
B3, B3S & B3SF	<105	4.1	3.2	4.9	7.4	8.5	13.3	18.1	23.1	28.8	36.5	44.7

Notes: A) Refer to Radicon application engineers for allowable overhung load for:-

A1) All units with an output speed above 40 rev/min (H3 size 200)

and A2) Size 250 ratio 28.3/1 and size 315 ratio 25.6/1

B) Vertical units include heavy duty stirrer drives and cooling tower drives

Table 2 Permissible overhung load on low speed shaft (kN) (Horizontal Units)

Direction of load	Output speed rev/min	Types H2 and H3										
		Unit size										
		140	160	180	200	225	250	280	315	355	400	450
1	<300	12	13	30	25	45	36	45	57	125	136	215
	<180	13	14	33	28	52	43	54	63	148	158	238
	<130	16	17	40	34	59	47	68	75	165	188	285
	<90	17	19	40	37	73	59	78	94	203	238	350
	<45	17	19	43	37	73	68	90	108	228	285	400
	<20	17	19	43	37	73	68	101	108	228	288	400
2	<300	12	13	30	30	45	36	45	57	125	136	215
	<180	13	14	33	34	52	43	54	63	148	158	238
	<130	14	15	34	34	52	47	68	72	150	188	269
3	<300	6.0	6.5	15	13	25	23	34	36	94	117	152

Table 3 Permissible overhung load on low speed shaft (kN) (Horizontal Units)

Direction of load	Output speed rev/min	Types B2 and B3										
		Unit size										
		140	160	180	200	225	250	280	315	355	400	450
1	<300	10	9.1	15	23	42	33	40	52	108	130	226
	<180	12	10	18	27	48	40	48	58	128	151	250
	<130	14	13	21	32	55	43	60	68	143	180	300
	<90	15	14	23	36	68	54	69	86	175	228	368
	<45	15	14	23	36	68	62	79	98	197	273	420
	<20	15	14	23	36	68	62	89	98	197	276	420
2	<300	10	9.1	15	23	42	38	40	52	108	130	226
	<180	12	10	18	28	48	40	48	58	128	151	250
	<130	12	10	18	28	48	43	60	80	130	180	283
3	<300	5.3	4.7	7.9	12	23	21	30	33	66	112	160

Table 4 Permissible overhung load on low speed shaft (kN) (Vertical Units)

Output speed rev/min	Types VH2, VH3, VB2 and VB3							
	Unit size							
	200	225	250	280	315	355	400	450
<300	24	26	28	27	45	65	58	89
<180	34	37	42	43	66	94	89	132
<130	38	42	49	53	77	108	107	173
<90	43	50	58	64	91	126	128	183
<45	52	70	82	93	129	175	185	260
<20	52	70	102	118	159	218	230	320

Table 5 Permissible overhung load (kN) on the low speed shaft of heavy duty stirrer drives (Vertical units)

Output speed rev/min	Unit size							
	200	225	250	280	315	355	400	450
<300	28	30	34	31	51	77	68	105
<180	39	44	51	54	76	111	104	155
<130	44	51	58	60	87	128	124	183
<90	50	60	69	73	105	149	148	216
<45	78	93	109	118	162	229	239	342
<20	85	103	122	134	181	258	267	380

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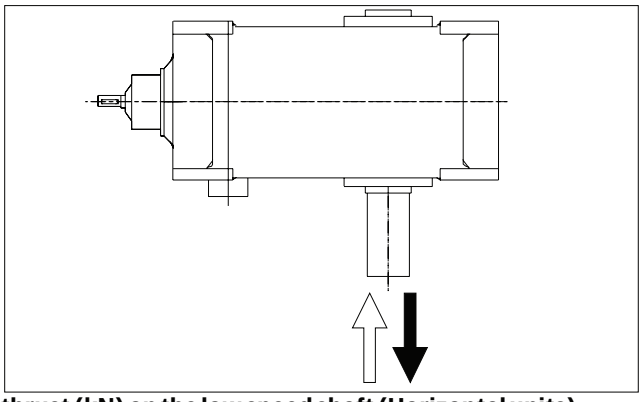

Table 6 Permissible axial thrust (kN) on the low speed shaft (Horizontal units)

Output speed rev/min	Unit size										
	140	160	180	200	225	250	280	315	355	400	450
<300	5.6	7.0	10.6	16.0	16.2	16.1	17.2	26.7	33.7	47.5	80.5
<180	6.4	7.5	11.6	16.0	18.3	17.9	20.9	32.3	34.7	51.1	84.8
<130	7.0	8.5	13.1	15.7	20.0	17.2	20.2	31.8	39.3	59.1	80.2
<90	9.9	12.9	14.7	15.5	22.0	16.9	24.8	39.8	49.7	70.7	77.1
<45	13.8	16.2	14.7	15.7	22.3	17.0	25.3	58.0	55.8	94.3	77.0
<20	16.3	18.4	15.9	15.6	22.0	16.8	25.0	59.1	55.3	94.1	77.5

Table 7 Axial thrust capacity (kN) Allowable thrust on output shaft, limited by COVER BOLT STRESS

Unit type	Unit size							
	200	225	250	280	315	355	400	450
Standard Units VH2, VH3, VB2, VB3	19	26	25	33	48	64	99	94
Heavy Duty Stirrer Drives VH2 SA, VH3 SA, VB2 SA, VB3 SA	26	26	35	54	68	83	99	94
Cooling Tower Drives VH2 SA, VH3 SA, VB2 SA, VB3 SA	19	26	25	33	48	64	99	94

Note: The values in table 7 are calculated for the most adverse direction of rotation. For the opposite rotation they can be increased by at least 50%. Consult Radicon for an analysis where necessary.

Table 8 Axial thrust capacity (kN) Allowable thrust on output shaft, limited by BEARING LIFE (10,000 hrs L10)*

Direction of thrust	Unit type	Output speed rev/min	Unit size							
			200	225	250	280	315	355	400	450
↑	Standard Units VH2, VH3, VB2, VB3 Heavy Duty Stirrer Drives VH2 SA, VH3 SA, VB2 SA, VB3 SA Cooling Tower Drives VH2 SA, VH3 SA, VB2 SA, VB3 SA	<300	15	18	20	23	32	50	49	70
		<180	20	25	27	32	44	66	66	93
		<130	22	26	30	35	47	70	71	99
		<90	25	30	34	41	54	80	82	114
		<45	38	45	52	63	85	123	127	175
		<20	41	51	58	69	92	132	137	189
↓	Standard Units VH2, VH3, VB2, VB3 Cooling Tower Drives VH2 SA, VH3 SA, VB2 SA, VB3 SA	<300	15	18	20	23	32	50	49	70
		<180	20	25	27	32	44	66	66	93
		<130	22	26	30	35	47	70	71	99
		<90	25	30	34	41	54	80	82	114
		<45	38	45	52	63	85	123	127	175
		<20	41	51	58	69	92	132	137	189
	Heavy Duty Stirrer Drives VH2 SA, VH3 SA, VB2 SA, VB3 SA	<300	22	24	28	38	57	56	82	109
		<180	29	32	37	50	74	74	106	139
		<130	30	34	39	52	77	78	110	142
		<90	34	38	44	60	87	88	123	158
		<45	51	58	68	91	131	134	188	238
		<20	55	63	73	97	139	144	200	252

* For other lives multiply values by the factors in table 9 page 26

Note: Values are based on the most unfavourable direction of rotation. Higher values may be permitted after analysis by Radicon.

To calculate the Bending Moment on the gearbox output shaft using the method recommended in The Engineering Equipment Users' Association Handbook No. 9:-

$$\text{Bending Moment} = \frac{\text{Absorbed Power (kW)} \times 9.5 \times L}{\text{Shaft Speed} \times 0.75\ R} = \text{kNm}$$

The above information is given for guidance. When more precise bending moment values are available they should be used.

Check the Bending Moment Capacity of the Gearbox
Standard units and the Heavy Duty SA type are both suitable for supporting a paddle directly coupled to the gearbox output shaft and for eccepting the bending moments and axial thrusts generated from the forces at the paddle. The SA type unit has an enlarged output shaft, extended bearing span and bigger bearings to accept higher loads than the standard unit. Check the standard unit first and, if this has insufficient capacity, use the SA type.

Check the Bending Moment Capacity limited by shaft stress, using Table 10.

Check the Bending Moment Capacity limited by bearing life, using Table 11.

Note: Bearing Capacities are based on 10,000 hours, L10 life. For other bearing lives multiply the values in Table 11 by the factors in Table 9.

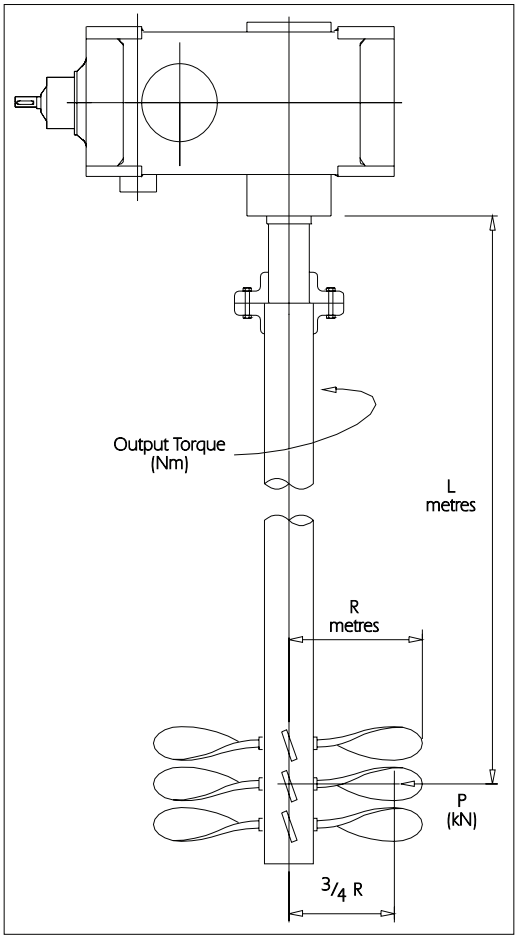

Table 9 Bearing Life Factors (F_B)

	Required Life (hours)				
	5000	10000	25000	50000	100000
Factor	1.23	1	0.76	0.62	0.50

For intermediate values

$$F_B = \left(\frac{10000}{\text{Required Life (hours)}} \right)^{0.3}$$

Table 10 Bending Moment Capacity (kNm)
Allowable Bending Moment at output shaft lower bearing, limited by SHAFT STRESS

Unit type	Unit size							
	200	225	250	280	315	355	400	450
Standard Units VH2, VH3, VB2, VB3	12	19	22	28	44	65	93	120
Heavy Duty Stirrer Drives VH2 SA, VH3 SA, VB2 SA, VB3 SA	16	21	27	51	75	99	143	162

Table 11 Bending Moment Capacity (kNm)
Allowable Bending Moment on output shaft lower bearing, limited by BEARING LIFE (10,000 hrs L10)*

Unit type	Output speed rev/min	Unit size							
		200	225	250	280	315	355	400	450
Standard Units VH2, VH3, VB2, VB3	<300	6.9	8.3	9.8	10	18	30	29	51
	<180	9.6	12	15	16	27	43	45	76
	<130	11	14	17	20	31	49	54	88
	<90	12	16	20	24	37	59	65	105
	<45	19	25	31	38	58	89	104	165
	<20	21	28	35	44	65	100	116	184
Heavy Duty Stirrer Drives VH2 SA, VH3 SA, VB2 SA, VB3 SA	<300	10	12	15	15	27	45	44	76
	<180	14	18	22	24	41	65	68	113
	<130	16	21	25	29	47	74	81	133
	<90	18	24	30	36	55	87	97	157
	<45	28	38	47	58	88	133	156	249
	<20	31	42	53	65	98	150	174	276

* For other lives multiply values by the factors in table 9

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MOMENTS OF INERTIA (Kg cm²) Referred to Input Shaft

Single Reduction Units Types H1

Nominal Ratio	UNITSIZE										
	140	160	180	200	225	250	280	315	355	400	450
1.22	366.	656.	1195.	1900.	3300.	5975.	9730.	18650	32400	58550	102500
1.36	334.	572.	1065.	1700.	2985.	5375.	9005.	16650	29300	52300	92600
1.50	281.	531.	952.	1485.	2695.	4400.	7525.	14600	26950	45700	83550
1.66	253.	461.	839.	1320.	2470.	3930.	6820.	13000	24300	40650	76800
1.84	231.	428.	736.	1170.	2225.	3870.	6285.	11250	19500	36000	69050
2.03	209.	380.	696.	1150.	1995.	3445.	5665.	9920.	19600	35450	61850
2.25	188.	352.	626.	988.	1780.	2985.	5080.	8475.	17450	30400	55100
2.49	168.	287.	559.	828.	1580.	2565.	4525.	8245.	15150	26000	48800
2.76	143.	279.	450.	808.	1340.	2415.	3930.	7085.	12950	25100	41500
3.05	126.	233.	393.	662.	1330.	2125.	3390.	6575.	11250	20700	40800
3.38	120.	224.	380.	639.	1105.	1740.	3230.	5450.	10700	19800	34700
3.74	94.2	173.	332.	496.	907.	1600.	2605.	4850.	8830.	15500	28100
4.13	89.4	153.	287.	476.	834.	1490.	2570.	4470.	8275.	14800	26250
4.57	70.0	140.	264.	413.	789.	1190.	2050.	3715.	6510.	12100	24400
5.06	64.5	117.	208.	357.	641.	1095.	1890.	3500.	6075.	11100	20050

Double Reduction Units Types H2, H2S, H2SF, VH2, VH2SA, VH2CT

Nominal Ratio	UNITSIZE										
	140	160	180	200	225	250	280	315	355	400	450
5.60	66.9	110.	224.	316.	597.	1040.	1845.	3320.	5940.	10050	18050
6.20	65.2	108.	220.	271.	497.	888.	1545.	2840.	5020.	8640.	16200
6.86	60.0	112.	206.	268.	458.	864.	1450.	2655.	4670.	8495.	15000
7.59	53.0	86.0	177.	228.	419.	738.	1335.	2265.	4125.	7290.	12750
8.40	44.0	71.4	153.	241.	426.	766.	1350.	2395.	4290.	7655.	13900
9.30	41.3	59.9	131.	205.	392.	654.	1255.	2050.	3820.	6600.	11850
10.29	36.2	58.8	105.	187.	365.	635.	1170.	1980.	3595.	6050.	11050
11.39	31.5	54.5	99.2	160.	295.	516.	954.	1620.	2755.	5165.	8860.
12.61	31.0	46.8	78.5	134.	238.	447.	766.	1365.	2550.	4270.	7910.
13.95	23.4	43.8	75.0	124.	223.	437.	722.	1330.	2420.	3975.	7475.
15.44	22.0	38.5	72.2	98.4	191.	352.	600.	1105.	1800.	3180.	5725.
17.09	19.2	37.7	65.0	91.7	181.	345.	570.	1080.	1720.	2980.	5440.
18.91	18.0	33.8	59.0	81.3	148.	274.	492.	885.	1560.	2675.	5005.
20.93	17.0	33.3	58.0	87.7	176.	326.	543.	1020.	1615.	2815.	5250.
23.16	14.1	25.7	45.7	77.9	144.	259.	471.	838.	1470.	2540.	4850.
25.63	13.9	24.9	43.8	75.9	139.	256.	466.	831.	1455.	2505.	4690.

Triple Reduction Units Types H3, H3S, H3SF, VH3, VH3SA, VH3CT

Nominal Ratio	UNITSIZE										
	140	160	180	200	225	250	280	315	355	400	450
25.63	14.1	25.7	48.0	65.8	111.	207.	399.	650.	1280.	2130.	3855.
28.36	12.4	22.5	46.3	69.8	117.	203.	388.	701.	1230.	2270.	3875.
31.39	11.9	21.5	42.3	49.9	83.1	162.	299.	505.	966.	1645.	2750.
34.74	10.4	18.9	38.3	55.5	91.2	181.	334.	557.	1110.	1815.	3330.
38.44	9.05	15.7	33.7	45.3	74.9	149.	272.	467.	872.	1520.	2495.
42.54	7.78	13.3	29.1	43.3	70.1	144.	255.	444.	852.	1440.	2410.
47.08	8.31	14.8	24.9	42.3	68.8	143.	251.	441.	841.	1415.	2370.
52.11	7.17	12.6	20.6	35.0	62.3	121.	201.	377.	692.	1175.	2160.
57.67	7.06	12.3	19.6	30.4	54.4	91.6	175.	314.	551.	1050.	1635.
63.82	6.84	12.4	19.5	29.3	51.7	89.0	166.	301.	541.	1005.	1590.
70.63	6.82	10.6	16.8	30.0	53.9	90.0	172.	309.	542.	1035.	1620.
78.16	6.60	9.96	18.8	27.6	49.7	83.8	159.	290.	510.	960.	1505.
86.50	5.88	9.84	18.8	24.0	41.4	76.7	137.	244.	459.	805.	1435.
95.73	5.36	9.73	16.1	27.5	49.5	82.9	158.	287.	504.	952.	1495.
105.94	4.29	8.73	13.1	22.8	39.9	72.8	132.	237.	436.	771.	1365.
117.24	5.32	8.55	12.6	22.4	38.8	70.8	130.	230.	431.	761.	1350.
129.75	4.26	8.52	12.6	22.4	38.6	70.6	129.	230.	430.	760.	1345.

Double Reduction Units Types B2, B2S, B2SF, VB2, VB2SA, VB2CT

Nominal Ratio	UNITSIZE										
	140	160	180	200	225	250	280	315	355	400	450
5.06	145.	293.	572.	736.	1395.	2465.	4325.	7640.	13000	29000	48350
5.60	143.	289.	567.	727.	1325.	2345.	4290.	7235.	12800	28700	46200
6.20	137.	274.	550.	688.	1255.	2295.	4065.	7065.	12150	27250	44000
6.86	135.	269.	537.	673.	1225.	2245.	4050.	6925.	11950	27000	43350
7.59	128.	265.	529.	532.	959.	1755.	3210.	5500.	9575.	21100	35200
8.40	65.2	131.	259.	430.	752.	1400.	2575.	4395.	7895.	16900	28050
9.30	64.4	128.	252.	330.	618.	1135.	2090.	3545.	6115.	13500	22500
10.29	60.5	126.	248.	314.	605.	1070.	1980.	3365.	5735.	12900	22000
11.39	59.3	72.3	135.	254.	451.	812.	1520.	2555.	4540.	9750.	16700
12.61	34.0	70.8	132.	205.	362.	653.	1220.	2015.	3605.	7875.	13300
13.95	31.9	69.6	129.	198.	345.	642.	1200.	1995.	3550.	7760.	12800
15.44	31.3	67.2	87.1	165.	290.	530.	997.	1675.	2925.	6315.	10450
17.09	21.5	44.8	85.4	119.	210.	370.	698.	1170.	2040.	4325.	7340.
18.91	21.1	43.3	81.7	116.	201.	364.	689.	1160.	2010.	4260.	7045.

Triple Reduction Units Types B3, B3S, B3SF, VB3, VB3SA, VB3CT

Nominal Ratio	UNITSIZE										
	140	160	180	200	225	250	280	315	355	400	450
13.95	35.8	55.8	97.8	222.	420.	769.	1180.	2145.	3895.	6730.	12000
15.44	34.0	52.0	94.3	214.	408.	761.	1140.	2115.	3795.	6490.	11700
17.09	33.2	51.7	93.8	199.	377.	709.	1050.	1955.	3425.	6105.	10700
18.91	31.6	50.0	92.0	194.	369.	703.	1025.	1940.	3365.	5945.	10500
20.93	31.5	47.0	86.1	147.	267.	534.	760.	1445.	2595.	4420.	8005.
23.16	28.6	45.9	83.7	144.	261.	530.	744.	1430.	2550.	4315.	7850.
25.63	28.0	44.8	80.7	114.	212.	420.	592.	1125.	2010.	3425.	6270.
28.36	28.0	43.0	78.7	132.	247.	492.	697.	1350.	2320.	3980.	7180.
31.39	12.9	23.2	78.0	104.	200.	388.	552.	1060.	1820.	3150.	5715.
34.74	12.6	22.6	37.0	104.	199.	387.	552.	1055.	1810.	3140.	5690.
38.44	12.6	22.4	35.9	83.2	159.	309.	447.	832.	1450.	2520.	4560.
42.54	11.9	21.5	35.5	63.0	116.	234.	340.	688.	1175.	2045.	3690.
47.08	6.49	21.4	33.5	51.0	96.3	189.	275.	511.	884.	1555.	2780.
52.11	6.47	12.1	18.9	40.1	77.1	150.	222.	410.	711.	1240.	2200.
57.67	6.14	12.1	18.9	33.8	64.9	123.	184.	343.	586.	1030.	1845.
63.82	4.43	11.6	18.8	30.3	57.8	111.	164.	299.	513.	938.	1625.
70.63	4.43	7.61	13.3	23.0	42.8	82.9	129.	235.	402.	708.	1275.
78.16	4.21	7.57	13.3	20.8	38.0	74.6	115.	205.	353.	647.	1125.
86.50	4.34	7.09	12.4	20.5	36.8	72.4	112.	199.	351.	638.	1120.
95.73	4.14	7.04	12.4	20.4	36.5	72.2	112.	198.	350.	636.	1110.

GD^2 ($Kg\,cm^2$) = 4 x Moment of Inertia ($Kg\,cm^2$)

H1 RATINGS AT 1750 REV/MIN INPUT

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Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
1.22	1428.	Mechanical	Input Power kW	420	*557-*	*731-*	*1070-*	*1510-*	*2160-*	*2900-*	4080*	4880*	Unit not available at this input speed (Refer to Radicon)	
			Output Torque Nm	2770	*3720*	*4860*	*7150*	*10100*	*14200*	*19200*	27200	32600		
		Thermal	Input Power kW	49.7	*66.7*	*85.1*	*212*	*332*	*396*	*590*				
		No Fan	Output Torque Nm	324	*441*	*560*	*1400*	*2200*	*2600*	*3880*				
			Efficiency %	99	*99*	*99*	*99*	*99*	*99*	*99*	99	99		
1.35	1291.	Mechanical	Input Power kW	400	553	*693-*	*1020-*	*1490-*	*2060-*	*2770-*	*4000-*	4630*		
			Output Torque Nm	2930	4080	*5110*	*7500*	*10900*	*15000*	*20400*	*29500*	34000		
		Thermal	Input Power kW	47.0	63.1	*80.6*	*201*	*314*	*375*	*558*	*732*			
		No Fan	Output Torque Nm	342	462	*588*	*1480*	*2290*	*2710*	*4100*	*5390*			
			Efficiency %	99	99	*99*	*99*	*99*	*99*	*99*	*99*	99		
1.50	1166.	Mechanical	Input Power kW	369	519	*652-*	*955-*	*1410-*	*1890-*	*2560-*	*3760-*	4380*		
			Output Torque Nm	2990	4210	*5340*	*7670*	*11300*	*15300*	*20800*	*30200*	36000		
		Thermal	Input Power kW	44.3	59.5	*76.0*	*190*	*296*	*353*	*526*	*690*			
		No Fan	Output Torque Nm	356	479	*616*	*1510*	*2380*	*2860*	*4260*	*5530*			
			Efficiency %	99	99	*99*	*99*	*99*	*99*	*99*	*99*	99		
1.66	1054.	Mechanical	Input Power kW	349	481	622	*893-*	*1330-*	*1770-*	*2420-*	*3520-*	*4130-*		
			Output Torque Nm	3100	4330	5590	*8000*	*12000*	*16000*	*21600*	*31600*	*37400*		
		Thermal	Input Power kW	41.6	55.8	71.3	*178*	*278*	*332*	*494*	*648*	*1040*		
		No Fan	Output Torque Nm	367	499	634	*1580*	*2500*	*2980*	*4390*	*5790*	*9400*		
			Efficiency %	99	99	99	*99*	*99*	*99*	*99*	*99*	*99*		
1.84	952.	Mechanical	Input Power kW	328	454	563	*832-*	*1250-*	*1710-*	*2270-*	*3280-*	*3760-*		
			Output Torque Nm	3270	4520	5580	*8330*	*12400*	*16900*	*22700*	*32200*	*37400*		
		Thermal	Input Power kW	38.8	52.1	66.5	*166*	*260*	*310*	*461*	*605*	*975*		
		No Fan	Output Torque Nm	383	514	653	*1650*	*2570*	*3050*	*4590*	*5920*	*9660*		
			Efficiency %	99	99	99	*99*	*99*	*99*	*99*	*99*	*99*		
2.03	860.	Mechanical	Input Power kW	308	411	569	801	*1170-*	*1590-*	*2130-*	*3030-*	*3640-*		
			Output Torque Nm	3370	4510	6240	8820	*12900*	*17600*	*23500*	*33500*	*40100*		
		Thermal	Input Power kW	36.4	48.8	62.3	156	*243*	*290*	*432*	*567*	*914*		
		No Fan	Output Torque Nm	396	531	677	1710	*2670*	*3190*	*4750*	*6240*	*10000*		
			Efficiency %	99	99	99	99	*99*	*99*	*99*	*99*	*99*		
2.25	777.	Mechanical	Input Power kW	287	407	544	740	1090	*1480-*	*1990-*	*2790-*	*3390-*		
			Output Torque Nm	3480	4940	6640	8990	13300	*17900*	*24300*	*34200*	*41500*		
		Thermal	Input Power kW	34.2	46.0	58.6	146	229	*273*	*407*	*534*	*860*		
		No Fan	Output Torque Nm	412	553	710	1770	2790	*3300*	*4940*	*6510*	*10500*		
			Efficiency %	99	99	99	99	99	*99*	*99*	*99*	*99*		
2.49	702.	Mechanical	Input Power kW	267	374	504	678	1010	*1360-*	*1850-*	*2670-*	*3140-*		
			Output Torque Nm	3590	5020	6850	9150	13700	*18200*	*25000*	*36200*	*42200*		
		Thermal	Input Power kW	32.4	43.4	55.4	138	216	*258*	*385*	*504*	*813*		
		No Fan	Output Torque Nm	433	580	748	1860	2940	*3450*	*5190*	*6800*	*10900*		
			Efficiency %	99	98	99	99	99	*99*	*99*	*99*	*99*		
2.76	635.	Mechanical	Input Power kW	246	356	464	647	927	1280	*1710-*	*2460-*	*2890-*		
			Output Torque Nm	3650	5290	6850	9640	13700	19200	*25400*	*37000*	*42900*		
		Thermal	Input Power kW	30.8	41.3	52.7	132	206	245	*366*	*479*	*773*		
		No Fan	Output Torque Nm	453	609	772	1950	3040	3660	*5430*	*7190*	*11400*		
			Efficiency %	99	99	99	99	99	99	*99*	*99*	*99*		
3.05	573.	Mechanical	Input Power kW	226	323	424	586	887	1180	1570	*2310-*	*2640-*		
			Output Torque Nm	3760	5290	7050	9630	14600	19400	25800	*38100*	*44200*		
		Thermal	Input Power kW	29.4	39.5	50.4	126	197	235	350	*459*	*740*		
		No Fan	Output Torque Nm	487	644	834	2060	3230	3860	5750	*7550*	*12400*		
			Efficiency %	99	98	98	99	99	99	99	*99*	*99*		
3.38	518.	Mechanical	Input Power kW	216	306	403	555	806	1060	1490	*2090-*	*2510-*		
			Output Torque Nm	3860	5560	7370	10100	14800	19700	26900	*38500*	*45500*		
		Thermal	Input Power kW	28.4	38.1	48.6	122	190	227	338	*443*	*714*		
		No Fan	Output Torque Nm	507	690	884	2210	3480	4200	6070	*8110*	*12900*		
			Efficiency %	98	98	99	98	99	99	99	*99*	*99*		
3.73	468.	Mechanical	Input Power kW	187	272	368	493	726	1000	1330	1940	*2260-*		
			Output Torque Nm	3750	5460	7440	10100	14800	20000	26900	39300	*46200*		
		Thermal	Input Power kW	27.5	36.9	47.1	118	184	220	327	429	*692*		
		No Fan	Output Torque Nm	550	739	948	2400	3740	4380	6600	8670	*14100*		
			Efficiency %	98	98	98	99	99	99	99	99	*99*		
4.13	423.	Mechanical	Input Power kW	169	244	343	469	580	935	1280	1810	*2130-*		
			Output Torque Nm	3730	5470	7580	10500	13100	20900	28000	40700	*47500*		
		Thermal	Input Power kW	26.8	36.0	45.9	115	180	214	319	419	*675*		
		No Fan	Output Torque Nm	590	804	1010	2560	4050	4790	6970	9370	*15000*		
			Efficiency %	98	98	98	99	99	99	99	99	*99*		

* Spray Lubrication Required

ITALICS- Case Baffle is fitted

H1 RATINGS AT 1750 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
4.57	382.	Mechanical	Input Power kW	139	211	321	366	645	782	1140	1500	1880	Unit not available at this input speed (Refer to Radicon)	
			Output Torque Nm	3400	5170	7750	8950	15600	19500	28000	37300	47400		
		Thermal	Input Power kW	26.5	35.5	45.3	113	177	211	315	413	666		
		No Fan	Output Torque Nm	645	866	1090	2770	4270	5270	7720	10300	16700		
			Efficiency %	98	98	98	98	98	98	99	99	99		
5.06	345.	Mechanical	Input Power kW	108	163	209	345	461	694	910	1380	1750		
			Output Torque Nm	2940	4430	5730	9370	12500	18900	24800	37500	47700		
		Thermal	Input Power kW	26.2	35.2	44.9	112	176	210	312	409	660		
		No Fan	Output Torque Nm	710	953	1230	3050	4770	5690	8490	11100	18000		
			Efficiency %	99	98	98	98	98	99	99	98	99		

H1 THERMAL RATINGS AT 1750 REV/MIN INPUT

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
1.22	1428.	Thermal	Input Power kW	194	*264-*	*311-*	*483-*	*759-*	*915-*	*1330-*	*	*	Unit not available at this input speed (Refer to Radicon)	
		with fan	Output Torque Nm	1280	*1760*	*2070*	*3210*	*5060*	*6020*	*8790*				
		Thermal	Input Power kW	186	*232*	*239*	*375*	*489*	*1700*	*1840*				
		with coil	Output Torque Nm	1220	*1550*	*1580*	*2490*	*3250*	*11200*	*12200*				
		Thermal	Input Power kW	388	*485*	*557*	*751*	*1080*	*2410*	*2830*				
		Fan & Coil	Output Torque Nm	2560	*3240*	*3700*	*4990*	*7220*	*15900*	*18700*				
1.35	1291.	Thermal	Input Power kW	184	250	*295-*	*458-*	*719-*	*866-*	*1260-*	*1510-*	*		
		with fan	Output Torque Nm	1350	1840	*2170*	*3370*	*5260*	*6300*	*9280*	*11100*			
		Thermal	Input Power kW	177	221	*227*	*356*	*466*	*1630*	*1800*	*3130*			
		with coil	Output Torque Nm	1300	1630	*1670*	*2620*	*3400*	*11900*	*13200*	*23200*			
		Thermal	Input Power kW	368	461	*529*	*713*	*1030*	*2310*	*2740*	*4160*			
		Fan & Coil	Output Torque Nm	2710	3400	*3900*	*5260*	*7520*	*16800*	*20200*	*30800*			
1.50	1166.	Thermal	Input Power kW	173	236	*278-*	*432-*	*678-*	*817-*	*1190-*	*1420-*	*		
		with fan	Output Torque Nm	1400	1910	*2270*	*3460*	*5450*	*6630*	*9660*	*11400*			
		Thermal	Input Power kW	168	210	*216*	*338*	*442*	*1560*	*1740*	*3080*			
		with coil	Output Torque Nm	1360	1700	*1760*	*2700*	*3550*	*12700*	*14200*	*24700*			
		Thermal	Input Power kW	349	437	*501*	*674*	*971*	*2200*	*2640*	*4060*			
		Fan & Coil	Output Torque Nm	2830	3550	*4100*	*5410*	*7820*	*17900*	*21500*	*32700*			
1.66	1054.	Thermal	Input Power kW	162	221	261	*404-*	*635-*	*765-*	*1110-*	*1330-*	*2080-*		
		with fan	Output Torque Nm	1440	1990	2340	*3620*	*5730*	*6900*	*9940*	*11900*	*18800*		
		Thermal	Input Power kW	159	199	204	*319*	*417*	*1480*	*1690*	*3010*	*3490*		
		with coil	Output Torque Nm	1410	1790	1830	*2850*	*3750*	*13400*	*15100*	*27000*	*31500*		
		Thermal	Input Power kW	330	412	473	*635*	*914*	*2090*	*2540*	*3940*	*4770*		
		Fan & Coil	Output Torque Nm	2930	3720	4250	*5690*	*8250*	*18800*	*22700*	*35400*	*43100*		
1.84	952.	Thermal	Input Power kW	151	206	243	*377-*	*591-*	*713-*	*1040-*	*1240-*	*1940-*		
		with fan	Output Torque Nm	1500	2040	2400	*3770*	*5880*	*7050*	*10400*	*12200*	*19200*		
		Thermal	Input Power kW	151	188	193	*300*	*391*	*1400*	*1620*	*2940*	*3290*		
		with coil	Output Torque Nm	1500	1870	1910	*3000*	*3880*	*13800*	*16200*	*28900*	*32700*		
		Thermal	Input Power kW	310	387	444	*596*	*857*	*1960*	*2430*	*3820*	*4570*		
		Fan & Coil	Output Torque Nm	3090	3850	4400	*5970*	*8530*	*19400*	*24300*	*37600*	*45400*		
2.03	860.	Thermal	Input Power kW	143	194	229	355	*558-*	*672-*	*978-*	*1170-*	*1830-*		
		with fan	Output Torque Nm	1560	2120	2510	3910	*6140*	*7410*	*10800*	*12900*	*20100*		
		Thermal	Input Power kW	142	178	182	282	*367*	*1310*	*1550*	*2850*	*3110*		
		with coil	Output Torque Nm	1560	1950	1990	3110	*4030*	*14500*	*17100*	*31500*	*34300*		
		Thermal	Input Power kW	293	366	420	563	*809*	*1850*	*2320*	*3690*	*4380*		
		Fan & Coil	Output Torque Nm	3220	4020	4610	6200	*8910*	*20400*	*25500*	*40800*	*48400*		

* Spray Lubrication Required

ITALICS- Case Baffle is fitted

Note: Cooling coils cannot be fitted to vertical units

H1 THERMAL RATINGS AT 1750 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
2.25	777.	Thermal	Input Power kW	137	186	220	341	535	*645-*	*939-*	*1120-*	*1750-*	Unit not available at this input speed (Refer to Radicon)	
		with fan	Output Torque Nm	1660	2250	2680	4140	6540	*7810*	*11400*	*13800*	*21400*		
		Thermal	Input Power kW	135	168	172	267	344	*1230*	*1470*	*2730*	*2940*		
		with coil	Output Torque Nm	1630	2030	2100	3230	4200	*14900*	*17900*	*33500*	*36000*		
		Thermal	Input Power kW	280	349	401	538	773	*1740*	*2200*	*3550*	*4220*		
		Fan & Coil	Output Torque Nm	3390	4230	4890	6530	9450	*21100*	*26900*	*43500*	*51600*		
2.49	702.	Thermal	Input Power kW	133	180	212	330	518	*624-*	*908-*	*1090-*	*1700-*		
		with fan	Output Torque Nm	1780	2420	2880	4440	7050	*8360*	*12300*	*14700*	*22800*		
		Thermal	Input Power kW	127	159	163	252	323	*1140*	*1380*	*2600*	*2800*		
		with coil	Output Torque Nm	1710	2130	2210	3390	4400	*15300*	*18600*	*35200*	*37600*		
		Thermal	Input Power kW	267	334	384	516	743	*1640*	*2090*	*3400*	*4070*		
		Fan & Coil	Output Torque Nm	3600	4500	5210	6960	10100	*22000*	*28300*	*46100*	*54700*		
2.76	635.	Thermal	Input Power kW	128	175	206	320	502	605	*881-*	*1050-*	*1640-*		
		with fan	Output Torque Nm	1900	2590	3040	4760	7420	9060	*13100*	*15900*	*24400*		
		Thermal	Input Power kW	121	150	154	239	306	1080	*1280*	*2460*	*2680*		
		with coil	Output Torque Nm	1780	2230	2270	3550	4520	16100	*19100*	*37000*	*39800*		
		Thermal	Input Power kW	256	321	368	496	715	1560	*1980*	*3240*	*3950*		
		Fan & Coil	Output Torque Nm	3790	4760	5430	7380	10600	23400	*29400*	*48800*	*58700*		
3.05	573.	Thermal	Input Power kW	125	170	201	311	489	589	857	*1030-*	*1600-*		
		with fan	Output Torque Nm	2080	2780	3340	5110	8030	9690	14100	*16900*	*26800*		
		Thermal	Input Power kW	114	143	146	228	291	1020	1200	*2320*	*2590*		
		with coil	Output Torque Nm	1900	2340	2430	3730	4780	16800	19800	*38300*	*43400*		
		Thermal	Input Power kW	246	308	354	478	690	1490	1880	*3080*	*3850*		
		Fan & Coil	Output Torque Nm	4090	5050	5890	7850	11300	24500	30900	*51000*	*64600*		
3.38	518.	Thermal	Input Power kW	122	166	196	304	478	576	838	*1000-*	*1560-*		
		with fan	Output Torque Nm	2190	3020	3580	5540	8750	10700	15100	*18400*	*28300*		
		Thermal	Input Power kW	109	136	139	218	279	966	1140	*2210*	*2510*		
		with coil	Output Torque Nm	1950	2470	2540	3960	5110	17900	20600	*40600*	*45500*		
		Thermal	Input Power kW	236	297	341	462	668	1420	1800	*2950*	*3750*		
		Fan & Coil	Output Torque Nm	4230	5400	6230	8410	12200	26500	32500	*54200*	*68100*		
3.73	468.	Thermal	Input Power kW	120	163	192	299	469	565	822	985	*1540-*		
		with fan	Output Torque Nm	2410	3280	3890	6100	9530	11300	16600	19900	*31300*		
		Thermal	Input Power kW	103	129	133	209	269	920	1090	2110	*2440*		
		with coil	Output Torque Nm	2080	2600	2690	4260	5460	18400	22100	42800	*49900*		
		Thermal	Input Power kW	228	287	329	448	649	1370	1740	2850	*3670*		
		Fan & Coil	Output Torque Nm	4580	5760	6660	9150	13200	27400	35100	57600	*75000*		
4.13	423.	Thermal	Input Power kW	118	161	190	294	462	557	810	970	*1510-*		
		with fan	Output Torque Nm	2610	3600	4190	6570	10400	12500	17700	21700	*33600*		
		Thermal	Input Power kW	99.0	124	128	201	260	882	1050	2030	*2390*		
		with coil	Output Torque Nm	2180	2770	2820	4490	5870	19800	23000	45600	*53200*		
		Thermal	Input Power kW	221	278	320	436	633	1320	1690	2750	*3600*		
		Fan & Coil	Output Torque Nm	4870	6230	7060	9740	14300	29700	36900	61700	*80200*		
4.57	382.	Thermal	Input Power kW	117	158	187	290	456	549	799	957	1490		
		with fan	Output Torque Nm	2850	3880	4510	7100	11000	13700	19600	23800	37500		
		Thermal	Input Power kW	95.5	119	123	196	255	854	1020	1960	2340		
		with coil	Output Torque Nm	2340	2920	2980	4790	6150	21300	25100	48800	59000		
		Thermal	Input Power kW	215	271	312	426	620	1290	1640	2670	3540		
		Fan & Coil	Output Torque Nm	5260	6630	7520	10400	15000	32200	40300	66400	89200		
5.06	345.	Thermal	Input Power kW	115	157	185	287	450	543	790	945	1470		
		with fan	Output Torque Nm	3130	4250	5070	7780	12200	14700	21500	25800	40200		
		Thermal	Input Power kW	92.4	116	120	192	251	829	994	1900	2300		
		with coil	Output Torque Nm	2510	3140	3280	5200	6800	22500	27100	51700	62900		
		Thermal	Input Power kW	209	264	304	417	607	1250	1600	2590	3490		
		Fan & Coil	Output Torque Nm	5680	7170	8340	11300	16500	34100	43700	70600	95300		

ITALICS- Case Baffle is fitted
Note: Cooling coils cannot be fitted to vertical units

H1 RATINGS AT 1450 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
1.22	1183.	Mechanical	Input Power kW	368	468	618	*890-*	*1250-*	*1890-*	*2500-*	*3380-*	*4080-*	6080*	8300*
			Output Torque Nm	2930	3780	4960	*7150*	*10100*	*15100*	*20000*	*27200*	*32900*	48900	66900
		Thermal	Input Power kW	51.6	69.3	88.4	*221*	*345*	*412*	*614*	*805*	*1300*		
		No Fan	Output Torque Nm	408	555	704	*1770*	*2770*	*3270*	*4880*	*6450*	*10400*		
			Efficiency %	99	99	99	*99*	*99*	*99*	*99*	*99*	*99*	99	99
1.35	1069.	Mechanical	Input Power kW	350	464	584	*890-*	*1240-*	*1810-*	*2430-*	*3360-*	*4050-*	5750*	8250*
			Output Torque Nm	3100	4130	5200	*7930*	*11000*	*15900*	*21600*	*30000*	*35900*	51300	73000
		Thermal	Input Power kW	48.9	65.6	83.7	*209*	*327*	*390*	*581*	*762*	*1230*		
		No Fan	Output Torque Nm	430	581	739	*1860*	*2880*	*3420*	*5150*	*6780*	*10800*		
			Efficiency %	99	99	99	*99*	*99*	*99*	*99*	*99*	*99*	99	99
1.50	966.	Mechanical	Input Power kW	324	435	549	837	*1230-*	*1650-*	*2240-*	*3290-*	*3840-*	*5400-*	8190*
			Output Torque Nm	3160	4260	5420	8110	*12000*	*16200*	*22000*	*32000*	*38100*	*52400*	79700
		Thermal	Input Power kW	46.1	61.9	78.9	197	*308*	*368*	*548*	*719*	*1160*	*1500*	
		No Fan	Output Torque Nm	448	602	774	1900	*2990*	*3600*	*5370*	*6960*	*11500*	*14500*	
			Efficiency %	99	99	99	99	*99*	*99*	*99*	*99*	*99*	*99*	99
1.66	873.	Mechanical	Input Power kW	306	403	523	783	*1160-*	*1550-*	*2120-*	*3080-*	*3620-*	*5060-*	7770*
			Output Torque Nm	3280	4380	5670	8460	*12700*	*16900*	*22800*	*33400*	*39500*	*54800*	84800
		Thermal	Input Power kW	43.2	58.0	74.0	185	*289*	*345*	*514*	*674*	*1090*	*1410*	
		No Fan	Output Torque Nm	461	628	798	1990	*3140*	*3750*	*5530*	*7280*	*11800*	*15200*	
			Efficiency %	99	99	99	99	*99*	*99*	*99*	*99*	*99*	*99*	99
1.84	789.	Mechanical	Input Power kW	288	380	472	729	1090	*1500-*	*1990-*	*2870-*	*3300-*	*4720-*	*7310-*
			Output Torque Nm	3450	4560	5640	8810	13200	*17900*	*24100*	*34100*	*39600*	*57300*	*88000*
		Thermal	Input Power kW	40.4	54.2	69.1	173	270	*322*	*480*	*630*	*1010*	*1310*	*1910*
		No Fan	Output Torque Nm	482	646	821	2080	3240	*3840*	*5780*	*7450*	*12200*	*15900*	*23000*
			Efficiency %	99	99	99	99	99	*99*	*99*	*99*	*99*	*99*	*99*
2.03	713.	Mechanical	Input Power kW	270	343	476	702	1020	1400	*1870-*	*2660-*	*3190-*	*4570-*	*6850-*
			Output Torque Nm	3570	4540	6300	9330	13600	18600	*24900*	*35500*	*42400*	*61000*	*91300*
		Thermal	Input Power kW	37.8	50.8	64.8	162	253	302	*450*	*590*	*951*	*1230*	*1790*
		No Fan	Output Torque Nm	498	668	852	2150	3360	4010	*5970*	*7850*	*12600*	*16400*	*23800*
			Efficiency %	99	99	99	99	99	99	*99*	*99*	*99*	*99*	*99*
2.25	644.	Mechanical	Input Power kW	252	357	477	648	954	1290	*1750-*	*2450-*	*2970-*	*4220-*	*6390-*
			Output Torque Nm	3690	5220	7020	9500	14100	18900	*25700*	*36200*	*43900*	*62200*	*94500*
		Thermal	Input Power kW	35.6	47.8	61.0	152	238	284	*424*	*556*	*896*	*1160*	*1690*
		No Fan	Output Torque Nm	519	695	892	2230	3510	4150	*6220*	*8190*	*13200*	*17000*	*24900*
			Efficiency %	99	99	99	99	99	99	*99*	*99*	*99*	*99*	*99*
2.49	582.	Mechanical	Input Power kW	234	327	442	595	883	1190	1620	*2340-*	*2750-*	*3870-*	*5930-*
			Output Torque Nm	3800	5310	7240	9670	14500	19300	26500	*38200*	*44600*	*63300*	*97800*
		Thermal	Input Power kW	33.7	45.2	57.6	144	225	269	400	*525*	*847*	*1100*	*1600*
		No Fan	Output Torque Nm	545	730	940	2340	3700	4340	6530	*8560*	*13700*	*17900*	*26300*
			Efficiency %	99	99	99	99	99	99	99	*99*	*99*	*99*	*99*
2.76	526.	Mechanical	Input Power kW	212	312	407	567	813	1120	1500	2160	*2530-*	*3710-*	*5450-*
			Output Torque Nm	3780	5600	7240	10200	14500	20300	26900	39100	*45300*	*67100*	*97700*
		Thermal	Input Power kW	32.0	43.0	54.8	137	214	256	381	499	*805*	*1040*	*1520*
		No Fan	Output Torque Nm	569	767	970	2460	3820	4610	6820	9050	*14400*	*18800*	*27200*
			Efficiency %	98	99	99	99	99	99	99	99	*99*	*99*	*99*
3.05	475.	Mechanical	Input Power kW	190	283	371	514	777	1030	1370	2020	*2310-*	*3350-*	*5240-*
			Output Torque Nm	3810	5600	7460	10200	15400	20600	27200	40300	*46700*	*66900*	*104000*
		Thermal	Input Power kW	30.6	41.1	52.4	131	205	245	364	478	*770*	*998*	*1450*
		No Fan	Output Torque Nm	612	810	1050	2590	4060	4850	7230	9500	*15600*	*19900*	*28900*
			Efficiency %	99	98	99	99	99	99	99	99	*99*	*99*	*99*
3.38	429.	Mechanical	Input Power kW	181	268	354	486	707	932	1310	1760	2200	*3190-*	*4760-*
			Output Torque Nm	3920	5880	7800	10700	15600	20900	28500	39000	48200	*70700*	*106000*
		Thermal	Input Power kW	29.6	39.7	50.6	127	198	236	352	462	744	*964*	*1400*
		No Fan	Output Torque Nm	638	869	1110	2780	4370	5280	7640	10200	16300	*21300*	*31200*
			Efficiency %	99	98	98	99	99	99	99	99	99	*99*	*99*
3.73	388.	Mechanical	Input Power kW	154	238	306	419	636	880	1160	1700	1980	2830	*4290-*
			Output Torque Nm	3730	5780	7460	10300	15600	21200	28400	41600	48800	70300	*106000*
		Thermal	Input Power kW	28.7	38.5	49.0	123	192	229	341	447	721	934	*1360*
		No Fan	Output Torque Nm	692	930	1190	3020	4700	5500	8300	10900	17700	23200	*33500*
			Efficiency %	98	98	98	98	99	99	99	99	99	99	*99*
4.13	350.	Mechanical	Input Power kW	139	203	301	401	483	786	1120	1510	1870	2700	*4060-*
			Output Torque Nm	3710	5480	8020	10800	13100	21200	29600	40800	50200	73300	*109000*
		Thermal	Input Power kW	28.0	37.5	47.8	120	187	223	333	436	704	912	*1330*
		No Fan	Output Torque Nm	743	1010	1270	3230	5090	6020	8770	11800	18900	24700	*35700*
			Efficiency %	99	98	98	98	98	99	99	99	99	99	*99*

* Spray Lubrication Required

ITALICS- Case Baffle is fitted

H1 RATINGS AT 1450 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
4.57	316.	Mechanical	Input Power kW	115	174	264	304	540	649	978	1250	1650	2410	3820
			Output Torque Nm	3400	5140	7690	8980	15700	19600	29000	37400	50100	73200	112000
		Thermal	Input Power kW	27.6	37.0	47.2	118	185	220	328	430	694	899	1310
		No Fan	Output Torque Nm	812	1090	1370	3480	5380	6630	9710	12900	21000	27200	38400
			Efficiency %	98	98	98	99	98	99	99	99	99	99	99
5.06	286.	Mechanical	Input Power kW	88.5	134	174	284	383	571	757	1140	1450	2280	3060
			Output Torque Nm	2900	4380	5750	9320	12500	18700	24800	37600	47800	75100	101000
		Thermal	Input Power kW	27.3	36.7	46.7	117	183	218	325	427	688	891	1300
		No Fan	Output Torque Nm	894	1200	1550	3830	6000	7150	10700	14000	22600	29400	42800
			Efficiency %	98	98	98	98	98	98	98	99	99	99	99

H1 THERMAL RATINGS AT 1450 REV/MIN INPUT

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
1.22	1183.	Thermal	Input Power kW	177	241	284	*441-*	*692-*	*834-*	*1210-*	*1450-*	*2270-*	*	*
		with fan	Output Torque Nm	1410	1940	2270	*3530*	*5570*	*6630*	*9680*	*11700*	*18200*		
		Thermal	Input Power kW	188	235	242	*384*	*502*	*1710*	*1870*	*3210*	*4080*		
		with coil	Output Torque Nm	1490	1890	1940	*3080*	*4040*	*13600*	*14900*	*25800*	*32900*		
		Thermal	Input Power kW	371	462	530	*708*	*1020*	*2330*	*2710*	*4120*	*5090*		
		Fan & Coil	Output Torque Nm	2950	3720	4250	*5680*	*8170*	*18500*	*21700*	*33100*	*41000*		
1.35	1069.	Thermal	Input Power kW	168	228	269	*417-*	*655-*	*790-*	*1150-*	*1380-*	*2150-*	*	*
		with fan	Output Torque Nm	1480	2030	2390	*3710*	*5790*	*6930*	*10200*	*12300*	*19000*		
		Thermal	Input Power kW	179	223	231	*364*	*479*	*1650*	*1820*	*3160*	*3910*		
		with coil	Output Torque Nm	1580	1990	2050	*3240*	*4220*	*14500*	*16200*	*28200*	*34600*		
		Thermal	Input Power kW	352	439	503	*672*	*964*	*2230*	*2630*	*4030*	*4930*		
		Fan & Coil	Output Torque Nm	3120	3910	4470	*5990*	*8510*	*19600*	*23400*	*36000*	*43600*		
1.50	966.	Thermal	Input Power kW	158	215	254	394	*618-*	*745-*	*1080-*	*1300-*	*2020-*	*2570-*	*
		with fan	Output Torque Nm	1540	2100	2500	3810	*6000*	*7300*	*10600*	*12600*	*20000*	*24900*	
		Thermal	Input Power kW	170	212	219	345	*454*	*1570*	*1770*	*3100*	*3730*	*4440*	
		with coil	Output Torque Nm	1660	2080	2160	3340	*4400*	*15400*	*17300*	*30100*	*37000*	*43100*	
		Thermal	Input Power kW	334	416	477	636	*912*	*2130*	*2540*	*3930*	*4770*	*5980*	
		Fan & Coil	Output Torque Nm	3260	4070	4710	6160	*8850*	*20900*	*24900*	*38200*	*47300*	*58100*	
1.66	873.	Thermal	Input Power kW	148	201	238	369	*579-*	*698-*	*1020-*	*1220-*	*1900-*	*2410-*	*
		with fan	Output Torque Nm	1590	2190	2570	3980	*6300*	*7600*	*10900*	*13200*	*20700*	*26100*	
		Thermal	Input Power kW	161	201	207	326	*428*	*1490*	*1710*	*3040*	*3530*	*4290*	
		with coil	Output Torque Nm	1720	2180	2240	3520	*4660*	*16300*	*18400*	*32900*	*38500*	*46500*	
		Thermal	Input Power kW	315	393	450	600	*858*	*2020*	*2440*	*3830*	*4590*	*5750*	
		Fan & Coil	Output Torque Nm	3380	4270	4880	6480	*9350*	*22000*	*26300*	*41500*	*50100*	*62300*	
1.84	789.	Thermal	Input Power kW	138	187	221	343	539	*650-*	*946-*	*1130-*	*1770-*	*2240-*	*2960-*
		with fan	Output Torque Nm	1650	2250	2640	4140	6470	*7760*	*11400*	*13400*	*21200*	*27100*	*35600*
		Thermal	Input Power kW	152	190	196	307	401	*1410*	*1640*	*2960*	*3330*	*4130*	*4950*
		with coil	Output Torque Nm	1820	2280	2330	3700	4820	*16800*	*19800*	*35200*	*39900*	*50100*	*59600*
		Thermal	Input Power kW	297	369	423	563	805	*1900*	*2340*	*3710*	*4400*	*5510*	*6510*
		Fan & Coil	Output Torque Nm	3560	4430	5050	6800	9670	*22700*	*28200*	*44100*	*52800*	*66800*	*78300*
2.03	713.	Thermal	Input Power kW	130	177	209	324	509	613	*892-*	*1070-*	*1670-*	*2120-*	*2790-*
		with fan	Output Torque Nm	1720	2340	2760	4300	6750	8150	*11900*	*14200*	*22200*	*28200*	*37100*
		Thermal	Input Power kW	144	180	185	289	377	1320	*1570*	*2870*	*3140*	*3990*	*4750*
		with coil	Output Torque Nm	1900	2370	2440	3830	5000	17600	*20900*	*38300*	*41900*	*53200*	*63200*
		Thermal	Input Power kW	281	349	400	532	760	1790	*2230*	*3590*	*4220*	*5310*	*6240*
		Fan & Coil	Output Torque Nm	3710	4620	5290	7070	10100	23800	*29700*	*47900*	*56200*	*70900*	*83100*

* Spray Lubrication Required

ITALICS- Case Baffle is fitted

Note: Cooling coils cannot be fitted to vertical units

H1 THERMAL RATINGS AT 1450 REV/MIN INPUT

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
2.25	644.	Thermal	Input Power kW	125	170	200	311	488	588	*856-*	*1030-*	*1600-*	*2030-*	*2680-*
		with fan	Output Torque Nm	1830	2480	2940	4550	7190	8600	*12600*	*15100*	*23600*	*29900*	*39500*
		Thermal	Input Power kW	136	170	174	273	353	1240	*1480*	*2750*	*2980*	*3850*	*4540*
		with coil	Output Torque Nm	1990	2480	2560	3990	5210	18100	*21800*	*40700*	*44000*	*56600*	*67100*
		Thermal	Input Power kW	267	333	381	508	726	1680	*2120*	*3450*	*4060*	*5150*	*6000*
		Fan & Coil	Output Torque Nm	3910	4870	5610	7440	10700	24600	*31200*	*51000*	*60100*	*75800*	*88800*
2.49	582.	Thermal	Input Power kW	121	164	194	301	472	569	828	*992-*	*1550-*	*1960-*	*2590-*
		with fan	Output Torque Nm	1960	2660	3170	4890	7760	9200	13500	*16200*	*25100*	*32100*	*42700*
		Thermal	Input Power kW	129	160	165	258	332	1160	1390	*2620*	*2830*	*3720*	*4340*
		with coil	Output Torque Nm	2090	2600	2700	4190	5460	18700	22700	*42800*	*46000*	*60800*	*71500*
		Thermal	Input Power kW	256	319	365	487	698	1590	2010	*3310*	*3920*	*5010*	*5790*
		Fan & Coil	Output Torque Nm	4160	5170	5980	7920	11500	25700	32900	*54000*	*63600*	*81900*	*95500*
2.76	526.	Thermal	Input Power kW	117	159	188	292	458	552	803	962	*1500-*	*1900-*	*2510-*
		with fan	Output Torque Nm	2090	2850	3340	5230	8170	9970	14400	17500	*26800*	*34400*	*45000*
		Thermal	Input Power kW	122	152	156	244	315	1090	1300	2480	*2710*	*3620*	*4190*
		with coil	Output Torque Nm	2180	2720	2780	4390	5610	19600	23300	45000	*48600*	*65300*	*75000*
		Thermal	Input Power kW	245	305	350	468	671	1510	1900	3150	*3810*	*4890*	*5630*
		Fan & Coil	Output Torque Nm	4370	5470	6230	8400	12000	27300	34100	57200	*68200*	*88400*	*101000*
3.05	475.	Thermal	Input Power kW	114	155	183	284	446	537	782	936	*1460-*	*1850-*	*2440-*
		with fan	Output Torque Nm	2290	3070	3670	5620	8830	10700	15500	18600	*29500*	*37000*	*48700*
		Thermal	Input Power kW	116	144	148	233	300	1030	1220	2340	*2620*	*3530*	*4060*
		with coil	Output Torque Nm	2320	2850	2980	4610	5940	20400	24200	46600	*52900*	*70400*	*80900*
		Thermal	Input Power kW	235	293	336	451	647	1440	1800	2990	*3710*	*4790*	*5490*
		Fan & Coil	Output Torque Nm	4710	5800	6750	8930	12800	28500	35800	59700	*75100*	*95600*	*109000*
3.38	429.	Thermal	Input Power kW	111	151	179	277	436	525	764	915	1430	*1810-*	*2390-*
		with fan	Output Torque Nm	2410	3320	3940	6090	9620	11800	16600	20200	31200	*40100*	*53100*
		Thermal	Input Power kW	110	137	141	223	287	975	1160	2230	2540	*3460*	*3930*
		with coil	Output Torque Nm	2380	3010	3120	4890	6350	21800	25200	49300	55500	*76600*	*87500*
		Thermal	Input Power kW	225	282	324	435	626	1370	1730	2870	3620	*4710*	*5350*
		Fan & Coil	Output Torque Nm	4880	6190	7140	9550	13800	30800	37500	63500	79100	*104000*	*119000*
3.73	388.	Thermal	Input Power kW	109	149	175	272	428	516	750	898	1400	1780	*2350-*
		with fan	Output Torque Nm	2650	3610	4280	6710	10500	12400	18300	21900	34500	44100	*57900*
		Thermal	Input Power kW	105	131	135	214	277	929	1110	2130	2470	3410	*3830*
		with coil	Output Torque Nm	2530	3170	3290	5260	6770	22400	27000	52000	60900	84600	*94500*
		Thermal	Input Power kW	217	272	312	421	608	1320	1670	2760	3540	4650	*5230*
		Fan & Coil	Output Torque Nm	5270	6610	7630	10400	14900	31800	40600	67400	87200	115000	*129000*
4.13	350.	Thermal	Input Power kW	108	147	173	268	421	508	739	885	1380	1750	*2310-*
		with fan	Output Torque Nm	2870	3960	4610	7240	11500	13700	19500	23900	37000	47600	*62100*
		Thermal	Input Power kW	100	125	129	206	268	891	1070	2050	2420	3370	*3740*
		with coil	Output Torque Nm	2670	3390	3450	5550	7290	24100	28100	55400	64900	91600	*101000*
		Thermal	Input Power kW	210	264	303	410	593	1280	1610	2670	3470	4610	*5140*
		Fan & Coil	Output Torque Nm	5610	7140	8080	11100	16100	34500	42600	72200	93200	125000	*138000*
4.57	316.	Thermal	Input Power kW	106	145	171	265	416	501	729	873	1360	1730	2280
		with fan	Output Torque Nm	3140	4270	4970	7820	12100	15100	21600	26200	41300	52400	66900
		Thermal	Input Power kW	96.6	121	125	201	262	863	1030	1980	2370	3360	3680
		with coil	Output Torque Nm	2850	3570	3650	5930	7640	26000	30600	59400	72000	102000	108000
		Thermal	Input Power kW	204	257	295	400	580	1240	1570	2580	3410	4580	5050
		Fan & Coil	Output Torque Nm	6040	7590	8600	11800	16900	37400	46600	77500	104000	139000	148000
5.06	286.	Thermal	Input Power kW	105	143	168	262	411	495	720	862	1340	1710	2250
		with fan	Output Torque Nm	3440	4680	5580	8570	13500	16200	23600	28300	44200	56300	74300
		Thermal	Input Power kW	93.5	117	122	196	258	838	1010	1910	2330	3340	3630
		with coil	Output Torque Nm	3060	3840	4030	6430	8450	27500	33100	62900	76800	110000	120000
		Thermal	Input Power kW	199	250	288	391	568	1210	1530	2500	3360	4550	4980
		Fan & Coil	Output Torque Nm	6530	8210	9540	12800	18600	39600	50400	82400	111000	150000	164000

ITALICS- Case Baffle is fitted
Note: Cooling coils cannot be fitted to vertical units

H1 RATINGS AT 960 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
1.22	783.	Mechanical	Input Power kW	251	318	422	590	827	1370	1660	*2240-*	*2700-*	*4090-*	*5490-*
			Output Torque Nm	3010	3870	5110	7140	10000	16400	20000	*27200*	*32900*	*49700*	*66900*
		Thermal	Input Power kW	54.6	73.3	93.5	234	366	436	650	*853*	*1370*	*1780*	*2590*
		No Fan	Output Torque Nm	654	889	1130	2830	4440	5240	7830	*10300*	*16700*	*21600*	*31500*
			Efficiency %	99	99	99	99	99	99	99	*99*	*99*	*99*	*99*
1.35	708.	Mechanical	Input Power kW	239	314	398	590	821	1350	1640	*2220-*	*2680-*	*4060-*	*5460-*
			Output Torque Nm	3200	4220	5340	7920	11000	18000	22100	*29900*	*35900*	*54800*	*73000*
		Thermal	Input Power kW	51.7	69.4	88.5	222	347	413	616	*807*	*1300*	*1690*	*2460*
		No Fan	Output Torque Nm	690	930	1180	2970	4620	5470	8260	*10900*	*17400*	*22700*	*32800*
			Efficiency %	99	99	99	99	99	99	99	*99*	*99*	*99*	*99*
1.50	640.	Mechanical	Input Power kW	220	294	373	590	814	1240	1540	*2210-*	*2660-*	*4000-*	*5420-*
			Output Torque Nm	3240	4340	5550	8620	11900	18400	22900	*32400*	*39900*	*58700*	*79700*
		Thermal	Input Power kW	48.8	65.5	83.5	209	327	390	581	*761*	*1230*	*1590*	*2320*
		No Fan	Output Torque Nm	718	965	1240	3050	4790	5760	8600	*11200*	*18400*	*23300*	*34000*
			Efficiency %	99	99	99	99	99	99	99	*99*	*99*	*99*	*99*
1.66	578.	Mechanical	Input Power kW	207	271	354	564	804	1160	1450	2180	*2640-*	*3770-*	*5370-*
			Output Torque Nm	3360	4450	5790	9180	13200	19000	23600	35700	*43500*	*61700*	*88500*
		Thermal	Input Power kW	45.8	61.4	78.3	196	307	366	545	715	*1150*	*1490*	*2170*
		No Fan	Output Torque Nm	739	1010	1280	3190	5040	6010	8860	11700	*19000*	*24400*	*35800*
			Efficiency %	99	99	99	99	99	99	99	99	*99*	*99*	*99*
1.84	522.	Mechanical	Input Power kW	195	256	319	528	746	1070	1380	2150	2470	*3530-*	*5310-*
			Output Torque Nm	3530	4620	5750	9620	13500	19300	25100	38600	44800	*64700*	*96600*
		Thermal	Input Power kW	42.7	57.4	73.1	183	286	342	509	667	1080	*1390*	*2030*
		No Fan	Output Torque Nm	773	1040	1320	3330	5190	6150	9260	11900	19500	*25500*	*36900*
			Efficiency %	99	99	99	99	99	99	99	99	99	*99*	*99*
2.03	472.	Mechanical	Input Power kW	182	230	321	513	710	1030	1280	1990	2390	*3430-*	*5130-*
			Output Torque Nm	3630	4600	6400	10300	14200	20800	25700	40100	48000	*69100*	*103000*
		Thermal	Input Power kW	40.1	53.8	68.6	172	269	320	477	626	1010	*1310*	*1900*
		No Fan	Output Torque Nm	799	1070	1360	3440	5380	6420	9570	12600	20300	*26300*	*38300*
			Efficiency %	99	99	99	99	99	99	99	99	99	*99*	*99*
2.25	426.	Mechanical	Input Power kW	170	242	323	475	649	956	1190	1830	2220	3160	*4790-*
			Output Torque Nm	3770	5350	7180	10500	14400	21100	26300	40900	49600	70300	*107000*
		Thermal	Input Power kW	37.7	50.6	64.5	162	253	301	449	589	950	1230	*1790*
		No Fan	Output Torque Nm	832	1110	1430	3570	5620	6640	9960	13100	21200	27300	*40000*
			Efficiency %	99	99	99	99	99	99	99	99	99	99	*99*
2.49	385.	Mechanical	Input Power kW	159	223	301	446	594	879	1090	1750	2060	2900	*4440-*
			Output Torque Nm	3900	5460	7430	10900	14700	21400	26800	43200	50500	71600	*111000*
		Thermal	Input Power kW	35.7	47.9	61.0	153	239	285	425	557	898	1160	*1690*
		No Fan	Output Torque Nm	874	1170	1510	3740	5920	6940	10500	13700	22000	28700	*42200*
			Efficiency %	99	98	98	98	99	99	99	99	99	99	*99*
2.76	348.	Mechanical	Input Power kW	141	213	276	404	546	752	1010	1460	1900	2780	4080
			Output Torque Nm	3810	5780	7410	10900	14700	20500	27300	40100	51300	75800	111000
		Thermal	Input Power kW	33.9	45.5	58.0	145	227	271	404	529	854	1110	1610
		No Fan	Output Torque Nm	914	1230	1560	3930	6110	7380	10900	14500	23100	30100	43600
			Efficiency %	99	99	99	98	99	99	99	99	99	99	99
3.05	314.	Mechanical	Input Power kW	126	192	248	372	524	713	915	1440	1730	2510	3930
			Output Torque Nm	3830	5740	7520	11100	15600	21300	27400	43400	52800	75700	118000
		Thermal	Input Power kW	32.4	43.6	55.5	139	218	259	386	507	817	1060	1540
		No Fan	Output Torque Nm	982	1300	1680	4150	6500	7760	11600	15200	24900	31900	46400
			Efficiency %	99	98	98	98	98	98	99	99	99	99	99
3.38	284.	Mechanical	Input Power kW	120	177	237	333	473	621	886	1180	1620	2390	3570
			Output Torque Nm	3940	5890	7910	11100	15800	21000	29000	39300	53500	79900	120000
		Thermal	Input Power kW	31.3	42.1	53.6	134	210	251	373	490	789	1020	1490
		No Fan	Output Torque Nm	1020	1390	1780	4450	7000	8450	12200	16300	26000	34100	49900
			Efficiency %	99	99	99	99	99	99	99	99	99	99	99
3.73	257.	Mechanical	Input Power kW	101	159	204	279	427	588	780	1140	1400	1890	3210
			Output Torque Nm	3700	5810	7510	10400	15800	21300	28700	42100	52200	70900	120000
		Thermal	Input Power kW	30.4	40.8	52.0	130	204	243	362	474	765	991	1440
		No Fan	Output Torque Nm	1110	1490	1910	4850	7530	8800	13300	17400	28400	37100	53700
			Efficiency %	99	98	98	99	98	98	99	99	99	99	99
4.13	232.	Mechanical	Input Power kW	91.2	134	201	263	322	515	748	996	1340	1820	3040
			Output Torque Nm	3670	5490	8090	10700	13200	21000	29700	40600	54100	74400	123000
		Thermal	Input Power kW	29.6	39.8	50.7	127	199	237	353	463	747	967	1410
		No Fan	Output Torque Nm	1190	1620	2040	5170	8170	9650	14000	18900	30200	39600	57100
			Efficiency %	98	99	98	98	98	99	98	99	99	99	99

ITALICS- Case Baffle is fitted

H1 RATINGS AT 960 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
4.57	209.	Mechanical	Input Power kW	75.5	114	173	197	347	423	632	812	1120	1620	2830
			Output Torque Nm	3370	5090	7610	8780	15300	19200	28200	36700	51300	73900	126000
		Thermal	Input Power kW	29.2	39.2	50.0	125	196	234	348	457	736	954	1390
		No Fan	Output Torque Nm	1300	1750	2200	5590	8620	10600	15500	20600	33700	43600	61500
			Efficiency %	98	98	98	98	99	98	98	99	99	99	99
5.06	189.	Mechanical	Input Power kW	58.2	87.6	115	183	248	367	488	734	942	1490	2040
			Output Torque Nm	2880	4340	5760	9060	12300	18200	24200	36400	46700	74000	102000
		Thermal	Input Power kW	29.0	38.9	49.6	124	194	232	345	453	730	946	1380
		No Fan	Output Torque Nm	1430	1920	2480	6150	9620	11500	17100	22400	36200	47000	68500
			Efficiency %	98	98	99	98	99	98	99	99	99	99	99

H1 THERMAL RATINGS AT 960 REV/MIN INPUT

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
1.22	783.	Thermal	Input Power kW	148	201	238	369	579	698	1020	*1220-*	*1900-*	*2410-*	*3180-*
		with fan	Output Torque Nm	1780	2450	2880	4470	7040	8380	12200	*14800*	*23100*	*29300*	*38700*
		Thermal	Input Power kW	191	239	247	397	523	1740	1910	*3260*	*4160*	*4800*	*5860*
		with coil	Output Torque Nm	2290	2900	2990	4800	6350	20900	23000	*39600*	*50700*	*58300*	*71300*
		Thermal	Input Power kW	342	423	483	636	903	2190	2520	*3880*	*4720*	*5920*	*6990*
		Fan & Coil	Output Torque Nm	4100	5150	5850	7710	11000	26300	30300	*47100*	*57500*	*71900*	*85100*
1.35	708.	Thermal	Input Power kW	140	191	225	349	549	661	962	*1150-*	*1800-*	*2280-*	*3010-*
		with fan	Output Torque Nm	1880	2560	3020	4690	7320	8760	12900	*15500*	*24000*	*30800*	*40200*
		Thermal	Input Power kW	182	227	235	377	498	1670	1850	*3210*	*3980*	*4670*	*5680*
		with coil	Output Torque Nm	2430	3050	3160	5060	6640	22100	24900	*43300*	*53300*	*63000*	*75900*
		Thermal	Input Power kW	325	402	459	604	857	2110	2440	*3810*	*4580*	*5740*	*6770*
		Fan & Coil	Output Torque Nm	4340	5400	6170	8120	11400	27900	32800	*51300*	*61300*	*77500*	*90500*
1.50	640.	Thermal	Input Power kW	132	180	212	330	518	624	908	*1090-*	*1690-*	*2150-*	*2840-*
		with fan	Output Torque Nm	1950	2660	3160	4810	7580	9230	13400	*15900*	*25400*	*31600*	*41700*
		Thermal	Input Power kW	172	216	223	357	473	1600	1800	*3150*	*3800*	*4530*	*5490*
		with coil	Output Torque Nm	2540	3190	3330	5220	6920	23600	26700	*46200*	*56900*	*66400*	*80600*
		Thermal	Input Power kW	308	381	435	572	811	2010	2360	*3720*	*4440*	*5560*	*6540*
		Fan & Coil	Output Torque Nm	4550	5630	6490	8370	11900	29800	35000	*54600*	*66500*	*81600*	*96100*
1.66	578.	Thermal	Input Power kW	124	169	199	309	485	584	851	1020	*1590-*	*2020-*	*2660-*
		with fan	Output Torque Nm	2010	2760	3250	5030	7970	9610	13800	16600	*26200*	*33000*	*43800*
		Thermal	Input Power kW	163	204	211	337	445	1510	1740	3080	*3600*	*4370*	*5280*
		with coil	Output Torque Nm	2650	3350	3460	5490	7320	24900	28300	50300	*59300*	*71600*	*87100*
		Thermal	Input Power kW	291	360	411	540	764	1910	2280	3630	*4280*	*5360*	*6290*
		Fan & Coil	Output Torque Nm	4720	5910	6730	8800	12600	31300	37000	59400	*70500*	*87800*	*104000*
1.84	522.	Thermal	Input Power kW	116	157	185	288	452	544	792	948	1480	*1880-*	*2480-*
		with fan	Output Torque Nm	2090	2840	3340	5240	8180	9800	14400	17000	26800	*34400*	*45000*
		Thermal	Input Power kW	155	193	200	317	418	1430	1670	3000	3390	*4210*	*5070*
		with coil	Output Torque Nm	2800	3490	3600	5770	7570	25800	30500	53800	61400	*77100*	*92200*
		Thermal	Input Power kW	274	339	387	507	717	1790	2180	3530	4110	*5150*	*6030*
		Fan & Coil	Output Torque Nm	4970	6130	6980	9240	13000	32300	39700	63200	74500	*94300*	*110000*
2.03	472.	Thermal	Input Power kW	109	148	175	271	426	513	747	894	1390	*1770-*	*2340-*
		with fan	Output Torque Nm	2180	2960	3490	5430	8530	10300	15000	18000	28000	*35700*	*47000*
		Thermal	Input Power kW	146	183	189	299	392	1340	1600	2910	3200	*4060*	*4860*
		with coil	Output Torque Nm	2920	3650	3760	5980	7850	27000	32100	58500	64400	*81900*	*97800*
		Thermal	Input Power kW	260	321	366	479	678	1690	2080	3410	3950	*4970*	*5790*
		Fan & Coil	Output Torque Nm	5190	6400	7310	9610	13600	33900	41900	68700	79500	*100000*	*116000*

ITALICS- Case Baffle is fitted
Note: Cooling coils cannot be fitted to vertical units

H1 THERMAL RATINGS AT 960 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
2.25	426.	Thermal	Input Power kW	105	142	168	260	409	493	717	858	1340	1700	*2240-*
		with fan	Output Torque Nm	2310	3140	3720	5750	9090	10900	15900	19100	29900	37800	*50100*
		Thermal	Input Power kW	138	173	178	282	368	1250	1510	2790	3030	3920	*4640*
		with coil	Output Torque Nm	3050	3810	3950	6220	8180	27700	33500	62100	67700	87100	*104000*
		Thermal	Input Power kW	247	305	349	457	647	1590	1980	3290	3800	4820	*5570*
		Fan & Coil	Output Torque Nm	5460	6740	7740	10100	14400	35000	44000	73300	84900	107000	*124000*
2.49	385.	Thermal	Input Power kW	101	138	162	252	396	477	694	831	1290	1650	*2170-*
		with fan	Output Torque Nm	2480	3370	4010	6170	9800	11600	17100	20500	31700	40600	*54000*
		Thermal	Input Power kW	131	163	168	266	346	1170	1420	2650	2880	3790	*4430*
		with coil	Output Torque Nm	3200	4000	4160	6530	8570	28600	34900	65400	70600	93500	*110000*
		Thermal	Input Power kW	236	292	333	438	621	1500	1880	3150	3670	4690	*5370*
		Fan & Coil	Output Torque Nm	5800	7150	8250	10700	15400	36500	46300	77600	89800	116000	*134000*
2.76	348.	Thermal	Input Power kW	98.1	133	157	244	384	462	673	805	1260	1590	2100
		with fan	Output Torque Nm	2650	3610	4230	6610	10300	12600	18200	22100	33900	43500	56900
		Thermal	Input Power kW	124	155	160	253	328	1100	1320	2510	2760	3680	4280
		with coil	Output Torque Nm	3340	4180	4290	6840	8810	30100	35800	68800	74700	100000	116000
		Thermal	Input Power kW	226	279	319	420	597	1420	1770	2990	3570	4580	5220
		Fan & Coil	Output Torque Nm	6090	7560	8580	11400	16100	38700	48000	82000	96400	125000	141000
3.05	314.	Thermal	Input Power kW	95.5	130	153	238	373	450	655	784	1220	1550	2050
		with fan	Output Torque Nm	2900	3880	4650	7110	11200	13500	19600	23500	37300	46700	61600
		Thermal	Input Power kW	117	147	152	241	312	1040	1240	2370	2660	3590	4150
		with coil	Output Torque Nm	3560	4390	4600	7190	9320	31200	37200	71200	81300	108000	125000
		Thermal	Input Power kW	216	268	306	405	575	1350	1680	2840	3480	4490	5090
		Fan & Coil	Output Torque Nm	6560	8010	9300	12100	17200	40400	50200	85400	106000	135000	153000
3.38	284.	Thermal	Input Power kW	93.4	127	150	232	365	440	640	766	1190	1520	2000
		with fan	Output Torque Nm	3050	4210	4990	7710	12200	14800	21000	25600	39400	50700	67100
		Thermal	Input Power kW	112	140	144	230	299	989	1180	2260	2580	3520	4020
		with coil	Output Torque Nm	3650	4630	4810	7640	9970	33400	38700	75400	85300	118000	135000
		Thermal	Input Power kW	207	257	294	390	555	1290	1600	2720	3380	4410	4960
		Fan & Coil	Output Torque Nm	6780	8540	9810	12900	18500	43500	52600	90800	112000	147000	166000
3.73	257.	Thermal	Input Power kW	91.7	125	147	228	358	432	628	752	1170	1490	1960
		with fan	Output Torque Nm	3360	4570	5420	8500	13300	15700	23100	27700	43600	55800	73200
		Thermal	Input Power kW	106	133	138	221	288	943	1130	2160	2520	3460	3910
		with coil	Output Torque Nm	3890	4880	5080	8230	10700	34200	41400	79500	93500	130000	146000
		Thermal	Input Power kW	200	248	284	377	539	1240	1540	2610	3310	4360	4850
		Fan & Coil	Output Torque Nm	7310	9100	10500	14100	19900	44900	56700	96200	123000	163000	181000
4.13	232.	Thermal	Input Power kW	90.3	123	145	225	353	425	619	741	1160	1470	1940
		with fan	Output Torque Nm	3640	5020	5830	9160	14500	17300	24600	30200	46800	60100	78500
		Thermal	Input Power kW	102	127	132	213	279	905	1090	2080	2460	3430	3830
		with coil	Output Torque Nm	4100	5210	5330	8690	11500	36900	43200	84700	99600	140000	155000
		Thermal	Input Power kW	193	240	275	366	524	1190	1490	2520	3250	4330	4760
		Fan & Coil	Output Torque Nm	7770	9810	11100	14900	21600	48600	59400	103000	131000	177000	193000
4.57	209.	Thermal	Input Power kW	89.1	121	143	222	348	420	611	731	1140	1450	1910
		with fan	Output Torque Nm	3980	5400	6290	9890	15300	19100	27300	33100	52200	66200	84600
		Thermal	Input Power kW	98.3	123	128	208	274	877	1050	2000	2410	3410	3760
		with coil	Output Torque Nm	4390	5500	5640	9280	12000	39900	47000	90700	110000	156000	166000
		Thermal	Input Power kW	187	233	267	357	512	1160	1450	2440	3190	4300	4680
		Fan & Coil	Output Torque Nm	8360	10400	11800	15900	22500	52700	64900	110000	146000	197000	207000
5.06	189.	Thermal	Input Power kW	88.0	120	141	219	344	415	603	722	1130	1430	1890
		with fan	Output Torque Nm	4360	5920	7060	10800	17000	20500	29900	35800	55900	71100	93900
		Thermal	Input Power kW	95.2	119	124	203	269	851	1030	1940	2370	3390	3710
		with coil	Output Torque Nm	4710	5910	6220	10100	13300	42100	50900	96100	118000	169000	185000
		Thermal	Input Power kW	182	227	261	349	501	1130	1420	2360	3140	4270	4610
		Fan & Coil	Output Torque Nm	9020	11300	13000	17300	24800	55800	70200	117000	156000	212000	230000

ITALICS- Case Baffle is fitted
Note: Cooling coils cannot be fitted to vertical units

H1 RATINGS AT 725 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
1.22	591.	Mechanical	Input Power kW	191	243	324	445	624	1030	1250	1690	2040	*3090-*	*4150-*
			Output Torque Nm	3040	3910	5190	7130	10000	16400	20000	27200	32900	*49700*	*66900*
		Thermal	Input Power kW	56.3	75.6	96.4	241	378	450	671	880	1420	*1840*	*2680*
		No Fan	Output Torque Nm	894	1220	1540	3870	6070	7160	10700	14100	22900	*29600*	*43100*
			Efficiency %	99	99	99	99	99	99	99	99	99	*99*	*99*
1.35	534.	Mechanical	Input Power kW	182	240	305	445	620	1030	1240	1680	2030	*3070-*	*4120-*
			Output Torque Nm	3230	4260	5410	7910	10900	18000	22100	29900	35900	*54800*	*73000*
		Thermal	Input Power kW	53.3	71.6	91.3	229	358	426	635	833	1340	*1740*	*2530*
		No Fan	Output Torque Nm	943	1270	1620	4060	6310	7480	11300	14900	23800	*31100*	*44900*
			Efficiency %	99	99	99	99	99	99	99	99	99	*99*	*99*
1.50	483.	Mechanical	Input Power kW	167	224	285	445	615	946	1180	1670	2010	3020	*4100-*
			Output Torque Nm	3260	4380	5620	8610	11900	18500	23100	32300	39800	58700	*79700*
		Thermal	Input Power kW	50.3	67.5	86.1	216	337	402	599	786	1270	1640	*2390*
		No Fan	Output Torque Nm	982	1320	1700	4170	6540	7880	11800	15200	25100	31900	*46500*
			Efficiency %	99	99	99	99	99	99	99	99	99	99	*99*
1.66	436.	Mechanical	Input Power kW	158	206	270	426	607	880	1100	1650	1990	2850	*4050-*
			Output Torque Nm	3380	4490	5840	9170	13200	19100	23800	35700	43500	61700	*88500*
		Thermal	Input Power kW	47.2	63.4	80.8	202	317	377	562	738	1190	1540	*2240*
		No Fan	Output Torque Nm	1010	1380	1750	4360	6880	8210	12100	16000	25900	33400	*49000*
			Efficiency %	99	99	99	99	99	99	99	99	99	99	*99*
1.84	394.	Mechanical	Input Power kW	148	194	243	399	568	815	1050	1630	1970	2670	4010
			Output Torque Nm	3550	4660	5800	9610	13600	19400	25300	38700	47300	64700	96600
		Thermal	Input Power kW	44.1	59.2	75.4	189	296	353	525	689	1110	1440	2090
		No Fan	Output Torque Nm	1060	1420	1800	4550	7090	8400	12600	16300	26600	34900	50400
			Efficiency %	99	99	99	99	99	99	99	99	99	99	99
2.03	356.6	Mechanical	Input Power kW	138	175	244	388	540	785	972	1570	1950	2590	3970
			Output Torque Nm	3650	4630	6450	10300	14300	20900	25800	41900	51900	69200	106000
		Thermal	Input Power kW	41.3	55.5	70.7	177	277	330	492	646	1040	1350	1960
		No Fan	Output Torque Nm	1090	1470	1870	4690	7350	8770	13100	17200	27700	36000	52300
			Efficiency %	99	99	99	99	99	99	99	99	99	99	99
2.25	322.	Mechanical	Input Power kW	129	184	246	358	493	726	901	1400	1830	2400	3820
			Output Torque Nm	3780	5370	7210	10500	14500	21200	26500	41300	54000	70500	113000
		Thermal	Input Power kW	38.9	52.2	66.6	167	261	311	464	608	980	1270	1850
		No Fan	Output Torque Nm	1140	1530	1950	4870	7670	9080	13600	17900	28900	37400	54700
			Efficiency %	99	98	98	99	99	99	99	99	99	99	99
2.49	291.	Mechanical	Input Power kW	120	169	228	341	451	667	826	1350	1690	2380	3470
			Output Torque Nm	3910	5480	7470	11100	14800	21500	26900	44000	54900	77900	114000
		Thermal	Input Power kW	36.8	49.4	62.9	158	247	294	438	575	927	1200	1750
		No Fan	Output Torque Nm	1200	1600	2060	5120	8080	9480	14300	18700	30000	39200	57600
			Efficiency %	99	98	99	99	99	99	99	99	99	99	99
2.76	263.	Mechanical	Input Power kW	107	162	209	307	414	571	766	1110	1560	2290	3130
			Output Torque Nm	3820	5800	7440	11000	14700	20600	27400	40300	55700	82500	112000
		Thermal	Input Power kW	35.0	47.0	59.9	150	235	280	417	547	881	1140	1660
		No Fan	Output Torque Nm	1250	1680	2130	5380	8350	10100	14900	19800	31500	41200	59500
			Efficiency %	99	98	99	98	98	99	99	99	99	99	99
3.05	237.	Mechanical	Input Power kW	95.7	145	188	282	397	540	693	1100	1410	2070	3000
			Output Torque Nm	3840	5760	7540	11200	15700	21400	27500	43500	56800	82300	120000
		Thermal	Input Power kW	33.5	45.0	57.3	144	225	268	399	523	844	1090	1590
		No Fan	Output Torque Nm	1340	1780	2300	5680	8880	10600	15800	20800	34100	43500	63400
			Efficiency %	99	99	98	99	99	99	99	98	99	99	99
3.38	214.	Mechanical	Input Power kW	91.2	136	180	252	359	471	672	893	1230	1930	2720
			Output Torque Nm	3950	5970	7930	11100	15800	21000	29100	39500	53600	85500	121000
		Thermal	Input Power kW	32.3	43.4	55.3	139	217	259	385	505	815	1060	1540
		No Fan	Output Torque Nm	1400	1910	2440	6090	9570	11500	16700	22300	35600	46600	68300
			Efficiency %	99	98	98	99	98	98	99	99	99	99	99
3.73	194.	Mechanical	Input Power kW	77.6	121	154	211	323	445	591	866	1060	1440	2460
			Output Torque Nm	3760	5880	7530	10400	15800	21400	28700	42100	52300	71200	121000
		Thermal	Input Power kW	31.3	42.1	53.6	134	210	251	374	490	790	1020	1490
		No Fan	Output Torque Nm	1520	2040	2620	6630	10300	12000	18100	23800	38800	50700	73400
			Efficiency %	98	98	99	98	98	99	98	98	99	99	99
4.13	175.	Mechanical	Input Power kW	70.2	102	153	202	244	394	567	762	1010	1380	2310
			Output Torque Nm	3740	5510	8160	10900	13300	21300	29800	41100	54100	74600	124000
		Thermal	Input Power kW	30.6	41.1	52.3	131	205	245	365	478	771	999	1450
		No Fan	Output Torque Nm	1630	2220	2790	7080	11200	13200	19200	25800	41200	54100	78000
			Efficiency %	98	98	98	99	99	99	98	99	99	99	99

ITALICS- Case Baffle is fitted

H1 RATINGS AT 725 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
4.57	158.	Mechanical	Input Power kW	57.9	87.6	133	151	266	324	484	621	849	1220	2140
			Output Torque Nm	3420	5180	7740	8920	15500	19500	28600	37100	51300	74000	126000
		Thermal	Input Power kW	30.2	40.5	51.6	129	202	241	360	471	760	985	1430
		No Fan	Output Torque Nm	1780	2390	3010	7640	11800	14500	21200	28200	46000	59500	84000
			Efficiency %	98	98	98	99	98	98	98	98	98	99	99
5.06	143.	Mechanical	Input Power kW	44.8	67.4	87.4	140	190	281	374	562	720	1140	1550
			Output Torque Nm	2940	4420	5790	9200	12500	18400	24500	36800	47200	74700	102000
		Thermal	Input Power kW	29.9	40.2	51.2	128	201	239	357	468	754	977	1420
		No Fan	Output Torque Nm	1960	2630	3390	8410	13200	15700	23400	30700	49500	64200	93600
			Efficiency %	99	98	99	99	99	98	98	98	99	98	99

H1 THERMAL RATINGS AT 725 REV/MIN INPUT

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
1.22	591.	Thermal	Input Power kW	134	183	215	334	525	633	921	1100	1720	*2180-*	*2880-*
		with fan	Output Torque Nm	2130	2940	3450	5360	8440	10100	14700	17700	27700	*35100*	*46400*
		Thermal	Input Power kW	193	241	250	404	535	1750	1930	3290	4210	*4860*	*5940*
		with coil	Output Torque Nm	3060	3880	4010	6480	8600	27800	30700	52900	67800	*78200*	*95800*
		Thermal	Input Power kW	328	404	461	602	849	2130	2420	3770	4540	*5690*	*6690*
		Fan & Coil	Output Torque Nm	5210	6510	7390	9640	13600	33800	38600	60600	73300	*91600*	*108000*
1.35	534.	Thermal	Input Power kW	127	173	204	317	497	599	872	1040	1630	*2070-*	*2730-*
		with fan	Output Torque Nm	2250	3070	3620	5630	8780	10500	15500	18600	28800	*36900*	*48300*
		Thermal	Input Power kW	183	229	238	384	509	1680	1870	3230	4030	*4720*	*5760*
		with coil	Output Torque Nm	3240	4080	4230	6830	8990	29500	33300	57700	71300	*84400*	*102000*
		Thermal	Input Power kW	312	384	438	572	806	2040	2350	3700	4420	*5530*	*6490*
		Fan & Coil	Output Torque Nm	5520	6830	7790	10200	14200	35900	41900	66000	78200	*98800*	*115000*
1.50	483.	Thermal	Input Power kW	120	163	192	299	469	565	823	985	1540	1950	*2570-*
		with fan	Output Torque Nm	2340	3190	3790	5770	9100	11100	16100	19100	30400	37900	*50100*
		Thermal	Input Power kW	174	218	226	364	483	1610	1820	3170	3840	4580	*5560*
		with coil	Output Torque Nm	3400	4260	4460	7030	9370	31500	35700	61600	76100	89000	*108000*
		Thermal	Input Power kW	296	364	416	542	763	1950	2280	3620	4280	5360	*6280*
		Fan & Coil	Output Torque Nm	5780	7130	8200	10500	14800	38200	44700	70300	84900	104000	*122000*
1.66	436.	Thermal	Input Power kW	112	153	180	280	440	530	771	923	1440	1830	*2410-*
		with fan	Output Torque Nm	2410	3320	3900	6030	9560	11500	16600	20000	31400	39600	*52600*
		Thermal	Input Power kW	165	206	214	343	455	1530	1760	3100	3630	4420	*5350*
		with coil	Output Torque Nm	3540	4480	4630	7400	9900	33200	37800	67100	79300	95900	*117000*
		Thermal	Input Power kW	280	344	393	511	719	1850	2200	3530	4130	5170	*6040*
		Fan & Coil	Output Torque Nm	6000	7480	8500	11000	15600	40300	47300	76500	90100	112000	*132000*
1.84	394.	Thermal	Input Power kW	105	142	168	261	409	493	718	860	1340	1700	2240
		with fan	Output Torque Nm	2510	3410	4010	6280	9810	11800	17300	20400	32100	41300	54000
		Thermal	Input Power kW	156	195	202	323	427	1440	1690	3020	3420	4260	5130
		with coil	Output Torque Nm	3740	4670	4820	7780	10200	34300	40700	71700	82100	103000	124000
		Thermal	Input Power kW	264	324	370	480	675	1740	2110	3440	3970	4970	5800
		Fan & Coil	Output Torque Nm	6330	7770	8820	11600	16200	41600	50800	81500	95300	121000	140000
2.03	356.6	Thermal	Input Power kW	98.8	134	158	246	386	465	677	811	1260	1610	2120
		with fan	Output Torque Nm	2610	3550	4180	6520	10200	12400	18000	21600	33600	42800	56400
		Thermal	Input Power kW	147	184	191	304	401	1350	1610	2930	3230	4100	4920
		with coil	Output Torque Nm	3900	4870	5040	8060	10600	35900	42800	78000	86100	110000	131000
		Thermal	Input Power kW	249	307	350	454	638	1640	2020	3330	3820	4800	5570
		Fan & Coil	Output Torque Nm	6600	8110	9240	12000	16900	43600	53500	88700	102000	128000	148000

ITALICS- Case Baffle is fitted
Note: Cooling coils cannot be fitted to vertical units

H1 THERMAL RATINGS AT 725 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
2.25	322.	Thermal	Input Power kW	94.8	129	152	236	371	447	650	778	1210	1540	2030
		with fan	Output Torque Nm	2780	3770	4470	6900	10900	13000	19100	23000	35800	45300	60100
		Thermal	Input Power kW	139	174	180	287	376	1260	1520	2800	3060	3960	4700
		with coil	Output Torque Nm	4080	5090	5290	8390	11100	36900	44700	82800	90500	116000	139000
		Thermal	Input Power kW	237	292	333	433	609	1540	1920	3210	3680	4660	5360
		Fan & Coil	Output Torque Nm	6950	8540	9790	12700	17900	45000	56300	94600	109000	137000	159000
2.49	291.	Thermal	Input Power kW	91.8	125	147	228	359	432	629	753	1170	1490	1970
		with fan	Output Torque Nm	2980	4050	4820	7410	11800	13900	20500	24500	38000	48700	64800
		Thermal	Input Power kW	132	165	170	271	354	1180	1430	2670	2910	3820	4490
		with coil	Output Torque Nm	4280	5340	5580	8800	11600	38100	46600	87100	94400	125000	148000
		Thermal	Input Power kW	227	279	318	415	584	1450	1810	3070	3550	4540	5170
		Fan & Coil	Output Torque Nm	7370	9060	10400	13500	19100	46800	59100	100000	115000	148000	170000
2.76	263.	Thermal	Input Power kW	89.0	121	143	221	348	419	610	730	1140	1450	1910
		with fan	Output Torque Nm	3180	4330	5080	7940	12400	15100	21900	26500	40700	52200	68300
		Thermal	Input Power kW	125	156	161	257	335	1110	1340	2520	2790	3720	4330
		with coil	Output Torque Nm	4460	5590	5740	9230	11900	40100	47900	91600	99800	134000	155000
		Thermal	Input Power kW	217	267	305	398	561	1370	1710	2920	3450	4430	5030
		Fan & Coil	Output Torque Nm	7740	9570	10800	14300	20000	49600	61200	106000	123000	160000	180000
3.05	237.	Thermal	Input Power kW	86.6	118	139	216	339	408	594	711	1110	1410	1860
		with fan	Output Torque Nm	3480	4660	5580	8530	13400	16200	23500	28200	44700	56100	73900
		Thermal	Input Power kW	118	148	153	245	319	1050	1250	2390	2690	3620	4200
		with coil	Output Torque Nm	4760	5870	6160	9710	12600	41600	49700	94800	109000	144000	167000
		Thermal	Input Power kW	207	256	292	382	540	1310	1610	2770	3360	4350	4900
		Fan & Coil	Output Torque Nm	8330	10100	11700	15100	21400	51800	64000	110000	136000	173000	195000
3.38	214.	Thermal	Input Power kW	84.7	115	136	211	331	399	580	695	1080	1380	1810
		with fan	Output Torque Nm	3660	5050	5990	9260	14600	17800	25100	30700	47300	60800	80500
		Thermal	Input Power kW	113	141	146	235	306	997	1190	2270	2610	3550	4070
		with coil	Output Torque Nm	4870	6190	6450	10300	13500	44500	51600	100000	114000	157000	181000
		Thermal	Input Power kW	199	246	281	368	521	1250	1540	2650	3270	4270	4770
		Fan & Coil	Output Torque Nm	8600	10800	12400	16200	23000	55700	66900	117000	143000	189000	212000
3.73	194.	Thermal	Input Power kW	83.1	113	133	207	325	392	570	682	1060	1350	1780
		with fan	Output Torque Nm	4030	5480	6510	10200	15900	18800	27700	33200	52300	66900	87800
		Thermal	Input Power kW	107	134	140	225	295	951	1140	2170	2540	3500	3960
		with coil	Output Torque Nm	5200	6520	6820	11100	14400	45700	55300	106000	125000	173000	195000
		Thermal	Input Power kW	191	236	270	356	505	1200	1490	2540	3200	4220	4670
		Fan & Coil	Output Torque Nm	9260	11500	13200	17600	24700	57500	72100	124000	157000	209000	230000
4.13	175.	Thermal	Input Power kW	81.9	111	131	204	320	386	562	672	1050	1330	1760
		with fan	Output Torque Nm	4370	6020	7010	11000	17400	20800	29500	36200	56100	72100	94200
		Thermal	Input Power kW	103	129	134	218	286	913	1100	2090	2490	3460	3870
		with coil	Output Torque Nm	5480	6970	7150	11700	15600	49200	57700	113000	133000	187000	208000
		Thermal	Input Power kW	184	229	261	345	491	1150	1440	2450	3140	4190	4580
		Fan & Coil	Output Torque Nm	9830	12400	14000	18600	26800	62300	75600	132000	168000	227000	246000
4.57	158.	Thermal	Input Power kW	80.8	110	130	201	316	381	554	663	1030	1310	1730
		with fan	Output Torque Nm	4770	6490	7550	11900	18400	22900	32700	39700	62500	79300	101000
		Thermal	Input Power kW	99.2	124	130	212	280	884	1060	2020	2440	3440	3800
		with coil	Output Torque Nm	5870	7350	7560	12500	16300	53300	62900	121000	147000	208000	223000
		Thermal	Input Power kW	179	222	254	337	480	1120	1400	2370	3080	4170	4500
		Fan & Coil	Output Torque Nm	10600	13100	14800	19900	28000	67500	82600	142000	187000	252000	264000
5.06	143.	Thermal	Input Power kW	79.8	108	128	199	312	376	547	655	1020	1300	1710
		with fan	Output Torque Nm	5240	7110	8480	13000	20500	24700	35900	43000	67000	85300	113000
		Thermal	Input Power kW	96.1	121	126	207	276	859	1040	1950	2400	3430	3750
		with coil	Output Torque Nm	6300	7910	8350	13600	18100	56300	68100	128000	157000	225000	247000
		Thermal	Input Power kW	174	216	247	329	469	1090	1360	2300	3040	4140	4440
		Fan & Coil	Output Torque Nm	11400	14200	16400	21500	30800	71400	89300	151000	199000	272000	292000

Note: Cooling coils cannot be fitted to vertical units

H2 RATINGS AT 1750 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
5.60	312.	Mechanical	Input Power kW	117	128	228	250	373	447	780	1020	*1480-*	*1930-*	*2920-*
			Output Torque Nm	3510	3830	6840	7460	11200	13300	23500	30900	*44000*	*58300*	*89600*
		Thermal	Input Power kW	32.7	40.5	51.9	92.2	111	133	158	248	*338*	*437*	*541*
		No Fan	Output Torque Nm	975	1210	1550	2750	3350	3950	4720	7460	*10000*	*13200*	*16500*
			Efficiency %	98	97	97	97	97	97	98	98	*98*	*98*	*99*
6.20	282.	Mechanical	Input Power kW	117	116	210	233	375	465	731	950	*1390-*	*1800-*	*2710-*
			Output Torque Nm	3780	3830	6910	7710	12500	15500	24400	32000	*45700*	*60500*	*91900*
		Thermal	Input Power kW	32.0	39.7	50.8	90.2	109	130	154	242	*330*	*427*	*529*
		No Fan	Output Torque Nm	1030	1310	1660	2980	3630	4310	5130	8140	*10800*	*14300*	*17800*
			Efficiency %	97	97	97	97	97	98	98	98	*98*	*99*	*99*
6.86	255.	Mechanical	Input Power kW	104	105	178	233	365	443	676	880	*1260-*	*1680-*	*2260-*
			Output Torque Nm	3770	3840	6490	8520	13300	16500	24800	33000	*45900*	*62300*	*83100*
		Thermal	Input Power kW	31.2	38.7	49.6	88.1	106	127	151	237	*323*	*417*	*517*
		No Fan	Output Torque Nm	1120	1410	1800	3220	3850	4700	5500	8840	*11700*	*15400*	*18900*
			Efficiency %	97	97	97	97	98	98	98	98	*98*	*98*	*98*
7.59	230.	Mechanical	Input Power kW	93.7	94.2	165	237	341	421	616	846	1140	*1590-*	*2110-*
			Output Torque Nm	3780	3840	6720	9530	13700	17000	24900	34400	46400	*64800*	*86400*
		Thermal	Input Power kW	30.4	37.8	48.3	85.9	104	124	147	231	315	*407*	*504*
		No Fan	Output Torque Nm	1220	1530	1960	3450	4150	4980	5920	9360	12700	*16500*	*20500*
			Efficiency %	97	97	97	97	97	98	98	98	98	*98*	*99*
8.40	208.	Mechanical	Input Power kW	89.2	86.7	157	220	306	348	521	648	*953-*	*1230-*	*1720-*
			Output Torque Nm	3950	3840	7010	9850	13800	16000	23100	29600	*42300*	*56000*	*78300*
		Thermal	Input Power kW	29.6	36.8	47.1	83.7	101	121	143	225	*307*	*397*	*491*
		No Fan	Output Torque Nm	1310	1620	2100	3750	4540	5540	6330	10200	*13600*	*17900*	*22300*
			Efficiency %	97	97	97	97	97	97	98	98	*98*	*98*	*98*
9.30	188.	Mechanical	Input Power kW	76.3	76.8	149	209	282	337	480	628	873	*1170-*	*1620-*
			Output Torque Nm	3780	3840	7350	10300	14000	16900	23500	31100	43300	*58600*	*81900*
		Thermal	Input Power kW	28.9	35.8	45.8	81.5	98.5	117	139	219	299	*386*	*478*
		No Fan	Output Torque Nm	1430	1790	2260	4010	4880	5860	6800	10800	14800	*19200*	*24100*
			Efficiency %	97	97	97	97	97	97	97	98	98	*98*	*98*
10.3	170.	Mechanical	Input Power kW	69.0	69.3	151	170	236	306	393	551	728	*955-*	*1350-*
			Output Torque Nm	3790	3840	8290	9410	13000	16400	21600	30100	40600	*53400*	*75700*
		Thermal	Input Power kW	28.1	34.9	44.5	79.4	95.8	114	136	213	291	*376*	*465*
		No Fan	Output Torque Nm	1540	1930	2440	4390	5280	6130	7420	11600	16200	*21000*	*26100*
			Efficiency %	97	97	97	97	97	97	97	97	98	*98*	*98*
11.4	153.	Mechanical	Input Power kW	62.9	62.9	124	184	251	294	427	545	782	1040	*1450-*
			Output Torque Nm	3790	3840	7540	11000	15300	18200	25600	33500	48100	62700	*89500*
		Thermal	Input Power kW	27.3	33.9	43.3	77.2	93.2	111	132	207	283	366	*452*
		No Fan	Output Torque Nm	1640	2070	2630	4610	5670	6870	7880	12700	17300	22000	*27900*
			Efficiency %	97	97	97	97	97	97	97	98	98	98	*98*
12.6	138.	Mechanical	Input Power kW	57.4	56.8	132	170	244	279	409	524	751	994	1370
			Output Torque Nm	3800	3840	8770	11400	16400	19100	27400	35600	49600	67200	93300
		Thermal	Input Power kW	26.6	33.0	42.2	75.2	90.8	108	129	202	275	356	441
		No Fan	Output Torque Nm	1760	2230	2810	5030	6110	7410	8610	13700	18100	24000	29900
			Efficiency %	97	97	97	97	97	97	97	97	97	97	98
14.0	125.	Mechanical	Input Power kW	50.6	51.5	102	139	205	254	337	463	630	816	1150
			Output Torque Nm	3790	3840	7550	10500	15300	18800	25400	34700	46800	61900	87000
		Thermal	Input Power kW	26.0	32.3	41.2	73.4	88.7	106	126	197	269	348	431
		No Fan	Output Torque Nm	1940	2410	3030	5510	6620	7780	9430	14700	19900	26300	32500
			Efficiency %	97	96	97	97	97	97	97	97	97	98	98
15.4	113.	Mechanical	Input Power kW	46.8	47.2	104	139	211	254	366	472	667	893	1230
			Output Torque Nm	3790	3840	8360	11300	17300	20800	29400	38100	55000	73300	103000
		Thermal	Input Power kW	25.5	31.6	40.4	71.9	86.9	104	123	193	263	341	422
		No Fan	Output Torque Nm	2060	2570	3250	5870	7120	8460	9870	15600	21700	27900	35200
			Efficiency %	97	97	97	96	97	97	97	97	97	97	98
17.1	102.	Mechanical	Input Power kW	39.8	42.4	92.4	114	182	232	305	419	562	736	1040
			Output Torque Nm	3580	3850	8360	10500	16600	20400	27500	37300	52200	67800	96200
		Thermal	Input Power kW	25.1	31.1	39.8	70.9	85.6	102	121	190	259	336	415
		No Fan	Output Torque Nm	2260	2820	3600	6490	7780	8970	10900	16900	24100	30900	38500
			Efficiency %	97	97	97	97	97	97	97	97	97	97	97
18.9	92.	Mechanical	Input Power kW	39.0	38.3	85.4	103	163	209	291	397	536	692	981
			Output Torque Nm	3860	3850	8360	10500	16500	20900	29100	39700	54200	70600	99700
		Thermal	Input Power kW	24.7	30.7	39.2	69.9	84.4	101	119	188	256	331	409
		No Fan	Output Torque Nm	2450	3080	3840	7100	8510	10100	11900	18800	25800	33700	41500
			Efficiency %	97	97	97	97	97	97	97	97	97	97	97

ITALICS- Case Baffle is fitted

H2 RATINGS AT 1750 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
20.9	83.	Mechanical	Input Power kW	32.3	35.1	75.5	82.9	129	145	243	311	427	576	827
			Output Torque Nm	3540	3850	8070	9090	14000	16000	26700	34100	48900	64700	91100
		Thermal	Input Power kW	24.4	30.3	38.7	68.9	83.2	99.2	118	185	252	326	404
		No Fan	Output Torque Nm	2670	3320	4130	7560	9000	10900	12900	20300	28900	36600	44400
			Efficiency %	97	97	97	97	97	97	97	97	97	97	97
23.2	75.	Mechanical	Input Power kW	28.8	31.6	67.8	74.7	116	128	232	277	392	544	755
			Output Torque Nm	3540	3850	8140	9100	14000	16000	28200	34100	48900	67700	91100
		Thermal	Input Power kW	24.0	29.9	38.2	68.0	82.1	97.9	116	183	249	322	398
		No Fan	Output Torque Nm	2960	3630	4580	8280	9860	12300	14100	22500	31000	40000	48000
			Efficiency %	97	97	97	97	97	97	96	97	97	97	97
25.6	68.	Mechanical	Input Power kW	21.8	28.5	42.6	62.0	93.9	120	186	284	358	499	709
			Output Torque Nm	2980	3850	5810	8370	12700	16400	25100	38400	48400	67700	96200
		Thermal	Input Power kW	23.8	29.6	37.8	67.4	81.4	97.0	115	181	247	319	395
		No Fan	Output Torque Nm	3260	4000	5160	9110	11000	13200	15500	24400	33300	43200	53500
			Efficiency %	97	97	97	97	97	97	97	97	97	97	97

H2 THERMAL RATINGS AT 1750 REV/MIN INPUT

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
5.60	312.	Thermal	Input Power kW	92.6	116	153	157	214	305	422	551	*837-*	*1180-*	*1580-*
		with fan	Output Torque Nm	2770	3470	4600	4690	6460	9090	12700	16600	*24900*	*35700*	*48600*
		Thermal	Input Power kW	137	147	167	187	204	480	537	1230	*1460*	*2110*	*2440*
		with coil	Output Torque Nm	4110	4410	5000	5580	6150	14300	16100	37300	*43500*	*63800*	*74700*
		Thermal	Input Power kW	244	263	298	298	357	730	894	1720	*2170*	*3100*	*3580*
		Fan & Coil	Output Torque Nm	7320	7900	8960	8890	10800	21800	26900	52200	*64600*	*93800*	*110000*
6.20	282.	Thermal	Input Power kW	90.6	113	150	154	210	298	413	539	*819-*	*1160-*	*1550-*
		with fan	Output Torque Nm	2930	3750	4950	5100	7010	9910	13800	18200	*27000*	*38800*	*52500*
		Thermal	Input Power kW	136	145	165	184	201	467	519	1190	*1400*	*2030*	*2340*
		with coil	Output Torque Nm	4380	4810	5420	6090	6710	15500	17300	40000	*46300*	*68300*	*79400*
		Thermal	Input Power kW	240	259	293	292	349	702	859	1650	*2080*	*2990*	*3480*
		Fan & Coil	Output Torque Nm	7770	8580	9660	9680	11700	23400	28700	55600	*68700*	*100000*	*118000*
6.86	255.	Thermal	Input Power kW	88.5	111	147	150	205	291	403	527	*800-*	*1130-*	*1520-*
		with fan	Output Torque Nm	3200	4040	5350	5500	7440	10800	14800	19700	*29100*	*41900*	*55800*
		Thermal	Input Power kW	134	143	162	180	198	452	500	1140	*1350*	*1960*	*2250*
		with coil	Output Torque Nm	4840	5240	5920	6600	7170	16800	18400	42700	*49200*	*72600*	*82800*
		Thermal	Input Power kW	236	254	287	286	340	675	823	1570	*2000*	*2880*	*3380*
		Fan & Coil	Output Torque Nm	8550	9300	10500	10500	12400	25100	30200	59000	*72700*	*107000*	*124000*
7.59	230.	Thermal	Input Power kW	86.3	108	143	147	200	284	393	513	780	*1100-*	*1480-*
		with fan	Output Torque Nm	3480	4400	5820	5900	8010	11500	15900	20900	31700	*44900*	*60400*
		Thermal	Input Power kW	132	141	160	177	194	438	482	1090	1300	*1880*	*2150*
		with coil	Output Torque Nm	5320	5760	6500	7110	7780	17700	19500	44400	52700	*76700*	*88100*
		Thermal	Input Power kW	232	249	281	279	331	647	788	1500	1910	*2760*	*3270*
		Fan & Coil	Output Torque Nm	9340	10200	11400	11200	13300	26100	31900	61000	77800	*113000*	*134000*
8.40	208.	Thermal	Input Power kW	84.0	105	139	143	195	276	382	500	*759-*	*1070-*	*1440-*
		with fan	Output Torque Nm	3720	4650	6220	6400	8760	12700	17000	22800	*33700*	*48600*	*65600*
		Thermal	Input Power kW	130	139	157	173	191	423	463	1040	*1240*	*1800*	*2060*
		with coil	Output Torque Nm	5760	6170	7040	7760	8580	19500	20500	47700	*55200*	*81900*	*93900*
		Thermal	Input Power kW	227	244	274	272	322	618	753	1420	*1830*	*2650*	*3160*
		Fan & Coil	Output Torque Nm	10000	10800	12200	12200	14500	28500	33400	65100	*81200*	*120000*	*144000*
9.30	188.	Thermal	Input Power kW	81.5	102	135	138	189	268	371	485	737	*1040-*	*1400-*
		with fan	Output Torque Nm	4040	5090	6680	6820	9380	13400	18100	24000	36500	*51900*	*70700*
		Thermal	Input Power kW	128	137	155	169	187	408	444	996	1190	*1720*	*1960*
		with coil	Output Torque Nm	6350	6850	7660	8350	9300	20400	21700	49400	58900	*86000*	*99500*
		Thermal	Input Power kW	222	238	267	265	312	590	717	1350	1740	*2530*	*3040*
		Fan & Coil	Output Torque Nm	11000	11900	13200	13100	15500	29500	35100	67000	86500	*126000*	*154000*

ITALICS- Case Baffle is fitted

Note: Cooling coils cannot be fitted to vertical units

H2 THERMAL RATINGS AT 1750 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
10.3	170.	Thermal	Input Power kW	79.0	98.7	131	134	183	260	360	470	714	*1010-*	*1350-*
		with fan	Output Torque Nm	4330	5480	7190	7430	10100	14000	19700	25600	39900	*56400*	*76100*
		Thermal	Input Power kW	126	135	152	165	183	392	425	948	1130	*1650*	*1870*
		with coil	Output Torque Nm	6920	7480	8360	9160	10100	21100	23300	51800	63300	*92100*	*105000*
		Thermal	Input Power kW	216	232	259	257	301	562	683	1280	1660	*2420*	*2930*
		Fan & Coil	Output Torque Nm	11900	12900	14300	14300	16600	30300	37500	69800	92700	*135000*	*165000*
11.4	153.	Thermal	Input Power kW	76.4	95.6	127	130	177	252	348	455	691	976	*1310-*
		with fan	Output Torque Nm	4610	5840	7700	7760	10800	15600	20800	27900	42500	58900	*80900*
		Thermal	Input Power kW	124	132	149	161	180	377	406	901	1080	1570	*1770*
		with coil	Output Torque Nm	7470	8090	9090	9640	10900	23300	24300	55300	66300	94600	*110000*
		Thermal	Input Power kW	211	226	252	249	291	535	649	1210	1580	2300	*2810*
		Fan & Coil	Output Torque Nm	12700	13800	15300	14900	17700	33100	38900	74200	96900	139000	*174000*
12.6	138.	Thermal	Input Power kW	74.0	92.5	123	126	172	244	337	441	669	945	1270
		with fan	Output Torque Nm	4910	6260	8180	8410	11500	16700	22600	30000	44200	63900	86300
		Thermal	Input Power kW	122	130	147	157	176	361	387	855	1030	1490	1680
		with coil	Output Torque Nm	8070	8790	9770	10500	11900	24800	26000	58200	67700	101000	115000
		Thermal	Input Power kW	205	220	244	242	281	508	616	1140	1500	2190	2700
		Fan & Coil	Output Torque Nm	13600	14900	16300	16200	18900	34900	41400	77700	98800	148000	184000
14.0	125.	Thermal	Input Power kW	71.8	89.8	119	122	166	236	327	427	650	917	1230
		with fan	Output Torque Nm	5390	6720	8790	9170	12400	17400	24600	32000	48300	69600	93000
		Thermal	Input Power kW	119	128	144	153	173	346	369	811	975	1420	1600
		with coil	Output Torque Nm	8950	9540	10600	11500	12900	25500	27800	60800	72500	108000	121000
		Thermal	Input Power kW	200	214	237	234	271	483	586	1080	1420	2080	2580
		Fan & Coil	Output Torque Nm	15000	16000	17500	17600	20300	35600	44200	80800	106000	158000	195000
15.4	113.	Thermal	Input Power kW	69.9	87.3	116	119	162	230	318	416	632	892	1200
		with fan	Output Torque Nm	5660	7120	9330	9680	13300	18800	25600	33600	52100	73200	100000
		Thermal	Input Power kW	117	125	141	150	170	331	352	768	926	1350	1510
		with coil	Output Torque Nm	9500	10200	11400	12200	13900	27100	28300	62100	76400	110000	126000
		Thermal	Input Power kW	194	208	230	227	262	459	558	1020	1350	1980	2480
		Fan & Coil	Output Torque Nm	15800	16900	18600	18500	21500	37600	44900	82300	111000	163000	207000
17.1	102.	Thermal	Input Power kW	68.2	85.2	113	116	158	224	310	406	616	870	1170
		with fan	Output Torque Nm	6140	7740	10200	10600	14400	19700	28000	36100	57300	80100	108000
		Thermal	Input Power kW	115	123	139	147	167	318	336	728	879	1280	1430
		with coil	Output Torque Nm	10400	11200	12500	13400	15200	27900	30300	64800	81700	118000	133000
		Thermal	Input Power kW	189	202	223	220	253	437	532	963	1280	1880	2370
		Fan & Coil	Output Torque Nm	17000	18400	20200	20200	23000	38500	48000	85700	119000	174000	220000
18.9	92.	Thermal	Input Power kW	66.8	83.5	111	113	155	220	304	398	604	853	1140
		with fan	Output Torque Nm	6620	8400	10900	11500	15600	22000	30500	39800	61100	87000	116000
		Thermal	Input Power kW	113	120	136	143	164	304	321	689	835	1210	1360
		with coil	Output Torque Nm	11200	12100	13300	14600	16600	30400	32100	69000	84400	124000	138000
		Thermal	Input Power kW	184	197	217	214	245	417	508	912	1220	1800	2280
		Fan & Coil	Output Torque Nm	18200	19800	21300	21700	24800	41800	50900	91300	123000	183000	232000
20.9	83.	Thermal	Input Power kW	65.8	82.2	109	112	152	217	300	391	595	840	1130
		with fan	Output Torque Nm	7220	9030	11700	12300	16500	23900	32900	42900	68200	94300	124000
		Thermal	Input Power kW	110	118	133	140	161	290	306	651	792	1150	1290
		with coil	Output Torque Nm	12100	12900	14200	15300	17500	32100	33600	71400	90700	129000	142000
		Thermal	Input Power kW	179	191	211	208	238	399	487	865	1170	1720	2190
		Fan & Coil	Output Torque Nm	19700	21000	22600	22800	25800	44100	53500	94900	134000	193000	242000
23.2	75.	Thermal	Input Power kW	65.0	81.3	108	110	151	214	296	387	588	830	1110
		with fan	Output Torque Nm	8010	9900	13000	13400	18100	26800	36100	47700	73300	103000	134000
		Thermal	Input Power kW	108	115	130	136	158	277	291	616	751	1090	1220
		with coil	Output Torque Nm	13300	14000	15600	16600	19000	34800	35500	75900	93600	135000	147000
		Thermal	Input Power kW	174	186	206	202	232	382	469	823	1110	1640	2110
		Fan & Coil	Output Torque Nm	21500	22700	24800	24600	27800	48000	57100	102000	139000	205000	255000
25.6	68.	Thermal	Input Power kW	64.5	80.6	107	109	149	212	294	384	583	823	1100
		with fan	Output Torque Nm	8820	10900	14600	14800	20200	29000	39700	51900	78900	112000	150000
		Thermal	Input Power kW	105	113	127	133	156	265	278	582	712	1030	1150
		with coil	Output Torque Nm	14400	15200	17400	18000	21100	36200	37600	78800	96400	140000	156000
		Thermal	Input Power kW	170	182	201	197	226	368	452	784	1070	1570	2040
		Fan & Coil	Output Torque Nm	23200	24600	27400	26600	30500	50200	61200	106000	145000	213000	277000

ITALICS- Case Baffle is fitted

Note: Cooling coils cannot be fitted to vertical units

H2 RATINGS AT 1450 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
5.60	258.	Mechanical	Input Power kW	97.5	106	200	207	309	370	684	894	1260	*1690-*	*2560-*
			Output Torque Nm	3530	3830	7240	7460	11200	13300	24800	32600	45400	*61700*	*94800*
		Thermal	Input Power kW	31.7	39.3	50.3	89.4	108	129	153	240	328	*424*	*525*
		No Fan	Output Torque Nm	1140	1420	1810	3220	3920	4620	5520	8730	11700	*15400*	*19300*
			Efficiency %	98	97	97	97	97	97	98	98	98	*99*	*99*
6.20	233.	Mechanical	Input Power kW	97.7	95.9	191	193	324	408	641	834	1180	1580	*2380-*
			Output Torque Nm	3810	3830	7620	7720	13100	16400	25800	33900	47000	64000	*97200*
		Thermal	Input Power kW	31.0	38.4	49.2	87.5	106	126	150	235	320	414	*513*
		No Fan	Output Torque Nm	1200	1530	1950	3500	4250	5040	6000	9520	12700	16700	*20900*
			Efficiency %	97	97	97	97	97	98	98	98	98	98	*98*
6.86	211.	Mechanical	Input Power kW	86.5	87.1	165	193	320	388	602	780	1140	1520	*2090-*
			Output Torque Nm	3780	3840	7270	8520	14000	17400	26600	35300	49900	67900	*93000*
		Thermal	Input Power kW	30.3	37.6	48.0	85.4	103	123	146	229	313	405	*501*
		No Fan	Output Torque Nm	1320	1650	2110	3770	4510	5500	6430	10300	13700	18000	*22200*
			Efficiency %	97	97	97	97	97	98	98	98	98	98	*99*
7.59	190.	Mechanical	Input Power kW	77.8	78.0	153	207	294	369	562	742	1050	1430	1960
			Output Torque Nm	3780	3840	7520	10100	14200	18000	27400	36400	51700	70300	96600
		Thermal	Input Power kW	29.5	36.6	46.8	83.3	101	120	142	224	305	395	488
		No Fan	Output Torque Nm	1430	1800	2290	4040	4860	5830	6920	10900	14900	19300	24000
			Efficiency %	97	97	97	98	97	98	97	98	99	98	98
8.40	172.	Mechanical	Input Power kW	74.0	71.8	140	193	284	323	483	602	884	1150	1590-
			Output Torque Nm	3950	3840	7540	10400	15400	18000	25800	33100	47300	62700	87600
		Thermal	Input Power kW	28.7	35.7	45.6	81.2	98.1	117	139	218	297	385	476
		No Fan	Output Torque Nm	1530	1900	2450	4390	5320	6480	7400	12000	15900	21000	26100
			Efficiency %	97	97	97	97	97	97	97	98	98	98	98
9.30	155.	Mechanical	Input Power kW	63.3	63.6	126	183	261	313	445	582	810	1090	1500
			Output Torque Nm	3790	3840	7540	10900	15700	18900	26300	34800	48400	65500	91600
		Thermal	Input Power kW	28.0	34.7	44.4	79.1	95.5	114	135	212	290	375	464
		No Fan	Output Torque Nm	1670	2090	2640	4700	5720	6850	7950	12700	17300	22500	28300
			Efficiency %	97	97	97	97	97	97	97	98	98	98	98
10.3	140.	Mechanical	Input Power kW	57.2	57.4	133	156	219	284	365	511	675	886	1250
			Output Torque Nm	3790	3840	8800	10400	14600	18400	24100	33600	45400	59800	84700
		Thermal	Input Power kW	27.2	33.8	43.2	77.0	93.0	111	132	207	282	365	451
		No Fan	Output Torque Nm	1800	2260	2860	5140	6180	7180	8680	13600	18900	24500	30500
			Efficiency %	97	97	97	97	97	97	97	97	98	98	98
11.4	127.	Mechanical	Input Power kW	52.1	52.1	103	161	232	272	396	506	726	964	1340
			Output Torque Nm	3790	3840	7550	11600	17100	20400	28600	37400	53800	70100	100000
		Thermal	Input Power kW	26.5	32.9	42.0	74.9	90.4	108	128	201	274	355	439
		No Fan	Output Torque Nm	1920	2420	3080	5400	6640	8050	9220	14800	20300	25700	32600
			Efficiency %	97	97	97	97	97	97	97	97	98	98	98
12.6	115.	Mechanical	Input Power kW	48.2	47.1	109	149	218	256	379	483	698	923	1270
			Output Torque Nm	3850	3840	8790	12100	17700	21200	30700	39600	55500	75200	104000
		Thermal	Input Power kW	25.8	32.0	40.9	72.9	88.1	105	125	196	267	345	427
		No Fan	Output Torque Nm	2060	2610	3290	5890	7150	8680	10100	16000	21200	28100	35000
			Efficiency %	97	97	97	97	97	97	97	97	97	97	98
14.0	103.	Mechanical	Input Power kW	42.0	42.6	84.9	115	184	236	312	430	585	757	1070
			Output Torque Nm	3800	3840	7560	10500	16600	21000	28400	38800	52400	69200	97300
		Thermal	Input Power kW	25.2	31.3	40.0	71.3	86.1	103	122	191	261	337	418
		No Fan	Output Torque Nm	2280	2820	3560	6460	7760	9120	11000	17300	23300	30800	38000
			Efficiency %	97	97	97	98	97	97	97	97	97	97	97
15.4	93.	Mechanical	Input Power kW	38.8	39.1	86.0	115	174	227	304	407	619	829	1140
			Output Torque Nm	3800	3840	8360	11300	17200	22500	29500	39700	61600	82000	115000
		Thermal	Input Power kW	24.7	30.7	39.2	69.8	84.3	101	119	187	256	331	409
		No Fan	Output Torque Nm	2410	3010	3810	6880	8340	9920	11600	18300	25400	32700	41200
			Efficiency %	97	97	97	96	97	97	97	97	97	97	98
17.1	84.	Mechanical	Input Power kW	33.1	35.1	76.6	94.7	151	215	283	389	522	684	963
			Output Torque Nm	3600	3850	8370	10500	16600	22900	30800	41700	58400	75800	108000
		Thermal	Input Power kW	24.3	30.2	38.6	68.8	83.1	99.0	118	185	252	326	403
		No Fan	Output Torque Nm	2640	3310	4210	7610	9120	10500	12800	19800	28200	36100	45000
			Efficiency %	97	97	97	97	97	97	97	96	97	97	98
18.9	76.	Mechanical	Input Power kW	32.3	31.7	70.8	85.4	134	174	269	350	498	642	911
			Output Torque Nm	3860	3850	8370	10500	16300	21000	32600	42300	60700	78900	112000
		Thermal	Input Power kW	24.0	29.8	38.1	67.8	81.9	97.6	116	182	248	321	397
		No Fan	Output Torque Nm	2870	3610	4490	8320	9980	11800	14000	22000	30200	39400	48600
			Efficiency %	97	97	97	97	97	97	97	97	97	97	98

ITALICS- Case Baffle is fitted

H2 RATINGS AT 1450 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
20.9	69.	Mechanical	Input Power kW	26.8	29.1	63.4	68.7	107	120	221	258	354	503	686
			Output Torque Nm	3540	3850	8190	9100	14000	16000	29200	34100	48900	68200	91100
		Thermal	Input Power kW	23.7	29.4	37.5	66.9	80.8	96.3	114	180	245	317	392
		No Fan	Output Torque Nm	3130	3890	4840	8860	10500	12800	15100	23700	33800	42800	52000
			Efficiency %	97	97	97	97	97	97	97	97	97	97	97
23.2	62.	Mechanical	Input Power kW	23.9	26.2	57.0	61.9	96.5	106	199	230	326	454	626
			Output Torque Nm	3550	3850	8260	9100	14000	16000	29200	34100	48900	68200	91100
		Thermal	Input Power kW	23.3	29.0	37.0	66.0	79.7	95.0	113	177	241	312	386
		No Fan	Output Torque Nm	3470	4260	5370	9700	11500	14400	16600	26300	36300	46800	56200
			Efficiency %	97	97	97	97	97	97	96	97	96	97	97
25.6	56.	Mechanical	Input Power kW	18.2	23.6	35.3	51.4	77.8	99.6	154	235	297	432	605
			Output Torque Nm	3000	3850	5820	8380	12700	16400	25100	38400	48400	70600	98900
		Thermal	Input Power kW	23.1	28.7	36.7	65.4	79.0	94.1	112	176	239	310	383
		No Fan	Output Torque Nm	3820	4680	6050	10700	12900	15500	18200	28600	39000	50500	62600
			Efficiency %	97	97	97	97	97	97	97	97	97	97	97

H2 THERMAL RATINGS AT 1450 REV/MIN INPUT

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
5.60	258.	Thermal	Input Power kW	82.8	103	137	141	192	272	377	492	748	*1060-*	*1420-*
		with fan	Output Torque Nm	2990	3740	4970	5060	6960	9790	13700	17900	26900	*38500*	*52400*
		Thermal	Input Power kW	136	146	165	184	201	476	532	1230	1450	*2100*	*2420*
		with coil	Output Torque Nm	4930	5280	5980	6640	7290	17100	19300	44700	52000	*76500*	*89500*
		Thermal	Input Power kW	234	251	282	281	334	698	850	1670	2080	2980	3410
		Fan & Coil	Output Torque Nm	8490	9090	10200	10100	12100	25100	30800	60800	74700	*109000*	*126000*
6.20	233.	Thermal	Input Power kW	81.0	101	134	138	188	267	369	482	732	1030	*1390-*
		with fan	Output Torque Nm	3160	4050	5340	5500	7560	10700	14800	19600	29100	41800	*56600*
		Thermal	Input Power kW	135	144	163	181	198	463	514	1180	1390	2020	*2330*
		with coil	Output Torque Nm	5250	5760	6480	7250	7970	18500	20700	47900	55400	81900	*95100*
		Thermal	Input Power kW	231	247	277	276	326	671	815	1590	2000	2870	*3320*
		Fan & Coil	Output Torque Nm	9000	9880	11000	11000	13200	26900	32800	64700	79400	116000	*136000*
6.86	211.	Thermal	Input Power kW	79.2	98.9	131	134	183	260	360	471	716	1010	*1360-*
		with fan	Output Torque Nm	3460	4360	5780	5940	8030	11700	15900	21300	31400	45100	*60100*
		Thermal	Input Power kW	133	142	161	178	194	449	496	1130	1340	1950	*2230*
		with coil	Output Torque Nm	5810	6270	7080	7850	8510	20100	21900	51200	58800	87000	*99100*
		Thermal	Input Power kW	227	243	271	270	318	644	781	1520	1910	2760	*3220*
		Fan & Coil	Output Torque Nm	9910	10700	12000	11900	14000	28900	34500	68600	84000	123000	*143000*
7.59	190.	Thermal	Input Power kW	77.2	96.5	128	131	179	254	351	459	698	985	1320
		with fan	Output Torque Nm	3750	4750	6280	6370	8650	12400	17100	22500	34200	48400	65200
		Thermal	Input Power kW	131	140	158	174	191	434	477	1080	1290	1870	2140
		with coil	Output Torque Nm	6380	6900	7780	8460	9240	21100	23300	53200	63100	91800	105000
		Thermal	Input Power kW	222	238	265	264	310	616	746	1440	1830	2650	3110
		Fan & Coil	Output Torque Nm	10800	11700	13000	12800	15000	30000	36400	70900	89800	130000	154000
8.40	172.	Thermal	Input Power kW	75.1	93.8	124	127	174	247	342	447	679	958	1290
		with fan	Output Torque Nm	4010	5020	6720	6910	9450	13700	18300	24600	36300	52400	70700
		Thermal	Input Power kW	129	138	156	170	188	419	459	1040	1230	1790	2040
		with coil	Output Torque Nm	6910	7390	8420	9240	10200	23300	24500	57100	66000	98100	112000
		Thermal	Input Power kW	218	233	259	257	301	589	712	1370	1750	2530	3010
		Fan & Coil	Output Torque Nm	11700	12400	14000	13900	16400	32800	38100	75500	93600	139000	166000
9.30	155.	Thermal	Input Power kW	72.8	91.0	121	124	169	240	332	433	659	930	1250
		with fan	Output Torque Nm	4360	5500	7210	7370	10100	14500	19600	25900	39400	55900	76300
		Thermal	Input Power kW	127	136	153	167	184	404	440	989	1180	1710	1950
		with coil	Output Torque Nm	7620	8210	9160	9930	11000	24400	25900	59100	70500	103000	119000
		Thermal	Input Power kW	213	227	252	250	292	562	678	1300	1660	2420	2900
		Fan & Coil	Output Torque Nm	12800	13700	15100	14900	17500	33900	40000	77700	99600	146000	177000

ITALICS- Case Baffle is fitted
Note: Cooling coils cannot be fitted to vertical units

H2 THERMAL RATINGS AT 1450 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
10.3	140.	Thermal	Input Power kW	70.6	88.3	117	120	164	232	322	420	639	902	1210
		with fan	Output Torque Nm	4680	5910	7760	8020	10900	15100	21300	27600	43000	60800	82000
		Thermal	Input Power kW	125	134	151	163	181	389	421	942	1120	1630	1850
		with coil	Output Torque Nm	8300	8960	10000	10900	12000	25200	27800	62000	75700	110000	126000
		Thermal	Input Power kW	208	222	246	243	282	535	644	1230	1580	2310	2780
		Fan & Coil	Output Torque Nm	13800	14900	16300	16300	18800	34700	42700	80800	107000	156000	189000
11.4	127.	Thermal	Input Power kW	68.4	85.4	113	116	158	225	311	407	618	873	1170
		with fan	Output Torque Nm	4970	6300	8320	8370	11600	16800	22500	30100	45700	63400	87200
		Thermal	Input Power kW	123	131	148	159	177	373	402	895	1070	1560	1760
		with coil	Output Torque Nm	8960	9690	10900	11500	13000	27900	29000	66200	79200	113000	131000
		Thermal	Input Power kW	203	216	239	236	272	508	612	1160	1500	2200	2670
		Fan & Coil	Output Torque Nm	14800	15900	17500	17000	20000	38000	44200	85800	111000	160000	199000
12.6	115.	Thermal	Input Power kW	66.2	82.8	110	112	153	218	301	394	599	845	1130
		with fan	Output Torque Nm	5300	6760	8830	9080	12500	18000	24400	32300	47600	68900	93100
		Thermal	Input Power kW	121	129	145	155	173	358	383	849	1020	1480	1670
		with coil	Output Torque Nm	9670	10500	11700	12500	14100	29600	31100	69700	81000	121000	137000
		Thermal	Input Power kW	198	210	231	228	263	482	581	1090	1430	2090	2560
		Fan & Coil	Output Torque Nm	15800	17200	18600	18500	21400	40000	47100	89800	113000	170000	210000
14.0	103.	Thermal	Input Power kW	64.2	80.3	107	109	149	211	293	382	581	820	1100
		with fan	Output Torque Nm	5810	7250	9480	9900	13400	18800	26600	34500	52000	75000	100000
		Thermal	Input Power kW	119	127	143	151	170	343	366	805	967	1410	1580
		with coil	Output Torque Nm	10700	11400	12700	13700	15400	30500	33200	72700	86600	129000	144000
		Thermal	Input Power kW	192	204	225	221	253	458	551	1030	1350	1980	2450
		Fan & Coil	Output Torque Nm	17400	18400	20000	20100	22900	40800	50100	93300	121000	182000	224000
15.4	93.	Thermal	Input Power kW	62.5	78.1	104	106	145	206	285	372	565	798	1070
		with fan	Output Torque Nm	6110	7680	10100	10500	14300	20300	27600	36200	56200	78900	108000
		Thermal	Input Power kW	116	124	140	148	167	328	349	762	918	1330	1500
		with coil	Output Torque Nm	11400	12200	13600	14600	16500	32400	33800	74300	91300	132000	151000
		Thermal	Input Power kW	187	199	218	214	245	435	524	974	1280	1890	2350
		Fan & Coil	Output Torque Nm	18300	19500	21200	21100	24200	43000	50900	95000	128000	187000	237000
17.1	84.	Thermal	Input Power kW	61.0	76.2	101	104	141	201	278	363	551	778	1040
		with fan	Output Torque Nm	6630	8350	11000	11500	15500	21300	30200	38900	61700	86300	117000
		Thermal	Input Power kW	114	122	137	144	164	314	333	722	872	1270	1420
		with coil	Output Torque Nm	12400	13400	15000	16000	18100	33400	36200	77600	97700	141000	159000
		Thermal	Input Power kW	182	193	212	208	236	414	499	920	1220	1790	2250
		Fan & Coil	Output Torque Nm	19800	21200	23100	23000	26000	43900	54300	98800	136000	199000	252000
18.9	76.	Thermal	Input Power kW	59.8	74.7	99.1	101	138	197	272	356	540	763	1020
		with fan	Output Torque Nm	7150	9070	11700	12500	16900	23700	32900	43000	65900	93800	125000
		Thermal	Input Power kW	112	119	135	141	162	301	317	683	827	1200	1350
		with coil	Output Torque Nm	13400	14500	15900	17300	19700	36300	38300	82600	101000	148000	165000
		Thermal	Input Power kW	177	188	206	202	229	394	476	870	1160	1710	2160
		Fan & Coil	Output Torque Nm	21200	22800	24300	24800	27900	47600	57600	105000	141000	210000	265000
20.9	69.	Thermal	Input Power kW	58.8	73.6	97.6	99.9	136	194	268	350	532	751	1010
		with fan	Output Torque Nm	7800	9750	12600	13200	17800	25800	35500	46300	73500	102000	134000
		Thermal	Input Power kW	110	117	132	138	159	287	302	646	784	1140	1270
		with coil	Output Torque Nm	14500	15500	17000	18300	20800	38300	40000	85500	108000	154000	169000
		Thermal	Input Power kW	172	183	200	196	222	376	456	824	1100	1630	2070
		Fan & Coil	Output Torque Nm	22800	24200	25800	26000	29000	50100	60400	109000	152000	221000	276000
23.2	62.	Thermal	Input Power kW	58.1	72.7	96.4	98.7	135	191	265	346	526	742	996
		with fan	Output Torque Nm	8650	10700	14000	14500	19500	29000	38900	51500	79000	111000	145000
		Thermal	Input Power kW	107	114	129	134	156	274	288	610	743	1080	1200
		with coil	Output Torque Nm	15900	16800	18700	19800	22600	41600	42300	90900	112000	162000	175000
		Thermal	Input Power kW	167	178	195	191	216	360	437	782	1050	1550	1990
		Fan & Coil	Output Torque Nm	24900	26200	28200	28000	31300	54500	64400	116000	158000	233000	290000
25.6	56.	Thermal	Input Power kW	57.7	72.1	95.6	97.9	134	190	263	343	521	736	987
		with fan	Output Torque Nm	9520	11800	15800	16000	21800	31300	42900	56000	85100	120000	162000
		Thermal	Input Power kW	105	112	126	131	153	262	274	577	705	1020	1140
		with coil	Output Torque Nm	17300	18200	20800	21400	25000	43200	44800	94200	115000	167000	187000
		Thermal	Input Power kW	163	173	189	185	210	345	421	744	1010	1490	1920
		Fan & Coil	Output Torque Nm	26900	28300	31300	30300	34300	56900	68800	121000	164000	243000	315000

Note: Cooling coils cannot be fitted to vertical units

H2 RATINGS AT 960 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
5.60	171.	Mechanical	Input Power kW	64.8	70.0	135	137	205	245	496	649	836	1190	1740
			Output Torque Nm	3540	3830	7420	7460	11200	13300	27100	35600	45300	65200	96900
		Thermal	Input Power kW	29.8	36.9	47.2	84.1	102	121	144	226	308	398	493
		No Fan	Output Torque Nm	1620	2020	2580	4580	5570	6560	7830	12400	16700	21900	27400
			Efficiency %	97	97	98	97	97	97	98	98	98	98	98
6.20	154.	Mechanical	Input Power kW	65.4	63.5	136	128	214	301	447	594	783	1080	1580
			Output Torque Nm	3860	3830	8200	7720	13100	18200	27100	36300	46900	66100	97100
		Thermal	Input Power kW	29.1	36.1	46.2	82.3	99.3	118	141	221	301	389	482
		No Fan	Output Torque Nm	1710	2180	2770	4970	6050	7150	8500	13500	18000	23700	29600
			Efficiency %	98	97	98	97	98	97	98	98	98	98	98
6.86	139.	Mechanical	Input Power kW	57.4	57.6	113	128	214	291	450	586	783	1080	1580
			Output Torque Nm	3790	3840	7550	8530	14200	19700	29900	39900	51700	73000	105000
		Thermal	Input Power kW	28.4	35.3	45.1	80.3	97.0	116	137	216	294	380	471
		No Fan	Output Torque Nm	1870	2350	3000	5360	6420	7820	9120	14700	19400	25600	31400
			Efficiency %	97	97	98	97	97	98	97	98	98	98	98
7.59	126.	Mechanical	Input Power kW	51.6	51.6	102	141	194	276	404	546	703	988	1420
			Output Torque Nm	3790	3840	7550	10400	14200	20300	29700	40300	51800	73100	106000
		Thermal	Input Power kW	27.7	34.4	44.0	78.4	94.6	113	134	210	287	371	459
		No Fan	Output Torque Nm	2040	2560	3260	5750	6920	8280	9820	15500	21100	27400	34100
			Efficiency %	97	97	97	98	97	97	97	98	98	98	99
8.40	114.	Mechanical	Input Power kW	49.1	47.5	92.7	128	214	251	405	478	751	972	1350
			Output Torque Nm	3960	3840	7560	10400	17500	21000	32600	39600	60500	80100	112000
		Thermal	Input Power kW	27.0	33.5	42.9	76.4	92.3	110	131	205	280	362	448
		No Fan	Output Torque Nm	2180	2710	3490	6250	7570	9210	10500	17000	22500	29800	37000
			Efficiency %	97	97	97	96	97	97	97	97	98	98	98
9.30	103.	Mechanical	Input Power kW	42.0	42.1	83.9	137	194	238	367	440	687	925	1270
			Output Torque Nm	3800	3840	7560	12300	17600	21700	32600	39600	61900	83700	117000
		Thermal	Input Power kW	26.3	32.7	41.8	74.4	89.8	107	127	200	272	352	436
		No Fan	Output Torque Nm	2380	2980	3760	6690	8140	9750	11300	18000	24500	31800	40100
			Efficiency %	97	97	97	97	97	97	97	97	98	98	98
10.3	93.	Mechanical	Input Power kW	37.9	38.0	88.1	104	165	227	310	426	573	752	1060
			Output Torque Nm	3800	3840	8820	10500	16600	22200	30900	42200	58100	76400	108000
		Thermal	Input Power kW	25.6	31.8	40.6	72.4	87.4	104	124	194	265	343	424
		No Fan	Output Torque Nm	2560	3220	4070	7320	8800	10200	12300	19300	26800	34800	43300
			Efficiency %	97	97	97	97	97	97	97	97	97	98	98
11.4	84.	Mechanical	Input Power kW	34.6	34.5	68.3	114	159	201	300	356	569	783	1120
			Output Torque Nm	3800	3840	7570	12500	17700	22800	32700	39700	63400	85700	125000
		Thermal	Input Power kW	24.9	30.9	39.5	70.5	85.1	101	120	189	258	334	413
		No Fan	Output Torque Nm	2740	3440	4380	7680	9450	11500	13100	21100	28700	36500	46200
			Efficiency %	97	97	97	98	97	97	97	97	97	97	97
12.6	76.	Mechanical	Input Power kW	31.9	31.1	72.6	99.1	144	182	267	321	530	699	1010
			Output Torque Nm	3860	3840	8820	12100	17700	22800	32700	39700	63500	85700	125000
		Thermal	Input Power kW	24.3	30.1	38.5	68.6	82.9	98.8	117	184	251	325	402
		No Fan	Output Torque Nm	2930	3720	4680	8380	10200	12400	14300	22800	30100	39800	49600
			Efficiency %	97	97	97	97	97	97	97	97	97	97	98
14.0	68.	Mechanical	Input Power kW	27.8	28.2	56.3	76.5	122	171	239	310	452	576	823
			Output Torque Nm	3800	3840	7570	10500	16600	23000	32800	42300	61000	79200	113000
		Thermal	Input Power kW	23.7	29.4	37.6	67.1	81.0	96.5	115	180	245	317	393
		No Fan	Output Torque Nm	3240	4010	5060	9190	11000	13000	15700	24500	33100	43700	53800
			Efficiency %	97	97	97	97	97	97	97	97	97	97	97
15.4	62.	Mechanical	Input Power kW	25.7	25.9	57.0	74.1	112	153	197	270	423	576	812
			Output Torque Nm	3800	3840	8370	11000	16700	22800	28800	39700	63500	85700	123000
		Thermal	Input Power kW	23.2	28.9	36.9	65.7	79.4	94.6	112	176	241	311	385
		No Fan	Output Torque Nm	3430	4290	5420	9780	11900	14100	16500	26000	36100	46300	58300
			Efficiency %	97	97	97	97	97	97	97	97	97	97	97
17.1	56.	Mechanical	Input Power kW	22.0	23.3	50.7	62.8	100	143	197	261	361	474	670
			Output Torque Nm	3610	3850	8370	10500	16600	23000	32400	42300	61000	79300	113000
		Thermal	Input Power kW	22.9	28.4	36.3	64.7	78.2	93.2	111	174	237	306	379
		No Fan	Output Torque Nm	3760	4710	6000	10800	13000	14900	18200	28200	40100	51200	63700
			Efficiency %	97	97	97	97	97	97	97	97	97	97	97
18.9	50.	Mechanical	Input Power kW	21.4	21.0	46.9	56.6	86.0	113	180	232	331	428	612
			Output Torque Nm	3860	3850	8380	10500	15800	20600	32800	42300	61000	79300	113000
		Thermal	Input Power kW	22.6	28.0	35.8	63.8	77.1	91.9	109	171	234	302	374
		No Fan	Output Torque Nm	4080	5140	6390	11800	14200	16800	19900	31300	43000	56000	68800
			Efficiency %	97	97	97	97	97	97	96	97	97	97	97

H2 RATINGS AT 960 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
20.9	45.	Mechanical	Input Power kW	17.7	19.2	42.8	45.5	71.0	79.6	146	171	235	335	456
			Output Torque Nm	3550	3850	8350	9110	14000	16000	29200	34200	49000	68300	91200
		Thermal	Input Power kW	22.3	27.6	35.3	63.0	76.0	90.6	108	169	230	298	369
		No Fan	Output Torque Nm	4460	5530	6890	12600	15000	18200	21500	33800	48000	60800	73800
			Efficiency %	97	97	97	97	97	97	97	97	97	97	97
23.2	41.	Mechanical	Input Power kW	15.8	17.3	38.1	41.0	64.0	70.1	132	152	216	302	416
			Output Torque Nm	3550	3850	8350	9110	14000	16000	29200	34200	49000	68300	91200
		Thermal	Input Power kW	22.0	27.3	34.9	62.1	75.0	89.4	106	167	227	294	364
		No Fan	Output Torque Nm	4930	6060	7640	13800	16400	20500	23600	37500	51600	66600	79700
			Efficiency %	97	97	97	97	97	97	96	97	97	97	97
25.6	37.	Mechanical	Input Power kW	12.1	15.6	23.4	34.0	51.6	66.0	102	156	197	287	402
			Output Torque Nm	3010	3850	5820	8380	12700	16400	25200	38400	48500	70700	99100
		Thermal	Input Power kW	21.8	27.0	34.5	61.6	74.3	88.6	105	165	225	291	361
		No Fan	Output Torque Nm	5430	6660	8610	15200	18300	22100	25900	40700	55500	71800	88900
			Efficiency %	97	97	97	97	97	97	97	97	97	97	97

H2 THERMAL RATINGS AT 960 REV/MIN INPUT

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
5.60	171.	Thermal	Input Power kW	66.8	83.5	111	113	155	220	304	397	604	853	1140
		with fan	Output Torque Nm	3650	4570	6070	6180	8490	11900	16600	21800	32700	46900	63800
		Thermal	Input Power kW	134	143	162	179	194	468	523	1210	1430	2070	2390
		with coil	Output Torque Nm	7340	7850	8870	9740	10700	25400	28500	66500	77300	114000	133000
		Thermal	Input Power kW	218	231	256	254	297	645	777	1570	1930	2770	3140
		Fan & Coil	Output Torque Nm	11900	12700	14000	13800	16300	35000	42400	86300	105000	152000	175000
6.20	154.	Thermal	Input Power kW	65.4	81.7	108	111	151	215	298	389	591	835	1120
		with fan	Output Torque Nm	3850	4940	6520	6720	9230	13000	18000	23800	35400	50900	69000
		Thermal	Input Power kW	133	142	160	176	191	455	505	1160	1380	2000	2300
		with coil	Output Torque Nm	7820	8560	9620	10600	11700	27500	30600	71300	82300	122000	141000
		Thermal	Input Power kW	215	227	251	249	290	619	744	1500	1850	2670	3050
		Fan & Coil	Output Torque Nm	12700	13700	15100	15100	17700	37500	45100	91700	111000	163000	188000
6.86	139.	Thermal	Input Power kW	63.9	79.9	106	108	148	210	291	380	578	816	1090
		with fan	Output Torque Nm	4220	5330	7050	7250	9800	14200	19400	25900	38100	54900	73200
		Thermal	Input Power kW	131	140	158	173	188	441	487	1120	1320	1920	2200
		with coil	Output Torque Nm	8650	9330	10500	11500	12500	29900	32400	76100	87400	129000	147000
		Thermal	Input Power kW	211	223	246	244	283	594	711	1430	1780	2560	2960
		Fan & Coil	Output Torque Nm	14000	14900	16400	16300	18700	40200	47400	97100	117000	173000	198000
7.59	126.	Thermal	Input Power kW	62.3	77.9	103	106	144	205	284	371	563	795	1070
		with fan	Output Torque Nm	4580	5790	7670	7770	10600	15100	20800	27400	41600	58800	79300
		Thermal	Input Power kW	129	138	156	169	185	427	469	1070	1270	1840	2110
		with coil	Output Torque Nm	9510	10300	11500	12400	13500	31400	34400	79100	93700	137000	157000
		Thermal	Input Power kW	208	219	241	238	275	568	679	1350	1700	2460	2860
		Fan & Coil	Output Torque Nm	15300	16300	17900	17500	20200	41700	49900	100000	125000	182000	213000
8.40	114.	Thermal	Input Power kW	60.6	75.8	101	103	140	199	276	361	548	774	1040
		with fan	Output Torque Nm	4900	6120	8200	8430	11500	16700	22200	29900	44200	63800	86000
		Thermal	Input Power kW	127	136	153	166	182	412	450	1020	1220	1770	2010
		with coil	Output Torque Nm	10300	11000	12500	13600	14900	34600	36300	84900	97900	146000	167000
		Thermal	Input Power kW	203	215	235	232	267	542	646	1280	1620	2350	2760
		Fan & Coil	Output Torque Nm	16400	17300	19200	19000	22000	45400	52100	107000	130000	194000	229000
9.30	103.	Thermal	Input Power kW	58.8	73.5	97.5	99.9	136	194	268	350	532	751	1010
		with fan	Output Torque Nm	5320	6710	8800	8990	12400	17600	23800	31500	47900	68000	92800
		Thermal	Input Power kW	126	134	151	162	178	397	431	976	1160	1690	1920
		with coil	Output Torque Nm	11400	12200	13600	14600	16200	36200	38400	88000	105000	153000	177000
		Thermal	Input Power kW	199	210	229	226	259	516	614	1220	1540	2240	2660
		Fan & Coil	Output Torque Nm	18000	19100	20700	20400	23500	47000	54600	109000	138000	203000	245000

Note: Cooling coils cannot be fitted to vertical units

H2 THERMAL RATINGS AT 960 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
10.3	93.	Thermal	Input Power kW	57.0	71.3	94.5	96.8	132	188	260	339	516	728	976
		with fan	Output Torque Nm	5710	7220	9470	9790	13300	18400	25900	33600	52300	73900	99800
		Thermal	Input Power kW	124	132	148	158	175	382	413	929	1110	1610	1830
		with coil	Output Torque Nm	12400	13300	14900	16000	17600	37400	41200	92200	112000	164000	187000
		Thermal	Input Power kW	194	205	223	220	250	490	583	1150	1460	2130	2550
		Fan & Coil	Output Torque Nm	19500	20700	22300	22200	25200	48000	58100	114000	148000	217000	261000
11.4	84.	Thermal	Input Power kW	55.2	69.0	91.5	93.7	128	182	251	328	499	705	945
		with fan	Output Torque Nm	6070	7690	10100	10200	14200	20500	27400	36600	55600	77100	106000
		Thermal	Input Power kW	121	129	146	154	172	367	394	883	1050	1540	1730
		with coil	Output Torque Nm	13400	14400	16200	16800	19100	41500	43000	98500	117000	168000	195000
		Thermal	Input Power kW	190	199	217	213	242	465	552	1080	1380	2030	2450
		Fan & Coil	Output Torque Nm	20900	22200	24000	23300	26900	52500	60200	121000	154000	222000	275000
12.6	76.	Thermal	Input Power kW	53.5	66.8	88.7	90.8	124	176	243	318	483	683	916
		with fan	Output Torque Nm	6470	8250	10800	11100	15200	22000	29800	39400	57900	83700	113000
		Thermal	Input Power kW	119	127	143	151	168	352	376	837	1000	1460	1640
		with coil	Output Torque Nm	14400	15700	17400	18400	20700	44000	46000	104000	120000	179000	203000
		Thermal	Input Power kW	185	194	210	207	233	440	523	1020	1310	1930	2340
		Fan & Coil	Output Torque Nm	22400	24000	25600	25300	28700	55100	64000	126000	157000	236000	289000
14.0	68.	Thermal	Input Power kW	51.9	64.9	86.0	88.1	120	171	236	309	469	662	888
		with fan	Output Torque Nm	7090	8850	11600	12100	16400	23000	32400	42100	63300	91200	122000
		Thermal	Input Power kW	117	125	140	147	165	337	358	793	951	1390	1560
		with coil	Output Torque Nm	16000	17000	18900	20200	22500	45300	49200	108000	128000	191000	213000
		Thermal	Input Power kW	180	189	204	200	225	417	495	959	1240	1830	2240
		Fan & Coil	Output Torque Nm	24600	25800	27500	27500	30700	56200	68000	131000	167000	251000	307000
15.4	62.	Thermal	Input Power kW	50.5	63.1	83.7	85.7	117	166	230	300	456	644	864
		with fan	Output Torque Nm	7460	9370	12300	12800	17500	24800	33700	44200	68500	95900	131000
		Thermal	Input Power kW	115	122	138	144	162	322	342	751	903	1320	1470
		with coil	Output Torque Nm	17000	18200	20200	21400	24200	48100	50100	111000	136000	196000	224000
		Thermal	Input Power kW	175	184	198	194	217	395	469	903	1170	1730	2140
		Fan & Coil	Output Torque Nm	25900	27300	29100	28900	32400	59000	68800	133000	176000	258000	325000
17.1	56.	Thermal	Input Power kW	49.2	61.6	81.6	83.6	114	162	224	293	445	629	843
		with fan	Output Torque Nm	8090	10200	13500	14000	18900	26000	36900	47500	75300	105000	142000
		Thermal	Input Power kW	113	120	135	140	159	309	326	711	857	1250	1400
		with coil	Output Torque Nm	18500	19900	22300	23500	26500	49500	53600	115000	145000	209000	235000
		Thermal	Input Power kW	170	178	192	188	209	375	445	850	1110	1640	2050
		Fan & Coil	Output Torque Nm	28000	29600	31700	31400	34700	60200	73300	138000	188000	275000	345000
18.9	50.	Thermal	Input Power kW	48.3	60.4	80.0	82.0	112	159	220	287	436	616	827
		with fan	Output Torque Nm	8720	11100	14300	15200	20600	29000	40100	52400	80400	114000	152000
		Thermal	Input Power kW	111	118	132	137	157	295	310	672	813	1180	1320
		with coil	Output Torque Nm	20000	21600	23700	25400	28900	53900	56700	123000	150000	219000	244000
		Thermal	Input Power kW	166	173	186	182	202	356	424	802	1050	1560	1960
		Fan & Coil	Output Torque Nm	29900	31800	33300	33800	37300	65000	77400	146000	194000	290000	362000
20.9	45.	Thermal	Input Power kW	47.5	59.4	78.8	80.7	110	156	216	283	430	607	814
		with fan	Output Torque Nm	9520	11900	15400	16200	21700	31500	43300	56500	89600	124000	163000
		Thermal	Input Power kW	108	115	130	134	154	282	295	635	770	1120	1250
		with coil	Output Torque Nm	21700	23100	25300	26800	30400	56700	59200	127000	161000	229000	250000
		Thermal	Input Power kW	161	169	181	177	196	339	404	757	1000	1480	1880
		Fan & Coil	Output Torque Nm	32200	33800	35300	35400	38700	68200	80900	151000	209000	303000	376000
23.2	41.	Thermal	Input Power kW	47.0	58.7	77.9	79.7	109	155	214	279	425	600	804
		with fan	Output Torque Nm	10600	13000	17100	17700	23800	35400	47500	62800	96400	136000	176000
		Thermal	Input Power kW	106	113	127	130	151	269	281	600	729	1060	1180
		with coil	Output Torque Nm	23700	25000	27800	29000	33200	61500	62500	135000	166000	240000	259000
		Thermal	Input Power kW	156	164	176	172	190	323	387	716	951	1410	1800
		Fan & Coil	Output Torque Nm	35100	36400	38600	38100	41600	74000	85900	161000	216000	320000	395000
25.6	37.	Thermal	Input Power kW	46.6	58.2	77.2	79.1	108	153	212	277	421	595	798
		with fan	Output Torque Nm	11600	14400	19200	19500	26600	38200	52300	68300	104000	147000	197000
		Thermal	Input Power kW	103	110	124	127	149	257	268	567	691	1000	1120
		with coil	Output Torque Nm	25700	27200	30900	31400	36700	64000	66100	140000	170000	247000	276000
		Thermal	Input Power kW	152	159	171	167	184	309	371	678	907	1350	1730
		Fan & Coil	Output Torque Nm	37900	39300	42700	41100	45500	76900	91400	167000	224000	332000	427000

Note: Cooling coils cannot be fitted to vertical units

H2 RATINGS AT 725 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
5.60	129.	Mechanical	Input Power kW	49.0	52.9	102	103	154	185	376	493	632	901	1310
			Output Torque Nm	3550	3830	7430	7460	11200	13300	27100	35700	45200	65500	96800
		Thermal	Input Power kW	28.9	35.8	45.8	81.6	98.6	118	139	219	299	386	478
		No Fan	Output Torque Nm	2090	2590	3320	5890	7160	8430	10100	15900	21400	28000	35200
			Efficiency %	98	97	98	98	97	97	97	97	98	98	98
6.20	116.	Mechanical	Input Power kW	49.7	47.9	103	96.4	162	228	339	451	592	819	1190
			Output Torque Nm	3880	3830	8200	7720	13100	18300	27100	36400	46800	66000	97000
		Thermal	Input Power kW	28.3	35.1	44.8	79.9	96.4	115	136	214	292	378	468
		No Fan	Output Torque Nm	2200	2800	3570	6400	7780	9200	10900	17300	23100	30400	38000
			Efficiency %	98	97	97	97	97	98	97	97	98	98	98
6.86	105.6	Mechanical	Input Power kW	43.4	43.5	85.8	96.4	162	227	341	451	592	819	1190
			Output Torque Nm	3790	3840	7560	8530	14200	20400	30000	40500	51700	72900	105000
		Thermal	Input Power kW	27.6	34.3	43.8	78.0	94.2	112	133	209	285	369	457
		No Fan	Output Torque Nm	2410	3020	3860	6900	8260	10100	11700	18800	24900	32800	40400
			Efficiency %	97	97	97	97	97	98	97	97	98	98	98
7.59	95.	Mechanical	Input Power kW	39.0	39.0	77.0	107	147	209	307	414	531	747	1070
			Output Torque Nm	3800	3840	7570	10400	14200	20400	29800	40400	51800	73000	106000
		Thermal	Input Power kW	26.9	33.4	42.7	76.1	91.9	110	130	204	278	360	446
		No Fan	Output Torque Nm	2620	3290	4190	7400	8900	10700	12600	19900	27100	35200	43800
			Efficiency %	97	97	97	97	97	98	97	97	98	98	99
8.40	86.	Mechanical	Input Power kW	37.1	35.9	70.1	96.4	162	205	306	362	592	787	1140
			Output Torque Nm	3970	3840	7570	10400	17600	22800	32700	39700	63100	85700	125000
		Thermal	Input Power kW	26.2	32.6	41.6	74.2	89.6	107	127	199	271	351	434
		No Fan	Output Torque Nm	2800	3480	4490	8040	9740	11900	13500	21800	28900	38200	47500
			Efficiency %	97	97	97	97	97	97	97	97	97	98	98
9.30	77.	Mechanical	Input Power kW	31.7	31.8	63.4	105	147	189	277	333	531	717	1030
			Output Torque Nm	3800	3840	7570	12500	17600	22800	32700	39700	63200	85700	125000
		Thermal	Input Power kW	25.5	31.7	40.5	72.2	87.2	104	123	194	264	342	423
		No Fan	Output Torque Nm	3060	3830	4840	8610	10500	12500	14500	23100	31400	40800	51400
			Efficiency %	97	97	97	97	97	97	97	97	97	97	98
10.3	70.	Mechanical	Input Power kW	28.7	28.7	66.6	78.3	124	177	249	322	455	590	835
			Output Torque Nm	3800	3840	8830	10500	16600	22900	32800	42300	61000	79200	113000
		Thermal	Input Power kW	24.9	30.9	39.4	70.3	84.9	101	120	189	257	333	412
		No Fan	Output Torque Nm	3300	4140	5230	9410	11300	13100	15900	24700	34500	44600	55500
			Efficiency %	97	97	97	97	97	97	97	97	97	98	98
11.4	63.	Mechanical	Input Power kW	26.1	26.0	51.6	86.4	120	152	226	269	430	593	845
			Output Torque Nm	3800	3840	7580	12500	17700	22800	32700	39700	63400	85700	125000
		Thermal	Input Power kW	24.2	30.0	38.4	68.4	82.6	98.5	117	184	250	324	401
		No Fan	Output Torque Nm	3520	4430	5630	9880	12200	14700	16900	27100	36900	46800	59300
			Efficiency %	97	97	97	97	97	97	97	97	97	97	97
12.6	57.	Mechanical	Input Power kW	24.1	23.5	54.9	76.2	109	138	202	242	400	530	768
			Output Torque Nm	3860	3840	8830	12300	17700	22800	32700	39800	63500	85800	125000
		Thermal	Input Power kW	23.6	29.3	37.4	66.7	80.5	95.9	114	179	244	315	390
		No Fan	Output Torque Nm	3770	4780	6020	10800	13100	15900	18500	29300	38700	51100	63600
			Efficiency %	97	97	97	97	97	97	97	97	97	97	97
14.0	51.	Mechanical	Input Power kW	21.0	21.3	42.6	57.8	91.9	129	181	234	342	436	623
			Output Torque Nm	3800	3840	7580	10500	16600	23000	32800	42300	61000	79300	113000
		Thermal	Input Power kW	23.0	28.6	36.5	65.1	78.6	93.7	111	175	238	308	381
		No Fan	Output Torque Nm	4170	5160	6510	11800	14200	16700	20200	31500	42500	56000	69000
			Efficiency %	97	97	97	97	97	97	97	97	97	97	97
15.4	46.	Mechanical	Input Power kW	19.4	19.6	43.1	57.0	86.0	115	151	204	320	435	621
			Output Torque Nm	3800	3840	8380	11200	17000	22800	29300	39800	63700	85800	124000
		Thermal	Input Power kW	22.6	28.0	35.8	63.8	77.1	91.9	109	171	234	302	374
		No Fan	Output Torque Nm	4420	5510	6970	12600	15300	18100	21200	33400	46400	59500	74900
			Efficiency %	97	96	97	96	97	97	97	97	97	97	97
17.1	42.	Mechanical	Input Power kW	16.7	17.6	38.3	47.4	75.6	108	151	197	272	359	507
			Output Torque Nm	3620	3850	8380	10500	16600	23000	32800	42300	61000	79400	113000
		Thermal	Input Power kW	22.2	27.6	35.3	62.9	75.9	90.5	107	169	230	298	368
		No Fan	Output Torque Nm	4840	6050	7710	13900	16700	19200	23400	36200	51500	65900	81900
			Efficiency %	97	97	97	97	97	97	97	97	97	97	97
18.9	38.	Mechanical	Input Power kW	16.2	15.9	34.9	42.7	66.1	86.8	136	175	250	323	463
			Output Torque Nm	3870	3850	8250	10500	16100	21000	32800	42300	61100	79400	113000
		Thermal	Input Power kW	21.9	27.2	34.8	62.0	74.8	89.2	106	166	227	293	363
		No Fan	Output Torque Nm	5240	6610	8220	15200	18300	21600	25600	40200	55300	72100	88500
			Efficiency %	97	97	97	97	97	97	96	97	97	97	97

H2 RATINGS AT 725 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
20.9	34.	Mechanical	Input Power kW	13.4	14.5	32.3	34.4	53.6	60.2	110	129	177	253	345
			Output Torque Nm	3550	3850	8350	9120	14000	16000	29300	34200	49000	68300	91300
		Thermal	Input Power kW	21.6	26.8	34.3	61.1	73.8	88.0	104	164	224	289	358
		No Fan	Output Torque Nm	5730	7120	8860	16200	19300	23500	27700	43400	61800	78200	94700
			Efficiency %	97	97	97	97	97	96	97	97	97	97	97
23.2	31.	Mechanical	Input Power kW	11.9	13.1	28.8	31.0	48.3	52.9	99.5	115	163	228	315
			Output Torque Nm	3550	3850	8350	9120	14000	16000	29300	34200	49000	68300	91300
		Thermal	Input Power kW	21.3	26.5	33.8	60.3	72.8	86.8	103	162	221	285	353
		No Fan	Output Torque Nm	6350	7790	9820	17700	21100	26300	30300	48200	66400	85600	102000
			Efficiency %	97	97	97	97	97	97	97	97	97	97	97
25.6	28.	Mechanical	Input Power kW	9.1	11.8	17.7	25.7	39.0	49.8	77.1	118	149	217	304
			Output Torque Nm	3010	3850	5820	8390	12700	16400	25200	38400	48500	70700	99100
		Thermal	Input Power kW	21.1	26.3	33.5	59.8	72.2	86.1	102	160	219	283	350
		No Fan	Output Torque Nm	6980	8570	11100	19500	23600	28400	33300	52400	71400	92400	114000
			Efficiency %	97	97	97	97	97	97	97	97	97	97	97

H2 THERMAL RATINGS AT 725 REV/MIN INPUT

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
5.60	129.	Thermal	Input Power kW	59.2	74.0	98.1	100	137	195	270	352	535	755	1010
		with fan	Output Torque Nm	4290	5360	7120	7250	9970	14000	19400	25500	38300	54900	74700
		Thermal	Input Power kW	133	142	161	176	191	465	519	1200	1420	2060	2370
		with coil	Output Torque Nm	9660	10300	11700	12700	13900	33400	37400	87400	102000	150000	175000
		Thermal	Input Power kW	211	222	243	241	279	620	742	1520	1860	2670	3010
		Fan & Coil	Output Torque Nm	15300	16100	17600	17400	20300	44500	53600	111000	133000	194000	222000
6.20	116.	Thermal	Input Power kW	57.9	72.4	96.1	98.3	134	191	264	345	524	739	992
		with fan	Output Torque Nm	4520	5790	7650	7880	10800	15300	21100	27800	41400	59600	80700
		Thermal	Input Power kW	132	141	159	173	188	452	501	1160	1370	1990	2280
		with coil	Output Torque Nm	10300	11300	12600	13900	15200	36200	40200	93600	108000	160000	186000
		Thermal	Input Power kW	208	218	239	236	273	595	710	1450	1790	2570	2920
		Fan & Coil	Output Torque Nm	16200	17500	19000	18900	22000	47700	56900	117000	141000	208000	238000
6.86	105.6	Thermal	Input Power kW	56.6	70.8	93.9	96.1	131	186	258	337	512	723	969
		with fan	Output Torque Nm	4950	6250	8280	8500	11500	16700	22700	30300	44600	64300	85700
		Thermal	Input Power kW	130	139	157	170	185	438	483	1110	1310	1910	2190
		with coil	Output Torque Nm	11400	12300	13800	15100	16300	39200	42600	100000	115000	170000	194000
		Thermal	Input Power kW	204	214	234	231	266	570	678	1380	1710	2470	2830
		Fan & Coil	Output Torque Nm	17900	18900	20600	20500	23300	51100	59800	124000	149000	220000	250000
7.59	95.	Thermal	Input Power kW	55.2	69.0	91.5	93.7	128	182	251	328	499	705	945
		with fan	Output Torque Nm	5380	6800	8990	9120	12400	17700	24500	32100	48600	68900	92900
		Thermal	Input Power kW	128	137	154	167	182	424	465	1060	1260	1830	2090
		with coil	Output Torque Nm	12500	13500	15200	16200	17700	41200	45200	104000	123000	179000	206000
		Thermal	Input Power kW	200	210	229	226	259	544	646	1310	1630	2370	2740
		Fan & Coil	Output Torque Nm	19500	20700	22500	22000	25100	53000	62900	128000	159000	231000	269000
8.40	86.	Thermal	Input Power kW	53.7	67.1	89.1	91.2	124	177	245	320	486	686	920
		with fan	Output Torque Nm	5740	7180	9620	9890	13500	19600	26100	35000	51700	74600	101000
		Thermal	Input Power kW	127	135	152	163	179	409	446	1020	1210	1760	2000
		with coil	Output Torque Nm	13600	14400	16400	17700	19500	45400	47600	112000	129000	191000	219000
		Thermal	Input Power kW	197	206	224	221	251	519	615	1240	1550	2260	2640
		Fan & Coil	Output Torque Nm	21000	22000	24200	23900	27300	57600	65600	136000	166000	246000	289000
9.30	77.	Thermal	Input Power kW	52.1	65.1	86.4	88.5	121	171	237	310	471	665	892
		with fan	Output Torque Nm	6240	7870	10300	10500	14500	20700	28000	36900	56100	79500	109000
		Thermal	Input Power kW	125	133	150	160	176	394	428	970	1150	1680	1910
		with coil	Output Torque Nm	15000	16100	17900	19100	21100	47600	50400	116000	137000	201000	232000
		Thermal	Input Power kW	192	201	218	215	243	493	583	1180	1480	2160	2540
		Fan & Coil	Output Torque Nm	23000	24300	26100	25600	29300	59600	68800	140000	176000	258000	309000

Note: Cooling coils cannot be fitted to vertical units

H2 THERMAL RATINGS AT 725 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
10.3	70.	Thermal	Input Power kW	50.5	63.2	83.8	85.8	117	166	230	301	457	645	865
		with fan	Output Torque Nm	6700	8470	11100	11500	15600	21600	30400	39400	61300	86600	117000
		Thermal	Input Power kW	123	131	147	156	173	379	409	924	1100	1600	1810
		with coil	Output Torque Nm	16300	17500	19500	20900	23000	49200	54100	121000	147000	215000	245000
		Thermal	Input Power kW	188	196	212	209	235	468	553	1110	1400	2050	2440
		Fan & Coil	Output Torque Nm	24900	26400	28200	28000	31400	60800	73100	146000	188000	275000	330000
11.4	63.	Thermal	Input Power kW	48.9	61.1	81.1	83.0	113	161	223	291	442	624	837
		with fan	Output Torque Nm	7120	9020	11900	12000	16700	24100	32200	43000	65200	90300	124000
		Thermal	Input Power kW	121	128	144	152	169	364	391	877	1050	1530	1720
		with coil	Output Torque Nm	17600	19000	21200	22000	24900	54500	56400	130000	154000	221000	255000
		Thermal	Input Power kW	183	191	206	203	227	444	523	1040	1330	1950	2340
		Fan & Coil	Output Torque Nm	26700	28300	30300	29300	33500	66500	75600	154000	196000	282000	347000
12.6	57.	Thermal	Input Power kW	47.4	59.2	78.6	80.4	110	156	216	282	428	605	811
		with fan	Output Torque Nm	7590	9680	12600	13000	17900	25800	35000	46200	67900	98000	132000
		Thermal	Input Power kW	119	126	142	149	166	349	373	832	994	1450	1630
		with coil	Output Torque Nm	19000	20600	22800	24100	27000	57800	60400	136000	158000	235000	266000
		Thermal	Input Power kW	179	186	200	196	219	420	495	983	1250	1850	2240
		Fan & Coil	Output Torque Nm	28600	30500	32200	31800	35600	69700	80300	161000	199000	299000	365000
14.0	51.	Thermal	Input Power kW	46.0	57.5	76.2	78.1	106	151	209	273	416	587	787
		with fan	Output Torque Nm	8330	10400	13600	14200	19200	26900	38100	49400	74200	107000	142000
		Thermal	Input Power kW	116	124	139	145	163	334	355	788	944	1380	1550
		with coil	Output Torque Nm	21100	22400	24800	26400	29400	59500	64600	142000	169000	251000	280000
		Thermal	Input Power kW	174	181	194	190	211	398	468	924	1190	1750	2140
		Fan & Coil	Output Torque Nm	31500	32800	34600	34600	38100	70900	85200	167000	212000	319000	387000
15.4	46.	Thermal	Input Power kW	44.7	55.9	74.1	75.9	104	147	204	266	404	571	766
		with fan	Output Torque Nm	8750	11000	14400	15000	20500	29100	39500	51900	80400	113000	153000
		Thermal	Input Power kW	114	122	137	142	160	320	338	746	896	1310	1460
		with coil	Output Torque Nm	22400	23900	26600	27900	31600	63200	65700	146000	178000	258000	293000
		Thermal	Input Power kW	169	176	188	184	204	377	443	869	1120	1660	2050
		Fan & Coil	Output Torque Nm	33200	34700	36700	36300	40300	74400	86100	169000	223000	327000	410000
17.1	42.	Thermal	Input Power kW	43.6	54.5	72.3	74.1	101	144	199	260	394	557	747
		with fan	Output Torque Nm	9490	12000	15800	16400	22200	30500	43300	55800	88400	123000	166000
		Thermal	Input Power kW	112	119	134	139	157	306	322	706	850	1240	1390
		with coil	Output Torque Nm	24400	26200	29300	30700	34600	65000	70300	152000	191000	274000	308000
		Thermal	Input Power kW	165	171	183	178	196	357	420	817	1060	1570	1950
		Fan & Coil	Output Torque Nm	35800	37600	40000	39500	43100	75800	91500	176000	238000	348000	435000
18.9	38.	Thermal	Input Power kW	42.8	53.5	70.9	72.6	99.1	141	195	254	387	546	732
		with fan	Output Torque Nm	10200	13000	16800	17800	24200	34000	47100	61500	94300	134000	179000
		Thermal	Input Power kW	110	117	131	135	155	292	307	667	806	1170	1310
		with coil	Output Torque Nm	26300	28400	31100	33200	37700	70700	74300	161000	197000	288000	320000
		Thermal	Input Power kW	160	167	177	173	190	338	399	769	1000	1490	1870
		Fan & Coil	Output Torque Nm	38300	40500	42000	42500	46200	81700	96400	186000	245000	366000	456000
20.9	34.	Thermal	Input Power kW	42.1	52.6	69.8	71.5	97.5	139	192	250	381	538	721
		with fan	Output Torque Nm	11200	14000	18000	19000	25500	36900	50800	66300	105000	145000	191000
		Thermal	Input Power kW	107	114	129	132	152	279	292	630	763	1110	1240
		with coil	Output Torque Nm	28500	30300	33200	35000	39700	74400	77500	167000	211000	300000	328000
		Thermal	Input Power kW	155	162	172	168	183	321	380	724	951	1410	1790
		Fan & Coil	Output Torque Nm	41200	42900	44500	44400	47900	85600	101000	192000	263000	382000	473000
23.2	31.	Thermal	Input Power kW	41.6	52.0	69.0	70.6	96.4	137	189	248	376	531	712
		with fan	Output Torque Nm	12400	15300	20000	20800	28000	41500	55800	73700	113000	159000	207000
		Thermal	Input Power kW	105	112	126	129	149	266	278	595	722	1050	1170
		with coil	Output Torque Nm	31300	32900	36500	37900	43300	80700	81800	177000	217000	315000	340000
		Thermal	Input Power kW	151	157	167	162	177	305	362	684	903	1340	1710
		Fan & Coil	Output Torque Nm	44900	46300	48500	47800	51500	92600	107000	204000	272000	403000	497000
25.6	28.	Thermal	Input Power kW	41.3	51.6	68.4	70.1	95.6	136	188	246	373	527	707
		with fan	Output Torque Nm	13600	16900	22600	22900	31200	44800	61400	80200	122000	172000	231000
		Thermal	Input Power kW	103	109	123	126	147	254	265	562	684	993	1110
		with coil	Output Torque Nm	33900	35700	40600	41000	47900	83800	86500	184000	224000	324000	362000
		Thermal	Input Power kW	146	153	162	158	172	291	346	646	859	1280	1640
		Fan & Coil	Output Torque Nm	48400	49900	53600	51500	56200	96100	113000	211000	280000	417000	536000

Note: Cooling coils cannot be fitted to vertical units

H3 RATINGS AT 1750 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
25.6	68.	Mechanical	Input Power kW	28.0	46.7	47.1	48.0	120	172	246	298	439	665	905
			Output Torque Nm	3800	6220	6480	6390	16500	23300	32700	39700	59000	89300	125000
		Thermal	Input Power kW	31.3	41.3	52.6	52.6	60.2	76.5	91.6	121	144	191	291
		No Fan	Output Torque Nm	4240	5500	7240	7010	8270	10300	12100	16000	19300	25500	40100
			Efficiency %	96	96	96	96	96	96	96	96	96	96	97
28.4	61.	Mechanical	Input Power kW	25.5	42.3	43.8	51.7	119	152	222	261	391	600	831
			Output Torque Nm	3800	6210	6480	7670	17700	23300	32700	39700	59000	89600	125000
		Thermal	Input Power kW	30.5	40.2	51.2	51.3	58.6	74.5	89.2	117	141	186	284
		No Fan	Output Torque Nm	4540	5910	7580	7610	8710	11400	13100	17800	21100	27700	42600
			Efficiency %	96	96	96	96	95	96	96	96	96	96	96
31.4	55.	Mechanical	Input Power kW	23.2	37.5	39.3	72.0	98.4	142	201	241	359	538	731
			Output Torque Nm	3800	6220	6480	11900	16600	23300	32700	39800	59100	89300	125000
		Thermal	Input Power kW	29.6	39.1	49.8	49.7	56.9	72.3	86.6	114	136	180	275
		No Fan	Output Torque Nm	4850	6490	8210	8240	9580	11900	14100	18800	22400	29900	47000
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
34.7	50.	Mechanical	Input Power kW	21.0	33.8	35.6	48.0	95.2	125	179	217	330	493	676
			Output Torque Nm	3800	6230	6480	8660	17700	23300	32700	39800	59100	89700	125000
		Thermal	Input Power kW	28.7	37.9	48.3	48.3	55.2	70.2	84.1	111	133	175	267
		No Fan	Output Torque Nm	5190	6980	8790	8720	10300	13000	15300	20200	23700	31700	49300
			Efficiency %	96	96	96	95	95	96	96	96	96	96	96
38.4	45.	Mechanical	Input Power kW	19.0	30.3	32.2	65.0	85.7	114	164	194	290	446	601
			Output Torque Nm	3800	6230	6480	13000	17700	23300	32700	39800	59100	89600	125000
		Thermal	Input Power kW	27.8	36.7	46.8	46.8	53.5	68.0	81.4	107	128	170	259
		No Fan	Output Torque Nm	5590	7540	9430	9380	11000	13800	16200	21900	26100	34000	53800
			Efficiency %	96	96	96	95	95	96	95	96	96	96	96
42.5	41.	Mechanical	Input Power kW	17.2	27.7	29.3	56.3	77.7	103	146	175	270	398	546
			Output Torque Nm	3800	6230	6480	12600	17700	23300	32700	39800	59100	89700	125000
		Thermal	Input Power kW	27.0	35.6	45.3	45.3	51.8	65.9	78.9	104	124	164	251
		No Fan	Output Torque Nm	5970	7990	10000	10200	11800	14800	17600	23500	27200	36900	57400
			Efficiency %	96	96	96	95	95	96	96	96	95	96	96
47.1	37.	Mechanical	Input Power kW	15.3	24.9	26.2	41.6	65.6	96.2	131	189	258	334	493
			Output Torque Nm	3800	6230	6480	10500	16600	23300	32800	47400	63600	84400	125000
		Thermal	Input Power kW	26.1	34.4	43.8	43.9	50.2	63.8	76.3	100	120	159	243
		No Fan	Output Torque Nm	6510	8620	10900	11100	12700	15400	19100	25100	29600	40100	61600
			Efficiency %	95	95	96	96	95	96	95	95	95	96	95
52.1	33.	Mechanical	Input Power kW	13.8	22.8	23.6	37.6	61.0	85.9	118	171	230	301	458
			Output Torque Nm	3800	6230	6480	10500	16600	23300	32800	47400	63600	84400	125000
		Thermal	Input Power kW	25.2	33.3	42.4	42.4	48.5	61.6	73.8	97.0	116	154	235
		No Fan	Output Torque Nm	6950	9120	11700	11800	13200	16700	20400	26900	32100	43000	64000
			Efficiency %	96	95	95	95	95	95	95	95	95	95	95
57.7	30.	Mechanical	Input Power kW	12.8	20.9	21.8	34.9	55.4	78.0	109	159	206	284	403
			Output Torque Nm	3810	6230	6480	10500	16600	23300	32800	47400	63600	84400	125000
		Thermal	Input Power kW	24.4	32.2	40.9	41.0	46.8	59.5	71.3	93.7	112	148	227
		No Fan	Output Torque Nm	7260	9600	12200	12300	14000	17800	21400	27900	34600	44000	70300
			Efficiency %	96	95	96	96	95	95	95	95	96	96	95
63.8	27.	Mechanical	Input Power kW	11.5	16.9	20.0	31.2	50.2	70.4	97.3	143	192	253	366
			Output Torque Nm	3810	5630	6480	10500	16600	23300	32800	47400	63600	84400	125000
		Thermal	Input Power kW	23.6	31.1	39.6	39.6	45.2	57.5	68.8	90.6	109	143	219
		No Fan	Output Torque Nm	7800	10400	12900	13300	15000	19000	23200	29900	35900	47700	74800
			Efficiency %	96	95	95	95	95	95	95	95	95	95	95
70.6	24.	Mechanical	Input Power kW	10.6	14.9	18.0	25.3	47.7	52.9	80.0	103	161	222	315
			Output Torque Nm	3870	5630	6480	9120	17000	19800	29300	37800	61100	80500	117000
		Thermal	Input Power kW	22.7	30.0	38.2	38.2	43.7	55.5	66.5	87.4	105	139	211
		No Fan	Output Torque Nm	8280	11300	13800	13800	15600	20800	24300	32000	39800	50100	78000
			Efficiency %	96	95	95	96	95	95	95	95	95	95	96
78.2	22.	Mechanical	Input Power kW	9.5	13.8	16.4	25.6	41.2	59.1	81.2	121	143	208	297
			Output Torque Nm	3870	5630	6480	10500	16600	23300	32800	47400	59500	84500	125000
		Thermal	Input Power kW	22.0	29.0	37.0	37.0	42.3	53.7	64.3	84.6	101	134	204
		No Fan	Output Torque Nm	8990	11900	14600	15200	17000	21200	26000	33300	42100	54300	86100
			Efficiency %	95	95	96	95	95	95	95	95	95	95	95
86.5	20.	Mechanical	Input Power kW	8.5	12.7	15.1	20.4	38.4	43.1	64.2	81.8	135	176	263
			Output Torque Nm	3870	5630	6490	9120	17000	19800	29300	37900	61100	80600	117000
		Thermal	Input Power kW	21.4	28.3	36.0	36.0	41.2	52.4	62.7	82.4	98.8	131	199
		No Fan	Output Torque Nm	9750	12600	15500	16100	18200	24100	28600	38100	44800	59700	88200
			Efficiency %	95	95	95	95	95	95	95	95	95	95	95
95.7	18.	Mechanical	Input Power kW	7.8	10.8	13.6	18.6	35.5	40.1	59.5	78.2	119	163	232
			Output Torque Nm	3870	5280	6490	9130	17000	19800	29300	37900	61100	80600	117000
		Thermal	Input Power kW	21.0	27.8	35.4	35.4	40.4	51.4	61.5	80.9	97.0	128	196
		No Fan	Output Torque Nm	10400	13700	17000	17400	19400	25400	30300	39200	49700	63400	98000
			Efficiency %	95	95	95	95	95	95	95	95	95	95	96

H3 RATINGS AT 1750 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
106	16.	Mechanical	Input Power kW	7.0	9.9	12.1	16.7	31.6	36.1	53.7	68.8	108	145	214
			Output Torque Nm	3870	5270	6490	9130	17000	19800	29300	37900	61100	80600	117000
		Thermal	Input Power kW	20.7	27.3	34.8	34.8	39.8	50.6	60.5	79.6	95.4	126	192
		No Fan	Output Torque Nm	11500	14600	18700	19000	21400	27800	33000	43800	54200	70100	105000
			Efficiency %	95	95	95	95	95	95	95	95	94	95	95
117	14.	Mechanical	Input Power kW	5.0	9.5	10.8	15.1	28.5	31.8	48.4	61.2	98.8	131	195
			Output Torque Nm	3010	5630	6490	9130	17000	19800	29300	37900	61100	80600	117000
		Thermal	Input Power kW	20.5	27.0	34.4	34.4	39.3	50.0	59.8	78.7	94.3	125	190
		No Fan	Output Torque Nm	12500	16000	20800	20900	23500	31200	36300	48800	58400	77000	114000
			Efficiency %	95	95	95	95	95	95	95	95	95	95	95
130	13.	Mechanical	Input Power kW	4.4	6.9	8.5	15.1	19.0	29.4	37.5	56.7	72.3	121	152
			Output Torque Nm	3010	4520	5830	10100	12700	19900	25200	38500	48500	81100	102000
		Thermal	Input Power kW	20.2	26.7	34.0	34.0	38.9	49.5	59.2	77.9	93.3	123	188
		No Fan	Output Torque Nm	13800	17600	23400	22900	26200	33600	39800	52900	62700	82900	127000
			Efficiency %	95	95	95	95	95	95	95	95	95	95	95

H3 THERMAL RATINGS AT 1750 REV/MIN INPUT

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
25.6	68.	Thermal	Input Power kW				73.6	82.4	106	129	165	209	269	374
		with fan	Output Torque Nm				9810	11300	14400	17100	22000	28000	36000	51600
		Thermal	Input Power kW	48.3	62.3	70.6	69.6	88.2	201	203	393	442	695	820
		with coil	Output Torque Nm	6560	8310	9720	9280	12100	27300	27000	52400	59400	93300	113000
		Thermal	Input Power kW				94.6	113	243	256	456	534	807	942
		Fan & Coil	Output Torque Nm				12600	15600	32900	34000	60800	71900	108000	130000
28.4	61.	Thermal	Input Power kW				72.7	81.3	105	127	163	206	265	369
		with fan	Output Torque Nm				10800	12100	16000	18700	24800	31000	39500	55400
		Thermal	Input Power kW	47.5	61.2	69.2	68.3	86.6	199	201	389	435	684	802
		with coil	Output Torque Nm	7080	9010	10200	10100	12900	30400	29500	59300	65700	102000	121000
		Thermal	Input Power kW				93.7	112	241	254	453	528	797	925
		Fan & Coil	Output Torque Nm				13900	16700	36900	37400	69000	79800	119000	139000
31.4	55.	Thermal	Input Power kW				71.5	80.0	103	125	160	203	261	363
		with fan	Output Torque Nm				11900	13500	16900	20300	26400	33300	43300	62000
		Thermal	Input Power kW	46.6	60.1	67.8	66.7	84.9	196	198	385	428	671	782
		with coil	Output Torque Nm	7640	9980	11200	11100	14300	32200	32100	63600	70400	111000	134000
		Thermal	Input Power kW				92.5	111	239	251	450	522	785	907
		Fan & Coil	Output Torque Nm				15300	18700	39300	40900	74300	85900	130000	155000
34.7	50.	Thermal	Input Power kW				70.4	78.8	102	123	158	200	257	358
		with fan	Output Torque Nm				12700	14700	18900	22500	28900	35700	46700	66100
		Thermal	Input Power kW	45.7	58.9	66.3	65.3	83.2	194	195	381	421	659	762
		with coil	Output Torque Nm	8270	10800	12100	11800	15500	36100	35500	70000	75300	120000	141000
		Thermal	Input Power kW				91.4	110	237	249	446	515	774	888
		Fan & Coil	Output Torque Nm				16500	20500	44200	45500	82000	92300	141000	165000
38.4	45.	Thermal	Input Power kW				69.2	77.5	99.8	121	155	196	253	351
		with fan	Output Torque Nm				13900	16000	20300	24100	31700	40000	50700	73100
		Thermal	Input Power kW	44.8	57.7	64.8	63.8	81.5	191	192	376	413	645	740
		with coil	Output Torque Nm	9010	11900	13100	12800	16800	38900	38200	77200	84100	130000	154000
		Thermal	Input Power kW				90.2	108	235	246	443	507	760	868
		Fan & Coil	Output Torque Nm				18100	22400	47900	49100	90700	103000	153000	181000
42.5	41.	Thermal	Input Power kW				68.0	76.1	98.1	119	152	193	248	345
		with fan	Output Torque Nm				15300	17400	22100	26600	34600	42200	55900	79100
		Thermal	Input Power kW	44.0	56.6	63.3	62.3	79.8	188	189	372	405	631	719
		with coil	Output Torque Nm	9750	12700	14000	14000	18200	42500	42200	84700	88700	142000	165000
		Thermal	Input Power kW				89.0	107	233	244	439	499	747	847
		Fan & Coil	Output Torque Nm				20000	24500	52500	54600	99800	110000	168000	194000

Note: Cooling coils cannot be fitted to vertical units

H3 THERMAL RATINGS AT 1750 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT									
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
47.1	37.	Thermal	Input Power kW				66.8	74.7	96.2	117	150	189	244	339
		with fan	Output Torque Nm				16900	18900	23300	29300	37400	46700	61600	86100
		Thermal	Input Power kW	43.1	55.4	61.8	60.9	78.2	186	185	368	396	617	696
		with coil	Output Torque Nm	10800	13900	15300	15400	19800	45100	46600	92100	97900	156000	177000
		Thermal	Input Power kW				87.8	106	230	241	435	491	733	826
		Fan & Coil	Output Torque Nm				22200	26800	55900	60500	109000	121000	185000	210000
52.1	33.	Thermal	Input Power kW				65.5	73.2	94.3	114	147	185	239	332
		with fan	Output Torque Nm				18300	20000	25600	31700	40600	51300	66900	90800
		Thermal	Input Power kW	42.2	54.3	60.4	59.4	76.5	183	182	363	388	602	674
		with coil	Output Torque Nm	11600	14900	16600	16600	20800	49800	50600	101000	107000	169000	184000
		Thermal	Input Power kW				86.5	104	228	238	431	482	717	803
		Fan & Coil	Output Torque Nm				24200	28400	61900	66000	119000	134000	201000	220000
57.7	30.	Thermal	Input Power kW				64.1	71.7	92.4	112	144	182	234	325
		with fan	Output Torque Nm				19300	21500	27600	33700	42800	56000	69400	101000
		Thermal	Input Power kW	41.4	53.2	58.9	58.0	74.8	180	179	358	379	586	650
		with coil	Output Torque Nm	12300	15900	17600	17500	22400	54000	53900	107000	117000	174000	202000
		Thermal	Input Power kW				85.1	103	225	235	426	473	701	780
		Fan & Coil	Output Torque Nm				25600	30800	67400	70600	127000	146000	209000	243000
63.8	27.	Thermal	Input Power kW				62.7	70.2	90.4	110	140	178	229	318
		with fan	Output Torque Nm				21200	23300	29900	37000	46500	58900	76200	109000
		Thermal	Input Power kW	40.6	52.1	57.6	56.6	73.2	178	176	354	370	571	627
		with coil	Output Torque Nm	13400	17400	18700	19100	24300	58900	59500	117000	123000	190000	215000
		Thermal	Input Power kW				83.7	101	223	232	421	463	685	756
		Fan & Coil	Output Torque Nm				28300	33500	73700	78300	140000	154000	228000	259000
70.6	24.	Thermal	Input Power kW				61.4	68.7	88.4	107	137	174	224	311
		with fan	Output Torque Nm				22100	24500	33100	39200	50400	66100	81100	115000
		Thermal	Input Power kW	39.7	51.0	56.2	55.2	71.7	175	173	349	360	554	604
		with coil	Output Torque Nm	14500	19300	20300	19900	25600	65700	63300	128000	137000	201000	223000
		Thermal	Input Power kW				82.4	99.7	220	228	417	453	668	732
		Fan & Coil	Output Torque Nm				29700	35600	82500	83600	153000	173000	242000	271000
78.2	22.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	39.0	50.0	55.0	54.0	70.3	173	170	345	351	538	581
		with coil	Output Torque Nm	15900	20400	21700	22200	28300	68100	68800	136000	146000	218000	245000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											
86.5	20.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	38.4	49.3	54.0	53.0	69.2	170	167	341	342	522	559
		with coil	Output Torque Nm	17500	21900	23300	23800	30700	78500	76400	158000	155000	239000	248000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											
95.7	18.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	38.0	48.8	53.4	52.4	68.4	168	165	337	334	507	538
		with coil	Output Torque Nm	18900	24000	25600	25800	32800	83400	81400	164000	171000	251000	270000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											
106	16.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	37.7	48.3	52.8	51.8	67.8	167	163	333	325	491	519
		with coil	Output Torque Nm	20900	25800	28400	28300	36500	91600	89200	184000	185000	274000	283000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											
117	14.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	37.5	48.0	52.4	51.4	67.3	165	161	330	317	476	500
		with coil	Output Torque Nm	22900	28500	31700	31200	40300	103000	97900	205000	197000	295000	299000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											
130	13.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	37.2	47.7	52.0	51.0	66.9	163	159	327	309	461	481
		with coil	Output Torque Nm	25400	31400	35800	34400	45000	111000	107000	222000	208000	311000	324000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											

Note: Cooling coils cannot be fitted to vertical units

H3 RATINGS AT 1450 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
25.6	56.	Mechanical	Input Power kW	23.2	38.7	39.0	39.7	99.5	142	204	247	364	552	751
			Output Torque Nm	3800	6220	6480	6390	16500	23300	32700	39800	59100	89300	125000
		Thermal	Input Power kW	26.8	35.4	45.0	45.0	51.5	65.5	78.4	103	124	163	249
		No Fan	Output Torque Nm	4390	5690	7480	7240	8540	10700	12500	16500	20000	26300	41400
			Efficiency %	96	96	96	96	95	96	96	96	96	96	97
28.4	51.	Mechanical	Input Power kW	21.1	35.1	36.3	42.8	98.5	126	184	216	325	497	689
			Output Torque Nm	3800	6230	6480	7670	17700	23300	32700	39800	59100	89600	125000
		Thermal	Input Power kW	26.1	34.4	43.8	43.9	50.1	63.7	76.3	100	120	159	243
		No Fan	Output Torque Nm	4690	6110	7830	7860	9000	11700	13500	18400	21800	28500	43900
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
31.4	46.	Mechanical	Input Power kW	19.3	31.1	32.5	59.7	81.5	117	167	199	298	446	607
			Output Torque Nm	3800	6230	6480	11900	16600	23300	32700	39800	59100	89300	125000
		Thermal	Input Power kW	25.3	33.4	42.6	42.6	48.7	61.9	74.1	97.4	117	154	235
		No Fan	Output Torque Nm	5010	6700	8490	8510	9900	12200	14500	19400	23100	30800	48400
			Efficiency %	96	96	96	96	96	96	95	96	96	96	96
34.7	41.	Mechanical	Input Power kW	17.4	28.0	29.5	39.7	78.9	104	148	180	274	409	561
			Output Torque Nm	3800	6230	6480	8670	17700	23300	32700	39800	59100	89700	125000
		Thermal	Input Power kW	24.6	32.4	41.3	41.3	47.3	60.1	71.9	94.6	113	150	229
		No Fan	Output Torque Nm	5370	7210	9080	9010	10600	13500	15800	20900	24400	32800	50900
			Efficiency %	96	96	96	96	95	95	96	96	96	96	96
38.4	37.	Mechanical	Input Power kW	15.7	25.1	26.6	53.8	71.0	94.7	136	161	241	370	498
			Output Torque Nm	3800	6230	6480	13000	17700	23300	32700	39800	59100	89600	125000
		Thermal	Input Power kW	23.8	31.4	40.0	40.0	45.8	58.2	69.7	91.6	110	145	221
		No Fan	Output Torque Nm	5770	7790	9740	9700	11400	14300	16700	22600	26900	35100	55500
			Efficiency %	96	96	96	96	95	96	95	96	95	96	96
42.5	34.	Mechanical	Input Power kW	14.2	23.0	24.3	46.7	64.4	85.6	121	145	224	330	453
			Output Torque Nm	3800	6230	6480	12700	17700	23300	32700	39800	59100	89700	125000
		Thermal	Input Power kW	23.1	30.5	38.8	38.8	44.4	56.4	67.5	88.8	106	141	215
		No Fan	Output Torque Nm	6170	8260	10400	10500	12200	15300	18200	24300	28100	38100	59200
			Efficiency %	96	95	95	96	95	96	96	96	95	96	95
47.1	30.	Mechanical	Input Power kW	12.6	20.6	21.7	34.5	54.3	79.7	108	157	214	277	408
			Output Torque Nm	3810	6230	6480	10500	16600	23300	32800	47400	63600	84400	125000
		Thermal	Input Power kW	22.3	29.5	37.5	37.5	42.9	54.6	65.3	85.9	103	136	208
		No Fan	Output Torque Nm	6730	8900	11200	11400	13100	15900	19800	25900	30600	41400	63600
			Efficiency %	96	96	96	96	95	96	95	95	95	95	95
52.1	27.	Mechanical	Input Power kW	11.5	18.9	19.5	31.1	50.5	71.1	98.1	142	190	250	380
			Output Torque Nm	3810	6230	6480	10500	16600	23300	32800	47400	63600	84400	125000
		Thermal	Input Power kW	21.6	28.5	36.3	36.3	41.5	52.7	63.1	83.0	99.5	132	201
		No Fan	Output Torque Nm	7180	9420	12100	12200	13600	17300	21100	27800	33200	44400	66100
			Efficiency %	95	95	96	96	95	96	95	95	96	95	95
57.7	25.	Mechanical	Input Power kW	10.6	17.3	18.0	28.9	45.9	64.6	90.5	132	171	236	334
			Output Torque Nm	3810	6230	6480	10500	16600	23300	32800	47400	63600	84400	125000
		Thermal	Input Power kW	20.9	27.5	35.1	35.1	40.1	50.9	61.0	80.2	96.1	127	194
		No Fan	Output Torque Nm	7500	9920	12600	12700	14500	18400	22100	28800	35700	45500	72600
			Efficiency %	96	95	96	96	95	95	95	95	95	95	95
63.8	22.	Mechanical	Input Power kW	9.5	14.0	16.5	25.8	41.6	58.3	80.6	119	159	210	304
			Output Torque Nm	3810	5630	6480	10500	16600	23300	32800	47400	63600	84500	125000
		Thermal	Input Power kW	20.2	26.6	33.9	33.9	38.7	49.2	58.9	77.5	92.9	123	187
		No Fan	Output Torque Nm	8060	10700	13300	13800	15500	19600	24000	30900	37100	49300	77200
			Efficiency %	96	95	96	96	95	95	95	95	95	95	95
70.6	20.	Mechanical	Input Power kW	8.8	12.4	14.9	21.0	39.5	43.8	66.3	85.5	133	184	261
			Output Torque Nm	3870	5630	6480	9120	17000	19800	29300	37900	61100	80600	117000
		Thermal	Input Power kW	19.5	25.7	32.7	32.7	37.4	47.5	56.9	74.8	89.6	119	181
		No Fan	Output Torque Nm	8550	11700	14300	14200	16100	21500	25100	33100	41100	51800	80500
			Efficiency %	96	95	95	96	95	95	95	95	95	95	96
78.2	18.	Mechanical	Input Power kW	7.9	11.4	13.6	21.2	34.2	48.9	67.3	99.9	119	173	247
			Output Torque Nm	3870	5630	6480	10500	16600	23300	32800	47400	59500	84500	125000
		Thermal	Input Power kW	18.8	24.9	31.6	31.6	36.2	46.0	55.0	72.4	86.8	115	175
		No Fan	Output Torque Nm	9290	12200	15100	15700	17600	21900	26900	34400	43500	56000	88900
			Efficiency %	95	96	95	95	95	95	95	95	95	95	95
86.5	16.	Mechanical	Input Power kW	7.1	10.5	12.5	16.9	31.8	35.7	53.2	67.8	112	146	218
			Output Torque Nm	3870	5630	6490	9130	17000	19800	29300	37900	61100	80600	117000
		Thermal	Input Power kW	18.4	24.2	30.8	30.8	35.3	44.8	53.6	70.5	84.5	112	171
		No Fan	Output Torque Nm	10100	13000	16100	16700	18800	24900	29500	39400	46300	61700	91100
			Efficiency %	95	95	95	95	95	95	95	95	95	95	95
95.7	15.	Mechanical	Input Power kW	6.5	8.8	11.2	15.4	29.4	33.2	49.3	64.8	98.9	135	193
			Output Torque Nm	3870	5240	6490	9130	17000	19800	29300	37900	61100	80600	117000
		Thermal	Input Power kW	18.0	23.8	30.3	30.3	34.6	44.0	52.7	69.3	83.0	110	167
		No Fan	Output Torque Nm	10800	14100	17500	18000	20000	26300	31300	40500	51300	65500	101000
			Efficiency %	95	95	95	95	95	95	95	95	95	95	95

H3 RATINGS AT 1450 REV/MIN INPUT

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Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
106	13.	Mechanical	Input Power kW	5.8	8.1	10.0	13.9	26.2	29.9	44.4	57.0	89.1	120	177
			Output Torque Nm	3870	5230	6490	9130	17000	19800	29300	37900	61100	80600	117000
		Thermal	Input Power kW	17.7	23.4	29.8	29.8	34.0	43.3	51.8	68.1	81.6	108	165
		No Fan	Output Torque Nm	11800	15100	19300	19600	22100	28700	34100	45300	56000	72500	108000
			Efficiency %	95	95	95	95	95	95	95	95	95	95	96
117	12.	Mechanical	Input Power kW	4.1	7.9	8.9	12.5	23.6	26.3	40.1	50.7	81.8	108	162
			Output Torque Nm	3010	5630	6490	9130	17000	19800	29300	37900	61100	80600	117000
		Thermal	Input Power kW	17.5	23.1	29.4	29.4	33.7	42.8	51.2	67.4	80.7	107	163
		No Fan	Output Torque Nm	12900	16500	21500	21600	24300	32200	37500	50400	60300	79500	117000
			Efficiency %	95	95	95	95	95	95	95	95	95	95	95
130	11.	Mechanical	Input Power kW	3.7	5.7	7.0	12.5	15.7	24.3	31.1	47.0	59.9	100	126
			Output Torque Nm	3010	4520	5830	10100	12700	19900	25200	38500	48500	81100	102000
		Thermal	Input Power kW	17.3	22.9	29.1	29.1	33.3	42.3	50.7	66.6	79.9	106	161
		No Fan	Output Torque Nm	14200	18200	24200	23700	27000	34700	41100	54700	64800	85600	131000
			Efficiency %	95	95	95	95	95	95	95	95	95	95	95

H3 THERMAL RATINGS AT 1450 REV/MIN INPUT

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
25.6	56.	Thermal	Input Power kW				61.3	68.6	88.3	107	137	174	224	311
		with fan	Output Torque Nm				9860	11400	14400	17100	22100	28100	36100	51700
		Thermal	Input Power kW	43.8	56.4	63.0	62.0	79.5	190	190	376	421	668	778
		with coil	Output Torque Nm	7170	9070	10500	9980	13200	31100	30500	60500	68300	108000	130000
		Thermal	Input Power kW				82.3	99.6	225	234	428	499	762	879
		Fan & Coil	Output Torque Nm				13200	16500	36900	37500	68900	81000	123000	146000
28.4	51.	Thermal	Input Power kW				60.5	67.7	87.2	106	135	171	221	307
		with fan	Output Torque Nm				10800	12200	16100	18800	24900	31100	39700	55600
		Thermal	Input Power kW	43.1	55.4	61.8	60.9	78.1	188	188	372	415	657	761
		with coil	Output Torque Nm	7760	9840	11100	10900	14000	34700	33400	68400	75500	118000	138000
		Thermal	Input Power kW				81.5	98.7	224	232	426	494	753	863
		Fan & Coil	Output Torque Nm				14600	17700	41300	41300	78300	89900	136000	157000
31.4	46.	Thermal	Input Power kW				59.6	66.6	85.8	104	133	169	217	302
		with fan	Output Torque Nm				11900	13600	17000	20400	26600	33400	43400	62200
		Thermal	Input Power kW	42.3	54.4	60.6	59.6	76.7	186	185	368	408	645	742
		with coil	Output Torque Nm	8370	10900	12100	11900	15600	36800	36400	73500	81000	129000	153000
		Thermal	Input Power kW				80.6	97.6	222	230	423	488	742	846
		Fan & Coil	Output Torque Nm				16100	19900	44000	45200	84400	96800	148000	174000
34.7	41.	Thermal	Input Power kW				58.6	65.6	84.5	102	131	166	214	298
		with fan	Output Torque Nm				12800	14800	19000	22600	29000	35800	46900	66300
		Thermal	Input Power kW	41.6	53.4	59.3	58.3	75.3	184	182	365	401	633	723
		with coil	Output Torque Nm	9080	11900	13000	12700	16900	41300	40200	80800	86700	139000	161000
		Thermal	Input Power kW				79.6	96.6	220	228	420	481	730	828
		Fan & Coil	Output Torque Nm				17400	21700	49500	50300	93000	104000	160000	185000
38.4	37.	Thermal	Input Power kW				57.6	64.5	83.1	101	129	163	210	292
		with fan	Output Torque Nm				14000	16100	20400	24200	31900	40100	50900	73400
		Thermal	Input Power kW	40.8	52.4	58.0	57.0	73.8	181	180	361	394	621	703
		with coil	Output Torque Nm	9900	13000	14100	13800	18400	44600	43300	89300	96900	150000	177000
		Thermal	Input Power kW				78.6	95.5	218	226	417	474	718	809
		Fan & Coil	Output Torque Nm				19100	23800	53700	54400	103000	117000	174000	203000
42.5	34.	Thermal	Input Power kW				56.6	63.4	81.6	98.9	127	160	207	287
		with fan	Output Torque Nm				15400	17500	22200	26700	34800	42400	56100	79400
		Thermal	Input Power kW	40.1	51.5	56.8	55.8	72.4	179	177	357	387	608	682
		with coil	Output Torque Nm	10700	14000	15200	15100	19900	48700	47900	98100	102000	165000	189000
		Thermal	Input Power kW				77.6	94.4	216	224	413	467	705	789
		Fan & Coil	Output Torque Nm				21100	26000	58900	60500	114000	124000	192000	218000

Note: Cooling coils cannot be fitted to vertical units

H3 THERMAL RATINGS AT 1450 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT									
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
47.1	30.	Thermal	Input Power kW				55.6	62.2	80.1	97.1	124	158	203	282
		with fan	Output Torque Nm				16900	19000	23400	29400	37600	46900	61800	86500
		Thermal	Input Power kW	39.3	50.5	55.5	54.5	70.9	177	174	353	379	594	661
		with coil	Output Torque Nm	11900	15300	16600	16600	21700	51700	52900	107000	113000	181000	203000
		Thermal	Input Power kW				76.6	93.2	214	221	410	459	692	769
		Fan & Coil	Output Torque Nm				23300	28500	62700	67100	124000	137000	211000	236000
52.1	27.	Thermal	Input Power kW				54.5	61.0	78.5	95.2	122	154	199	276
		with fan	Output Torque Nm				18400	20100	25700	31900	40800	51600	67200	91100
		Thermal	Input Power kW	38.6	49.5	54.3	53.3	69.5	174	172	349	371	580	640
		with coil	Output Torque Nm	12800	16400	18000	18000	22900	57200	57500	117000	124000	196000	211000
		Thermal	Input Power kW				75.5	92.0	212	219	406	451	677	748
		Fan & Coil	Output Torque Nm				25500	30300	69500	73300	136000	151000	229000	247000
57.7	25.	Thermal	Input Power kW				53.4	59.7	76.9	93.2	119	151	195	271
		with fan	Output Torque Nm				19400	21600	27700	33800	43000	56300	69700	101000
		Thermal	Input Power kW	37.9	48.5	53.1	52.1	68.1	172	169	345	362	565	618
		with coil	Output Torque Nm	13600	17500	19100	18900	24600	62100	61400	124000	135000	203000	232000
		Thermal	Input Power kW				74.4	90.7	210	216	402	443	662	726
		Fan & Coil	Output Torque Nm				27000	32800	75700	78500	145000	165000	238000	272000
63.8	22.	Thermal	Input Power kW				52.2	58.4	75.3	91.2	117	148	191	265
		with fan	Output Torque Nm				21300	23400	30100	37200	46700	59200	76600	109000
		Thermal	Input Power kW	37.2	47.6	51.9	50.9	66.7	170	166	341	354	550	596
		with coil	Output Torque Nm	14900	19200	20400	20700	26700	67800	67800	136000	142000	221000	246000
		Thermal	Input Power kW				73.2	89.4	207	213	398	434	647	703
		Fan & Coil	Output Torque Nm				29800	35800	82900	87000	159000	174000	260000	291000
70.6	20.	Thermal	Input Power kW				51.1	57.2	73.6	89.2	114	145	186	259
		with fan	Output Torque Nm				22200	24600	33300	39400	50700	66400	81500	115000
		Thermal	Input Power kW	36.5	46.7	50.7	49.7	65.4	167	163	337	345	534	573
		with coil	Output Torque Nm	16000	21300	22100	21600	28200	75700	72200	149000	158000	234000	256000
		Thermal	Input Power kW				72.1	88.2	205	210	394	424	630	680
		Fan & Coil	Output Torque Nm				31400	38000	92800	93000	175000	195000	276000	304000
78.2	18.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	35.8	45.9	49.6	48.6	64.2	165	161	332	336	518	551
		with coil	Output Torque Nm	17700	22600	23700	24100	31200	78600	78500	158000	169000	254000	280000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											
86.5	16.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	35.4	45.2	48.8	47.8	63.3	163	158	329	328	503	530
		with coil	Output Torque Nm	19400	24300	25500	25900	33800	90600	87200	184000	180000	278000	284000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											
95.7	15.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	35.0	44.8	48.3	47.3	62.6	161	156	325	320	488	510
		with coil	Output Torque Nm	21000	26600	28000	28100	36300	96300	93000	191000	198000	292000	309000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											
106	13.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	34.7	44.4	47.8	46.8	62.0	159	154	322	311	473	491
		with coil	Output Torque Nm	23200	28600	31100	30900	40400	106000	102000	214000	214000	318000	323000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											
117	12.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	34.5	44.1	47.4	46.4	61.7	158	153	319	303	458	472
		with coil	Output Torque Nm	25400	31600	34700	34000	44500	119000	112000	239000	227000	342000	341000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											
130	11.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	34.3	43.9	47.1	46.1	61.3	156	151	315	295	443	454
		with coil	Output Torque Nm	28200	34800	39100	37500	49800	128000	123000	259000	240000	360000	369000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											

Note: Cooling coils cannot be fitted to vertical units

H3 RATINGS AT 960 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
25.6	37.	Mechanical	Input Power kW	15.4	25.6	25.8	26.3	65.8	94.1	135	164	242	366	499
			Output Torque Nm	3800	6230	6480	6390	16500	23300	32700	39800	59100	89300	125000
		Thermal	Input Power kW	19.2	25.3	32.2	32.2	36.8	46.8	56.0	73.7	88.3	117	178
		No Fan	Output Torque Nm	4740	6150	8090	7830	9240	11600	13500	17900	21500	28400	44600
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
28.4	33.	Mechanical	Input Power kW	14.0	23.2	24.0	28.4	65.2	83.5	122	144	216	330	458
			Output Torque Nm	3800	6230	6480	7680	17700	23300	32700	39800	59100	89600	125000
		Thermal	Input Power kW	18.7	24.6	31.4	31.4	35.9	45.6	54.6	71.8	86.0	114	174
		No Fan	Output Torque Nm	5080	6610	8470	8500	9730	12700	14600	19900	23600	30800	47300
			Efficiency %	96	96	96	96	96	96	95	96	95	96	96
31.4	30.	Mechanical	Input Power kW	12.7	20.6	21.5	39.5	53.9	77.7	110	132	197	296	403
			Output Torque Nm	3810	6230	6480	11900	16600	23300	32800	39800	59200	89300	125000
		Thermal	Input Power kW	18.1	23.9	30.5	30.5	34.8	44.3	53.0	69.7	83.5	110	168
		No Fan	Output Torque Nm	5420	7250	9180	9210	10700	13200	15700	21000	25000	33200	52200
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
34.7	27.	Mechanical	Input Power kW	11.5	18.6	19.5	26.3	52.2	68.6	98.3	119	182	271	372
			Output Torque Nm	3810	6230	6480	8670	17700	23300	32800	39800	59200	89700	125000
		Thermal	Input Power kW	17.6	23.2	29.6	29.6	33.8	43.0	51.4	67.7	81.1	107	164
		No Fan	Output Torque Nm	5800	7800	9820	9750	11500	14600	17100	22600	26400	35400	55000
			Efficiency %	96	95	96	96	95	96	96	96	95	96	96
38.4	24.	Mechanical	Input Power kW	10.4	16.6	17.6	35.6	47.0	62.7	90.1	107	159	245	331
			Output Torque Nm	3810	6230	6480	13000	17700	23300	32800	39800	59200	89600	125000
		Thermal	Input Power kW	17.0	22.5	28.7	28.7	32.8	41.6	49.8	65.5	78.5	104	158
		No Fan	Output Torque Nm	6240	8430	10500	10500	12300	15400	18100	24500	29100	37900	59900
			Efficiency %	96	96	96	96	95	96	96	95	96	96	96
42.5	22.	Mechanical	Input Power kW	9.4	15.2	16.1	30.9	42.6	56.6	80.3	96.1	148	219	300
			Output Torque Nm	3810	6230	6480	12700	17700	23300	32800	39800	59200	89700	125000
		Thermal	Input Power kW	16.5	21.8	27.8	27.8	31.7	40.3	48.3	63.5	76.1	101	153
		No Fan	Output Torque Nm	6680	8930	11200	11400	13200	16600	19700	26300	30300	41100	63900
			Efficiency %	96	96	95	96	95	96	96	96	96	95	95
47.1	20.	Mechanical	Input Power kW	8.4	13.7	14.4	22.8	36.0	52.7	71.7	104	142	184	271
			Output Torque Nm	3810	6230	6480	10500	16600	23300	32800	47400	63700	84500	125000
		Thermal	Input Power kW	16.0	21.1	26.9	26.9	30.7	39.0	46.7	61.5	73.6	97.3	149
		No Fan	Output Torque Nm	7280	9630	12100	12400	14200	17200	21400	28000	33100	44700	68600
			Efficiency %	96	95	95	96	95	96	95	95	95	95	95
52.1	18.	Mechanical	Input Power kW	7.6	12.5	12.9	20.6	33.4	47.1	64.9	93.8	126	165	252
			Output Torque Nm	3810	6230	6480	10500	16600	23300	32800	47400	63700	84500	125000
		Thermal	Input Power kW	15.5	20.4	26.0	26.0	29.7	37.7	45.2	59.4	71.2	94.1	144
		No Fan	Output Torque Nm	7770	10200	13000	13200	14700	18700	22800	30000	35900	48000	71300
			Efficiency %	96	95	96	96	95	95	95	95	96	96	95
57.7	16.	Mechanical	Input Power kW	7.0	11.5	11.9	19.1	30.4	42.7	59.9	87.3	113	156	221
			Output Torque Nm	3810	6230	6480	10500	16600	23300	32800	47400	63700	84500	125000
		Thermal	Input Power kW	14.9	19.7	25.1	25.1	28.7	36.5	43.6	57.4	68.8	90.9	139
		No Fan	Output Torque Nm	8120	10700	13600	13800	15700	19900	23900	31200	38600	49200	78500
			Efficiency %	96	95	96	96	95	95	95	95	96	96	96
63.8	15.	Mechanical	Input Power kW	6.3	9.3	10.9	17.1	27.5	38.6	53.3	78.6	105	139	201
			Output Torque Nm	3810	5630	6480	10500	16600	23300	32800	47400	63700	84500	125000
		Thermal	Input Power kW	14.4	19.0	24.2	24.2	27.7	35.2	42.2	55.4	66.4	87.8	134
		No Fan	Output Torque Nm	8710	11600	14400	14900	16700	21200	26000	33400	40100	53300	83500
			Efficiency %	96	95	96	96	95	95	95	95	96	95	95
70.6	13.	Mechanical	Input Power kW	5.8	8.2	9.8	13.9	26.1	29.0	43.9	56.6	88.2	122	173
			Output Torque Nm	3870	5630	6480	9130	17000	19800	29300	37900	61100	80600	117000
		Thermal	Input Power kW	13.9	18.4	23.4	23.4	26.7	34.0	40.7	53.5	64.1	84.8	129
		No Fan	Output Torque Nm	9250	12700	15400	15400	17400	23200	27200	35800	44400	56000	87100
			Efficiency %	96	95	95	96	95	95	95	95	95	95	96
78.2	12.	Mechanical	Input Power kW	5.2	7.6	9.0	14.0	22.6	32.4	44.5	66.1	78.6	114	163
			Output Torque Nm	3870	5630	6480	10500	16600	23300	32800	47400	59600	84500	125000
		Thermal	Input Power kW	13.5	17.8	22.6	22.6	25.9	32.9	39.4	51.8	62.1	82.0	125
		No Fan	Output Torque Nm	10000	13200	16300	17000	19000	23700	29000	37200	47000	60600	96100
			Efficiency %	96	95	95	96	95	95	95	95	95	96	95
86.5	11.	Mechanical	Input Power kW	4.7	6.9	8.3	11.2	21.1	23.6	35.2	44.9	73.9	96.6	144
			Output Torque Nm	3870	5630	6490	9130	17000	19800	29300	37900	61200	80600	117000
		Thermal	Input Power kW	13.1	17.3	22.1	22.1	25.2	32.1	38.4	50.5	60.5	79.9	122
		No Fan	Output Torque Nm	10900	14100	17400	18000	20400	26900	31900	42600	50000	66700	98500
			Efficiency %	96	95	95	95	95	95	95	95	95	95	96
95.7	10.	Mechanical	Input Power kW	4.3	5.8	7.4	10.2	19.4	22.0	32.6	42.9	65.4	89.4	128
			Output Torque Nm	3870	5170	6490	9130	17000	19800	29300	37900	61200	80600	117000
		Thermal	Input Power kW	12.9	17.0	21.7	21.7	24.8	31.5	37.7	49.6	59.4	78.5	120
		No Fan	Output Torque Nm	11700	15300	19000	19400	21700	28400	33800	43800	55500	70800	109000
			Efficiency %	95	95	95	95	95	95	95	95	95	95	95

H3 RATINGS AT 960 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
106	9.	Mechanical	Input Power kW	3.8	5.3	6.6	9.2	17.3	19.8	29.4	37.7	58.9	79.4	117
			Output Torque Nm	3870	5160	6490	9130	17000	19800	29300	37900	61200	80600	117000
		Thermal	Input Power kW	12.7	16.7	21.3	21.3	24.4	31.0	37.1	48.7	58.4	77.2	118
		No Fan	Output Torque Nm	12800	16300	20900	21200	23900	31000	36900	49000	60600	78400	117000
			Efficiency %	95	95	95	95	95	95	95	95	95	95	96
117	8.	Mechanical	Input Power kW	2.7	5.2	5.9	8.3	15.6	17.4	26.5	33.5	54.1	71.6	107
			Output Torque Nm	3010	5630	6490	9130	17000	19800	29300	37900	61200	80600	117000
		Thermal	Input Power kW	12.5	16.6	21.1	21.1	24.1	30.6	36.6	48.2	57.7	76.3	116
		No Fan	Output Torque Nm	13900	17900	23200	23300	26300	34900	40500	54500	65200	86000	127000
			Efficiency %	95	95	95	95	95	95	95	96	95	95	95
130	7.	Mechanical	Input Power kW	2.4	3.8	4.7	8.3	10.4	16.1	20.6	31.1	39.6	66.2	83.5
			Output Torque Nm	3010	4520	5830	10100	12700	20000	25200	38500	48600	81200	102000
		Thermal	Input Power kW	12.4	16.4	20.8	20.9	23.8	30.3	36.3	47.7	57.1	75.5	115
		No Fan	Output Torque Nm	15400	19600	26100	25600	29200	37600	44500	59100	70100	92600	141000
			Efficiency %	95	95	95	95	95	96	95	95	95	95	95

H3 THERMAL RATINGS AT 960 REV/MIN INPUT

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
25.6	37.	Thermal	Input Power kW				41.0	45.9	59.1	71.7	91.9	116	150	208
		with fan	Output Torque Nm				9980	11500	14600	17300	22300	28400	36400	52100
		Thermal	Input Power kW	36.2	46.3	50.2	49.2	64.8	171	168	346	386	621	707
		with coil	Output Torque Nm	8960	11300	12600	12000	16300	42400	40600	84200	94400	151000	177000
		Thermal	Input Power kW				62.0	76.9	196	199	383	442	688	776
		Fan & Coil	Output Torque Nm				15100	19300	48500	48100	93100	108000	168000	195000
28.4	33.	Thermal	Input Power kW				40.5	45.3	58.4	70.7	90.7	115	148	205
		with fan	Output Torque Nm				11000	12300	16300	19000	25100	31400	40100	56100
		Thermal	Input Power kW	35.7	45.6	49.4	48.4	63.9	170	166	344	381	612	692
		with coil	Output Torque Nm	9710	12200	13300	13100	17300	47400	44600	95400	104000	166000	189000
		Thermal	Input Power kW				61.5	76.3	195	197	381	437	679	762
		Fan & Coil	Output Torque Nm				16700	20700	54300	53100	106000	120000	185000	208000
31.4	30.	Thermal	Input Power kW				39.9	44.6	57.5	69.7	89.3	113	145	202
		with fan	Output Torque Nm				12100	13700	17200	20700	26900	33800	43800	62700
		Thermal	Input Power kW	35.1	44.9	48.5	47.5	62.8	168	164	341	375	601	675
		with coil	Output Torque Nm	10500	13600	14600	14400	19300	50400	48700	103000	112000	182000	210000
		Thermal	Input Power kW				60.9	75.6	193	196	379	432	670	746
		Fan & Coil	Output Torque Nm				18400	23300	58000	58200	114000	129000	202000	232000
34.7	27.	Thermal	Input Power kW				39.3	43.9	56.6	68.6	87.9	111	143	199
		with fan	Output Torque Nm				13000	14900	19200	22800	29400	36200	47300	67000
		Thermal	Input Power kW	34.6	44.2	47.6	46.6	61.8	166	162	338	369	591	658
		with coil	Output Torque Nm	11400	14900	15800	15400	21000	56500	54000	113000	120000	196000	222000
		Thermal	Input Power kW				60.3	74.9	192	194	376	426	660	730
		Fan & Coil	Output Torque Nm				19900	25500	65300	64800	126000	139000	218000	246000
38.4	24.	Thermal	Input Power kW				38.6	43.2	55.6	67.4	86.4	109	141	196
		with fan	Output Torque Nm				14100	16300	20700	24500	32300	40600	51400	74100
		Thermal	Input Power kW	34.0	43.5	46.7	45.7	60.8	165	160	335	363	579	640
		with coil	Output Torque Nm	12500	16300	17200	16700	22900	61200	58200	125000	135000	212000	242000
		Thermal	Input Power kW				59.6	74.2	191	193	374	420	649	712
		Fan & Coil	Output Torque Nm				21800	28000	70900	70100	140000	156000	237000	270000
42.5	22.	Thermal	Input Power kW				37.9	42.4	54.7	66.2	84.9	107	138	192
		with fan	Output Torque Nm				15600	17700	22500	27000	35200	42900	56600	80100
		Thermal	Input Power kW	33.5	42.8	45.8	44.8	59.7	163	158	332	356	567	621
		with coil	Output Torque Nm	13600	17500	18500	18400	24900	67000	64500	138000	142000	233000	259000
		Thermal	Input Power kW				58.9	73.4	189	191	371	414	637	694
		Fan & Coil	Output Torque Nm				24200	30600	77900	78000	154000	165000	261000	290000

Note: Cooling coils cannot be fitted to vertical units

H3 THERMAL RATINGS AT 960 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT									
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
47.1	20.	Thermal	Input Power kW				37.2	41.7	53.7	65.0	83.3	105	136	189
		with fan	Output Torque Nm				17100	19300	23700	29800	38000	47400	62400	87300
		Thermal	Input Power kW	33.0	42.1	44.9	43.9	58.7	161	156	329	349	555	602
		with coil	Output Torque Nm	15000	19200	20300	20200	27100	71300	71400	150000	157000	256000	279000
		Thermal	Input Power kW				58.2	72.7	188	189	369	407	625	676
		Fan & Coil	Output Torque Nm				26800	33600	83100	86700	168000	183000	288000	313000
52.1	18.	Thermal	Input Power kW				36.5	40.8	52.6	63.7	81.7	103	133	185
		with fan	Output Torque Nm				18600	20300	26000	32300	41300	52200	67900	92000
		Thermal	Input Power kW	32.5	41.4	44.0	43.0	57.7	159	154	325	342	542	583
		with coil	Output Torque Nm	16300	20700	22100	21900	28700	78900	77800	165000	173000	277000	290000
		Thermal	Input Power kW				57.5	71.8	186	187	366	400	612	656
		Fan & Coil	Output Torque Nm				29300	35700	92200	94800	185000	202000	313000	326000
57.7	16.	Thermal	Input Power kW				35.7	40.0	51.5	62.4	80.0	101	130	181
		with fan	Output Torque Nm				19600	21900	28100	34200	43500	56900	70600	103000
		Thermal	Input Power kW	31.9	40.7	43.1	42.1	56.7	157	152	322	335	529	563
		with coil	Output Torque Nm	17400	22200	23400	23100	31000	85900	83200	175000	189000	287000	319000
		Thermal	Input Power kW				56.7	71.0	184	185	363	393	598	636
		Fan & Coil	Output Torque Nm				31200	38800	101000	102000	197000	221000	324000	360000
63.8	15.	Thermal	Input Power kW				35.0	39.1	50.4	61.1	78.3	99.1	128	177
		with fan	Output Torque Nm				21500	23700	30400	37600	47200	59900	77500	111000
		Thermal	Input Power kW	31.4	40.0	42.2	41.2	55.7	156	149	319	327	515	542
		with coil	Output Torque Nm	19000	24400	25100	25400	33700	93900	92100	192000	198000	313000	338000
		Thermal	Input Power kW				56.0	70.1	183	183	359	385	584	616
		Fan & Coil	Output Torque Nm				34500	42400	110000	113000	217000	233000	355000	384000
70.6	13.	Thermal	Input Power kW				34.2	38.3	49.3	59.7	76.6	96.9	125	173
		with fan	Output Torque Nm				22500	24900	33700	39900	51300	67200	82500	117000
		Thermal	Input Power kW	30.9	39.4	41.4	40.4	54.7	154	147	315	320	500	522
		with coil	Output Torque Nm	20500	27100	27300	26600	35600	105000	98300	211000	222000	331000	352000
		Thermal	Input Power kW				55.2	69.3	181	181	356	376	569	595
		Fan & Coil	Output Torque Nm				36300	45100	124000	121000	238000	261000	376000	401000
78.2	12.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	30.5	38.8	40.6	39.6	53.9	152	145	312	312	486	501
		with coil	Output Torque Nm	22700	28900	29300	29700	39600	109000	107000	224000	237000	360000	385000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											
86.5	11.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	30.1	38.3	40.1	39.1	53.2	150	143	309	304	471	482
		with coil	Output Torque Nm	25000	31100	31600	32000	43000	126000	119000	261000	252000	394000	389000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											
95.7	10.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	29.9	38.0	39.7	38.7	52.8	148	141	306	296	457	463
		with coil	Output Torque Nm	27000	34200	34700	34700	46200	134000	127000	270000	277000	413000	423000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											
106	9.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	29.7	37.7	39.3	38.3	52.4	147	140	303	288	443	444
		with coil	Output Torque Nm	30000	36800	38600	38200	51500	147000	139000	304000	299000	450000	442000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											
117	8.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	29.5	37.6	39.1	38.1	52.1	146	138	300	280	428	426
		with coil	Output Torque Nm	32900	40600	43100	42100	56900	166000	153000	339000	317000	483000	465000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											
130	7.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	29.4	37.4	38.8	37.9	51.8	144	136	297	272	413	408
		with coil	Output Torque Nm	36500	44800	48700	46500	63700	179000	168000	368000	335000	508000	501000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											

Note: Cooling coils cannot be fitted to vertical units

H3 RATINGS AT 725 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
25.6	28.	Mechanical	Input Power kW	11.6	19.4	19.5	19.9	49.7	71.1	102	124	183	277	377
			Output Torque Nm	3810	6230	6480	6400	16500	23300	32800	39800	59200	89300	125000
		Thermal	Input Power kW	15.6	20.6	26.3	26.3	30.0	38.2	45.7	60.1	72.0	95.2	145
		No Fan	Output Torque Nm	5120	6640	8740	8460	9980	12500	14600	19300	23300	30600	48100
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
28.4	25.	Mechanical	Input Power kW	10.6	17.5	18.1	21.4	49.2	63.0	92.1	108	163	249	346
			Output Torque Nm	3810	6230	6480	7680	17700	23300	32800	39800	59200	89600	125000
		Thermal	Input Power kW	15.2	20.1	25.6	25.6	29.2	37.2	44.5	58.5	70.1	92.7	141
		No Fan	Output Torque Nm	5480	7130	9150	9180	10500	13700	15800	21500	25400	33200	51100
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
31.4	23.	Mechanical	Input Power kW	9.6	15.5	16.2	29.8	40.7	58.7	83.4	99.8	149	223	305
			Output Torque Nm	3810	6230	6480	11900	16600	23300	32800	39800	59200	89300	125000
		Thermal	Input Power kW	14.8	19.5	24.8	24.8	28.4	36.1	43.2	56.8	68.1	90.0	137
		No Fan	Output Torque Nm	5850	7830	9910	9940	11600	14300	17000	22700	27000	35900	56300
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
34.7	20.	Mechanical	Input Power kW	8.7	14.0	14.7	19.9	39.4	51.8	74.3	90.0	137	205	281
			Output Torque Nm	3810	6230	6480	8680	17700	23300	32800	39800	59200	89700	125000
		Thermal	Input Power kW	14.3	18.9	24.1	24.1	27.6	35.0	41.9	55.1	66.1	87.3	133
		No Fan	Output Torque Nm	6270	8420	10600	10500	12400	15700	18500	24400	28500	38200	59300
			Efficiency %	96	96	96	95	95	96	96	96	96	95	96
38.4	18.	Mechanical	Input Power kW	7.8	12.6	13.3	26.9	35.5	47.3	68.1	80.5	120	185	250
			Output Torque Nm	3810	6230	6480	13000	17700	23300	32800	39800	59200	89600	125000
		Thermal	Input Power kW	13.9	18.4	23.4	23.4	26.7	33.9	40.6	53.4	64.0	84.6	129
		No Fan	Output Torque Nm	6740	9100	11400	11300	13300	16700	19600	26400	31400	40900	64600
			Efficiency %	96	95	96	96	95	96	96	96	96	96	96
42.5	17.	Mechanical	Input Power kW	7.1	11.5	12.1	23.4	32.2	42.8	60.6	72.6	112	165	227
			Output Torque Nm	3810	6230	6480	12700	17700	23300	32800	39900	59200	89700	125000
		Thermal	Input Power kW	13.5	17.8	22.6	22.6	25.9	32.9	39.4	51.8	62.0	82.0	125
		No Fan	Output Torque Nm	7210	9650	12100	12300	14300	17900	21300	28400	32800	44400	68900
			Efficiency %	96	95	96	96	95	96	96	96	95	96	95
47.1	15.	Mechanical	Input Power kW	6.3	10.3	10.8	17.2	27.2	39.8	54.2	78.4	107	139	205
			Output Torque Nm	3810	6230	6480	10500	16600	23300	32800	47400	63700	84500	125000
		Thermal	Input Power kW	13.0	17.2	21.9	21.9	25.0	31.8	38.1	50.1	60.0	79.3	121
		No Fan	Output Torque Nm	7860	10400	13100	13400	15300	18600	23100	30300	35700	48300	74100
			Efficiency %	96	96	96	96	95	96	95	95	95	95	95
52.1	13.	Mechanical	Input Power kW	5.7	9.4	9.8	15.6	25.3	35.5	49.0	70.8	95.2	125	190
			Output Torque Nm	3810	6230	6480	10500	16600	23300	32800	47400	63700	84500	125000
		Thermal	Input Power kW	12.6	16.6	21.2	21.2	24.2	30.8	36.8	48.4	58.0	76.7	117
		No Fan	Output Torque Nm	8390	11000	14100	14300	15900	20200	24700	32400	38800	51800	77000
			Efficiency %	96	95	96	95	95	96	95	95	95	95	95
57.7	12.	Mechanical	Input Power kW	5.3	8.6	9.0	14.5	23.0	32.3	45.2	65.9	85.5	118	167
			Output Torque Nm	3810	6230	6480	10500	16600	23300	32800	47400	63700	84500	125000
		Thermal	Input Power kW	12.2	16.1	20.5	20.5	23.4	29.7	35.6	46.8	56.1	74.1	113
		No Fan	Output Torque Nm	8770	11600	14700	14900	16900	21500	25800	33700	41700	53100	84700
			Efficiency %	96	95	96	95	95	95	95	95	96	95	95
63.8	11.	Mechanical	Input Power kW	4.8	7.0	8.3	12.9	20.8	29.2	40.3	59.4	79.5	105	152
			Output Torque Nm	3810	5630	6480	10500	16600	23300	32800	47400	63700	84500	125000
		Thermal	Input Power kW	11.8	15.5	19.8	19.8	22.6	28.7	34.4	45.2	54.2	71.6	109
		No Fan	Output Torque Nm	9410	12500	15500	16100	18100	22900	28000	36100	43400	57600	90200
			Efficiency %	96	95	95	96	95	95	95	95	95	95	95
70.6	10.	Mechanical	Input Power kW	4.4	6.2	7.4	10.5	19.7	21.9	33.1	42.7	66.6	92.1	131
			Output Torque Nm	3870	5630	6480	9130	17000	19800	29300	37900	61200	80600	117000
		Thermal	Input Power kW	11.4	15.0	19.1	19.1	21.8	27.7	33.2	43.6	52.3	69.1	105
		No Fan	Output Torque Nm	9990	13700	16700	16600	18800	25100	29300	38700	48000	60500	94000
			Efficiency %	96	95	95	96	95	95	95	96	95	95	96
78.2	9.	Mechanical	Input Power kW	3.9	5.7	6.8	10.6	17.1	24.4	33.6	49.9	59.4	86.3	123
			Output Torque Nm	3870	5630	6480	10500	16600	23300	32800	47400	59600	84500	125000
		Thermal	Input Power kW	11.0	14.5	18.5	18.5	21.1	26.8	32.1	42.2	50.6	66.9	102
		No Fan	Output Torque Nm	10800	14300	17600	18300	20600	25600	31400	40100	50800	65500	104000
			Efficiency %	95	95	95	95	95	95	95	95	95	95	95
86.5	8.	Mechanical	Input Power kW	3.5	5.3	6.2	8.4	15.9	17.8	26.6	33.9	55.8	73.0	109
			Output Torque Nm	3870	5630	6490	9130	17000	19800	29300	37900	61200	80600	117000
		Thermal	Input Power kW	10.7	14.1	18.0	18.0	20.6	26.1	31.3	41.2	49.3	65.2	99.5
		No Fan	Output Torque Nm	11800	15200	18800	19500	22000	29100	34500	46000	54000	72000	106000
			Efficiency %	95	95	95	96	95	96	95	95	95	95	95
95.7	7.	Mechanical	Input Power kW	3.2	4.3	5.6	7.7	14.7	16.6	24.6	32.4	49.4	67.5	96.4
			Output Torque Nm	3870	5130	6490	9130	17000	19800	29300	37900	61200	80600	117000
		Thermal	Input Power kW	10.5	13.9	17.7	17.7	20.2	25.7	30.7	40.4	48.4	64.0	97.6
		No Fan	Output Torque Nm	12600	16500	20500	21000	23400	30700	36500	47300	59900	76500	118000
			Efficiency %	95	95	95	95	95	95	95	95	95	95	96

H3 RATINGS AT 725 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
106	6.	Mechanical	Input Power kW	2.9	4.0	5.0	6.9	13.1	15.0	22.2	28.5	44.5	60.0	88.6
			Output Torque Nm	3870	5110	6490	9130	17000	19800	29300	37900	61200	80600	117000
		Thermal	Input Power kW	10.3	13.7	17.4	17.4	19.9	25.2	30.2	39.7	47.6	62.9	96.1
		No Fan	Output Torque Nm	13800	17600	22600	22900	25900	33500	39900	52900	65500	84600	127000
			Efficiency %	95	95	95	95	95	95	95	95	95	95	95
117	6.	Mechanical	Input Power kW	2.0	3.9	4.4	6.2	11.8	13.2	20.0	25.3	40.9	54.0	80.8
			Output Torque Nm	3010	5630	6490	9130	17000	19800	29300	37900	61200	80600	117000
		Thermal	Input Power kW	10.2	13.5	17.2	17.2	19.6	25.0	29.9	39.3	47.1	62.2	95.0
		No Fan	Output Torque Nm	15100	19300	25100	25200	28400	37700	43800	58900	70500	92900	137000
			Efficiency %	95	95	95	96	95	95	95	96	95	95	95
130	5.	Mechanical	Input Power kW	1.8	2.8	3.5	6.2	7.8	12.2	15.5	23.5	29.9	50.0	63.1
			Output Torque Nm	3010	4520	5830	10100	12700	20000	25200	38500	48600	81200	102000
		Thermal	Input Power kW	10.1	13.4	17.0	17.0	19.4	24.7	29.6	38.9	46.6	61.6	94.0
		No Fan	Output Torque Nm	16600	21200	28200	27600	31600	40600	48000	63800	75700	100000	153000
			Efficiency %	95	95	95	95	95	95	95	95	95	95	95

H3 THERMAL RATINGS AT 725 REV/MIN INPUT

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
25.6	28.	Thermal	Input Power kW				31.2	34.9	44.9	54.4	69.8	88.3	114	158
		with fan	Output Torque Nm				10000	11600	14700	17400	22400	28600	36600	52400
		Thermal	Input Power kW	32.6	41.6	44.3	43.3	58.0	163	157	333	370	600	674
		with coil	Output Torque Nm	10700	13400	14700	13900	19300	53300	50500	107000	120000	193000	224000
		Thermal	Input Power kW				52.2	65.9	182	181	361	414	652	726
		Fan & Coil	Output Torque Nm				16800	21900	59500	58200	116000	134000	210000	241000
28.4	25.	Thermal	Input Power kW				30.8	34.4	44.3	53.7	68.9	87.1	112	156
		with fan	Output Torque Nm				11000	12400	16400	19100	25300	31600	40300	56400
		Thermal	Input Power kW	32.2	41.1	43.6	42.6	57.2	161	156	330	365	591	660
		with coil	Output Torque Nm	11600	14600	15600	15300	20600	59600	55500	121000	133000	212000	239000
		Thermal	Input Power kW				51.8	65.4	181	180	359	410	644	712
		Fan & Coil	Output Torque Nm				18600	23500	66800	64200	132000	149000	231000	258000
31.4	23.	Thermal	Input Power kW				30.3	33.9	43.7	52.9	67.8	85.8	110	154
		with fan	Output Torque Nm				12100	13800	17300	20800	27000	34000	44100	63000
		Thermal	Input Power kW	31.8	40.5	42.8	41.8	56.4	160	154	328	359	581	644
		with coil	Output Torque Nm	12600	16300	17100	16800	23000	63500	60600	131000	143000	232000	265000
		Thermal	Input Power kW				51.3	64.9	180	179	357	405	635	697
		Fan & Coil	Output Torque Nm				20500	26400	71300	70400	143000	161000	254000	286000
34.7	20.	Thermal	Input Power kW				29.8	33.4	43.0	52.1	66.8	84.5	109	151
		with fan	Output Torque Nm				13000	15000	19300	23000	29600	36400	47500	67300
		Thermal	Input Power kW	31.3	39.9	42.1	41.1	55.6	158	152	325	354	571	628
		with coil	Output Torque Nm	13700	17800	18500	18000	25000	71300	67300	144000	153000	250000	280000
		Thermal	Input Power kW				50.8	64.4	179	178	355	400	625	682
		Fan & Coil	Output Torque Nm				22200	29000	80300	78500	157000	173000	274000	304000
38.4	18.	Thermal	Input Power kW				29.3	32.8	42.3	51.2	65.6	83.0	107	149
		with fan	Output Torque Nm				14200	16400	20800	24700	32500	40800	51700	74400
		Thermal	Input Power kW	30.9	39.4	41.4	40.4	54.7	157	151	323	348	560	611
		with coil	Output Torque Nm	15000	19500	20200	19600	27300	77200	72600	160000	171000	271000	306000
		Thermal	Input Power kW				50.3	63.8	177	176	353	394	615	665
		Fan & Coil	Output Torque Nm				24400	31900	87300	85000	175000	194000	298000	333000
42.5	17.	Thermal	Input Power kW				28.8	32.2	41.5	50.3	64.5	81.6	105	146
		with fan	Output Torque Nm				15600	17800	22600	27200	35400	43100	57000	80500
		Thermal	Input Power kW	30.5	38.8	40.6	39.6	53.9	155	149	320	342	549	593
		with coil	Output Torque Nm	16300	21100	21700	21500	29700	84700	80600	176000	181000	298000	327000
		Thermal	Input Power kW				49.8	63.2	176	175	351	388	604	648
		Fan & Coil	Output Torque Nm				27100	34900	96000	94700	193000	205000	328000	358000

Note: Cooling coils cannot be fitted to vertical units

H3 THERMAL RATINGS AT 725 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT									
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
47.1	15.	Thermal	Input Power kW				28.3	31.6	40.7	49.4	63.3	80.1	103	143
		with fan	Output Torque Nm				17200	19400	23800	29900	38300	47700	62800	87700
		Thermal	Input Power kW	30.0	38.2	39.9	38.9	53.0	154	147	317	336	537	575
		with coil	Output Torque Nm	18100	23100	23900	23700	32500	90200	89300	192000	200000	327000	352000
		Thermal	Input Power kW				49.3	62.6	175	174	349	382	592	630
		Fan & Coil	Output Torque Nm				30100	38400	102000	105000	211000	228000	361000	386000
52.1	13.	Thermal	Input Power kW				27.7	31.0	39.9	48.4	62.0	78.5	101	141
		with fan	Output Torque Nm				18700	20400	26200	32400	41500	52500	68300	92500
		Thermal	Input Power kW	29.6	37.6	39.2	38.2	52.2	152	145	314	329	525	556
		with coil	Output Torque Nm	19700	24900	26100	25800	34400	99900	97500	211000	220000	355000	366000
		Thermal	Input Power kW				48.7	62.0	173	172	346	375	580	612
		Fan & Coil	Output Torque Nm				32900	40800	114000	115000	232000	251000	392000	403000
57.7	12.	Thermal	Input Power kW				27.1	30.4	39.1	47.4	60.8	76.9	99.0	138
		with fan	Output Torque Nm				19800	22000	28200	34400	43700	57300	71000	103000
		Thermal	Input Power kW	29.2	37.1	38.5	37.5	51.4	151	143	312	322	512	537
		with coil	Output Torque Nm	21000	26700	27700	27300	37200	109000	104000	224000	240000	368000	403000
		Thermal	Input Power kW				48.1	61.4	172	170	343	368	567	593
		Fan & Coil	Output Torque Nm				35000	44500	124000	124000	247000	275000	407000	445000
63.8	11.	Thermal	Input Power kW				26.6	29.7	38.3	46.4	59.5	75.3	96.9	135
		with fan	Output Torque Nm				21700	23800	30600	37900	47500	60300	77900	111000
		Thermal	Input Power kW	28.8	36.5	37.8	36.8	50.6	149	142	308	315	499	518
		with coil	Output Torque Nm	23000	29400	29700	30000	40500	119000	116000	247000	253000	402000	428000
		Thermal	Input Power kW				47.6	60.7	170	168	341	361	553	573
		Fan & Coil	Output Torque Nm				38800	48600	136000	137000	272000	289000	445000	473000
70.6	10.	Thermal	Input Power kW				26.0	29.1	37.4	45.4	58.2	73.6	94.8	132
		with fan	Output Torque Nm				22600	25000	33900	40100	51600	67600	83000	118000
		Thermal	Input Power kW	28.4	36.0	37.1	36.1	49.8	147	140	305	308	485	498
		with coil	Output Torque Nm	25000	32800	32400	31400	42900	133000	124000	271000	283000	425000	444000
		Thermal	Input Power kW				47.0	60.1	169	166	338	353	539	553
		Fan & Coil	Output Torque Nm				40900	51800	153000	147000	299000	325000	472000	493000
78.2	9.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	28.0	35.5	36.5	35.5	49.1	146	138	302	300	471	478
		with coil	Output Torque Nm	27600	35000	34800	35200	47800	139000	135000	288000	302000	461000	487000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											
86.5	8.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	27.7	35.1	36.0	35.0	48.6	144	136	299	293	457	459
		with coil	Output Torque Nm	30400	37800	37500	37900	52000	160000	150000	335000	321000	505000	491000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											
95.7	7.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	27.5	34.9	35.7	34.7	48.2	143	134	296	285	443	441
		with coil	Output Torque Nm	33000	41500	41300	41200	55900	171000	160000	347000	353000	530000	533000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											
106	6.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	27.3	34.7	35.4	34.4	47.9	141	133	294	277	428	422
		with coil	Output Torque Nm	36600	44700	46000	45400	62300	188000	175000	391000	382000	577000	557000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											
117	6.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	27.2	34.5	35.2	34.2	47.6	140	131	291	270	414	404
		with coil	Output Torque Nm	40100	49400	51400	50100	68900	211000	193000	436000	404000	618000	585000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											
130	5.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	27.1	34.4	35.0	34.0	47.4	138	130	288	262	399	387
		with coil	Output Torque Nm	44600	54600	58200	55300	77100	227000	211000	473000	426000	649000	629000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											

Note: Cooling coils cannot be fitted to vertical units

B2 RATINGS AT 1750 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
5.06	345.	Mechanical	Input Power kW	85.9	148	216	262	376	525	720	968	1300	1830*	2260*
			Output Torque Nm	2380	4050	6000	7160	10300	14400	19800	26700	36400	50600	62400
		Thermal	Input Power kW	35.3	45.9	56.5	52.2	73.4	86.7	130	177	260		
		No Fan	Output Torque Nm	977	1250	1560	1420	2000	2370	3560	4860	7260		
			Efficiency %	98	98	98	98	98	98	99	99	99	99	99
5.60	312.	Mechanical	Input Power kW	85.9	148	216	262	376	525	720	968	1300	1780*	2260*
			Output Torque Nm	2560	4490	6580	7950	11500	16200	21600	29600	39400	54400	69600
		Thermal	Input Power kW	35.0	45.5	56.0	51.7	72.7	85.9	129	175	258		
		No Fan	Output Torque Nm	1040	1380	1700	1560	2210	2650	3860	5350	7770		
			Efficiency %	98	98	98	98	98	98	98	98	99	98	99
6.20	282.	Mechanical	Input Power kW	85.9	148	203	262	376	525	720	968	1230	1630*	2260*
			Output Torque Nm	2870	4970	6860	8920	12700	17400	24200	32700	41800	56100	77200
		Thermal	Input Power kW	34.6	45.0	55.4	51.1	71.9	84.9	127	173	255		
		No Fan	Output Torque Nm	1160	1510	1860	1740	2430	2810	4280	5830	8660		
			Efficiency %	98	98	98	98	98	98	98	98	98	99	99
6.86	255.	Mechanical	Input Power kW	85.9	140	192	257	351	497	704	968	1170	1560*	2260*
			Output Torque Nm	3160	5230	7060	9580	13200	18500	25700	36200	43400	58600	84100
		Thermal	Input Power kW	34.2	44.5	54.8	50.5	71.1	83.9	126	171	252		
		No Fan	Output Torque Nm	1260	1660	2010	1880	2670	3120	4580	6390	9330		
			Efficiency %	98	98	97	98	98	98	98	98	98	99	99
7.59	230.	Mechanical	Input Power kW	82.2	124	182	211	318	443	585	832	1080	1440*	2050*
			Output Torque Nm	3350	5060	7320	8670	13200	18200	23500	34300	44200	59700	84300
		Thermal	Input Power kW	33.8	44.0	54.1	49.9	70.2	83.0	124	169	249		
		No Fan	Output Torque Nm	1380	1790	2170	2050	2910	3410	4990	6960	10200		
			Efficiency %	98	98	98	98	98	98	98	98	98	99	99
8.40	208.	Mechanical	Input Power kW	60.7	90.1	136	189	275	372	512	707	989	1330	1840*
			Output Torque Nm	2710	4030	6120	8560	12500	16800	22600	32100	44500	60800	83300
		Thermal	Input Power kW	33.4	43.5	53.5	49.3	69.4	82.0	123	167	246	315	
		No Fan	Output Torque Nm	1490	1940	2400	2230	3160	3700	5420	7570	11100	14300	
			Efficiency %	98	98	98	98	98	98	98	98	98	99	99
9.3	188.	Mechanical	Input Power kW	60.7	90.1	136	162	244	324	444	632	832	1210	1740
			Output Torque Nm	2980	4490	6680	8020	12200	16100	21500	31500	41100	60700	86200
		Thermal	Input Power kW	33.0	43.0	52.9	48.8	68.6	81.0	122	165	243	311	455
		No Fan	Output Torque Nm	1620	2140	2590	2420	3430	4020	5880	8220	12000	15500	22600
			Efficiency %	98	98	98	97	98	98	98	98	98	99	98
10.3	170.	Mechanical	Input Power kW	60.7	90.1	136	162	244	287	444	615	832	1120	1680
			Output Torque Nm	3300	4900	7290	8780	13100	15900	24200	33900	46500	62400	90900
		Thermal	Input Power kW	32.6	42.4	52.2	48.2	67.7	80.0	120	163	240	307	450
		No Fan	Output Torque Nm	1770	2300	2800	2610	3630	4430	6530	9000	13400	17100	24300
			Efficiency %	97	98	97	97	98	98	98	98	98	98	98
11.4	153.	Mechanical	Input Power kW	46.3	59.5	85.2	138	208	260	394	528	744	1030	1510
			Output Torque Nm	2790	3610	5200	8310	12300	15900	23700	32200	45900	63600	90600
		Thermal	Input Power kW	32.2	41.8	51.5	47.5	66.8	78.9	118	161	237	303	444
		No Fan	Output Torque Nm	1940	2540	3150	2850	3960	4830	7120	9810	14600	18700	26500
			Efficiency %	98	97	97	98	97	97	97	98	98	98	99
12.6	138.	Mechanical	Input Power kW	37.0	59.5	85.2	120	177	234	336	449	637	932	1310
			Output Torque Nm	2470	4030	5680	8050	11700	15900	22500	30500	43700	64000	87100
		Thermal	Input Power kW	31.7	41.2	50.8	46.8	65.9	77.8	117	159	233	298	437
		No Fan	Output Torque Nm	2120	2790	3390	3130	4350	5300	7810	10800	16000	20500	29100
			Efficiency %	98	97	97	98	97	97	97	98	98	98	98
14.0	125.	Mechanical	Input Power kW	37.0	59.5	85.1	112	170	220	325	449	637	902	1310
			Output Torque Nm	2740	4400	6210	8350	12700	16400	24200	33500	47500	67400	97900
		Thermal	Input Power kW	31.3	40.7	50.1	46.2	65.0	76.7	115	157	230	294	431
		No Fan	Output Torque Nm	2310	3010	3650	3430	4830	5700	8550	11600	17100	22000	32300
			Efficiency %	98	97	97	98	98	98	98	98	98	98	98
15.4	113.	Mechanical	Input Power kW	34.8	53.6	61.3	102	148	199	276	388	554	797	1080
			Output Torque Nm	2860	4390	4990	8350	12100	16400	22600	31900	45500	65700	89300
		Thermal	Input Power kW	30.9	40.2	49.4	45.6	64.1	75.7	114	155	227	291	426
		No Fan	Output Torque Nm	2530	3300	4030	3740	5260	6210	9320	12700	18700	23900	35100
			Efficiency %	98	97	97	97	97	98	97	98	98	98	98

* Forced Lubrication Required

B2 RATINGS AT 1750 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
17.1	102.	Mechanical	Input Power kW	28.5	42.1	61.3	76.8	112	149	207	282	403	595	836
			Output Torque Nm	2570	3800	5450	6920	10000	13700	18700	25700	37200	54900	74900
		Thermal	Input Power kW	30.5	39.7	48.9	45.1	63.4	74.9	112	153	225	287	421
		No Fan	Output Torque Nm	2750	3580	4350	4060	5640	6880	10100	13900	20700	26500	37700
			Efficiency %	97	97	97	97	98	97	97	97	97	98	98
18.9	92.	Mechanical	Input Power kW	28.5	42.1	57.2	76.8	112	149	207	282	403	595	836
			Output Torque Nm	2850	4220	5790	7680	11300	14900	20700	28200	40400	59700	84100
		Thermal	Input Power kW	30.2	39.2	48.2	44.5	62.6	73.9	111	151	222	284	415
		No Fan	Output Torque Nm	3020	3920	4880	4450	6260	7390	11100	15100	22200	28400	41800
			Efficiency %	97	98	98	97	98	97	97	97	98	98	98

B2 THERMAL RATINGS AT 1750 REV/MIN INPUT

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
5.06	345.	Thermal	Input Power kW	100	131	166	176	237	292	430	524	772	*	*
		with fan	Output Torque Nm	2770	3580	4590	4820	6480	8000	11800	14400	21600		
		Thermal	Input Power kW	89.4	111	110	104	129	565	689	1620	1890		
		with coil	Output Torque Nm	2480	3040	3040	2850	3510	15500	18900	44500	52900		
		Thermal	Input Power kW	185	237	269	297	354	946	1280	2180	2850		
		Fan & Coil	Output Torque Nm	5120	6470	7460	8100	9670	26000	35000	60100	79900		
5.60	312.	Thermal	Input Power kW	97.4	128	161	172	231	284	419	511	752	*	*
		with fan	Output Torque Nm	2910	3870	4910	5200	7040	8780	12600	15600	22700		
		Thermal	Input Power kW	88.9	111	109	104	128	545	657	1550	1810		
		with coil	Output Torque Nm	2650	3350	3310	3140	3890	16900	19700	47400	54800		
		Thermal	Input Power kW	180	230	261	285	344	889	1170	2070	2740		
		Fan & Coil	Output Torque Nm	5370	6980	7950	8650	10500	27500	35200	63400	82900		
6.20	282.	Thermal	Input Power kW	94.7	124	157	167	224	276	407	496	730	*	*
		with fan	Output Torque Nm	3170	4150	5280	5680	7590	9170	13700	16700	24900		
		Thermal	Input Power kW	88.2	110	108	103	127	525	625	1480	1730		
		with coil	Output Torque Nm	2950	3670	3640	3500	4290	17400	21000	49900	59000		
		Thermal	Input Power kW	175	223	253	274	334	834	1080	1960	2620		
		Fan & Coil	Output Torque Nm	5840	7480	8520	9320	11300	27700	36400	66300	89300		
6.86	255.	Thermal	Input Power kW	91.8	120	152	162	218	268	395	481	708	*	*
		with fan	Output Torque Nm	3380	4490	5590	6020	8180	9990	14400	18000	26300		
		Thermal	Input Power kW	87.5	109	107	102	126	505	594	1410	1650		
		with coil	Output Torque Nm	3220	4060	3940	3790	4740	18800	21600	52700	61200		
		Thermal	Input Power kW	169	216	244	262	324	781	999	1860	2500		
		Fan & Coil	Output Torque Nm	6220	8070	8990	9770	12200	29100	36400	69500	92900		
7.59	230.	Thermal	Input Power kW	89.0	117	147	157	211	260	382	466	687	*	*
		with fan	Output Torque Nm	3630	4750	5920	6440	8740	10700	15400	19200	28100		
		Thermal	Input Power kW	86.8	108	106	101	125	485	563	1340	1570		
		with coil	Output Torque Nm	3540	4400	4260	4140	5190	19900	22600	55200	64200		
		Thermal	Input Power kW	164	209	236	251	313	732	924	1750	2380		
		Fan & Coil	Output Torque Nm	6670	8520	9480	10300	13000	30100	37100	72300	97600		
8.40	208.	Thermal	Input Power kW	86.2	113	143	152	204	251	370	452	665	869	*
		with fan	Output Torque Nm	3840	5040	6410	6860	9320	11400	16400	20500	29900	39600	
		Thermal	Input Power kW	86.0	107	105	99.9	124	464	533	1270	1490	2170	
		with coil	Output Torque Nm	3840	4780	4720	4510	5670	21000	23500	57600	67100	98800	
		Thermal	Input Power kW	158	202	227	240	303	685	856	1650	2270	3170	
		Fan & Coil	Output Torque Nm	7050	9020	10200	10900	13800	31000	37800	75000	102000	144000	

* Forced Lubrication Required

Note: Cooling coils cannot be fitted to vertical units

B2 THERMAL RATINGS AT 1750 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
9.3	188.	Thermal	Input Power kW	83.4	109	138	147	198	243	359	437	644	841	1220
		with fan	Output Torque Nm	4090	5440	6780	7300	9900	12100	17400	21700	31800	42100	60700
		Thermal	Input Power kW	85.2	106	104	98.9	123	444	504	1200	1410	2060	1830
		with coil	Output Torque Nm	4180	5280	5110	4910	6180	22000	24400	59900	69800	103000	90600
		Thermal	Input Power kW	152	195	219	229	293	641	795	1560	2150	3010	3130
		Fan & Coil	Output Torque Nm	7480	9690	10700	11400	14700	31800	38500	77500	106000	151000	155000
10.3	170.	Thermal	Input Power kW	80.7	106	134	142	191	235	347	423	623	814	1180
		with fan	Output Torque Nm	4390	5740	7160	7730	10300	13100	18900	23300	34800	45400	64100
		Thermal	Input Power kW	84.4	105	103	97.8	123	423	476	1140	1340	1960	1750
		with coil	Output Torque Nm	4590	5700	5520	5310	6570	23500	25900	62800	74600	109000	94700
		Thermal	Input Power kW	147	187	210	219	282	599	739	1460	2040	2860	3000
		Fan & Coil	Output Torque Nm	7980	10200	11300	11900	15100	33300	40200	80700	114000	160000	162000
11.4	153.	Thermal	Input Power kW	78.0	102	129	137	185	228	335	409	602	787	1140
		with fan	Output Torque Nm	4710	6210	7890	8260	11000	14000	20200	24900	37100	48500	68500
		Thermal	Input Power kW	83.5	104	102	96.6	122	403	450	1070	1260	1860	1670
		with coil	Output Torque Nm	5040	6300	6220	5800	7200	24700	27100	65500	77900	115000	100000
		Thermal	Input Power kW	141	180	202	209	272	560	688	1370	1930	2710	2860
		Fan & Coil	Output Torque Nm	8520	10900	12300	12500	16100	34400	41400	83800	119000	167000	171000
12.6	138.	Thermal	Input Power kW	75.4	98.8	125	133	179	220	324	395	582	761	1110
		with fan	Output Torque Nm	5030	6690	8330	8900	11800	15000	21700	26800	40000	52200	73700
		Thermal	Input Power kW	82.5	103	101	95.4	120	383	424	1010	1190	1760	1600
		with coil	Output Torque Nm	5510	6950	6720	6380	7950	26100	28400	68700	81800	121000	106000
		Thermal	Input Power kW	136	173	194	199	262	524	641	1290	1830	2560	2730
		Fan & Coil	Output Torque Nm	9050	11700	12900	13300	17300	35800	43000	87500	125000	176000	182000
14.0	125.	Thermal	Input Power kW	73.0	95.6	121	129	173	213	314	382	563	736	1070
		with fan	Output Torque Nm	5400	7070	8810	9560	12900	15800	23300	28500	42000	55000	80200
		Thermal	Input Power kW	81.6	101	99.4	94.1	119	363	399	952	1120	1660	1520
		with coil	Output Torque Nm	6030	7500	7250	6990	8880	27000	29700	70900	83600	124000	114000
		Thermal	Input Power kW	130	166	186	190	252	491	599	1210	1720	2420	2600
		Fan & Coil	Output Torque Nm	9630	12300	13500	14100	18700	36500	44500	89900	128000	181000	195000
15.4	113.	Thermal	Input Power kW	70.8	92.7	117	125	168	206	304	371	546	714	1040
		with fan	Output Torque Nm	5810	7600	9540	10200	13800	16900	25000	30500	44900	58800	85700
		Thermal	Input Power kW	80.6	100	98.2	92.9	119	345	376	894	1060	1570	1450
		with coil	Output Torque Nm	6610	8220	8000	7620	9720	28300	30900	73500	86800	129000	120000
		Thermal	Input Power kW	125	159	178	181	242	460	561	1130	1630	2280	2480
		Fan & Coil	Output Torque Nm	10300	13100	14500	14900	19900	37700	46000	93000	134000	188000	205000
17.1	102.	Thermal	Input Power kW	68.7	90.0	114	121	163	200	295	360	530	693	1010
		with fan	Output Torque Nm	6200	8120	10100	10900	14500	18400	26600	32900	48900	63900	90200
		Thermal	Input Power kW	79.6	98.9	97.0	91.7	118	326	355	839	993	1480	1380
		with coil	Output Torque Nm	7180	8920	8630	8270	10500	30000	32000	76600	91700	136000	123000
		Thermal	Input Power kW	120	153	171	173	233	431	526	1060	1530	2150	2360
		Fan & Coil	Output Torque Nm	10800	13800	15200	15600	20800	39700	47500	96900	142000	199000	211000
18.9	92.	Thermal	Input Power kW	66.9	87.7	111	118	159	195	288	351	516	675	982
		with fan	Output Torque Nm	6700	8770	11200	11800	15900	19500	28800	35100	51800	67700	98700
		Thermal	Input Power kW	78.5	97.6	95.7	90.3	117	308	334	787	933	1390	1310
		with coil	Output Torque Nm	7860	9770	9680	9040	11700	30900	33400	78800	93500	140000	132000
		Thermal	Input Power kW	115	147	164	166	225	405	496	996	1450	2030	2250
		Fan & Coil	Output Torque Nm	11600	14700	16600	16600	22500	40600	49600	99700	145000	204000	226000

Note: Cooling coils cannot be fitted to vertical units

B2 RATINGS AT 1450 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
5.06	286.	Mechanical	Input Power kW	71.2	123	179	217	311	435	597	802	1080	1610	1980*
			Output Torque Nm	2380	4050	6000	7160	10300	14400	19700	26600	36400	53500	65900
		Thermal	Input Power kW	41.3	53.7	66.2	61.0	85.9	101	152	207	304	389	
		No Fan	Output Torque Nm	1380	1770	2210	2010	2830	3340	5020	6860	10200	12900	
			Efficiency %	98	98	98	98	98	98	98	98	99	98	99
5.60	258.	Mechanical	Input Power kW	71.2	123	179	217	311	435	597	802	1080	1560	1980*
			Output Torque Nm	2560	4490	6580	7940	11400	16200	21600	29600	39400	57600	73600
		Thermal	Input Power kW	40.9	53.2	65.5	60.4	85.0	100	151	205	301	385	
		No Fan	Output Torque Nm	1470	1950	2400	2210	3120	3730	5440	7550	11000	14200	
			Efficiency %	98	97	98	98	98	98	98	98	99	99	99
6.20	233.	Mechanical	Input Power kW	71.2	123	178	217	311	435	597	802	1070	1430	1980*
			Output Torque Nm	2870	4970	7260	8920	12700	17400	24200	32600	44200	59300	81700
		Thermal	Input Power kW	40.5	52.7	64.8	59.8	84.1	99.3	149	203	298	381	
		No Fan	Output Torque Nm	1630	2130	2630	2450	3430	3970	6040	8230	12200	15800	
			Efficiency %	98	97	98	98	98	98	98	98	99	99	99
6.86	211.	Mechanical	Input Power kW	71.2	117	168	217	292	413	597	802	1020	1370	1980*
			Output Torque Nm	3160	5290	7470	9760	13200	18600	26200	36100	45800	62000	88900
		Thermal	Input Power kW	40.0	52.1	64.1	59.1	83.1	98.2	147	200	294	377	
		No Fan	Output Torque Nm	1780	2340	2840	2650	3770	4410	6460	9020	13200	17000	
			Efficiency %	98	98	98	98	98	98	98	98	99	98	99
7.59	190.	Mechanical	Input Power kW	69.0	104	158	175	263	367	485	689	933	1260	1800
			Output Torque Nm	3390	5120	7660	8670	13200	18200	23500	34200	46000	63100	89100
		Thermal	Input Power kW	39.6	51.5	63.3	58.4	82.2	97.0	146	198	291	372	546
		No Fan	Output Torque Nm	1950	2530	3070	2890	4110	4810	7040	9830	14300	18600	27000
			Efficiency %	97	98	97	98	98	98	98	98	98	99	99
8.40	172.	Mechanical	Input Power kW	50.3	74.7	113	157	228	308	424	586	820	1170	1620
			Output Torque Nm	2710	4030	6120	8560	12500	16800	22600	32000	44500	64300	88000
		Thermal	Input Power kW	39.1	50.9	62.6	57.7	81.2	95.9	144	196	288	368	539
		No Fan	Output Torque Nm	2110	2740	3390	3150	4470	5230	7660	10700	15600	20200	29300
			Efficiency %	98	98	98	98	97	98	98	98	98	98	98
9.3	155.	Mechanical	Input Power kW	50.3	74.7	113	134	202	269	368	524	689	1030	1440
			Output Torque Nm	2980	4490	6680	8020	12200	16100	21500	31400	41000	62000	86100
		Thermal	Input Power kW	38.7	50.3	61.9	57.1	80.3	94.8	142	193	284	364	533
		No Fan	Output Torque Nm	2290	3020	3670	3420	4850	5680	8310	11600	16900	21900	31800
			Efficiency %	98	98	97	98	98	98	98	98	98	98	98
10.3	140.	Mechanical	Input Power kW	50.3	74.7	113	134	202	238	368	511	689	981	1390
			Output Torque Nm	3300	4900	7290	8780	13100	15900	24200	34000	46400	66000	91000
		Thermal	Input Power kW	38.2	49.7	61.1	56.4	79.3	93.6	140	191	281	359	526
		No Fan	Output Torque Nm	2510	3260	3950	3690	5130	6260	9220	12700	18900	24200	34300
			Efficiency %	97	97	97	98	98	97	98	98	98	98	99
11.4	127.	Mechanical	Input Power kW	38.9	49.3	70.6	115	173	216	326	437	616	879	1250
			Output Torque Nm	2830	3610	5200	8310	12300	16000	23700	32200	45800	65400	90500
		Thermal	Input Power kW	37.7	49.0	60.3	55.6	78.2	92.3	138	188	277	354	519
		No Fan	Output Torque Nm	2740	3590	4450	4030	5590	6820	10100	13900	20600	26300	37400
			Efficiency %	98	97	97	97	97	98	98	98	98	98	99
12.6	115.	Mechanical	Input Power kW	30.7	49.3	70.6	99.6	147	194	279	372	528	772	1080
			Output Torque Nm	2470	4030	5680	8050	11700	16000	22500	30500	43700	63900	87000
		Thermal	Input Power kW	37.1	48.3	59.4	54.8	77.1	91.0	137	186	273	349	512
		No Fan	Output Torque Nm	2990	3950	4790	4430	6140	7500	11000	15200	22600	28900	41100
			Efficiency %	97	97	97	98	97	98	97	98	98	98	98
14.0	103.	Mechanical	Input Power kW	30.7	49.3	70.6	93.2	141	183	272	372	528	772	1080
			Output Torque Nm	2740	4400	6210	8360	12700	16400	24400	33400	47400	69500	97800
		Thermal	Input Power kW	36.6	47.6	58.6	54.1	76.1	89.8	135	183	269	345	505
		No Fan	Output Torque Nm	3270	4250	5160	4850	6820	8050	12100	16500	24200	31000	45500
			Efficiency %	97	97	97	97	98	97	98	98	98	98	98
15.4	93.	Mechanical	Input Power kW	29.3	45.0	50.8	84.4	122	165	229	321	459	660	896
			Output Torque Nm	2900	4460	4990	8360	12100	16400	22600	31800	45500	65600	89200
		Thermal	Input Power kW	36.2	47.0	57.9	53.4	75.1	88.7	133	181	266	340	498
		No Fan	Output Torque Nm	3580	4660	5690	5280	7430	8780	13200	17900	26400	33800	49600
			Efficiency %	97	98	97	97	98	98	97	97	98	98	98

* Forced Lubrication Required

B2 RATINGS AT 1450 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
17.1	84.	Mechanical	Input Power kW	23.6	34.9	50.8	63.6	93.2	124	172	234	334	493	693
			Output Torque Nm	2570	3800	5450	6920	10000	13700	18700	25700	37200	54800	74700
		Thermal	Input Power kW	35.8	46.5	57.2	52.8	74.2	87.6	131	179	263	336	493
		No Fan	Output Torque Nm	3890	5060	6140	5740	7970	9720	14300	19700	29300	37400	53100
			Efficiency %	97	97	97	98	97	97	97	97	97	98	98
18.9	76.	Mechanical	Input Power kW	23.6	34.9	47.6	63.6	93.2	124	172	234	334	493	693
			Output Torque Nm	2850	4220	5810	7680	11300	14900	20700	28200	40400	59700	84000
		Thermal	Input Power kW	35.3	45.9	56.5	52.1	73.3	86.5	130	177	260	332	486
		No Fan	Output Torque Nm	4260	5540	6890	6290	8850	10400	15700	21300	31400	40200	58900
			Efficiency %	97	98	98	97	98	97	97	97	98	98	98

B2 THERMAL RATINGS AT 1450 REV/MIN INPUT

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
5.06	286.	Thermal	Input Power kW	92.3	121	153	163	219	269	397	484	712	931	*
		with fan	Output Torque Nm	3080	3980	5110	5360	7210	8900	13100	16000	24000	31000	
		Thermal	Input Power kW	95.4	119	119	113	141	579	711	1650	1940	2740	
		with coil	Output Torque Nm	3190	3920	3990	3730	4650	19100	23500	54700	65300	91400	
		Thermal	Input Power kW	177	227	256	283	335	924	1240	2140	2790	3880	
		Fan & Coil	Output Torque Nm	5920	7470	8580	9320	11100	30500	41100	71100	94300	129000	
5.60	258.	Thermal	Input Power kW	89.9	118	149	158	213	262	386	471	694	907	*
		with fan	Output Torque Nm	3240	4300	5460	5790	7830	9760	14000	17400	25300	33500	
		Thermal	Input Power kW	94.8	118	118	112	140	560	679	1580	1850	2640	
		with coil	Output Torque Nm	3420	4330	4350	4110	5150	20800	24600	58200	67700	97600	
		Thermal	Input Power kW	172	220	249	272	326	867	1140	2030	2680	3730	
		Fan & Coil	Output Torque Nm	6210	8060	9140	9940	12000	32300	41300	75000	97800	138000	
6.20	233.	Thermal	Input Power kW	87.3	114	144	154	207	255	375	457	674	881	*
		with fan	Output Torque Nm	3520	4620	5880	6320	8440	10200	15200	18600	27700	36500	
		Thermal	Input Power kW	94.1	117	117	111	139	540	647	1510	1770	2540	
		with coil	Output Torque Nm	3800	4740	4770	4580	5680	21600	26200	61300	72900	105000	
		Thermal	Input Power kW	167	214	241	261	317	812	1050	1920	2560	3570	
		Fan & Coil	Output Torque Nm	6750	8640	9790	10700	12900	32500	42600	78300	105000	148000	
6.86	211.	Thermal	Input Power kW	84.7	111	140	149	201	247	364	444	653	854	*
		with fan	Output Torque Nm	3760	5000	6220	6700	9100	11100	16000	20000	29200	38700	
		Thermal	Input Power kW	93.3	116	116	110	138	519	615	1440	1690	2430	
		with coil	Output Torque Nm	4140	5250	5170	4960	6270	23400	27000	64800	75700	110000	
		Thermal	Input Power kW	162	207	233	250	307	760	968	1820	2450	3410	
		Fan & Coil	Output Torque Nm	7190	9330	10300	11200	13900	34200	42500	82000	109000	155000	
7.59	190.	Thermal	Input Power kW	82.1	107	136	145	194	239	353	430	633	828	1200
		with fan	Output Torque Nm	4040	5290	6590	7170	9730	11900	17100	21400	31200	41300	59600
		Thermal	Input Power kW	92.5	115	115	109	137	499	584	1370	1610	2320	2060
		with coil	Output Torque Nm	4550	5680	5590	5420	6860	24700	28300	68000	79500	116000	102000
		Thermal	Input Power kW	157	200	224	239	297	712	894	1720	2330	3260	3300
		Fan & Coil	Output Torque Nm	7710	9840	10900	11800	14900	35300	43300	85300	115000	163000	163000
8.40	172.	Thermal	Input Power kW	79.5	104	132	140	188	232	342	417	613	802	1170
		with fan	Output Torque Nm	4280	5610	7140	7640	10400	12700	18200	22800	33300	44100	63500
		Thermal	Input Power kW	91.7	114	114	108	136	478	554	1300	1530	2220	1980
		with coil	Output Torque Nm	4940	6170	6200	5910	7490	26100	29500	71000	83100	122000	108000
		Thermal	Input Power kW	151	193	216	228	287	665	828	1620	2220	3100	3170
		Fan & Coil	Output Torque Nm	8150	10400	11700	12500	15800	36300	44100	88400	120000	170000	173000

* Forced Lubrication Required

Note: Cooling coils cannot be fitted to vertical units

B2 THERMAL RATINGS AT 1450 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
9.3	155.	Thermal	Input Power kW	77.0	101	127	136	182	225	331	403	594	776	1130
		with fan	Output Torque Nm	4560	6060	7550	8120	11000	13500	19300	24200	35300	46800	67500
		Thermal	Input Power kW	90.9	113	113	107	135	457	525	1230	1450	2120	1900
		with coil	Output Torque Nm	5380	6810	6700	6420	8170	27400	30700	73900	86500	128000	114000
		Thermal	Input Power kW	146	186	208	218	277	622	767	1520	2100	2950	3040
		Fan & Coil	Output Torque Nm	8640	11200	12300	13100	16800	37300	44900	91300	125000	178000	182000
10.3	140.	Thermal	Input Power kW	74.4	97.5	123	131	176	217	320	390	574	751	1090
		with fan	Output Torque Nm	4880	6400	7970	8600	11400	14500	21000	26000	38600	50500	71300
		Thermal	Input Power kW	90.0	112	112	106	134	437	497	1170	1380	2010	1830
		with coil	Output Torque Nm	5900	7360	7240	6950	8670	29200	32600	77600	92700	135000	119000
		Thermal	Input Power kW	141	179	200	208	267	581	712	1430	1990	2790	2900
		Fan & Coil	Output Torque Nm	9230	11800	12900	13600	17300	38900	46800	95200	134000	188000	190000
11.4	127.	Thermal	Input Power kW	72.0	94.2	119	127	171	210	309	377	555	726	1060
		with fan	Output Torque Nm	5240	6910	8790	9200	12200	15500	22500	27700	41300	54000	76100
		Thermal	Input Power kW	89.0	111	111	105	133	416	470	1100	1300	1910	1750
		with coil	Output Torque Nm	6480	8130	8160	7590	9510	30800	34100	81000	96800	142000	126000
		Thermal	Input Power kW	135	172	192	198	257	543	661	1340	1890	2640	2770
		Fan & Coil	Output Torque Nm	9840	12600	14100	14400	18400	40100	48000	98700	140000	197000	200000
12.6	115.	Thermal	Input Power kW	69.6	91.1	115	123	165	203	299	365	537	702	1020
		with fan	Output Torque Nm	5600	7450	9280	9910	13100	16700	24200	29900	44400	58100	82000
		Thermal	Input Power kW	88.0	110	109	103	132	396	444	1040	1230	1810	1670
		with coil	Output Torque Nm	7080	8960	8810	8350	10500	32600	35900	85100	102000	150000	134000
		Thermal	Input Power kW	130	165	184	189	248	507	616	1260	1780	2500	2650
		Fan & Coil	Output Torque Nm	10500	13500	14800	15200	19700	41800	49800	103000	147000	207000	213000
14.0	103.	Thermal	Input Power kW	67.3	88.2	111	119	160	196	289	353	520	679	988
		with fan	Output Torque Nm	6010	7870	9810	10600	14300	17600	26000	31700	46700	61100	89100
		Thermal	Input Power kW	86.9	108	108	102	131	377	419	978	1160	1710	1590
		with coil	Output Torque Nm	7760	9670	9500	9150	11700	33800	37600	87900	104000	154000	144000
		Thermal	Input Power kW	125	159	176	180	238	474	574	1180	1680	2360	2520
		Fan & Coil	Output Torque Nm	11100	14200	15500	16100	21400	42500	51500	106000	151000	212000	228000
15.4	93.	Thermal	Input Power kW	65.3	85.5	108	115	155	190	281	342	504	658	957
		with fan	Output Torque Nm	6460	8460	10600	11400	15300	18900	27800	33900	50000	65400	95300
		Thermal	Input Power kW	85.8	107	107	101	129	357	396	921	1090	1620	1520
		with coil	Output Torque Nm	8500	10600	10500	9970	12800	35400	39200	91200	109000	161000	151000
		Thermal	Input Power kW	120	152	169	171	229	444	537	1100	1580	2230	2400
		Fan & Coil	Output Torque Nm	11800	15100	16600	17000	22700	43900	53200	109000	157000	221000	239000
17.1	84.	Thermal	Input Power kW	63.4	83.0	105	112	150	185	272	332	489	639	930
		with fan	Output Torque Nm	6900	9040	11300	12200	16100	20500	29700	36600	54400	71100	100000
		Thermal	Input Power kW	84.8	106	105	99.4	128	339	374	865	1030	1530	1450
		with coil	Output Torque Nm	9230	11500	11300	10800	13800	37600	40700	95400	115000	170000	156000
		Thermal	Input Power kW	115	146	162	164	221	416	503	1030	1490	2100	2280
		Fan & Coil	Output Torque Nm	12500	15900	17400	17800	23700	46100	54800	114000	166000	233000	246000
18.9	76.	Thermal	Input Power kW	61.7	80.9	102	109	146	180	265	323	476	623	906
		with fan	Output Torque Nm	7460	9770	12500	13100	17700	21800	32100	39100	57600	75400	110000
		Thermal	Input Power kW	83.6	104	104	97.9	127	321	353	813	971	1440	1380
		with coil	Output Torque Nm	10100	12600	12700	11800	15400	38800	42600	98200	117000	174000	167000
		Thermal	Input Power kW	110	140	156	157	213	390	473	968	1410	1980	2170
		Fan & Coil	Output Torque Nm	13300	17000	19000	18900	25700	47200	57200	117000	170000	239000	263000

Note: Cooling coils cannot be fitted to vertical units

B2 RATINGS AT 960 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
5.06	189.	Mechanical	Input Power kW	47.1	81.4	119	144	206	288	395	531	714	1090	1480
			Output Torque Nm	2380	4050	6000	7160	10300	14300	19700	26500	36300	54900	74500
		Thermal	Input Power kW	51.3	66.7	82.1	75.7	106	126	189	257	377	482	707
		No Fan	Output Torque Nm	2590	3320	4150	3770	5290	6260	9390	12800	19200	24200	35500
			Efficiency %	98	98	98	98	98	97	98	98	98	99	99
5.60	171.	Mechanical	Input Power kW	47.1	81.4	119	144	206	288	395	531	714	1090	1480
			Output Torque Nm	2570	4500	6580	7940	11400	16200	21500	29500	39300	60900	83100
		Thermal	Input Power kW	50.8	66.1	81.3	75.0	105	125	187	254	374	478	700
		No Fan	Output Torque Nm	2770	3650	4510	4140	5850	6990	10200	14100	20500	26600	39200
			Efficiency %	98	98	97	97	97	98	98	98	98	99	99
6.20	154.	Mechanical	Input Power kW	47.1	81.4	119	144	206	288	395	531	714	1070	1480
			Output Torque Nm	2870	4970	7290	8920	12700	17400	24200	32500	44200	67000	92200
		Thermal	Input Power kW	50.3	65.4	80.4	74.2	104	123	185	251	370	473	693
		No Fan	Output Torque Nm	3070	3990	4940	4600	6430	7440	11300	15400	22900	29500	43000
			Efficiency %	98	98	98	98	98	98	98	98	98	99	99
6.86	139.	Mechanical	Input Power kW	47.1	79.8	119	144	194	274	395	531	714	1030	1370
			Output Torque Nm	3160	5430	7960	9760	13300	18600	26200	36000	48100	70000	92900
		Thermal	Input Power kW	49.7	64.6	79.5	73.3	103	122	183	249	365	467	685
		No Fan	Output Torque Nm	3330	4400	5340	4970	7060	8270	12100	16900	24600	31900	46300
			Efficiency %	98	98	97	98	98	98	98	98	98	98	99
7.59	126.	Mechanical	Input Power kW	47.0	70.8	107	116	174	243	321	456	617	901	1250
			Output Torque Nm	3490	5260	7860	8670	13200	18200	23400	34200	45900	67800	92900
		Thermal	Input Power kW	49.1	63.9	78.6	72.5	102	120	181	246	361	462	677
		No Fan	Output Torque Nm	3650	4750	5760	5430	7700	9010	13200	18400	26800	34800	50500
			Efficiency %	97	98	98	98	98	98	98	98	98	98	98
8.40	114.	Mechanical	Input Power kW	33.3	49.4	74.6	104	151	204	281	388	543	788	1110
			Output Torque Nm	2710	4030	6120	8560	12500	16800	22600	32000	44300	65200	91300
		Thermal	Input Power kW	48.6	63.1	77.7	71.7	101	119	179	243	357	457	669
		No Fan	Output Torque Nm	3950	5140	6370	5910	8380	9810	14300	20000	29200	37800	54900
			Efficiency %	98	98	98	98	97	98	98	98	98	98	99
9.3	103.	Mechanical	Input Power kW	33.3	49.4	74.6	88.6	134	178	243	347	456	681	953
			Output Torque Nm	2980	4490	6680	8020	12200	16100	21500	31400	40900	61800	85800
		Thermal	Input Power kW	48.0	62.4	76.8	70.8	99.7	118	177	240	353	451	662
		No Fan	Output Torque Nm	4290	5670	6880	6410	9100	10600	15600	21700	31600	41000	59600
			Efficiency %	98	98	98	98	98	98	98	98	98	98	98
10.3	93.	Mechanical	Input Power kW	33.3	49.4	74.6	88.6	134	158	243	340	456	672	927
			Output Torque Nm	3300	4900	7300	8780	13100	16000	24100	34100	46300	68100	91100
		Thermal	Input Power kW	47.4	61.6	75.9	70.0	98.4	116	174	237	349	446	653
		No Fan	Output Torque Nm	4700	6110	7420	6930	9620	11700	17300	23800	35400	45200	64200
			Efficiency %	97	98	98	98	98	98	98	98	98	98	98
11.4	84.	Mechanical	Input Power kW	26.6	32.6	46.7	75.9	114	143	216	290	408	582	831
			Output Torque Nm	2920	3620	5200	8320	12300	16000	23700	32100	45800	65200	90200
		Thermal	Input Power kW	46.8	60.8	74.8	69.0	97.1	115	172	234	344	440	644
		No Fan	Output Torque Nm	5140	6730	8340	7560	10500	12800	18800	26000	38600	49200	70000
			Efficiency %	97	98	98	98	97	98	98	97	98	98	98
12.6	76.	Mechanical	Input Power kW	20.3	32.6	46.7	65.9	97.2	129	184	246	349	511	718
			Output Torque Nm	2470	4030	5680	8050	11700	16000	22500	30500	43600	63700	86700
		Thermal	Input Power kW	46.1	60.0	73.8	68.0	95.7	113	170	231	339	434	635
		No Fan	Output Torque Nm	5610	7400	8980	8300	11500	14100	20700	28500	42300	54100	76800
			Efficiency %	98	98	97	98	97	97	98	98	97	98	98
14.0	68.	Mechanical	Input Power kW	20.3	32.6	46.7	61.8	93.7	121	184	246	349	511	718
			Output Torque Nm	2740	4400	6210	8370	12700	16400	25000	33400	47400	69400	97500
		Thermal	Input Power kW	45.5	59.2	72.8	67.1	94.4	112	167	228	335	428	627
		No Fan	Output Torque Nm	6130	7970	9680	9090	12800	15100	22700	30800	45400	58100	85200
			Efficiency %	98	98	97	97	98	97	98	98	98	98	98
15.4	62.	Mechanical	Input Power kW	20.1	30.2	33.6	55.9	81.0	110	151	213	304	437	593
			Output Torque Nm	3000	4510	4990	8360	12100	16400	22600	31800	45400	65500	88900
		Thermal	Input Power kW	44.9	58.4	71.9	66.3	93.2	110	165	225	330	422	619
		No Fan	Output Torque Nm	6720	8740	10700	9910	13900	16500	24700	33600	49400	63300	92800
			Efficiency %	97	97	97	97	97	97	98	97	97	98	98

B2 RATINGS AT 960 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
17.1	56.	Mechanical	Input Power kW	15.6	23.1	33.6	42.1	61.7	81.9	114	155	221	327	459
			Output Torque Nm	2570	3800	5450	6920	10000	13700	18700	25700	37200	54700	74500
		Thermal	Input Power kW	44.4	57.7	71.1	65.5	92.2	109	163	222	326	418	612
		No Fan	Output Torque Nm	7300	9490	11500	10800	14900	18200	26800	37000	54900	70000	99400
			Efficiency %	98	97	97	98	97	97	97	97	97	97	97
18.9	50.	Mechanical	Input Power kW	15.6	23.1	31.6	42.1	61.7	81.9	114	155	221	327	459
			Output Torque Nm	2850	4220	5820	7680	11300	14900	20700	28200	40400	59600	83800
		Thermal	Input Power kW	43.8	57.0	70.1	64.7	91.0	107	161	219	322	412	604
		No Fan	Output Torque Nm	8000	10400	12900	11800	16600	19600	29400	40000	58800	75200	110000
			Efficiency %	98	98	97	97	98	97	97	97	98	97	98

B2 THERMAL RATINGS AT 960 REV/MIN INPUT

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
5.06	189.	Thermal	Input Power kW	80.2	105	133	141	190	234	345	420	619	809	1180
		with fan	Output Torque Nm	4050	5230	6710	7030	9450	11600	17200	21000	31500	40600	59100
		Thermal	Input Power kW	105	132	135	128	162	604	748	1700	2010	2840	2500
		with coil	Output Torque Nm	5320	6570	6830	6370	8040	30100	37300	84900	102000	142000	126000
		Thermal	Input Power kW	165	211	236	261	307	888	1190	2080	2700	3760	3630
		Fan & Coil	Output Torque Nm	8340	10500	11900	13000	15300	44300	59300	104000	137000	189000	182000
5.60	171.	Thermal	Input Power kW	78.1	102	129	138	185	228	336	409	602	787	1150
		with fan	Output Torque Nm	4250	5650	7170	7600	10300	12800	18300	22700	33100	43800	64100
		Thermal	Input Power kW	105	131	134	127	161	584	715	1630	1930	2730	2430
		with coil	Output Torque Nm	5700	7240	7450	7010	8910	32800	39000	90500	106000	152000	136000
		Thermal	Input Power kW	161	205	229	251	298	832	1090	1970	2590	3610	3510
		Fan & Coil	Output Torque Nm	8740	11300	12700	13900	16600	46800	59500	110000	142000	201000	197000
6.20	154.	Thermal	Input Power kW	75.9	99.3	126	134	180	221	326	397	585	765	1110
		with fan	Output Torque Nm	4630	6070	7710	8290	11100	13400	19900	24300	36200	47800	69100
		Thermal	Input Power kW	104	130	133	126	159	563	682	1560	1840	2630	2350
		with coil	Output Torque Nm	6330	7940	8170	7810	9820	34100	41700	95300	114000	164000	146000
		Thermal	Input Power kW	156	199	222	241	290	779	1000	1860	2470	3460	3390
		Fan & Coil	Output Torque Nm	9500	12100	13600	14900	17800	47100	61200	114000	153000	216000	211000
6.86	139.	Thermal	Input Power kW	73.6	96.3	122	130	174	215	316	385	568	742	1080
		with fan	Output Torque Nm	4930	6560	8170	8800	11900	14600	20900	26200	38200	50600	73000
		Thermal	Input Power kW	103	129	132	125	158	543	650	1490	1760	2520	2270
		with coil	Output Torque Nm	6910	8780	8850	8460	10800	36900	43100	101000	119000	172000	154000
		Thermal	Input Power kW	151	192	214	230	281	728	921	1760	2360	3300	3260
		Fan & Coil	Output Torque Nm	10100	13100	14400	15600	19200	49400	61000	120000	159000	225000	221000
7.59	126.	Thermal	Input Power kW	71.3	93.4	118	126	169	208	306	374	550	719	1050
		with fan	Output Torque Nm	5300	6940	8650	9410	12800	15600	22400	28000	40900	54100	78000
		Thermal	Input Power kW	102	128	131	123	157	522	619	1420	1680	2410	2190
		with coil	Output Torque Nm	7590	9500	9570	9240	11900	39100	45200	106000	125000	182000	164000
		Thermal	Input Power kW	146	186	207	220	271	680	848	1660	2250	3150	3140
		Fan & Coil	Output Torque Nm	10900	13800	15100	16500	20500	50900	62000	124000	167000	237000	234000
8.40	114.	Thermal	Input Power kW	69.1	90.5	114	122	164	201	297	362	533	697	1010
		with fan	Output Torque Nm	5620	7370	9370	10000	13600	16600	23900	29800	43500	57700	83100
		Thermal	Input Power kW	101	127	129	122	156	501	589	1350	1600	2310	2110
		with coil	Output Torque Nm	8230	10300	10600	10100	13000	41300	47300	111000	131000	191000	173000
		Thermal	Input Power kW	141	179	199	210	262	635	783	1560	2140	3000	3010
		Fan & Coil	Output Torque Nm	11500	14600	16300	17300	21800	52300	62900	129000	174000	248000	247000

Note: Cooling coils cannot be fitted to vertical units

B2 THERMAL RATINGS AT 960 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
9.3	103.	Thermal	Input Power kW	66.9	87.6	111	118	158	195	287	350	516	674	981
		with fan	Output Torque Nm	5980	7950	9900	10700	14500	17600	25300	31700	46300	61200	88300
		Thermal	Input Power kW	100	125	128	121	155	480	559	1280	1520	2200	2030
		with coil	Output Torque Nm	8960	11400	11500	10900	14100	43500	49300	116000	136000	200000	183000
		Thermal	Input Power kW	136	173	191	200	253	592	724	1470	2030	2840	2890
		Fan & Coil	Output Torque Nm	12200	15700	17100	18100	23100	53600	63800	133000	182000	258000	260000
10.3	93.	Thermal	Input Power kW	64.7	84.7	107	114	153	189	278	339	499	652	949
		with fan	Output Torque Nm	6410	8400	10500	11300	15000	19100	27600	34000	50600	66100	93300
		Thermal	Input Power kW	99.2	124	127	120	153	459	531	1210	1440	2100	1950
		with coil	Output Torque Nm	9830	12300	12400	11800	15000	46400	52600	122000	147000	213000	192000
		Thermal	Input Power kW	131	166	184	191	244	553	670	1380	1920	2700	2760
		Fan & Coil	Output Torque Nm	13000	16500	18000	18900	23900	55800	66400	138000	195000	273000	271000
11.4	84.	Thermal	Input Power kW	62.5	81.9	103	110	148	182	269	328	482	631	917
		with fan	Output Torque Nm	6880	9070	11500	12100	16000	20400	29500	36400	54100	70600	99600
		Thermal	Input Power kW	98.1	123	125	118	152	439	503	1150	1370	2000	1870
		with coil	Output Torque Nm	10800	13600	14000	12900	16400	49000	55100	127000	154000	223000	203000
		Thermal	Input Power kW	126	160	176	181	235	515	621	1290	1810	2550	2640
		Fan & Coil	Output Torque Nm	13800	17700	19600	19900	25400	57600	68100	143000	203000	286000	286000
12.6	76.	Thermal	Input Power kW	60.5	79.2	100	107	143	176	260	317	466	610	887
		with fan	Output Torque Nm	7350	9780	12200	13000	17200	21900	31700	39100	58200	76000	107000
		Thermal	Input Power kW	96.9	121	124	117	150	418	477	1080	1300	1890	1790
		with coil	Output Torque Nm	11800	15000	15100	14200	18100	52000	58200	134000	162000	236000	217000
		Thermal	Input Power kW	121	153	169	173	226	481	577	1210	1710	2410	2510
		Fan & Coil	Output Torque Nm	14700	18900	20500	21100	27200	59800	70400	150000	214000	300000	304000
14.0	68.	Thermal	Input Power kW	58.5	76.6	96.8	103	139	171	252	307	451	590	858
		with fan	Output Torque Nm	7890	10300	12900	14000	18800	23100	34100	41500	61200	80100	117000
		Thermal	Input Power kW	95.8	120	122	115	149	398	452	1020	1230	1800	1720
		with coil	Output Torque Nm	12900	16200	16200	15600	20200	54000	61200	139000	166000	244000	233000
		Thermal	Input Power kW	116	147	162	164	217	448	536	1130	1610	2270	2390
		Fan & Coil	Output Torque Nm	15600	19800	21500	22200	29400	60700	72700	153000	219000	308000	325000
15.4	62.	Thermal	Input Power kW	56.7	74.3	93.8	99.9	134	165	244	297	438	572	832
		with fan	Output Torque Nm	8480	11100	13900	14900	20100	24700	36500	44400	65500	85700	125000
		Thermal	Input Power kW	94.6	118	121	114	148	379	428	964	1160	1700	1640
		with coil	Output Torque Nm	14200	17700	17900	17000	22100	56700	64000	144000	173000	255000	246000
		Thermal	Input Power kW	111	141	155	156	209	419	500	1060	1520	2140	2280
		Fan & Coil	Output Torque Nm	16600	21100	23000	23400	31300	62600	74800	158000	227000	321000	341000
17.1	56.	Thermal	Input Power kW	55.1	72.1	91.2	97.1	131	161	237	289	425	555	808
		with fan	Output Torque Nm	9060	11900	14800	16000	21200	26900	38900	48000	71400	93100	131000
		Thermal	Input Power kW	93.4	117	119	112	146	360	406	909	1100	1610	1570
		with coil	Output Torque Nm	15400	19200	19300	18400	23700	60400	66700	151000	184000	270000	255000
		Thermal	Input Power kW	106	135	148	149	201	391	468	990	1430	2020	2160
		Fan & Coil	Output Torque Nm	17500	22200	24100	24500	32600	65600	76900	165000	240000	338000	351000
18.9	50.	Thermal	Input Power kW	53.7	70.3	88.8	94.5	127	157	231	281	414	541	787
		with fan	Output Torque Nm	9790	12800	16400	17300	23200	28600	42100	51300	75500	98700	144000
		Thermal	Input Power kW	92.2	115	118	111	145	342	384	855	1030	1520	1500
		with coil	Output Torque Nm	16800	21100	21700	20200	26500	62400	70100	156000	189000	278000	274000
		Thermal	Input Power kW	102	130	142	143	194	367	439	926	1340	1900	2060
		Fan & Coil	Output Torque Nm	18600	23700	26300	26000	35400	66900	80000	169000	245000	346000	376000

Note: Cooling coils cannot be fitted to vertical units

B2 RATINGS AT 725 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
5.06	143.	Mechanical	Input Power kW	35.6	61.4	89.6	109	156	217	298	401	539	826	1140
			Output Torque Nm	2380	4050	6000	7160	10300	14300	19700	26500	36200	54800	75600
		Thermal	Input Power kW	56.2	73.1	89.9	82.9	117	138	207	281	413	528	774
		No Fan	Output Torque Nm	3760	4820	6020	5470	7680	9080	13600	18600	27800	35100	51400
			Efficiency %	98	98	98	97	98	98	98	98	98	98	98
5.60	129.	Mechanical	Input Power kW	35.6	61.4	89.6	109	156	217	298	401	539	826	1140
			Output Torque Nm	2570	4500	6580	7940	11400	16200	21500	29500	39200	60800	84300
		Thermal	Input Power kW	55.7	72.4	89.1	82.1	116	136	205	278	409	523	767
		No Fan	Output Torque Nm	4010	5290	6550	6010	8490	10100	14800	20500	29700	38500	56800
			Efficiency %	98	98	98	97	97	98	98	98	98	98	98
6.20	116.	Mechanical	Input Power kW	35.6	61.4	89.6	109	156	217	298	401	539	826	1140
			Output Torque Nm	2870	4970	7290	8920	12700	17400	24100	32500	44100	68200	93500
		Thermal	Input Power kW	55.1	71.6	88.1	81.3	114	135	202	275	405	518	759
		No Fan	Output Torque Nm	4450	5790	7170	6680	9320	10800	16400	22300	33100	42700	62300
			Efficiency %	98	98	98	97	97	98	98	98	98	98	98
6.86	105.	Mechanical	Input Power kW	35.6	61.3	89.6	109	147	208	298	401	539	826	1040
			Output Torque Nm	3160	5530	7960	9760	13300	18700	26100	36000	48000	74500	92900
		Thermal	Input Power kW	54.5	70.8	87.1	80.3	113	133	200	272	400	512	750
		No Fan	Output Torque Nm	4840	6380	7740	7220	10200	12000	17500	24500	35600	46200	67100
			Efficiency %	98	98	98	97	98	98	98	98	98	98	98
7.59	95.	Mechanical	Input Power kW	35.6	54.5	82.5	87.5	132	183	242	344	466	680	943
			Output Torque Nm	3500	5370	8010	8670	13200	18200	23400	34100	45800	67700	92900
		Thermal	Input Power kW	53.8	70.0	86.1	79.4	112	132	198	269	396	506	742
		No Fan	Output Torque Nm	5300	6890	8360	7870	11200	13100	19100	26700	38900	50300	73100
			Efficiency %	97	98	98	98	98	98	98	98	98	98	98
8.40	86.	Mechanical	Input Power kW	25.1	37.3	56.4	78.4	114	154	212	293	410	595	840
			Output Torque Nm	2710	4030	6120	8560	12500	16800	22600	31900	44300	65100	91100
		Thermal	Input Power kW	53.2	69.2	85.2	78.5	110	130	196	266	391	500	733
		No Fan	Output Torque Nm	5730	7460	9240	8570	12200	14200	20800	29000	42300	54700	79500
			Efficiency %	98	98	98	98	97	98	98	98	98	98	98
9.3	77.	Mechanical	Input Power kW	25.1	37.3	56.4	66.9	101	134	184	262	345	514	720
			Output Torque Nm	2980	4490	6680	8020	12200	16100	21500	31300	40900	61700	85600
		Thermal	Input Power kW	52.6	68.4	84.2	77.6	109	129	193	263	387	495	725
		No Fan	Output Torque Nm	6230	8220	9980	9300	13200	15400	22600	31500	45900	59400	86200
			Efficiency %	98	98	97	98	98	98	98	98	98	98	98
10.3	70.	Mechanical	Input Power kW	25.1	37.3	56.4	66.9	101	120	184	257	345	508	702
			Output Torque Nm	3300	4900	7300	8780	13100	16000	24100	34100	46300	68200	91100
		Thermal	Input Power kW	52.0	67.5	83.1	76.6	108	127	191	260	382	488	716
		No Fan	Output Torque Nm	6820	8870	10800	10100	14000	17000	25100	34500	51300	65500	92900
			Efficiency %	98	98	97	98	98	97	97	98	97	98	98
11.4	63.6	Mechanical	Input Power kW	20.6	24.7	35.3	57.3	86.3	108	163	219	308	440	627
			Output Torque Nm	2990	3620	5210	8320	12300	16000	23700	32100	45700	65100	90000
		Thermal	Input Power kW	51.3	66.6	82.0	75.6	106	126	188	256	377	482	706
		No Fan	Output Torque Nm	7460	9770	12100	11000	15200	18600	27300	37600	55900	71400	101000
			Efficiency %	97	97	98	98	97	98	98	97	97	98	98
12.6	57.	Mechanical	Input Power kW	15.3	24.7	35.3	49.8	73.4	97.2	139	186	264	386	542
			Output Torque Nm	2470	4030	5680	8050	11700	16000	22500	30500	43600	63700	86600
		Thermal	Input Power kW	50.5	65.7	80.9	74.6	105	124	186	253	371	475	696
		No Fan	Output Torque Nm	8140	10700	13000	12000	16700	20400	30000	41300	61400	78400	111000
			Efficiency %	98	97	97	98	97	97	98	98	97	98	98
14.0	51.	Mechanical	Input Power kW	15.3	24.7	35.3	46.7	70.8	91.5	139	186	264	386	542
			Output Torque Nm	2740	4400	6210	8380	12700	16400	25000	33400	47300	69300	97400
		Thermal	Input Power kW	49.9	64.8	79.8	73.6	103	122	183	249	367	469	687
		No Fan	Output Torque Nm	8900	11600	14000	13200	18600	21900	32900	44700	65700	84200	123000
			Efficiency %	98	97	97	97	98	97	98	98	97	97	98
15.4	46.	Mechanical	Input Power kW	15.2	22.8	25.4	42.2	61.2	82.9	114	161	229	330	448
			Output Torque Nm	3010	4510	4990	8360	12100	16400	22600	31800	45400	65400	88900
		Thermal	Input Power kW	49.2	64.0	78.8	72.6	102	121	181	246	362	463	678
		No Fan	Output Torque Nm	9750	12700	15500	14400	20200	23900	35800	48800	71700	91700	135000
			Efficiency %	98	97	97	97	97	97	98	97	98	97	98

B2 RATINGS AT 725 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
17.1	42.	Mechanical	Input Power kW	11.8	17.5	25.4	31.8	46.6	61.9	85.8	117	167	247	347
			Output Torque Nm	2570	3800	5450	6920	10000	13700	18700	25700	37200	54700	74400
		Thermal	Input Power kW	48.7	63.3	77.9	71.8	101	119	179	243	358	457	670
		No Fan	Output Torque Nm	10600	13800	16700	15600	21700	26500	38900	53600	79600	102000	144000
			Efficiency %	97	97	97	98	97	97	97	97	97	97	97
18.9	38.	Mechanical	Input Power kW	11.8	17.5	23.8	31.8	46.6	61.9	85.8	117	167	247	347
			Output Torque Nm	2850	4220	5820	7680	11300	14900	20700	28200	40400	59600	83700
		Thermal	Input Power kW	48.0	62.5	76.9	70.9	99.7	118	177	240	353	452	662
		No Fan	Output Torque Nm	11600	15100	18800	17100	24100	28400	42700	58000	85300	109000	160000
			Efficiency %	97	97	98	97	98	97	97	97	98	97	97

B2 THERMAL RATINGS AT 725 REV/MIN INPUT

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
5.06	143.	Thermal	Input Power kW	74.3	97.2	123	131	176	217	319	389	573	749	1090
		with fan	Output Torque Nm	4970	6410	8230	8630	11600	14300	21000	25700	38500	49700	72300
		Thermal	Input Power kW	110	138	143	135	172	616	766	1720	2040	2880	2570
		with coil	Output Torque Nm	7380	9130	9570	8910	11300	40600	50500	114000	137000	191000	171000
		Thermal	Input Power kW	159	203	226	251	293	871	1160	2050	2650	3700	3540
		Fan & Coil	Output Torque Nm	10600	13400	15200	16600	19300	57400	76700	135000	178000	246000	235000
5.60	129.	Thermal	Input Power kW	72.3	94.7	120	127	171	211	311	379	558	729	1060
		with fan	Output Torque Nm	5210	6930	8800	9320	12600	15700	22400	27900	40500	53700	78600
		Thermal	Input Power kW	110	137	142	134	171	596	733	1650	1960	2780	2500
		with coil	Output Torque Nm	7900	10100	10400	9810	12500	44300	52900	121000	143000	204000	185000
		Thermal	Input Power kW	155	197	220	241	285	816	1070	1940	2540	3550	3420
		Fan & Coil	Output Torque Nm	11200	14400	16100	17600	20900	60700	76900	143000	185000	261000	254000
6.20	116.	Thermal	Input Power kW	70.3	92.0	116	124	166	205	302	368	542	709	1030
		with fan	Output Torque Nm	5670	7440	9460	10200	13600	16400	24400	29800	44300	58500	84700
		Thermal	Input Power kW	109	136	141	133	169	575	700	1580	1880	2670	2420
		with coil	Output Torque Nm	8780	11000	11500	10900	13800	46000	56600	128000	154000	221000	199000
		Thermal	Input Power kW	150	191	212	231	276	763	977	1840	2430	3400	3310
		Fan & Coil	Output Torque Nm	12100	15500	17300	19000	22500	61000	79100	149000	199000	281000	272000
6.86	105.	Thermal	Input Power kW	68.1	89.2	113	120	161	199	293	357	526	687	1000
		with fan	Output Torque Nm	6050	8040	10000	10800	14600	17900	25700	32100	46800	62000	89400
		Thermal	Input Power kW	108	135	139	132	168	554	668	1510	1800	2570	2340
		with coil	Output Torque Nm	9570	12200	12400	11800	15200	49800	58500	136000	160000	231000	209000
		Thermal	Input Power kW	146	185	205	221	268	712	897	1730	2320	3250	3190
		Fan & Coil	Output Torque Nm	12900	16700	18200	19800	24300	64000	78600	156000	207000	293000	285000
7.59	95.	Thermal	Input Power kW	66.0	86.5	109	116	156	193	284	346	510	666	969
		with fan	Output Torque Nm	6500	8510	10600	11500	15700	19100	27400	34300	50000	66200	95500
		Thermal	Input Power kW	107	134	138	130	167	534	636	1440	1720	2460	2260
		with coil	Output Torque Nm	10500	13200	13400	12900	16700	52900	61500	143000	169000	245000	223000
		Thermal	Input Power kW	141	179	198	211	259	665	826	1630	2210	3100	3060
		Fan & Coil	Output Torque Nm	13900	17600	19200	20900	25900	65900	79800	162000	217000	308000	302000
8.40	86.	Thermal	Input Power kW	64.0	83.8	106	113	152	187	275	335	494	645	938
		with fan	Output Torque Nm	6890	9040	11500	12300	16700	20400	29300	36600	53400	70600	102000
		Thermal	Input Power kW	106	133	137	129	165	513	606	1370	1630	2350	2180
		with coil	Output Torque Nm	11400	14300	14800	14100	18200	55900	64500	149000	177000	257000	236000
		Thermal	Input Power kW	136	173	190	201	250	620	761	1540	2100	2940	2940
		Fan & Coil	Output Torque Nm	14600	18600	20700	21900	27600	67700	81000	168000	227000	322000	319000

Note: Cooling coils cannot be fitted to vertical units

B2 THERMAL RATINGS AT 725 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
9.3	77.	Thermal	Input Power kW	61.9	81.1	102	109	147	181	266	324	478	625	909
		with fan	Output Torque Nm	7330	9750	12100	13100	17700	21600	31100	38800	56700	75000	108000
		Thermal	Input Power kW	105	131	135	128	164	492	576	1300	1560	2250	2100
		with coil	Output Torque Nm	12400	15800	16000	15300	19800	58900	67300	156000	185000	270000	250000
		Thermal	Input Power kW	131	167	183	191	242	578	702	1440	1990	2790	2820
		Fan & Coil	Output Torque Nm	15500	20000	21700	22900	29200	69300	82000	173000	236000	336000	335000
10.3	70.	Thermal	Input Power kW	59.9	78.5	99.1	106	142	175	258	314	462	604	879
		with fan	Output Torque Nm	7860	10300	12800	13900	18400	23400	33800	41700	62100	81000	114000
		Thermal	Input Power kW	104	130	134	126	163	471	547	1230	1480	2140	2020
		with coil	Output Torque Nm	13600	17100	17300	16600	21000	63000	71900	164000	198000	287000	262000
		Thermal	Input Power kW	126	160	176	182	233	539	649	1350	1880	2650	2690
		Fan & Coil	Output Torque Nm	16500	21000	22800	23900	30100	72100	85200	180000	253000	355000	349000
11.4	63.6	Thermal	Input Power kW	57.9	75.9	95.9	102	137	169	249	303	447	584	850
		with fan	Output Torque Nm	8440	11100	14100	14800	19600	25000	36100	44600	66300	86500	122000
		Thermal	Input Power kW	103	129	132	125	161	450	520	1170	1400	2040	1930
		with coil	Output Torque Nm	14900	18900	19500	18100	23100	66500	75400	172000	208000	302000	278000
		Thermal	Input Power kW	121	154	169	173	224	502	601	1270	1780	2500	2570
		Fan & Coil	Output Torque Nm	17600	22600	24900	25100	32100	74200	87200	186000	264000	371000	369000
12.6	57.	Thermal	Input Power kW	56.0	73.3	92.7	98.7	133	163	241	293	432	565	822
		with fan	Output Torque Nm	9020	12000	14900	15900	21200	26900	38900	48000	71400	93200	131000
		Thermal	Input Power kW	101	127	131	123	159	429	493	1110	1330	1940	1850
		with coil	Output Torque Nm	16300	20800	21100	19900	25400	70700	79700	181000	220000	319000	296000
		Thermal	Input Power kW	116	148	161	165	215	468	557	1190	1680	2360	2450
		Fan & Coil	Output Torque Nm	18700	24100	26000	26600	34400	77000	90100	194000	277000	390000	391000
14.0	51.	Thermal	Input Power kW	54.2	71.0	89.7	95.5	128	158	233	284	418	547	795
		with fan	Output Torque Nm	9680	12700	15800	17100	23000	28400	41800	50900	75000	98200	143000
		Thermal	Input Power kW	100	126	129	122	158	409	468	1040	1260	1840	1780
		with coil	Output Torque Nm	17900	22400	22700	21800	28300	73400	83900	187000	226000	330000	319000
		Thermal	Input Power kW	112	142	155	157	207	436	518	1110	1580	2230	2330
		Fan & Coil	Output Torque Nm	19900	25300	27200	28100	37200	78200	92900	199000	283000	400000	419000
15.4	46.	Thermal	Input Power kW	52.5	68.8	86.9	92.6	124	153	226	275	405	530	771
		with fan	Output Torque Nm	10400	13600	17100	18300	24700	30400	44700	54500	80300	105000	153000
		Thermal	Input Power kW	98.9	124	127	120	157	389	444	986	1190	1740	1700
		with coil	Output Torque Nm	19600	24600	25100	23800	31000	77100	87900	195000	236000	345000	337000
		Thermal	Input Power kW	107	136	148	149	199	407	482	1040	1490	2100	2210
		Fan & Coil	Output Torque Nm	21200	26900	29100	29500	39400	80500	95500	205000	294000	416000	439000
17.1	42.	Thermal	Input Power kW	51.0	66.8	84.4	89.9	121	149	219	267	394	515	748
		with fan	Output Torque Nm	11100	14500	18100	19600	26000	33000	47700	58900	87600	114000	161000
		Thermal	Input Power kW	97.7	122	126	118	155	371	421	930	1130	1650	1630
		with coil	Output Torque Nm	21300	26700	27100	25800	33300	82200	91700	205000	251000	366000	349000
		Thermal	Input Power kW	102	130	142	142	191	380	450	969	1400	1970	2100
		Fan & Coil	Output Torque Nm	22300	28300	30400	30900	41100	84300	98000	213000	311000	438000	452000
18.9	38.	Thermal	Input Power kW	49.7	65.1	82.2	87.6	118	145	214	260	383	501	729
		with fan	Output Torque Nm	12000	15700	20100	21200	28500	35000	51600	62900	92700	121000	176000
		Thermal	Input Power kW	96.4	121	124	117	154	352	400	876	1060	1560	1560
		with coil	Output Torque Nm	23300	29200	30300	28200	37200	85100	96600	212000	257000	377000	376000
		Thermal	Input Power kW	98.2	125	136	136	184	355	422	905	1310	1860	2000
		Fan & Coil	Output Torque Nm	23700	30100	33200	32800	44500	85800	102000	219000	318000	449000	483000

Note: Cooling coils cannot be fitted to vertical units

B3 RATINGS AT 1750 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
14.0	125.	Mechanical	Input Power kW	38.5	49.2	70.4	116	165	219	298	388	617	817	1130
			Output Torque Nm	2840	3630	5400	8600	12300	16400	21900	28900	46100	61300	86000
		Thermal	Input Power kW	31.7	41.2	50.8	42.4	56.1	63.6	84.8	106	148	191	286
		No Fan	Output Torque Nm	2340	3040	3890	3140	4190	4770	6220	7880	11000	14300	21800
			Efficiency %	97	96	96	96	96	96	96	97	97	97	97
15.4	113.	Mechanical	Input Power kW	38.5	49.2	70.4	116	165	219	298	388	617	813	1130
			Output Torque Nm	3140	4100	5860	9660	13700	17700	24600	31800	51800	68500	95400
		Thermal	Input Power kW	31.4	40.8	50.2	41.9	55.5	62.9	83.9	105	147	189	283
		No Fan	Output Torque Nm	2560	3400	4180	3490	4600	5070	6900	8580	12300	15800	23900
			Efficiency %	96	96	96	96	96	96	96	96	97	97	97
17.1	102.	Mechanical	Input Power kW	38.5	49.2	70.4	116	165	218	298	388	617	817	1130
			Output Torque Nm	3520	4550	6440	10400	15100	20400	26900	35800	57000	74100	105000
		Thermal	Input Power kW	31.0	40.3	49.6	41.4	54.8	62.1	82.8	104	145	186	279
		No Fan	Output Torque Nm	2830	3720	4530	3720	5020	5780	7440	9530	13300	16900	25900
			Efficiency %	96	96	96	96	96	97	97	97	97	97	97
18.9	92.	Mechanical	Input Power kW	37.8	49.2	70.4	104	163	218	298	388	558	726	1030
			Output Torque Nm	3800	5010	7130	10500	16600	21900	30100	39400	58100	73900	107000
		Thermal	Input Power kW	30.6	39.8	49.0	40.9	54.1	61.3	81.8	102	143	184	276
		No Fan	Output Torque Nm	3070	4050	4960	4120	5510	6140	8250	10400	14900	18700	28400
			Efficiency %	97	96	96	96	96	96	96	96	97	97	98
20.9	83.	Mechanical	Input Power kW	35.0	49.2	66.3	95.9	148	204	262	350	525	720	968
			Output Torque Nm	3860	5550	7570	10700	16600	23300	29300	39700	57600	80900	110000
		Thermal	Input Power kW	30.2	39.3	48.4	40.3	53.5	60.6	80.7	101	141	182	273
		No Fan	Output Torque Nm	3340	4430	5530	4500	5990	6910	9020	11400	15500	20400	30800
			Efficiency %	96	96	96	96	96	96	96	97	96	97	97
23.2	75.	Mechanical	Input Power kW	30.4	49.2	61.6	83.7	133	190	262	376	514	668	942
			Output Torque Nm	3800	6130	7570	10500	16600	23300	32800	46900	63500	84200	118000
		Thermal	Input Power kW	29.9	38.8	47.8	39.9	52.8	59.8	79.8	99.7	140	180	269
		No Fan	Output Torque Nm	3730	4840	5870	4990	6570	7340	10000	12400	17200	22600	33800
			Efficiency %	97	96	96	96	96	96	96	96	96	97	97
25.6	68.	Mechanical	Input Power kW	28.2	45.9	54.9	75.9	121	172	211	318	443	585	832
			Output Torque Nm	3800	6220	7570	10500	16600	23300	29200	43700	60300	81300	115000
		Thermal	Input Power kW	29.5	38.4	47.2	39.4	52.2	59.1	78.8	98.5	138	177	266
		No Fan	Output Torque Nm	3990	5210	6520	5440	7170	8000	10900	13500	18800	24600	36800
			Efficiency %	96	96	96	96	96	96	96	96	96	97	97
28.4	61.	Mechanical	Input Power kW	26.0	29.6	50.7	68.7	109	159	216	320	381	550	812
			Output Torque Nm	3860	4440	7580	10500	16600	23300	32500	47400	59000	84300	125000
		Thermal	Input Power kW	29.2	37.9	46.7	38.9	51.6	58.4	77.9	97.4	136	175	263
		No Fan	Output Torque Nm	4330	5700	6970	5940	7820	8560	11700	14400	21100	26800	40500
			Efficiency %	96	96	96	96	96	96	96	96	96	97	96
31.4	55.	Mechanical	Input Power kW	22.5	28.5	51.3	62.3	99.2	144	195	290	346	499	737
			Output Torque Nm	3750	4730	8370	10500	16600	23300	32400	47400	59100	84300	125000
		Thermal	Input Power kW	28.9	37.5	46.2	38.5	51.0	57.8	77.1	96.3	135	173	260
		No Fan	Output Torque Nm	4810	6230	7530	6480	8530	9340	12800	15800	23000	29200	44200
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
34.7	50.	Mechanical	Input Power kW	21.1	28.5	41.2	59.5	71.8	118	178	228	346	469	677
			Output Torque Nm	3800	5150	7580	11000	13400	21500	31900	41400	64400	86700	125000
		Thermal	Input Power kW	28.6	37.2	45.7	38.1	50.5	57.2	76.3	95.4	134	172	258
		No Fan	Output Torque Nm	5150	6730	8420	7020	9390	10400	13700	17300	24800	31700	47700
			Efficiency %	96	96	96	96	97	96	96	96	96	96	96
38.4	45.	Mechanical	Input Power kW	19.5	27.5	38.1	54.1	65.3	108	161	207	315	426	616
			Output Torque Nm	3860	5540	7580	11000	13400	21500	31900	41400	64500	86700	125000
		Thermal	Input Power kW	28.4	36.9	45.4	37.8	50.1	56.8	75.7	94.6	132	170	255
		No Fan	Output Torque Nm	5610	7440	9040	7670	10300	11300	14900	18900	27100	34600	52000
			Efficiency %	96	96	96	96	96	96	97	96	96	96	96
42.5	41.	Mechanical	Input Power kW	17.6	22.3	38.5	49.3	59.5	98.0	147	189	287	389	561
			Output Torque Nm	3860	4970	8380	11000	13400	21500	31900	41400	64500	86700	125000
		Thermal	Input Power kW	28.1	36.6	45.0	37.5	49.7	56.3	75.1	93.9	131	169	253
		No Fan	Output Torque Nm	6190	8170	9790	8360	11200	12400	16300	20600	29500	37700	56600
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
47.1	37.	Mechanical	Input Power kW	13.7	22.3	35.5	44.6	53.8	88.6	133	171	260	352	508
			Output Torque Nm	3350	5430	8440	11000	13400	21500	31900	41400	64600	86700	125000
		Thermal	Input Power kW	28.0	36.4	44.8	37.3	49.4	56.0	74.6	93.3	131	168	252
		No Fan	Output Torque Nm	6850	8870	10600	9190	12300	13600	17900	22600	32400	41400	62200
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
52.1	33.	Mechanical	Input Power kW	13.7	18.0	27.2	40.0	48.3	79.6	119	153	234	316	449
			Output Torque Nm	3690	4930	7370	11000	13400	21500	31900	41400	64600	86700	124000
		Thermal	Input Power kW	27.8	36.2	44.5	37.1	49.2	55.7	74.3	92.8	130	167	251
		No Fan	Output Torque Nm	7500	9930	12100	10200	13600	15100	19800	25100	35900	45900	68900
			Efficiency %	96	96	96	96	96	96	96	96	96	96	97
57.7	30.	Mechanical	Input Power kW	12.9	18.0	27.2	36.2	43.8	72.1	102	139	210	276	388
			Output Torque Nm	3870	5380	8050	11000	13400	21500	30100	41400	64100	83600	118000
		Thermal	Input Power kW	27.7	36.1	44.4	37.0	49.0	55.5	74.0	92.5	130	167	250
		No Fan	Output Torque Nm	8300	10800	13100	11200	15000	16600	21800	27600	39500	50400	75800
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
63.8	27.	Mechanical	Input Power kW	10.3	16.2	26.1	27.5	51.9	59.4	88.2	114	177	238	351
			Output Torque Nm	3410	5380	8440	9120	17000	19800	29300	37800	61100	80500	117000
		Thermal	Input Power kW	27.7	35.9	44.2	36.9	48.9	55.3	73.8	92.2	129	166	249
		No Fan	Output Torque Nm	9180	11900	14300	12200	16000	18400	24500	30500	44600	56100	82500
			Efficiency %	96	96	96	96	96	96	96	96	96	96	97
70.6	24.	Mechanical	Input Power kW	10.3	13.2	20.8	28.5	35.9	59.1	76.8	112	149	207	282
			Output Torque Nm	3750	4880	7510	10500	13400	21500	27600	40900	55600	76500	104000
		Thermal	Input Power kW	27.6	35.8	44.1	36.8	48.7	55.2	73.6	91.9	129	165	248
		No Fan	Output Torque Nm	10100	13300	15900	13600	18200	20100	26500	33500	47900	61100	91800
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96

B3 RATINGS AT 1750 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
78.2	22.	Mechanical	Input Power kW	9.4	13.2	20.8	22.6	42.1	48.7	72.3	93.7	145	195	282
			Output Torque Nm	3870	5330	8210	9120	16800	19800	29300	37800	61100	80600	114000
		Thermal	Input Power kW	27.5	35.8	44.1	36.7	48.7	55.1	73.5	91.8	129	165	248
		No Fan	Output Torque Nm	11300	14500	17400	14900	19400	22400	29700	37100	54200	68200	100000
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
86.5	20.	Mechanical	Input Power kW	6.7	12.5	19.1	20.3	38.4	42.9	65.2	83.3	133	176	263
			Output Torque Nm	3010	5630	8440	9120	17000	19800	29300	37900	61100	80600	117000
		Thermal	Input Power kW	27.5	35.7	44.0	36.7	48.6	55.0	73.3	91.7	128	165	248
		No Fan	Output Torque Nm	12300	16100	19500	16500	21500	25400	32900	41700	58900	75500	110000
			Efficiency %	96	96	95	96	96	96	96	96	96	96	96
95.7	18.	Mechanical	Input Power kW	6.0	9.1	11.6	20.3	25.5	39.6	50.5	77.2	97.4	163	205
			Output Torque Nm	3010	4520	5830	10100	12700	19900	25200	38500	48500	81100	102000
		Thermal	Input Power kW	27.4	35.7	43.9	36.6	48.5	54.9	73.2	91.5	128	165	247
		No Fan	Output Torque Nm	13800	17800	22100	18200	24200	27700	36500	45600	63900	82100	123000
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96

B3 THERMAL RATINGS AT 1750 REV/MIN INPUT

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
14.0	125.	Thermal	Input Power kW	62.4	98.9	127	119	156	200	263	342	463	616	819
		with fan	Output Torque Nm	4610	7300	9770	8840	11600	15100	19300	25500	34600	46300	62600
		Thermal	Input Power kW	58.8	71.9	94.6	93.0	109	169	258	403	736	808	1080
		with coil	Output Torque Nm	4330	5310	7260	6910	8140	12700	19000	30000	54900	60600	82200
		Thermal	Input Power kW	102	159	207	206	258	367	529	761	1090	1500	2070
		Fan & Coil	Output Torque Nm	7560	11700	15900	15300	19300	27600	39000	56800	81500	113000	158000
15.4	113.	Thermal	Input Power kW	61.7	97.8	126	118	154	198	260	338	458	610	810
		with fan	Output Torque Nm	5040	8150	10500	9820	12800	16000	21400	27700	38500	51300	68700
		Thermal	Input Power kW	58.2	71.1	93.7	92.1	107	168	254	397	719	790	1030
		with coil	Output Torque Nm	4750	5930	7800	7680	8920	13600	21000	32600	60400	66500	87400
		Thermal	Input Power kW	101	157	205	204	255	364	523	752	1070	1470	2000
		Fan & Coil	Output Torque Nm	8280	13100	17000	17000	21200	29500	43100	61800	89900	124000	170000
17.1	102.	Thermal	Input Power kW	61.0	96.7	124	116	152	196	257	334	452	602	800
		with fan	Output Torque Nm	5580	8940	11400	10500	13900	18300	23100	30800	41800	54600	74500
		Thermal	Input Power kW	57.6	70.3	92.7	91.0	106	166	250	392	701	771	987
		with coil	Output Torque Nm	5270	6500	8480	8190	9720	15500	22600	36200	64800	70000	91900
		Thermal	Input Power kW	100	155	202	201	252	361	515	742	1050	1440	1920
		Fan & Coil	Output Torque Nm	9180	14400	18500	18100	23100	33700	46400	68500	96800	131000	179000
18.9	92.	Thermal	Input Power kW	60.3	95.5	123	115	150	193	254	330	447	595	791
		with fan	Output Torque Nm	6050	9720	12400	11600	15300	19400	25600	33500	46500	60500	81600
		Thermal	Input Power kW	56.9	69.4	91.6	90.0	105	165	246	386	683	752	943
		with coil	Output Torque Nm	5720	7070	9280	9090	10600	16600	24900	39200	71000	76600	97400
		Thermal	Input Power kW	99.2	154	200	199	248	357	508	731	1020	1410	1850
		Fan & Coil	Output Torque Nm	9960	15600	20300	20100	25300	35900	51300	74400	107000	143000	191000
20.9	83.	Thermal	Input Power kW	59.5	94.3	121	113	148	191	251	326	442	588	781
		with fan	Output Torque Nm	6570	10600	13900	12700	16600	21800	28000	36900	48400	66000	88500
		Thermal	Input Power kW	56.3	68.5	90.6	88.8	103	164	242	380	664	732	900
		with coil	Output Torque Nm	6220	7730	10300	9910	11600	18700	27100	43000	72800	82300	102000
		Thermal	Input Power kW	98.0	152	198	197	245	354	500	720	1000	1370	1780
		Fan & Coil	Output Torque Nm	10800	17100	22600	21900	27500	40400	55900	81600	110000	155000	202000
23.2	75.	Thermal	Input Power kW	58.8	93.2	120	112	147	189	248	322	436	581	772
		with fan	Output Torque Nm	7350	11600	14700	14000	18300	23200	31100	40200	53900	73200	96900
		Thermal	Input Power kW	55.6	67.6	89.5	87.7	101	162	238	373	644	712	859
		with coil	Output Torque Nm	6950	8430	11000	11000	12600	19900	29900	46600	79600	89700	108000
		Thermal	Input Power kW	96.9	150	195	194	241	350	492	709	976	1340	1710
		Fan & Coil	Output Torque Nm	12100	18700	24000	24300	30100	43000	61700	88500	121000	169000	215000

Note: Cooling coils cannot be fitted to vertical units

B3 THERMAL RATINGS AT 1750 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
25.6	68.	Thermal with fan	Input Power kW	58.1	92.1	118	111	145	186	245	318	431	574	763
			Output Torque Nm	7850	12500	16400	15300	19900	25300	33900	43800	58700	79800	106000
		Thermal with coil	Input Power kW	54.9	66.7	88.3	86.5	99.9	161	234	366	624	691	818
			Output Torque Nm	7420	9060	12200	12000	13700	21800	32300	50400	85000	96000	113000
		Thermal Fan & Coil	Input Power kW	95.7	148	193	192	238	347	483	697	951	1310	1640
			Output Torque Nm	12900	20000	26600	26500	32700	47000	66900	95900	130000	182000	227000
28.4	61.	Thermal with fan	Input Power kW	57.5	91.1	117	110	143	184	242	315	426	567	754
			Output Torque Nm	8530	13700	17500	16700	21700	27000	36400	46700	66000	86900	116000
		Thermal with coil	Input Power kW	54.3	65.8	87.2	85.3	98.3	159	229	359	604	669	779
			Output Torque Nm	8060	9890	13000	13000	14900	23300	34400	53300	93500	102000	120000
		Thermal Fan & Coil	Input Power kW	94.5	146	190	189	234	343	475	685	926	1270	1570
			Output Torque Nm	14000	21900	28500	28900	35500	50300	71400	102000	144000	195000	243000
31.4	55.	Thermal with fan	Input Power kW	56.8	90.1	116	108	142	182	239	311	422	561	746
			Output Torque Nm	9470	15000	18900	18300	23700	29500	39700	50900	72000	94800	127000
		Thermal with coil	Input Power kW	53.5	64.8	86.0	84.1	96.6	157	224	352	583	647	741
			Output Torque Nm	8920	10800	14000	14200	16200	25400	37200	57600	99600	109000	126000
		Thermal Fan & Coil	Input Power kW	93.3	144	188	186	231	340	466	673	901	1240	1510
			Output Torque Nm	15500	23900	30700	31400	38600	54900	77300	110000	154000	209000	257000
34.7	50.	Thermal with fan	Input Power kW	56.3	89.2	115	107	140	181	237	308	418	556	739
			Output Torque Nm	10100	16200	21100	19800	26100	32800	42600	56000	77700	103000	137000
		Thermal with coil	Input Power kW	52.9	63.9	84.9	82.8	95.0	156	220	344	562	626	705
			Output Torque Nm	9520	11600	15600	15300	17700	28300	39400	62600	105000	116000	131000
		Thermal Fan & Coil	Input Power kW	92.2	142	186	184	227	336	458	660	876	1200	1450
			Output Torque Nm	16600	25600	34200	33900	42200	61100	82200	120000	163000	223000	268000
38.4	45.	Thermal with fan	Input Power kW	55.8	88.5	114	106	139	179	235	306	414	551	732
			Output Torque Nm	11100	17900	22700	21600	28500	35800	46500	61100	84800	112000	149000
		Thermal with coil	Input Power kW	52.2	63.0	83.8	81.6	93.4	154	215	337	541	604	670
			Output Torque Nm	10300	12700	16700	16600	19100	30800	42400	67300	111000	123000	137000
		Thermal Fan & Coil	Input Power kW	91.1	140	183	181	223	333	449	648	852	1170	1390
			Output Torque Nm	18000	28200	36500	36800	45700	66600	88800	130000	174000	238000	284000
42.5	41.	Thermal with fan	Input Power kW	55.4	87.8	113	106	138	178	233	303	411	547	727
			Output Torque Nm	12200	19600	24600	23500	31000	39100	50600	66500	92400	122000	162000
		Thermal with coil	Input Power kW	51.5	62.1	82.7	80.3	91.7	152	210	329	521	582	638
			Output Torque Nm	11300	13900	18000	17900	20600	33500	45500	72100	117000	130000	143000
		Thermal Fan & Coil	Input Power kW	90.0	138	181	179	220	329	441	635	827	1140	1340
			Output Torque Nm	19800	30800	39400	39900	49400	72400	95700	139000	186000	254000	299000
47.1	37.	Thermal with fan	Input Power kW	55.1	87.3	112	105	137	177	232	302	409	544	723
			Output Torque Nm	13500	21300	26700	25900	34100	42900	55700	73100	102000	134000	179000
		Thermal with coil	Input Power kW	50.9	61.2	81.6	79.1	90.1	151	205	321	500	560	607
			Output Torque Nm	12500	14900	19400	19500	22400	36600	49100	77800	124000	138000	150000
		Thermal Fan & Coil	Input Power kW	88.9	136	179	177	217	326	432	623	804	1110	1290
			Output Torque Nm	21800	33200	42500	43500	53800	79300	104000	151000	200000	273000	318000
52.1	33.	Thermal with fan	Input Power kW	54.8	86.9	112	104	137	176	231	300	407	541	719
			Output Torque Nm	14800	23800	30300	28700	37800	47600	61700	81100	112000	149000	198000
		Thermal with coil	Input Power kW	50.2	60.3	80.5	77.8	88.5	149	199	312	480	539	579
			Output Torque Nm	13500	16600	21800	21300	24500	40300	53300	84400	133000	148000	159000
		Thermal Fan & Coil	Input Power kW	87.9	134	177	174	213	323	424	611	781	1070	1240
			Output Torque Nm	23700	36800	47900	47800	59100	87400	113000	165000	216000	295000	341000
57.7	30.	Thermal with fan	Input Power kW	54.6	86.6	111	104	136	175	230	299	405	539	717
			Output Torque Nm	16400	26000	33000	31500	41600	52400	67900	89200	124000	163000	218000
		Thermal with coil	Input Power kW	49.6	59.5	79.4	76.5	87.0	147	194	304	460	518	552
			Output Torque Nm	14800	17800	23500	23200	26600	44000	57400	90700	140000	157000	168000
		Thermal Fan & Coil	Input Power kW	86.9	133	175	172	210	320	416	598	759	1040	1200
			Output Torque Nm	26000	39700	51700	52100	64200	95600	123000	179000	232000	316000	364000
63.8	27.	Thermal with fan	Input Power kW	54.5	86.3	111	104	136	175	229	298	404	537	714
			Output Torque Nm	18100	28600	35900	34400	44400	58300	76000	98700	140000	182000	237000
		Thermal with coil	Input Power kW	48.9	58.6	78.3	75.2	85.4	145	189	295	440	497	527
			Output Torque Nm	16200	19400	25300	25000	27900	48500	62800	97900	152000	168000	175000
		Thermal Fan & Coil	Input Power kW	85.9	131	173	170	207	317	407	586	737	1010	1160
			Output Torque Nm	28500	43400	55800	56200	67700	106000	135000	194000	255000	342000	384000
70.6	24.	Thermal with fan	Input Power kW											
			Output Torque Nm											
		Thermal with coil	Input Power kW	48.2	57.7	77.1	73.9	83.8	143	184	287	421	477	504
			Output Torque Nm	17600	21400	27900	27300	31200	52300	66300	104000	157000	176000	186000
		Thermal Fan & Coil	Input Power kW											
			Output Torque Nm											
78.2	22.	Thermal with fan	Input Power kW											
			Output Torque Nm											
		Thermal with coil	Input Power kW	47.5	56.9	76.0	72.6	82.2	141	179	278	403	458	482
			Output Torque Nm	19500	23000	30000	29400	32800	57600	72400	112000	170000	189000	195000
		Thermal Fan & Coil	Input Power kW											
			Output Torque Nm											
86.5	20.	Thermal with fan	Input Power kW											
			Output Torque Nm											
		Thermal with coil	Input Power kW	46.8	56.0	74.9	71.2	80.6	139	174	269	385	439	462
			Output Torque Nm	21000	25200	33200	32000	35700	64500	78000	123000	177000	201000	205000
		Thermal Fan & Coil	Input Power kW											
			Output Torque Nm											
95.7	18.	Thermal with fan	Input Power kW											
			Output Torque Nm											
		Thermal with coil	Input Power kW	46.1	55.1	73.7	69.8	79.0	137	168	261	367	420	444
			Output Torque Nm	23200	27500	37100	34800	39400	69100	84000	130000	183000	210000	221000
		Thermal Fan & Coil	Input Power kW											
			Output Torque Nm											

Note: Cooling coils cannot be fitted to vertical units

B3 RATINGS AT 1450 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
14.0	103.	Mechanical	Input Power kW	31.9	40.8	58.3	95.9	136	181	247	321	511	677	932
			Output Torque Nm	2840	3630	5400	8600	12300	16400	21900	28900	46000	61200	85900
		Thermal	Input Power kW	31.7	41.2	50.7	42.3	56.1	63.5	84.7	106	148	191	286
		No Fan	Output Torque Nm	2820	3670	4700	3790	5060	5750	7500	9490	13300	17200	26300
			Efficiency %	97	96	96	96	96	96	96	97	97	97	98
15.4	93.	Mechanical	Input Power kW	31.9	40.8	58.3	95.9	136	181	247	321	511	677	932
			Output Torque Nm	3140	4100	5860	9660	13700	17700	24600	31800	51800	68700	95200
		Thermal	Input Power kW	31.4	40.8	50.2	41.9	55.5	62.8	83.8	105	147	189	283
		No Fan	Output Torque Nm	3090	4100	5040	4210	5560	6120	8320	10300	14800	19100	28800
			Efficiency %	96	96	96	96	97	96	96	97	97	97	97
17.1	84.	Mechanical	Input Power kW	31.9	40.8	58.3	95.9	136	181	247	321	511	677	932
			Output Torque Nm	3520	4550	6440	10400	15100	20400	26900	35800	56900	74000	105000
		Thermal	Input Power kW	31.0	40.3	49.6	41.3	54.8	62.0	82.7	103	145	186	279
		No Fan	Output Torque Nm	3420	4490	5470	4490	6060	6970	8980	11500	16100	20300	31300
			Efficiency %	96	96	96	96	96	96	96	97	97	97	98
18.9	76.	Mechanical	Input Power kW	31.3	40.8	58.3	85.9	135	181	247	321	506	674	932
			Output Torque Nm	3800	5010	7130	10500	16600	21900	30100	39400	63500	82700	116000
		Thermal	Input Power kW	30.6	39.8	49.0	40.8	54.1	61.3	81.7	102	143	184	276
		No Fan	Output Torque Nm	3710	4880	5980	4980	6640	7410	9950	12500	17900	22500	34200
			Efficiency %	97	96	96	97	96	96	96	96	97	97	97
20.9	69.	Mechanical	Input Power kW	29.0	40.8	54.9	79.4	123	169	217	291	435	597	802
			Output Torque Nm	3860	5550	7570	10700	16600	23300	29300	39700	57500	80800	109000
		Thermal	Input Power kW	30.2	39.3	48.4	40.3	53.4	60.5	80.7	101	141	182	272
		No Fan	Output Torque Nm	4030	5350	6670	5430	7230	8340	10900	13800	18600	24500	37100
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
23.2	62.	Mechanical	Input Power kW	25.2	40.8	51.1	69.4	110	157	217	311	426	554	802
			Output Torque Nm	3800	6130	7580	10500	16600	23300	32800	46900	63500	84300	121000
		Thermal	Input Power kW	29.9	38.8	47.8	39.8	52.8	59.8	79.7	99.7	140	179	269
		No Fan	Output Torque Nm	4500	5840	7090	6020	7930	8860	12100	15000	20800	27200	40700
			Efficiency %	97	96	96	96	96	96	96	96	96	97	96
25.6	56.	Mechanical	Input Power kW	23.3	38.0	45.5	62.9	100	142	175	263	367	485	689
			Output Torque Nm	3800	6220	7580	10500	16600	23300	29200	43700	60300	81200	115000
		Thermal	Input Power kW	29.5	38.4	47.2	39.4	52.2	59.1	78.8	98.5	138	177	266
		No Fan	Output Torque Nm	4810	6280	7870	6570	8650	9660	13100	16300	22600	29700	44300
			Efficiency %	97	96	96	96	96	97	96	96	96	96	97
28.4	51.	Mechanical	Input Power kW	21.6	24.6	42.0	56.9	90.7	132	179	265	317	456	674
			Output Torque Nm	3860	4450	7580	10500	16600	23300	32500	47400	59200	84300	125000
		Thermal	Input Power kW	29.2	37.9	46.7	38.9	51.6	58.4	77.9	97.4	136	175	263
		No Fan	Output Torque Nm	5230	6880	8420	7170	9430	10300	14100	17400	25400	32300	48800
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
31.4	46.	Mechanical	Input Power kW	18.7	23.6	42.5	51.6	82.2	119	164	240	287	414	612
			Output Torque Nm	3750	4730	8380	10500	16600	23300	32700	47400	59200	84300	125000
		Thermal	Input Power kW	28.9	37.5	46.2	38.5	51.0	57.8	77.0	96.3	135	173	260
		No Fan	Output Torque Nm	5800	7520	9090	7830	10300	11300	15400	19000	27800	35300	53200
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
34.7	41.	Mechanical	Input Power kW	17.5	23.6	34.1	49.3	59.5	98.1	147	189	287	389	562
			Output Torque Nm	3800	5150	7580	11000	13400	21500	31900	41400	64500	86700	125000
		Thermal	Input Power kW	28.6	37.2	45.7	38.1	50.5	57.2	76.3	95.4	134	172	257
		No Fan	Output Torque Nm	6210	8120	10200	8480	11300	12500	16500	20900	30000	38200	57400
			Efficiency %	96	96	96	96	97	96	96	96	96	96	96
38.4	37.	Mechanical	Input Power kW	16.2	22.8	31.6	44.8	54.1	89.1	134	172	261	354	511
			Output Torque Nm	3870	5540	7580	11000	13400	21500	31900	41400	64600	86700	125000
		Thermal	Input Power kW	28.3	36.9	45.4	37.8	50.1	56.7	75.6	94.6	132	170	255
		No Fan	Output Torque Nm	6770	8970	10900	9260	12400	13700	18000	22800	32700	41700	62700
			Efficiency %	96	96	96	96	97	96	96	96	96	96	96
42.5	34.	Mechanical	Input Power kW	14.6	18.4	31.9	40.8	49.3	81.2	122	156	238	322	465
			Output Torque Nm	3870	4950	8380	11000	13400	21500	31900	41400	64600	86700	125000
		Thermal	Input Power kW	28.1	36.6	45.0	37.5	49.7	56.3	75.1	93.8	131	169	253
		No Fan	Output Torque Nm	7470	9860	11800	10100	13500	14900	19700	24800	35600	45400	68300
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
47.1	30.	Mechanical	Input Power kW	11.4	18.4	29.4	36.9	44.6	73.4	110	142	216	292	421
			Output Torque Nm	3350	5410	8440	11000	13400	21500	31900	41400	64700	86800	125000
		Thermal	Input Power kW	28.0	36.4	44.8	37.3	49.4	56.0	74.6	93.3	131	168	252
		No Fan	Output Torque Nm	8270	10700	12800	11100	14800	16400	21600	27300	39100	49900	75100
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
52.1	27.	Mechanical	Input Power kW	11.4	14.9	22.6	33.2	40.0	65.9	98.9	127	194	262	372
			Output Torque Nm	3690	4930	7370	11000	13400	21500	31900	41400	64700	86800	124000
		Thermal	Input Power kW	27.8	36.2	44.5	37.1	49.2	55.7	74.3	92.8	130	167	251
		No Fan	Output Torque Nm	9050	12000	14600	12300	16400	18200	24000	30300	43400	55300	83100
			Efficiency %	96	96	96	96	96	96	96	96	96	96	97
57.7	25.	Mechanical	Input Power kW	10.7	14.9	22.6	30.0	36.3	59.7	84.4	115	174	229	321
			Output Torque Nm	3870	5380	8050	11000	13400	21500	30100	41400	64100	83600	118000
		Thermal	Input Power kW	27.7	36.1	44.4	37.0	49.0	55.5	74.0	92.5	130	167	250
		No Fan	Output Torque Nm	10000	13000	15900	13500	18100	20000	26400	33300	47700	60900	91400
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
63.8	22.	Mechanical	Input Power kW	8.5	13.3	21.7	22.8	43.0	49.2	73.1	94.7	147	197	291
			Output Torque Nm	3410	5330	8440	9120	17000	19800	29300	37800	61100	80600	117000
		Thermal	Input Power kW	27.6	35.9	44.2	36.9	48.9	55.3	73.8	92.2	129	166	249
		No Fan	Output Torque Nm	11100	14400	17300	14800	19300	22300	29500	36800	53800	67700	99600
			Efficiency %	96	96	96	96	96	96	96	96	95	96	96
70.6	20.	Mechanical	Input Power kW	8.5	10.8	17.2	23.6	29.7	49.0	63.6	93.2	124	172	234
			Output Torque Nm	3750	4840	7510	10500	13400	21500	27600	40900	55600	76500	104000
		Thermal	Input Power kW	27.6	35.8	44.1	36.8	48.7	55.2	73.5	91.9	129	165	248
		No Fan	Output Torque Nm	12200	16000	19200	16400	21900	24300	32000	40400	57900	73800	111000
			Efficiency %	96	96	96	96	96	96	96	96	96	96	95

B3 RATINGS AT 1450 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
78.2	18.	Mechanical	Input Power kW	7.8	10.8	17.2	18.7	34.9	40.4	60.0	77.7	120	162	234
			Output Torque Nm	3870	5290	8210	9130	16800	19800	29300	37900	61100	80600	114000
		Thermal	Input Power kW	27.5	35.8	44.1	36.7	48.7	55.1	73.4	91.8	129	165	248
		No Fan	Output Torque Nm	13600	17500	21000	17900	23400	27000	35900	44800	65400	82300	121000
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
86.5	16.	Mechanical	Input Power kW	5.5	10.4	15.8	16.8	31.8	35.5	54.0	69.0	110	146	218
			Output Torque Nm	3010	5630	8450	9130	17000	19800	29300	37900	61100	80600	117000
		Thermal	Input Power kW	27.5	35.7	44.0	36.7	48.6	55.0	73.3	91.7	128	165	247
		No Fan	Output Torque Nm	14900	19400	23500	19900	26000	30700	39700	50300	71100	91200	132000
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
95.7	15.	Mechanical	Input Power kW	4.9	7.5	9.6	16.8	21.2	32.8	41.9	64.0	80.7	135	170
			Output Torque Nm	3010	4520	5830	10100	12700	19900	25200	38500	48500	81100	102000
		Thermal	Input Power kW	27.4	35.7	43.9	36.6	48.5	54.9	73.2	91.5	128	165	247
		No Fan	Output Torque Nm	16700	21500	26700	22000	29200	33400	44000	55000	77100	99100	149000
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96

B3 THERMAL RATINGS AT 1450 REV/MIN INPUT

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
14.0	103.	Thermal	Input Power kW	56.0	88.7	114	107	139	180	236	306	415	553	735
		with fan	Output Torque Nm	4980	7900	10600	9570	12600	16300	20900	27500	37300	50000	67600
		Thermal	Input Power kW	58.8	71.9	94.6	93.0	109	169	258	403	736	807	1080
		with coil	Output Torque Nm	5230	6400	8770	8340	9820	15300	22800	36200	66100	73000	99000
		Thermal	Input Power kW	96.0	149	194	194	242	346	502	726	1040	1430	1990
		Fan & Coil	Output Torque Nm	8550	13300	17900	17400	21900	31400	44600	65300	93800	130000	183000
15.4	93.	Thermal	Input Power kW	55.4	87.7	113	106	138	178	233	303	411	547	726
		with fan	Output Torque Nm	5460	8830	11300	10600	13800	17300	23200	30000	41600	55400	74200
		Thermal	Input Power kW	58.2	71.1	93.7	92.0	107	168	254	397	719	790	1030
		with coil	Output Torque Nm	5740	7150	9420	9270	10800	16400	25300	39300	72800	80100	105000
		Thermal	Input Power kW	95.0	147	192	192	239	343	496	717	1020	1410	1910
		Fan & Coil	Output Torque Nm	9370	14800	19300	19300	24000	33500	49300	71000	104000	143000	196000
17.1	84.	Thermal	Input Power kW	54.7	86.7	111	104	136	175	230	299	406	540	718
		with fan	Output Torque Nm	6040	9680	12300	11300	15100	19800	25000	33300	45100	59000	80400
		Thermal	Input Power kW	57.6	70.3	92.7	91.0	106	166	250	392	701	771	987
		with coil	Output Torque Nm	6360	7850	10200	9890	11700	18700	27200	43600	78000	84300	111000
		Thermal	Input Power kW	94.0	146	189	189	236	340	489	707	1000	1380	1840
		Fan & Coil	Output Torque Nm	10400	16200	20900	20600	26200	38300	53100	78800	111000	151000	207000
18.9	76.	Thermal	Input Power kW	54.0	85.6	110	103	135	173	227	296	401	533	709
		with fan	Output Torque Nm	6550	10500	13500	12600	16500	21000	27700	36300	50200	65400	88100
		Thermal	Input Power kW	56.9	69.4	91.6	89.9	105	165	246	386	683	752	943
		with coil	Output Torque Nm	6900	8530	11200	11000	12800	20000	30000	47300	85600	92200	117000
		Thermal	Input Power kW	93.0	144	187	187	233	337	481	697	978	1350	1770
		Fan & Coil	Output Torque Nm	11300	17700	22900	22800	28700	40800	58700	85500	123000	165000	220000
20.9	69.	Thermal	Input Power kW	53.4	84.6	109	102	133	171	225	292	396	527	700
		with fan	Output Torque Nm	7120	11500	15000	13700	18000	23600	30300	39900	52300	71300	95500
		Thermal	Input Power kW	56.3	68.5	90.5	88.8	103	164	242	380	664	732	900
		with coil	Output Torque Nm	7500	9330	12500	12000	13900	22600	32700	51900	87800	99100	123000
		Thermal	Input Power kW	91.9	142	185	185	230	334	474	686	955	1310	1700
		Fan & Coil	Output Torque Nm	12300	19300	25500	24900	31100	46100	64000	93800	126000	178000	232000
23.2	62.	Thermal	Input Power kW	52.7	83.6	107	101	131	169	222	289	391	521	692
		with fan	Output Torque Nm	7950	12600	15900	15200	19800	25100	33600	43400	58300	79100	105000
		Thermal	Input Power kW	55.6	67.6	89.4	87.7	101	162	238	373	644	711	858
		with coil	Output Torque Nm	8380	10200	13300	13300	15300	24000	36000	56200	96000	108000	130000
		Thermal	Input Power kW	90.8	140	183	183	226	331	466	676	931	1280	1630
		Fan & Coil	Output Torque Nm	13700	21100	27100	27600	34000	49100	70600	102000	139000	195000	246000

Note: Cooling coils cannot be fitted to vertical units

B3 THERMAL RATINGS AT 1450 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
25.6	56.	Thermal	Input Power kW	52.1	82.6	106	99.4	130	167	219	285	387	515	684
		with fan	Output Torque Nm	8500	13500	17700	16600	21500	27400	36700	47400	63500	86200	114000
		Thermal	Input Power kW	54.9	66.7	88.3	86.5	99.9	161	234	366	624	690	818
		with coil	Output Torque Nm	8950	10900	14700	14400	16600	26300	39000	60800	103000	116000	136000
		Thermal	Input Power kW	89.7	138	181	180	223	327	458	664	907	1250	1560
		Fan & Coil	Output Torque Nm	14600	22600	30100	30100	37000	53600	76600	110000	149000	209000	260000
28.4	51.	Thermal	Input Power kW	51.5	81.7	105	98.2	128	165	217	282	382	509	676
		with fan	Output Torque Nm	9240	14800	18900	18100	23500	29300	39300	50500	71400	94000	126000
		Thermal	Input Power kW	54.2	65.8	87.2	85.3	98.2	159	229	359	604	669	778
		with coil	Output Torque Nm	9720	11900	15700	15700	18000	28100	41500	64300	113000	124000	145000
		Thermal	Input Power kW	88.6	136	178	178	219	324	450	653	882	1220	1490
		Fan & Coil	Output Torque Nm	15900	24700	32200	32800	40200	57400	81600	117000	165000	225000	278000
31.4	46.	Thermal	Input Power kW	51.0	80.8	104	97.2	127	164	215	279	378	503	669
		with fan	Output Torque Nm	10200	16200	20500	19800	25600	31900	42900	55100	77900	103000	137000
		Thermal	Input Power kW	53.5	64.8	86.0	84.0	96.6	157	224	352	583	647	741
		with coil	Output Torque Nm	10800	13000	16900	17100	19500	30700	44900	69500	120000	132000	152000
		Thermal	Input Power kW	87.5	134	176	175	216	321	442	641	857	1180	1430
		Fan & Coil	Output Torque Nm	17600	26900	34700	35600	43600	62600	88400	127000	177000	241000	294000
34.7	41.	Thermal	Input Power kW	50.5	80.0	103	96.2	126	162	212	276	374	498	662
		with fan	Output Torque Nm	11000	17500	22900	21400	28200	35500	46100	60600	84100	111000	148000
		Thermal	Input Power kW	52.9	63.9	84.9	82.8	95.0	156	219	344	562	625	704
		with coil	Output Torque Nm	11500	14000	18900	18400	21300	34100	47600	75500	126000	139000	157000
		Thermal	Input Power kW	86.4	132	174	173	213	317	433	629	833	1150	1370
		Fan & Coil	Output Torque Nm	18800	28900	38600	38500	47700	69700	93900	138000	187000	256000	306000
38.4	37.	Thermal	Input Power kW	50.1	79.4	102	95.4	125	161	211	274	371	494	657
		with fan	Output Torque Nm	12000	19300	24500	23400	30800	38800	50300	66100	91700	121000	161000
		Thermal	Input Power kW	52.2	63.0	83.8	81.6	93.4	154	215	337	541	604	670
		with coil	Output Torque Nm	12500	15300	20100	20000	23100	37200	51200	81200	134000	148000	165000
		Thermal	Input Power kW	85.3	131	172	170	209	314	425	616	809	1110	1320
		Fan & Coil	Output Torque Nm	20400	31800	41300	41700	51700	75900	101000	149000	200000	273000	323000
42.5	34.	Thermal	Input Power kW	49.7	78.8	101	94.7	124	159	209	272	369	490	652
		with fan	Output Torque Nm	13200	21200	26600	25500	33600	42300	54800	72000	99900	132000	176000
		Thermal	Input Power kW	51.5	62.1	82.7	80.3	91.7	152	210	329	521	582	638
		with coil	Output Torque Nm	13700	16700	21700	21600	24900	40400	54900	87000	141000	157000	172000
		Thermal	Input Power kW	84.3	129	169	168	206	311	417	604	785	1080	1260
		Fan & Coil	Output Torque Nm	22400	34700	44500	45200	55800	82500	109000	160000	213000	291000	341000
47.1	30.	Thermal	Input Power kW	49.4	78.3	101	94.2	123	159	208	270	366	488	648
		with fan	Output Torque Nm	14600	23100	28900	28000	36900	46500	60200	79200	110000	145000	193000
		Thermal	Input Power kW	50.9	61.2	81.6	79.1	90.1	151	205	321	500	560	607
		with coil	Output Torque Nm	15000	18000	23400	23500	27000	44200	59300	93900	150000	167000	181000
		Thermal	Input Power kW	83.2	127	167	166	202	308	408	592	762	1050	1210
		Fan & Coil	Output Torque Nm	24600	37400	48000	49300	60700	90300	118000	173000	228000	312000	362000
52.1	27.	Thermal	Input Power kW	49.2	77.9	100	93.7	122	158	207	269	365	485	645
		with fan	Output Torque Nm	16000	25800	32800	31000	40900	51500	66800	87800	122000	161000	214000
		Thermal	Input Power kW	50.2	60.3	80.5	77.8	88.5	149	199	312	480	539	579
		with coil	Output Torque Nm	16300	20000	26300	25800	29600	48600	64400	102000	160000	178000	192000
		Thermal	Input Power kW	82.2	125	165	163	199	305	400	580	739	1020	1170
		Fan & Coil	Output Torque Nm	26700	41500	54100	54100	66600	99600	129000	189000	247000	337000	387000
57.7	25.	Thermal	Input Power kW	49.0	77.7	99.9	93.4	122	157	206	268	363	484	643
		with fan	Output Torque Nm	17700	28100	35700	34100	45000	56700	73500	96600	134000	177000	235000
		Thermal	Input Power kW	49.6	59.5	79.4	76.5	87.0	147	194	304	460	518	552
		with coil	Output Torque Nm	17900	21500	28400	28000	32100	53100	69300	109000	170000	189000	202000
		Thermal	Input Power kW	81.3	124	163	161	196	302	392	567	717	986	1120
		Fan & Coil	Output Torque Nm	29400	44700	58300	58900	72400	109000	140000	204000	264000	361000	411000
63.8	22.	Thermal	Input Power kW	48.8	77.4	99.5	93.1	122	157	206	267	362	482	641
		with fan	Output Torque Nm	19600	31000	38800	37300	48100	63100	82300	107000	151000	197000	256000
		Thermal	Input Power kW	48.9	58.6	78.3	75.2	85.4	145	189	295	440	497	527
		with coil	Output Torque Nm	19600	23500	30500	30100	33700	58500	75800	118000	184000	203000	211000
		Thermal	Input Power kW	80.2	122	161	159	193	299	384	555	695	956	1080
		Fan & Coil	Output Torque Nm	32200	48800	62900	63600	76200	120000	154000	222000	290000	390000	433000
70.6	20.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	48.2	57.7	77.1	73.9	83.8	143	184	287	421	477	504
		with coil	Output Torque Nm	21200	25800	33600	33000	37700	63100	80000	126000	189000	213000	225000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											
78.2	18.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	47.5	56.9	76.0	72.6	82.2	141	179	278	403	458	482
		with coil	Output Torque Nm	23500	27800	36200	35400	39600	69500	87400	136000	205000	228000	235000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											
86.5	16.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	46.8	56.0	74.9	71.2	80.6	139	174	269	385	439	462
		with coil	Output Torque Nm	25400	30400	40000	38600	43100	77800	94100	148000	213000	242000	247000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											
95.7	15.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	46.1	55.1	73.7	69.8	79.0	137	168	261	367	420	444
		with coil	Output Torque Nm	28100	33200	44800	42000	47600	83400	101000	157000	221000	253000	267000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											

Note: Cooling coils cannot be fitted to vertical units

B3 RATINGS AT 960 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
14.0	68.	Mechanical	Input Power kW	21.1	27.0	38.6	63.5	90.3	120	164	213	339	448	617
			Output Torque Nm	2840	3630	5400	8610	12300	16400	21900	28800	45800	60900	85500
		Thermal	Input Power kW	31.7	41.2	50.7	42.3	56.0	63.4	84.6	106	148	190	285
		No Fan	Output Torque Nm	4260	5540	7100	5730	7640	8690	11300	14300	20000	25900	39500
			Efficiency %	97	96	96	96	96	96	96	96	96	97	97
15.4	62.	Mechanical	Input Power kW	21.1	27.0	38.6	63.5	90.3	120	164	213	339	448	617
			Output Torque Nm	3140	4100	5860	9660	13700	17700	24600	31700	51600	68400	94800
		Thermal	Input Power kW	31.3	40.7	50.1	41.8	55.4	62.7	83.6	105	146	188	282
		No Fan	Output Torque Nm	4670	6190	7620	6360	8390	9240	12600	15600	22300	28700	43300
			Efficiency %	97	96	96	96	96	96	96	96	96	97	97
17.1	56.	Mechanical	Input Power kW	21.1	27.0	38.6	63.5	90.3	120	164	213	339	448	617
			Output Torque Nm	3520	4550	6440	10400	15100	20400	26800	35700	56800	73700	104000
		Thermal	Input Power kW	31.0	40.2	49.5	41.3	54.7	62.0	82.6	103	145	186	279
		No Fan	Output Torque Nm	5160	6790	8260	6780	9150	10500	13600	17300	24200	30600	47000
			Efficiency %	97	96	96	96	96	96	96	96	96	96	97
18.9	50.	Mechanical	Input Power kW	20.8	27.0	38.6	56.9	89.4	120	164	213	336	448	617
			Output Torque Nm	3800	5010	7130	10500	16600	21900	30100	39400	63600	82800	115000
		Thermal	Input Power kW	30.6	39.8	48.9	40.8	54.1	61.2	81.6	102	143	184	275
		No Fan	Output Torque Nm	5600	7380	9040	7520	10000	11200	15000	18900	27000	33900	51500
			Efficiency %	96	96	96	97	96	96	96	96	96	97	96
20.9	45.	Mechanical	Input Power kW	19.2	27.0	36.4	52.6	81.4	112	144	193	288	395	531
			Output Torque Nm	3860	5550	7580	10700	16700	23300	29300	39800	57400	80600	109000
		Thermal	Input Power kW	30.2	39.3	48.3	40.3	53.4	60.5	80.6	101	141	181	272
		No Fan	Output Torque Nm	6080	8070	10100	8200	10900	12600	16400	20800	28100	37000	55800
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
23.2	41.	Mechanical	Input Power kW	16.7	27.0	33.8	46.0	73.1	104	144	206	283	368	531
			Output Torque Nm	3800	6130	7580	10500	16600	23300	32800	46800	63600	84400	121000
		Thermal	Input Power kW	29.9	38.8	47.8	39.8	52.8	59.7	79.7	99.6	139	179	269
		No Fan	Output Torque Nm	6800	8820	10700	9090	12000	13400	18200	22600	31300	41000	61200
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
25.6	37.	Mechanical	Input Power kW	15.5	25.2	30.1	41.7	66.3	94.2	116	174	243	321	456
			Output Torque Nm	3800	6230	7590	10500	16600	23300	29200	43700	60200	81100	115000
		Thermal	Input Power kW	29.5	38.4	47.2	39.4	52.1	59.0	78.7	98.4	138	177	266
		No Fan	Output Torque Nm	7260	9490	11900	9920	13100	14600	19900	24700	34100	44700	66700
			Efficiency %	96	96	97	96	96	96	96	96	96	96	97
28.4	33.	Mechanical	Input Power kW	14.3	16.1	27.9	37.7	60.1	87.2	120	175	211	303	447
			Output Torque Nm	3870	4420	7590	10500	16600	23300	32800	47400	59400	84400	125000
		Thermal	Input Power kW	29.2	37.9	46.7	38.9	51.5	58.4	77.8	97.3	136	175	263
		No Fan	Output Torque Nm	7900	10400	12700	10800	14200	15600	21300	26300	38400	48800	73600
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
31.4	30.	Mechanical	Input Power kW	12.4	15.6	28.2	34.2	54.5	79.0	109	159	191	275	405
			Output Torque Nm	3750	4730	8380	10500	16600	23300	32800	47400	59400	84400	125000
		Thermal	Input Power kW	28.9	37.5	46.2	38.5	51.0	57.7	77.0	96.2	135	173	260
		No Fan	Output Torque Nm	8760	11400	13700	11800	15600	17000	23300	28700	41900	53200	80300
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
34.7	27.	Mechanical	Input Power kW	11.6	15.6	22.6	32.7	39.4	65.0	97.5	125	191	258	372
			Output Torque Nm	3810	5150	7590	11000	13400	21500	31900	41400	64700	86800	125000
		Thermal	Input Power kW	28.6	37.2	45.7	38.1	50.5	57.2	76.2	95.3	133	172	257
		No Fan	Output Torque Nm	9380	12300	15400	12800	17100	18900	25000	31500	45200	57700	86700
			Efficiency %	96	96	96	96	97	96	96	96	96	96	96
38.4	24.	Mechanical	Input Power kW	10.7	15.1	20.9	29.7	35.8	59.0	88.5	114	174	235	338
			Output Torque Nm	3870	5540	7590	11000	13400	21500	31900	41400	64700	86800	125000
		Thermal	Input Power kW	28.3	36.8	45.3	37.8	50.1	56.7	75.6	94.5	132	170	255
		No Fan	Output Torque Nm	10200	13600	16500	14000	18700	20700	27200	34400	49300	62900	94600
			Efficiency %	97	96	96	96	97	96	96	96	96	96	96
42.5	22.	Mechanical	Input Power kW	9.6	11.9	21.1	27.0	32.6	53.8	80.7	104	158	214	308
			Output Torque Nm	3870	4860	8380	11000	13400	21500	31900	41400	64800	86800	125000
		Thermal	Input Power kW	28.1	36.6	45.0	37.5	49.7	56.3	75.0	93.8	131	169	253
		No Fan	Output Torque Nm	11300	14900	17900	15200	20400	22500	29700	37500	53700	68500	103000
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
47.1	20.	Mechanical	Input Power kW	7.5	11.9	19.5	24.5	29.5	48.6	72.9	93.7	143	193	279
			Output Torque Nm	3350	5310	8440	11000	13400	21500	31900	41500	64800	86800	125000
		Thermal	Input Power kW	28.0	36.4	44.8	37.3	49.4	55.9	74.6	93.3	131	168	252
		No Fan	Output Torque Nm	12500	16200	19400	16700	22400	24800	32600	41200	59100	75400	113000
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
52.1	18.	Mechanical	Input Power kW	7.5	9.8	14.9	22.0	26.5	43.7	65.5	84.2	129	174	246
			Output Torque Nm	3690	4930	7370	11000	13400	21500	31900	41500	64800	86800	123000
		Thermal	Input Power kW	27.8	36.2	44.5	37.1	49.2	55.7	74.2	92.8	130	167	251
		No Fan	Output Torque Nm	13700	18100	22000	18600	24800	27500	36200	45700	65500	83500	125000
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
57.7	16.	Mechanical	Input Power kW	7.1	9.8	14.9	19.9	24.0	39.6	55.9	76.2	115	151	213
			Output Torque Nm	3870	5380	8050	11000	13400	21500	30100	41500	64100	83600	118000
		Thermal	Input Power kW	27.7	36.1	44.4	37.0	49.0	55.5	74.0	92.5	129	166	250
		No Fan	Output Torque Nm	15100	19700	23900	20400	27300	30200	39800	50300	72100	91900	138000
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
63.8	15.	Mechanical	Input Power kW	5.6	8.7	14.3	15.1	28.5	32.6	48.4	62.7	97.0	131	193
			Output Torque Nm	3410	5240	8450	9130	17000	19800	29300	37900	61100	80600	117000
		Thermal	Input Power kW	27.6	35.9	44.2	36.9	48.8	55.3	73.7	92.2	129	166	249
		No Fan	Output Torque Nm	16700	21700	26100	22300	29100	33600	44600	55600	81300	102000	150000
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
70.6	13.	Mechanical	Input Power kW	5.6	7.1	11.4	15.6	19.7	32.4	42.1	61.7	81.9	114	155
			Output Torque Nm	3750	4770	7510	10500	13400	21500	27600	40900	55600	76500	104000
		Thermal	Input Power kW	27.6	35.8	44.1	36.8	48.7	55.1	73.5	91.9	129	165	248
		No Fan	Output Torque Nm	18400	24200	29000	24800	33100	36600	48300	61000	87400	111000	167000
			Efficiency %	96	96	96	96	96	96	96	96	96	96	95

B3 RATINGS AT 960 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
78.2	12.	Mechanical	Input Power kW	5.2	7.1	11.4	12.4	23.1	26.7	39.7	51.4	79.6	107	155
			Output Torque Nm	3870	5200	8210	9130	16800	19800	29300	37900	61100	80600	114000
		Thermal	Input Power kW	27.5	35.8	44.1	36.7	48.6	55.1	73.4	91.8	129	165	248
		No Fan	Output Torque Nm	20600	26400	31700	27100	35400	40900	54200	67600	98800	124000	183000
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
86.5	11.	Mechanical	Input Power kW	3.7	6.9	10.5	11.2	21.1	23.5	35.8	45.7	73.1	96.6	144
			Output Torque Nm	3010	5630	8450	9130	17000	19800	29300	37900	61200	80600	117000
		Thermal	Input Power kW	27.5	35.7	44.0	36.7	48.6	55.0	73.3	91.6	128	165	247
		No Fan	Output Torque Nm	22500	29300	35500	30000	39200	46400	60000	76000	107000	138000	200000
			Efficiency %	96	96	95	96	96	96	96	96	96	96	96
95.7	10.	Mechanical	Input Power kW	3.3	5.0	6.3	11.1	14.0	21.7	27.7	42.4	53.4	89.3	113
			Output Torque Nm	3010	4520	5830	10100	12700	19900	25200	38500	48500	81200	102000
		Thermal	Input Power kW	27.4	35.7	43.9	36.6	48.5	54.9	73.2	91.5	128	165	247
		No Fan	Output Torque Nm	25200	32400	40300	33300	44100	50400	66500	83100	116000	150000	224000
			Efficiency %	96	96	96	96	96	96	96	96	96	96	95

B3 THERMAL RATINGS AT 960 REV/MIN INPUT

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
14.0	68.	Thermal	Input Power kW	44.8	71.0	91.2	85.3	112	144	188	245	332	442	587
		with fan	Output Torque Nm	6020	9550	12800	11600	15200	19700	25200	33200	45000	60100	81300
		Thermal	Input Power kW	58.7	71.9	94.6	92.9	109	169	257	402	735	807	1070
		with coil	Output Torque Nm	7900	9670	13200	12600	14800	23200	34500	54500	99600	110000	149000
		Thermal	Input Power kW	84.8	131	171	172	214	310	455	665	960	1320	1840
		Fan & Coil	Output Torque Nm	11400	17600	23900	23300	29300	42600	61000	90100	130000	180000	255000
15.4	62.	Thermal	Input Power kW	44.3	70.2	90.2	84.4	110	142	186	242	328	437	581
		with fan	Output Torque Nm	6600	10700	13700	12800	16700	21000	28000	36200	50100	66800	89200
		Thermal	Input Power kW	58.2	71.1	93.6	92.0	107	168	254	397	719	789	1030
		with coil	Output Torque Nm	8660	10800	14200	14000	16300	24700	38200	59300	110000	121000	158000
		Thermal	Input Power kW	83.9	130	169	170	212	308	449	656	940	1300	1770
		Fan & Coil	Output Torque Nm	12500	19700	25700	25900	32100	45400	67500	97900	143000	198000	272000
17.1	56.	Thermal	Input Power kW	43.7	69.3	89.1	83.4	109	140	184	239	324	432	574
		with fan	Output Torque Nm	7300	11700	14900	13700	18200	23900	30200	40200	54400	71000	96700
		Thermal	Input Power kW	57.5	70.3	92.6	91.0	106	166	250	392	701	771	986
		with coil	Output Torque Nm	9600	11800	15500	14900	17700	28300	41100	65800	118000	127000	166000
		Thermal	Input Power kW	83.1	128	167	169	209	305	443	647	919	1270	1700
		Fan & Coil	Output Torque Nm	13900	21600	27900	27700	35000	51900	72700	109000	154000	209000	286000
18.9	50.	Thermal	Input Power kW	43.2	68.5	88.1	82.4	108	139	182	237	321	427	567
		with fan	Output Torque Nm	7910	12700	16300	15200	20000	25400	33500	43700	60600	78800	106000
		Thermal	Input Power kW	56.9	69.4	91.6	89.9	104	165	246	386	683	752	943
		with coil	Output Torque Nm	10400	12900	16900	16600	19400	30200	45400	71400	129000	139000	176000
		Thermal	Input Power kW	82.1	127	165	167	206	302	436	638	898	1240	1630
		Fan & Coil	Output Torque Nm	15000	23500	30500	30700	38300	55300	80300	118000	170000	229000	305000
20.9	45.	Thermal	Input Power kW	42.7	67.7	87.0	81.4	106	137	180	234	317	421	560
		with fan	Output Torque Nm	8600	13900	18100	16600	21800	28500	36600	48200	63200	86000	115000
		Thermal	Input Power kW	56.3	68.5	90.5	88.8	103	163	242	379	664	732	900
		with coil	Output Torque Nm	11300	14100	18900	18100	21100	34100	49400	78300	132000	149000	185000
		Thermal	Input Power kW	81.2	125	163	164	203	300	429	628	875	1210	1560
		Fan & Coil	Output Torque Nm	16400	25700	34100	33500	41600	62500	87500	130000	175000	247000	320000
23.2	41.	Thermal	Input Power kW	42.2	66.9	86.0	80.4	105	135	178	231	313	416	553
		with fan	Output Torque Nm	9610	15200	19300	18400	23900	30300	40600	52400	70300	95400	126000
		Thermal	Input Power kW	55.6	67.6	89.4	87.6	101	162	238	373	644	711	858
		with coil	Output Torque Nm	12700	15400	20000	20000	23000	36300	54400	84700	145000	163000	195000
		Thermal	Input Power kW	80.2	123	161	162	200	297	422	618	853	1180	1490
		Fan & Coil	Output Torque Nm	18300	28000	36200	37100	45400	66500	96500	140000	192000	270000	339000

Note: Cooling coils cannot be fitted to vertical units

B3 THERMAL RATINGS AT 960 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
25.6	37.	Thermal	Input Power kW	41.7	66.1	85.0	79.5	104	134	175	228	309	412	547
		with fan	Output Torque Nm	10300	16400	21400	20000	26000	33100	44300	57200	76700	104000	137000
		Thermal	Input Power kW	54.9	66.7	88.3	86.5	99.8	160	234	366	624	690	818
		with coil	Output Torque Nm	13500	16500	22200	21800	25000	39700	59000	91800	155000	174000	205000
		Thermal	Input Power kW	79.3	122	159	160	197	294	414	607	829	1150	1420
		Fan & Coil	Output Torque Nm	19500	30100	40100	40400	49400	72700	105000	152000	206000	290000	357000
28.4	33.	Thermal	Input Power kW	41.2	65.3	84.0	78.6	103	132	173	226	306	407	541
		with fan	Output Torque Nm	11200	17900	22900	21900	28400	35400	47500	61000	86200	113000	152000
		Thermal	Input Power kW	54.2	65.8	87.2	85.3	98.2	159	229	359	604	669	778
		with coil	Output Torque Nm	14700	18000	23700	23700	27200	42500	62700	97100	170000	187000	218000
		Thermal	Input Power kW	78.3	120	157	158	194	291	407	596	806	1110	1360
		Fan & Coil	Output Torque Nm	21200	32900	42900	44000	53600	77800	111000	161000	227000	310000	381000
31.4	30.	Thermal	Input Power kW	40.8	64.6	83.1	77.7	102	131	172	223	302	402	535
		with fan	Output Torque Nm	12400	19600	24700	23900	31000	38600	51900	66500	94000	124000	165000
		Thermal	Input Power kW	53.5	64.8	86.0	84.0	96.6	157	224	352	583	647	740
		with coil	Output Torque Nm	16300	19600	25600	25800	29500	46400	67800	105000	181000	199000	229000
		Thermal	Input Power kW	77.3	118	155	156	191	288	399	585	782	1080	1300
		Fan & Coil	Output Torque Nm	23500	35800	46200	47900	58100	84900	121000	174000	243000	332000	402000
34.7	27.	Thermal	Input Power kW	40.4	64.0	82.3	77.0	101	130	170	221	300	399	530
		with fan	Output Torque Nm	13300	21100	27600	25900	34100	42900	55700	73200	101000	134000	178000
		Thermal	Input Power kW	52.9	63.9	84.9	82.8	95.0	156	219	344	562	625	704
		with coil	Output Torque Nm	17400	21100	28500	27800	32200	51600	71900	114000	190000	210000	237000
		Thermal	Input Power kW	76.3	116	153	154	187	285	391	573	758	1050	1240
		Fan & Coil	Output Torque Nm	25000	38400	51500	51600	63500	94500	128000	190000	257000	352000	418000
38.4	24.	Thermal	Input Power kW	40.1	63.5	81.6	76.3	99.8	128	169	219	297	395	525
		with fan	Output Torque Nm	14500	23400	29700	28200	37200	46900	60800	79900	111000	146000	195000
		Thermal	Input Power kW	52.2	63.0	83.8	81.6	93.3	154	215	337	541	604	670
		with coil	Output Torque Nm	18800	23200	30400	30200	34800	56200	77300	123000	202000	223000	248000
		Thermal	Input Power kW	75.3	115	151	151	184	282	383	562	735	1020	1180
		Fan & Coil	Output Torque Nm	27200	42200	54900	56000	68700	103000	138000	205000	274000	376000	439000
42.5	22.	Thermal	Input Power kW	39.8	63.0	81.0	75.8	99.0	128	167	218	295	392	521
		with fan	Output Torque Nm	16000	25700	32100	30800	40600	51100	66200	87000	121000	159000	212000
		Thermal	Input Power kW	51.5	62.1	82.6	80.3	91.7	152	210	329	521	582	638
		with coil	Output Torque Nm	20700	25300	32800	32600	37600	61000	82900	131000	213000	236000	259000
		Thermal	Input Power kW	74.3	113	149	149	181	279	375	550	711	983	1130
		Fan & Coil	Output Torque Nm	29800	46000	59200	60600	74200	112000	148000	220000	291000	399000	461000
47.1	20.	Thermal	Input Power kW	39.5	62.6	80.5	75.3	98.5	127	166	216	293	390	518
		with fan	Output Torque Nm	17700	27900	34900	33800	44600	56200	72800	95700	133000	175000	233000
		Thermal	Input Power kW	50.9	61.2	81.6	79.1	90.1	151	205	321	500	560	607
		with coil	Output Torque Nm	22700	27200	35300	35500	40800	66700	89500	142000	226000	252000	273000
		Thermal	Input Power kW	73.4	111	147	147	178	276	367	538	688	951	1080
		Fan & Coil	Output Torque Nm	32800	49500	63800	66000	80600	122000	160000	238000	312000	427000	487000
52.1	18.	Thermal	Input Power kW	39.3	62.3	80.2	75.0	98.0	126	166	215	292	388	516
		with fan	Output Torque Nm	19300	31200	39600	37500	49400	62200	80700	106000	147000	194000	258000
		Thermal	Input Power kW	50.2	60.3	80.5	77.8	88.5	149	199	312	480	539	579
		with coil	Output Torque Nm	24600	30200	39700	38900	44700	73500	97200	154000	242000	270000	290000
		Thermal	Input Power kW	72.4	110	145	145	175	273	359	526	666	920	1040
		Fan & Coil	Output Torque Nm	35500	54900	71700	72400	88200	135000	175000	259000	336000	460000	519000
57.7	16.	Thermal	Input Power kW	39.2	62.1	79.9	74.7	97.6	126	165	215	291	387	514
		with fan	Output Torque Nm	21400	33900	43100	41300	54400	68500	88800	117000	162000	214000	284000
		Thermal	Input Power kW	49.6	59.5	79.4	76.5	87.0	147	194	304	460	518	552
		with coil	Output Torque Nm	27000	32500	42800	42300	48500	80200	105000	165000	256000	286000	305000
		Thermal	Input Power kW	71.4	108	143	142	172	270	351	514	644	890	994
		Fan & Coil	Output Torque Nm	39000	59000	77300	78700	95700	147000	189000	279000	359000	491000	550000
63.8	15.	Thermal	Input Power kW	39.1	61.9	79.6	74.5	97.3	125	164	214	290	386	512
		with fan	Output Torque Nm	23700	37500	46900	45000	58100	76200	99400	129000	183000	238000	309000
		Thermal	Input Power kW	48.9	58.6	78.3	75.2	85.4	145	189	295	440	497	527
		with coil	Output Torque Nm	29600	35400	46100	45500	50900	88400	114000	178000	277000	307000	318000
		Thermal	Input Power kW	70.5	106	141	140	169	267	342	501	623	860	954
		Fan & Coil	Output Torque Nm	42700	64300	83200	84800	101000	163000	207000	303000	392000	530000	576000
70.6	13.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	48.2	57.7	77.1	73.9	83.8	143	184	287	421	477	504
		with coil	Output Torque Nm	32100	39000	50800	49800	56900	95300	121000	190000	286000	322000	340000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											
78.2	12.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	47.5	56.9	76.0	72.6	82.2	141	179	278	403	458	482
		with coil	Output Torque Nm	35500	42000	54700	53500	59800	105000	132000	205000	310000	344000	355000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											
86.5	11.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	46.8	56.0	74.9	71.2	80.6	139	174	269	385	439	462
		with coil	Output Torque Nm	38400	45900	60500	58300	65100	118000	142000	223000	322000	366000	373000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											
95.7	10.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	46.1	55.1	73.7	69.8	79.0	137	168	261	367	420	444
		with coil	Output Torque Nm	42400	50100	67700	63400	71800	126000	153000	237000	334000	382000	403000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											

Note: Cooling coils cannot be fitted to vertical units

B3 RATINGS AT 725 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
14.0	51.	Mechanical	Input Power kW	15.9	20.4	29.2	48.0	68.2	90.5	124	161	256	338	466
			Output Torque Nm	2840	3630	5400	8610	12300	16400	21900	28800	45800	60800	85300
		Thermal	Input Power kW	31.7	41.2	50.7	42.3	56.0	63.4	84.5	106	148	190	285
		No Fan	Output Torque Nm	5640	7340	9400	7580	10100	11500	15000	18900	26500	34200	52200
			Efficiency %	97	96	96	96	96	96	96	96	97	97	97
15.4	46.	Mechanical	Input Power kW	15.9	20.4	29.2	48.0	68.2	90.5	124	161	256	338	466
			Output Torque Nm	3140	4100	5860	9660	13700	17700	24600	31700	51600	68300	94600
		Thermal	Input Power kW	31.3	40.7	50.1	41.8	55.4	62.7	83.6	105	146	188	282
		No Fan	Output Torque Nm	6180	8200	10100	8420	11100	12200	16600	20600	29500	37900	57300
			Efficiency %	97	96	96	96	96	96	96	96	96	97	97
17.1	42.	Mechanical	Input Power kW	15.9	20.4	29.2	48.0	68.2	90.5	124	161	256	338	466
			Output Torque Nm	3520	4550	6440	10400	15100	20400	26900	35700	56800	73600	104000
		Thermal	Input Power kW	31.0	40.2	49.5	41.3	54.7	61.9	82.6	103	145	186	279
		No Fan	Output Torque Nm	6840	8990	10900	8970	12100	13900	17900	22900	32100	40400	62100
			Efficiency %	97	96	96	96	96	96	96	96	96	96	97
18.9	38.	Mechanical	Input Power kW	15.7	20.4	29.2	43.0	67.5	90.5	124	161	254	338	466
			Output Torque Nm	3800	5010	7130	10500	16600	21900	30100	39400	63600	82700	115000
		Thermal	Input Power kW	30.6	39.7	48.9	40.8	54.0	61.2	81.6	102	143	184	275
		No Fan	Output Torque Nm	7410	9770	12000	9950	13300	14800	19900	25000	35700	44800	68100
			Efficiency %	96	96	96	96	96	96	96	96	96	97	96
20.9	34.	Mechanical	Input Power kW	14.5	20.4	27.5	39.7	61.4	84.3	109	146	217	298	401
			Output Torque Nm	3870	5550	7590	10700	16700	23300	29300	39800	57400	80500	109000
		Thermal	Input Power kW	30.2	39.3	48.3	40.3	53.4	60.4	80.6	101	141	181	272
		No Fan	Output Torque Nm	8060	10700	13300	10900	14500	16700	21800	27500	37200	48900	73800
			Efficiency %	97	96	96	96	96	96	96	96	96	96	96
23.2	31.	Mechanical	Input Power kW	12.6	20.4	25.6	34.7	55.2	78.5	108	156	214	279	401
			Output Torque Nm	3810	6130	7590	10500	16600	23300	32800	46800	63600	84400	121000
		Thermal	Input Power kW	29.8	38.8	47.8	39.8	52.7	59.7	79.6	99.5	139	179	269
		No Fan	Output Torque Nm	9000	11700	14200	12000	15900	17700	24100	29900	41400	54300	80900
			Efficiency %	97	96	96	96	96	96	96	96	96	96	96
25.6	28.	Mechanical	Input Power kW	11.7	19.0	22.8	31.5	50.1	71.2	87.5	132	183	242	344
			Output Torque Nm	3810	6230	7590	10500	16600	23300	29200	43700	60200	81000	114000
		Thermal	Input Power kW	29.5	38.4	47.2	39.3	52.1	59.0	78.7	98.4	138	177	266
		No Fan	Output Torque Nm	9620	12600	15700	13100	17300	19300	26300	32600	45200	59200	88200
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
28.4	25.	Mechanical	Input Power kW	10.8	12.0	21.0	28.5	45.4	65.8	90.5	133	159	229	338
			Output Torque Nm	3870	4360	7590	10500	16600	23300	32800	47400	59500	84400	125000
		Thermal	Input Power kW	29.2	37.9	46.7	38.9	51.5	58.4	77.8	97.3	136	175	263
		No Fan	Output Torque Nm	10500	13800	16800	14300	18900	20700	28200	34800	50800	64600	97400
			Efficiency %	96	96	97	96	96	96	96	96	96	96	96
31.4	23.	Mechanical	Input Power kW	9.3	11.8	21.3	25.8	41.1	59.7	82.1	120	144	208	306
			Output Torque Nm	3750	4730	8380	10500	16600	23300	32800	47400	59500	84500	125000
		Thermal	Input Power kW	28.9	37.5	46.2	38.5	51.0	57.7	77.0	96.2	135	173	260
		No Fan	Output Torque Nm	11600	15000	18200	15700	20600	22500	30800	38000	55400	70400	106000
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
34.7	20.	Mechanical	Input Power kW	8.8	11.8	17.1	24.7	29.8	49.1	73.6	94.6	144	195	281
			Output Torque Nm	3810	5150	7590	11000	13400	21500	31900	41500	64800	86800	125000
		Thermal	Input Power kW	28.6	37.2	45.7	38.1	50.5	57.2	76.2	95.3	133	172	257
		No Fan	Output Torque Nm	12400	16200	20300	17000	22700	25100	33000	41800	59800	76300	115000
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
38.4	18.	Mechanical	Input Power kW	8.1	11.4	15.8	22.4	27.1	44.6	66.9	86.0	131	177	256
			Output Torque Nm	3870	5540	7590	11000	13400	21500	31900	41500	64800	86800	125000
		Thermal	Input Power kW	28.3	36.8	45.3	37.8	50.1	56.7	75.6	94.5	132	170	255
		No Fan	Output Torque Nm	13500	17900	21800	18500	24700	27400	36100	45600	65300	83300	125000
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
42.5	17.	Mechanical	Input Power kW	7.3	8.9	15.8	20.4	24.7	40.6	60.9	78.3	120	161	233
			Output Torque Nm	3870	4810	8320	11000	13400	21500	31900	41500	64900	86800	125000
		Thermal	Input Power kW	28.1	36.6	45.0	37.5	49.7	56.3	75.0	93.8	131	169	253
		No Fan	Output Torque Nm	14900	19700	23600	20200	27000	29800	39300	49700	71200	90800	136000
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
47.1	15.	Mechanical	Input Power kW	5.7	8.9	14.7	18.5	22.3	36.7	55.1	70.8	108	146	211
			Output Torque Nm	3350	5250	8450	11000	13400	21500	31900	41500	64900	86800	125000
		Thermal	Input Power kW	28.0	36.4	44.7	37.3	49.4	55.9	74.6	93.2	131	168	252
		No Fan	Output Torque Nm	16500	21400	25700	22200	29600	32800	43200	54600	78200	99800	150000
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
52.1	13.	Mechanical	Input Power kW	5.7	7.4	11.3	16.6	20.0	33.0	49.5	63.6	97.2	131	186
			Output Torque Nm	3690	4930	7370	11000	13400	21500	31900	41500	64900	86800	123000
		Thermal	Input Power kW	27.8	36.2	44.5	37.1	49.2	55.7	74.2	92.8	130	167	251
		No Fan	Output Torque Nm	18100	24000	29100	24600	32900	36400	47900	60500	86700	111000	166000
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
57.7	12.	Mechanical	Input Power kW	5.4	7.4	11.3	15.0	18.1	29.9	42.2	57.6	87.0	114	161
			Output Torque Nm	3870	5380	8050	11000	13400	21500	30100	41500	64100	83600	118000
		Thermal	Input Power kW	27.7	36.1	44.4	37.0	49.0	55.5	74.0	92.5	129	166	250
		No Fan	Output Torque Nm	20000	26100	31700	27000	36200	40000	52700	66600	95400	122000	183000
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
63.8	11.	Mechanical	Input Power kW	4.3	6.5	10.8	11.4	21.5	24.6	36.6	47.4	73.3	98.7	146
			Output Torque Nm	3410	5190	8450	9130	17000	19800	29300	37900	61200	80600	117000
		Thermal	Input Power kW	27.6	35.9	44.2	36.9	48.8	55.3	73.7	92.2	129	166	249
		No Fan	Output Torque Nm	22200	28800	34500	29500	38600	44500	59000	73700	108000	135000	199000
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
70.6	10.	Mechanical	Input Power kW	4.3	5.3	8.6	11.8	14.9	24.5	31.8	46.6	61.9	85.8	117
			Output Torque Nm	3750	4720	7510	10500	13400	21600	27700	40900	55600	76500	104000
		Thermal	Input Power kW	27.6	35.8	44.1	36.8	48.7	55.1	73.5	91.9	129	165	248
		No Fan	Output Torque Nm	24300	32100	38400	32800	43800	48500	63900	80800	116000	148000	222000
			Efficiency %	96	96	96	96	96	96	96	96	96	96	95

B3 RATINGS AT 725 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
78.2	9.	Mechanical	Input Power kW	3.9	5.3	8.6	9.3	17.5	20.2	30.0	38.8	60.1	81.0	117
			Output Torque Nm	3870	5160	8210	9130	16800	19800	29300	37900	61200	80600	114000
		Thermal	Input Power kW	27.5	35.8	44.1	36.7	48.6	55.1	73.4	91.8	128	165	248
		No Fan	Output Torque Nm	27200	35000	41900	35900	46900	54100	71700	89500	131000	165000	242000
			Efficiency %	96	96	96	96	95	96	96	96	96	96	96
86.5	8.	Mechanical	Input Power kW	2.8	5.2	7.9	8.4	15.9	17.8	27.0	34.5	55.2	72.9	109
			Output Torque Nm	3010	5630	8450	9130	17000	19800	29300	37900	61200	80600	117000
		Thermal	Input Power kW	27.5	35.7	44.0	36.7	48.6	55.0	73.3	91.6	128	165	247
		No Fan	Output Torque Nm	29800	38800	47000	39700	51900	61400	79500	101000	142000	182000	265000
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96
95.7	7.	Mechanical	Input Power kW	2.5	3.8	4.8	8.4	10.6	16.4	20.9	32.0	40.4	67.5	85.1
			Output Torque Nm	3010	4520	5830	10100	12700	20000	25200	38500	48600	81200	102000
		Thermal	Input Power kW	27.4	35.7	43.9	36.6	48.5	54.9	73.2	91.5	128	165	247
		No Fan	Output Torque Nm	33400	42900	53400	44000	58300	66700	88100	110000	154000	198000	297000
			Efficiency %	96	96	96	96	96	96	96	96	96	96	96

B3 THERMAL RATINGS AT 725 REV/MIN INPUT

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
14.0	51.	Thermal	Input Power kW	39.5	62.6	80.5	75.3	98.4	127	166	216	293	390	518
		with fan	Output Torque Nm	7040	11200	14900	13500	17800	23000	29500	38800	52500	70100	94800
		Thermal	Input Power kW	58.7	71.9	94.6	92.9	109	169	257	402	735	807	1070
		with coil	Output Torque Nm	10500	12800	17500	16700	19600	30700	45700	72100	132000	145000	197000
		Thermal	Input Power kW	79.5	123	160	162	201	293	433	636	921	1270	1770
		Fan & Coil	Output Torque Nm	14200	21900	29700	29100	36400	53300	76800	114000	165000	229000	324000
15.4	46.	Thermal	Input Power kW	39.1	61.9	79.6	74.5	97.3	125	164	214	290	386	512
		with fan	Output Torque Nm	7710	12500	16000	15000	19500	24500	32700	42200	58500	77800	104000
		Thermal	Input Power kW	58.2	71.1	93.6	92.0	107	168	254	397	718	789	1030
		with coil	Output Torque Nm	11500	14300	18800	18500	21500	32800	50500	78400	145000	159000	209000
		Thermal	Input Power kW	78.7	121	158	160	199	291	427	628	902	1250	1700
		Fan & Coil	Output Torque Nm	15500	24400	31900	32400	39900	56900	85000	124000	182000	251000	346000
17.1	42.	Thermal	Input Power kW	38.6	61.2	78.7	73.6	96.2	124	162	211	286	381	506
		with fan	Output Torque Nm	8530	13700	17400	16000	21300	27900	35300	47000	63600	82900	113000
		Thermal	Input Power kW	57.5	70.3	92.6	90.9	106	166	250	391	701	771	986
		with coil	Output Torque Nm	12700	15700	20500	19800	23500	37500	54400	87100	156000	168000	220000
		Thermal	Input Power kW	77.9	120	157	159	196	289	421	619	881	1220	1630
		Fan & Coil	Output Torque Nm	17200	26800	34600	34500	43500	65000	91500	138000	196000	265000	363000
18.9	38.	Thermal	Input Power kW	38.1	60.4	77.7	72.7	95.0	122	160	209	283	376	500
		with fan	Output Torque Nm	9250	14900	19000	17700	23400	29600	39100	51100	70700	92000	124000
		Thermal	Input Power kW	56.9	69.4	91.6	89.9	104	165	246	386	682	752	943
		with coil	Output Torque Nm	13800	17100	22400	21900	25700	40000	60100	94500	171000	184000	233000
		Thermal	Input Power kW	77.1	119	155	157	193	286	414	610	860	1190	1560
		Fan & Coil	Output Torque Nm	18700	29100	37900	38300	47600	69300	101000	149000	215000	291000	386000
20.9	34.	Thermal	Input Power kW	37.7	59.7	76.8	71.8	93.8	121	159	206	279	372	494
		with fan	Output Torque Nm	10000	16300	21200	19300	25400	33400	42800	56300	73800	100000	134000
		Thermal	Input Power kW	56.3	68.5	90.5	88.8	103	163	242	379	663	732	900
		with coil	Output Torque Nm	15000	18700	25000	23900	27900	45100	65400	104000	175000	198000	244000
		Thermal	Input Power kW	76.2	117	153	155	191	284	408	600	838	1160	1490
		Fan & Coil	Output Torque Nm	20300	31900	42300	41700	51600	78300	110000	164000	221000	313000	405000
23.2	31.	Thermal	Input Power kW	37.2	59.0	75.9	71.0	92.7	119	157	204	276	367	488
		with fan	Output Torque Nm	11200	17800	22500	21500	27900	35400	47500	61300	82100	111000	147000
		Thermal	Input Power kW	55.6	67.6	89.4	87.6	101	162	238	373	644	711	858
		with coil	Output Torque Nm	16800	20300	26500	26500	30500	48100	72100	112000	192000	216000	259000
		Thermal	Input Power kW	75.3	115	151	153	188	281	401	591	816	1130	1420
		Fan & Coil	Output Torque Nm	22700	34700	44900	46300	56500	83400	121000	178000	243000	342000	429000

Note: Cooling coils cannot be fitted to vertical units

B3 THERMAL RATINGS AT 725 REV/MIN INPUT

9709

Nominal Ratio	Nominal Output Speed Rev/Min	CAPACITY		SIZE OF UNIT										
				H140	H160	H180	H200	H225	H250	H280	H315	H355	H400	H450
25.6	28.	Thermal	Input Power kW	36.8	58.3	75.0	70.1	91.6	118	155	201	273	363	483
		with fan	Output Torque Nm	12000	19100	25000	23400	30400	38600	51800	66800	89600	121000	160000
		Thermal	Input Power kW	54.9	66.7	88.3	86.5	99.8	160	234	366	624	690	817
		with coil	Output Torque Nm	17900	21900	29400	28900	33100	52500	78100	122000	205000	231000	272000
		Thermal	Input Power kW	74.4	114	149	151	185	278	394	580	793	1100	1360
		Fan & Coil	Output Torque Nm	24300	37300	49800	50400	61300	91100	132000	193000	260000	367000	452000
28.4	25.	Thermal	Input Power kW	36.4	57.7	74.1	69.3	90.6	117	153	199	270	359	477
		with fan	Output Torque Nm	13000	20900	26700	25600	33200	41300	55500	71300	101000	132000	177000
		Thermal	Input Power kW	54.2	65.8	87.2	85.3	98.2	159	229	359	604	669	778
		with coil	Output Torque Nm	19400	23900	31400	31400	36000	56200	83100	129000	225000	247000	289000
		Thermal	Input Power kW	73.4	112	147	149	182	275	386	570	770	1070	1300
		Fan & Coil	Output Torque Nm	26300	40700	53200	54900	66500	97500	140000	204000	287000	393000	481000
31.4	23.	Thermal	Input Power kW	36.0	57.0	73.3	68.6	89.6	115	151	197	267	355	472
		with fan	Output Torque Nm	14500	22900	28900	27900	36200	45100	60600	77800	110000	144000	193000
		Thermal	Input Power kW	53.5	64.8	86.0	84.0	96.6	157	224	352	583	647	740
		with coil	Output Torque Nm	21500	26000	33900	34200	39000	61400	89800	139000	240000	263000	303000
		Thermal	Input Power kW	72.5	111	145	147	179	273	378	558	746	1030	1240
		Fan & Coil	Output Torque Nm	29100	44400	57300	59700	72100	106000	152000	221000	307000	420000	506000
34.7	20.	Thermal	Input Power kW	35.6	56.5	72.6	67.9	88.8	114	150	195	264	352	467
		with fan	Output Torque Nm	15500	24700	32300	30200	39900	50200	65000	85500	119000	157000	208000
		Thermal	Input Power kW	52.9	63.9	84.9	82.8	94.9	156	219	344	562	625	704
		with coil	Output Torque Nm	23000	27900	37700	36800	42600	68300	95200	151000	252000	278000	314000
		Thermal	Input Power kW	71.5	109	144	145	176	270	371	547	723	1000	1180
		Fan & Coil	Output Torque Nm	31100	47600	63800	64300	78800	118000	161000	240000	324000	445000	525000
38.4	18.	Thermal	Input Power kW	35.3	56.0	72.0	67.4	88.0	113	149	193	262	349	464
		with fan	Output Torque Nm	16900	27300	34600	33000	43500	54800	71000	93300	129000	171000	227000
		Thermal	Input Power kW	52.2	63.0	83.8	81.6	93.3	154	215	336	541	603	670
		with coil	Output Torque Nm	24900	30700	40300	40000	46100	74400	102000	162000	267000	296000	329000
		Thermal	Input Power kW	70.6	107	142	142	172	267	363	536	700	969	1120
		Fan & Coil	Output Torque Nm	33800	52300	68100	69800	85200	129000	173000	259000	345000	475000	551000
42.5	17.	Thermal	Input Power kW	35.1	55.6	71.5	66.9	87.4	113	148	192	260	346	460
		with fan	Output Torque Nm	18600	30000	37600	36000	47400	59700	77400	102000	141000	186000	248000
		Thermal	Input Power kW	51.5	62.1	82.6	80.3	91.7	152	210	329	521	582	638
		with coil	Output Torque Nm	27400	33500	43400	43200	49800	80800	110000	174000	282000	313000	343000
		Thermal	Input Power kW	69.6	106	140	140	169	264	355	524	676	937	1070
		Fan & Coil	Output Torque Nm	37000	57000	73400	75400	91900	140000	186000	278000	367000	504000	576000
47.1	15.	Thermal	Input Power kW	34.9	55.3	71.1	66.5	86.9	112	147	191	259	344	457
		with fan	Output Torque Nm	20600	32600	40800	39500	52100	65600	85100	112000	155000	205000	272000
		Thermal	Input Power kW	50.9	61.2	81.6	79.1	90.1	151	205	320	500	560	607
		with coil	Output Torque Nm	30100	36000	46800	47000	54100	88300	119000	188000	300000	333000	361000
		Thermal	Input Power kW	68.7	104	138	138	166	261	347	512	654	905	1020
		Fan & Coil	Output Torque Nm	40600	61200	79000	82100	99800	153000	201000	300000	392000	538000	608000
52.1	13.	Thermal	Input Power kW	34.7	55.0	70.7	66.2	86.5	111	146	190	257	343	455
		with fan	Output Torque Nm	22600	36500	46300	43800	57800	72700	94300	124000	172000	227000	302000
		Thermal	Input Power kW	50.2	60.3	80.5	77.8	88.5	149	199	312	480	539	579
		with coil	Output Torque Nm	32600	40000	52600	51500	59200	97300	129000	204000	320000	357000	384000
		Thermal	Input Power kW	67.8	102	136	136	163	259	339	500	632	874	976
		Fan & Coil	Output Torque Nm	44100	67800	88800	90000	109000	169000	219000	327000	422000	579000	647000
57.7	12.	Thermal	Input Power kW	34.6	54.8	70.5	65.9	86.2	111	146	189	257	341	454
		with fan	Output Torque Nm	25000	39700	50400	48200	63600	80000	104000	136000	189000	250000	332000
		Thermal	Input Power kW	49.6	59.5	79.4	76.5	87.0	147	194	304	460	518	552
		with coil	Output Torque Nm	35800	43000	56700	56000	64200	106000	139000	219000	339000	379000	404000
		Thermal	Input Power kW	66.8	101	134	134	160	256	331	488	610	844	934
		Fan & Coil	Output Torque Nm	48300	72900	95700	97800	118000	184000	236000	352000	450000	617000	684000
63.8	11.	Thermal	Input Power kW	34.5	54.7	70.3	65.7	85.9	111	145	189	256	340	452
		with fan	Output Torque Nm	27600	43800	54800	52600	67800	89100	116000	151000	213000	278000	362000
		Thermal	Input Power kW	48.9	58.6	78.3	75.2	85.4	145	189	295	440	497	527
		with coil	Output Torque Nm	39200	46900	61100	60200	67400	117000	152000	236000	367000	406000	421000
		Thermal	Input Power kW	65.9	99.1	132	131	157	253	323	476	588	814	894
		Fan & Coil	Output Torque Nm	52800	79300	103000	105000	124000	204000	259000	381000	491000	665000	715000
70.6	10.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	48.2	57.7	77.1	73.9	83.8	143	184	287	421	477	504
		with coil	Output Torque Nm	42500	51700	67200	65900	75400	126000	160000	252000	379000	426000	450000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											
78.2	9.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	47.5	56.9	76.0	72.6	82.2	141	179	278	403	458	482
		with coil	Output Torque Nm	47000	55600	72400	70900	79200	139000	175000	271000	410000	456000	471000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											
86.5	8.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	46.8	56.0	74.9	71.2	80.6	139	174	269	385	439	462
		with coil	Output Torque Nm	50800	60700	80100	77200	86200	156000	188000	296000	426000	485000	495000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											
95.7	7.	Thermal	Input Power kW											
		with fan	Output Torque Nm											
		Thermal	Input Power kW	46.1	55.1	73.7	69.8	79.0	137	168	261	367	420	444
		with coil	Output Torque Nm	56100	66300	89600	84000	95100	167000	203000	314000	442000	506000	534000
		Thermal	Input Power kW											
		Fan & Coil	Output Torque Nm											

Note: Cooling coils cannot be fitted to vertical units

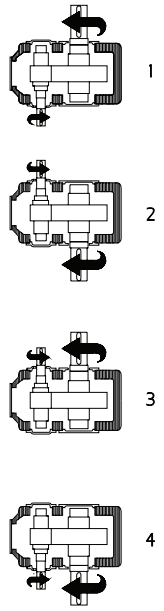
REDUCER
DIMENSION CONTENTS

9606

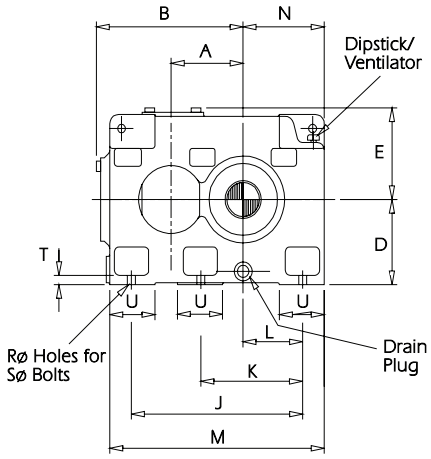
Designation	Number of Reductions	Mounting	Type of Shaft	Page No
H1	Single reduction	Horizontal foot mounted	Parallel shafts	90
H2	Double reduction	Horizontal foot mounted	Parallel shafts	91
H2S	Double reduction	Horizontal shaft mounted	Parallel shafts	92
H2SF	Double reduction	Horizontal foot and shaft mounted	Parallel shafts	93
VH2	Double reduction	Vertical mounted	Parallel shafts	94
H3	Triple reduction	Horizontal foot mounted	Parallel shafts	95
H3S	Triple reduction	Horizontal shaft mounted	Parallel shafts	96
H3SF	Triple reduction	Horizontal foot and shaft mounted	Parallel shafts	97
VH3	Triple reduction	Vertical mounted	Parallel shafts	98
B2	Double reduction	Horizontal foot mounted	Right angle shafts	99
B2S	Double reduction	Horizontal shaft mounted	Right angle shafts	100
B2SF	Double reduction	Horizontal foot and shaft mounted	Right angle shafts	101
VB2	Double reduction	Vertical mounted	Right angle shafts	102
B3	Triple reduction	Horizontal foot mounted	Right angle shafts	103
B3S	Triple reduction	Horizontal shaft mounted	Right angle shafts	104
B3SF	Triple reduction	Horizontal foot and shaft mounted	Right angle shafts	105
VB3	Triple reduction	Vertical mounted	Right angle shafts	106

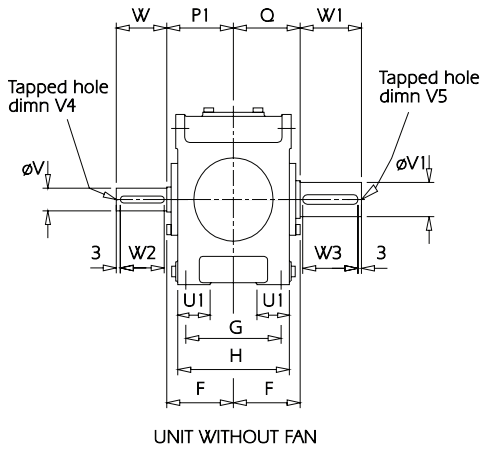
H1 - HORIZONTAL FOOT MOUNTED UNIT WITH PARALLEL SHAFTS

SHAFT HANDING / ROTATION

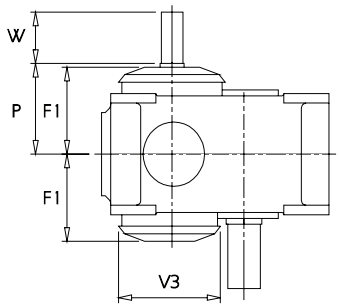


OPPOSITE ROTATION AVAILABLE

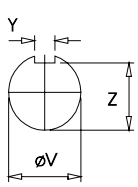




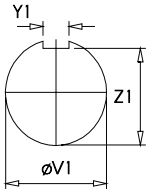
UNIT WITHOUT FAN



UNIT WITH FAN



Input Shaft

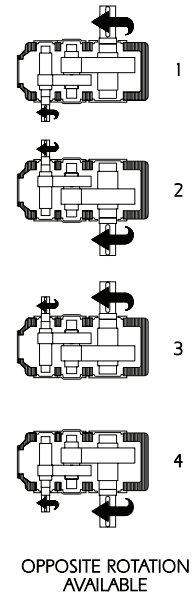


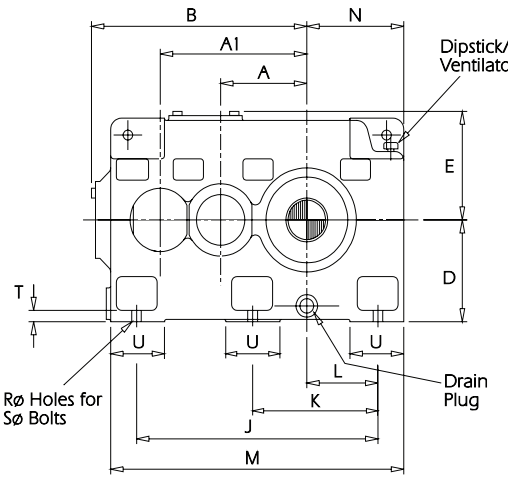
Output Shaft

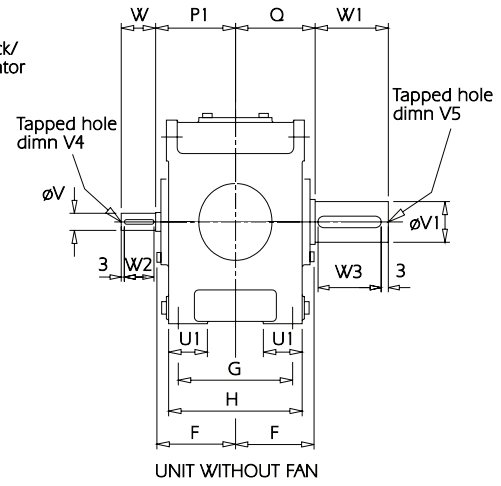
Unit Size	A	B	D	E	F	F1	G	J	P	M	L	K	N	J	P	M	P1	Q	R	S	T	U
140	140	299	160	174	135	180	190	224	335	-	120	425	165	185	140	140	13.5	4 x 12	20	100
160	160	342	180	194	155	200	225	260	375	-	135	475	185	205	160	160	17.5	4 x 16	20	110
180	180	382	200	214	170	220	250	290	425	-	147.5	530	200	225	175	175	17.5	4 x 16	25	120
200	200	408	225	239	180	230	265	310	475	-	165	595	225	235	185	185	22	4 x 20	25	125
225	225	465	250	267	203	255	280	340	530	-	185	660	250	260	205	205	22	4 x 20	30	130
250	250	515	280	298	215	275	300	370	600	-	210	740	280	280	220	220	26	4 x 24	30	140
280	280	570	315	327	235	300	335	410	670	-	240	820	315	305	240	240	26	4 x 24	35	160
315	315	651	355	350	256	325	375	450	750	-	270	920	355	330	260	260	33	4 x 30	40	180
355	355	711	400	405	286	360	425	500	865	530	305	1055	400	365	290	290	33	6 x 30	50	200
400	400	808	450	456	320	400	475	560	1000	600	350	1200	450	405	325	325	39	6 x 36	55	220
450	450	908	500	497	360	445	530	640	1120	670	395	1330	500	450	365	365	39	6 x 36	60	250

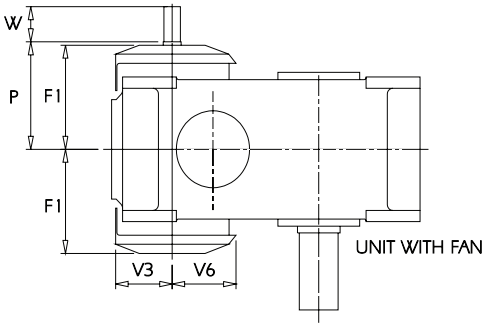
Unit Size			INPUT SHAFTS						OUTPUT SHAFTS					
	U1	V3	V	V4	W	W2	Y	Z	V1	V5	W1	W3	Y1	Z1
140	60	240	45.018 45.002	M16 x 36	110	102	13.982 13.939	39.5 39.3	70.030 70.011	M24 x 52	140	130	19.978 19.926	62.5 62.3
160	70	250	50.018 50.002	M16 x 36	110	102	13.982 13.939	44.5 44.3	75.030 75.011	M24 x 52	140	130	19.978 19.926	67.5 67.3
180	85	270	55.030 55.011	M16 x 36	110	102	15.982 15.939	49.0 48.8	85.035 85.013	M24 x 52	170	160	21.978 21.926	76.0 75.8
200	90	296	60.030 60.011	M24 x 50	140	130	17.982 17.939	53.0 52.8	90.035 90.013	M24 x 50	170	160	24.978 24.926	81.0 80.8
225	95	320	70.030 70.011	M24 x 50	140	130	19.978 19.926	62.5 62.3	100.035 100.013	M24 x 50	210	200	27.978 27.926	90.0 89.8
250	115	350	80.030 80.011	M24 x 50	170	160	21.978 21.926	71.0 70.8	110.035 110.013	M30 x 60	210	200	27.978 27.926	100.0 99.8
280	125	400	90.035 90.013	M24 x 50	170	160	24.978 24.926	81.0 80.8	125.040 125.015	M30 x 60	210	200	31.974 31.912	114.0 113.8
315	130	440	100.035 100.013	M24 x 50	210	200	27.978 27.926	90.0 89.8	140.040 140.015	M30 x 60	250	240	35.974 35.912	128.0 127.7
355	155	500	110.035 110.013	M30 x 60	210	200	27.978 27.926	100.0 99.8	160.040 160.015	M24 x 80	300	290	39.974 39.912	147.0 146.7
400	175	550	125.040 125.015	M30 x 60	210	200	31.974 31.912	114.0 113.8	180.040 180.015	M42 x 80	300	290	44.974 44.912	165.0 164.7
450	195	606	140.040 140.015	M30 x 60	250	240	35.974 35.912	128.0 127.7	200.046 200.017	M42 x 80	350	340	44.974 44.912	185.0 184.7

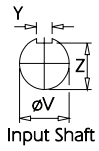
H2 - HORIZONTAL FOOT MOUNTED UNIT WITH PARALLEL SHAFTS

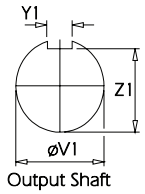








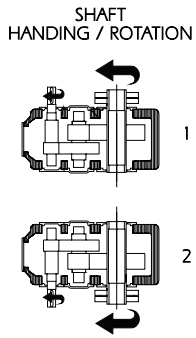


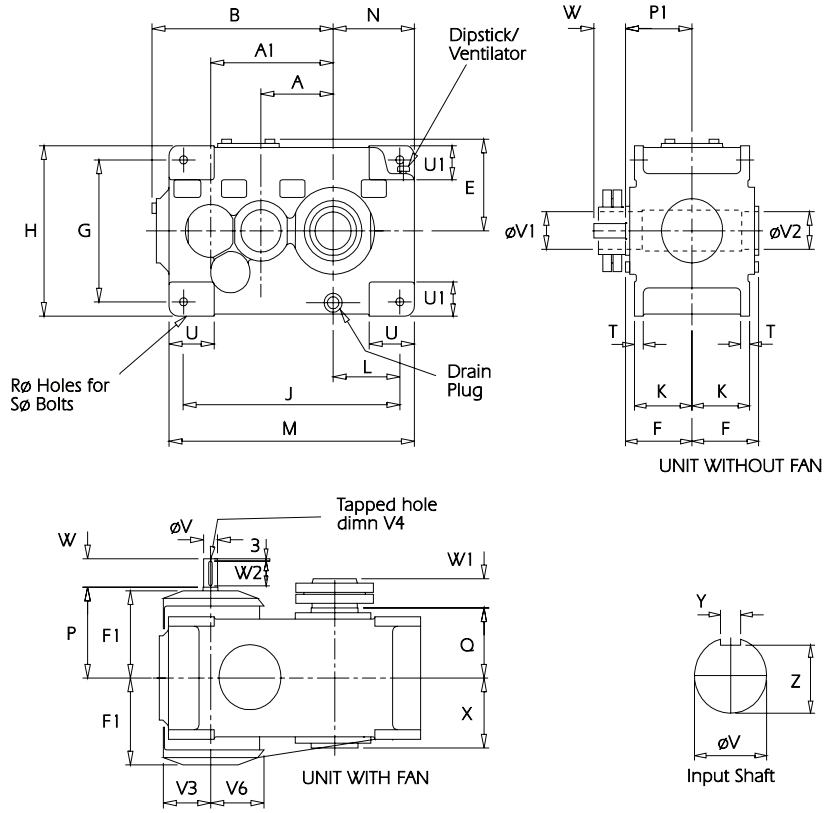


Unit Size	A	A1	B	D	E	F	F1				K	J	M	H	N	L	P	P1	Q	R	S	T	U
140	140	240	364	160	174	135	180	190	224	405	-	120	495	165		185	140	140	13.5	4 x 12	20	100
160	160	272	406	180	194	155	200	225	260	450	-	135	550	185		205	160	160	17.5	4 x 16	20	110
180	180	305	449	200	214	173	220	250	290	505	-	147.5	610	200		225	175	175	17.5	4 x 16	25	120
200	200	340	499	225	239	180	230	265	310	560	-	165	680	225		235	185	185	22	4 x 20	25	125
225	225	385	567	250	267	203	255	280	340	630	-	185	760	250		260	205	205	22	4 x 20	30	130
250	250	430	632	280	298	215	275	300	370	710	-	210	850	280		280	220	220	26	4 x 24	30	140
280	280	480	687	315	327	237	300	335	410	800	-	240	950	315		305	240	240	26	4 x 24	35	160
315	315	540	780	355	350	256	325	375	450	900	-	270	1070	355		330	260	260	33	4 x 30	40	180
355	355	605	870	400	405	286	360	425	500	1005	530	305	1195	400		365	290	290	33	6 x 30	50	200
400	400	680	972	450	456	320	400	475	560	1060	600	350	1360	450		405	325	325	39	6 x 36	55	220
450	450	765	1101	500	497	360	445	530	640	1300	670	395	1510	500		450	365	365	39	6 x 36	60	250

Unit Size	INPUT SHAFTS									OUTPUT SHAFTS					
	U1	V3	V6	V	V4	W	W2	Y	Z	V1	V5	W1	W3	Y1	Z1
140	60	105	110	32.018 32.002	M8 x 20	80	73	9.985 9.949	27.0 26.8	70.030 70.011	M24 x 52	140	130	19.978 19.926	62.5 62.3
160	70	108	115	35.018 35.002	M8 x 20	80	73	9.985 9.949	30.0 29.8	75.030 75.011	M24 x 52	140	130	19.978 19.926	67.5 67.3
180	85	120	125	38.018 38.002	M16 x 36	80	73	9.985 9.949	33.0 32.8	85.035 85.013	M24 x 52	170	160	21.978 21.926	76.0 75.8
200	90	130	148	38.018 38.002	M16 x 32	80	73	9.985 9.949	33.0 32.8	90.035 90.013	M24 x 50	170	160	24.978 24.926	81.0 80.8
225	95	140	160	45.018 45.002	M16 x 32	110	102	13.982 13.939	39.5 39.3	100.035 100.013	M24 x 50	210	200	27.978 27.926	90.0 89.8
250	115	155	175	55.030 55.011	M24 x 50	110	102	15.982 15.939	49.0 48.8	110.035 110.013	M30 x 60	210	200	27.978 27.926	100.0 99.8
280	125	170	200	65.030 65.011	M24 x 50	140	130	17.982 17.939	58.0 57.8	125.040 125.015	M30 x 60	210	200	31.974 31.912	114.0 113.8
315	130	190	220	75.030 75.011	M24 x 50	140	130	19.978 19.926	67.5 67.3	140.040 140.015	M30 x 60	250	240	35.974 35.912	128.0 127.7
355	155	214	250	85.035 85.013	M24 x 50	170	160	21.978 21.926	76.0 75.8	160.040 160.015	M24 x 80	300	290	39.974 39.912	147.0 146.7
400	175	245	275	90.035 90.013	M24 x 50	170	160	24.978 24.926	81.0 80.8	180.040 180.015	M42 x 80	300	290	44.974 44.912	165.0 164.7
450	195	265	303	100.035 100.013	M24 x 50	210	200	27.978 27.926	90.0 89.8	200.046 200.017	M42 x 80	350	340	44.974 44.912	185.0 184.7

H2S - HORIZONTAL SHAFT MOUNTED UNIT WITH PARALLEL SHAFTS

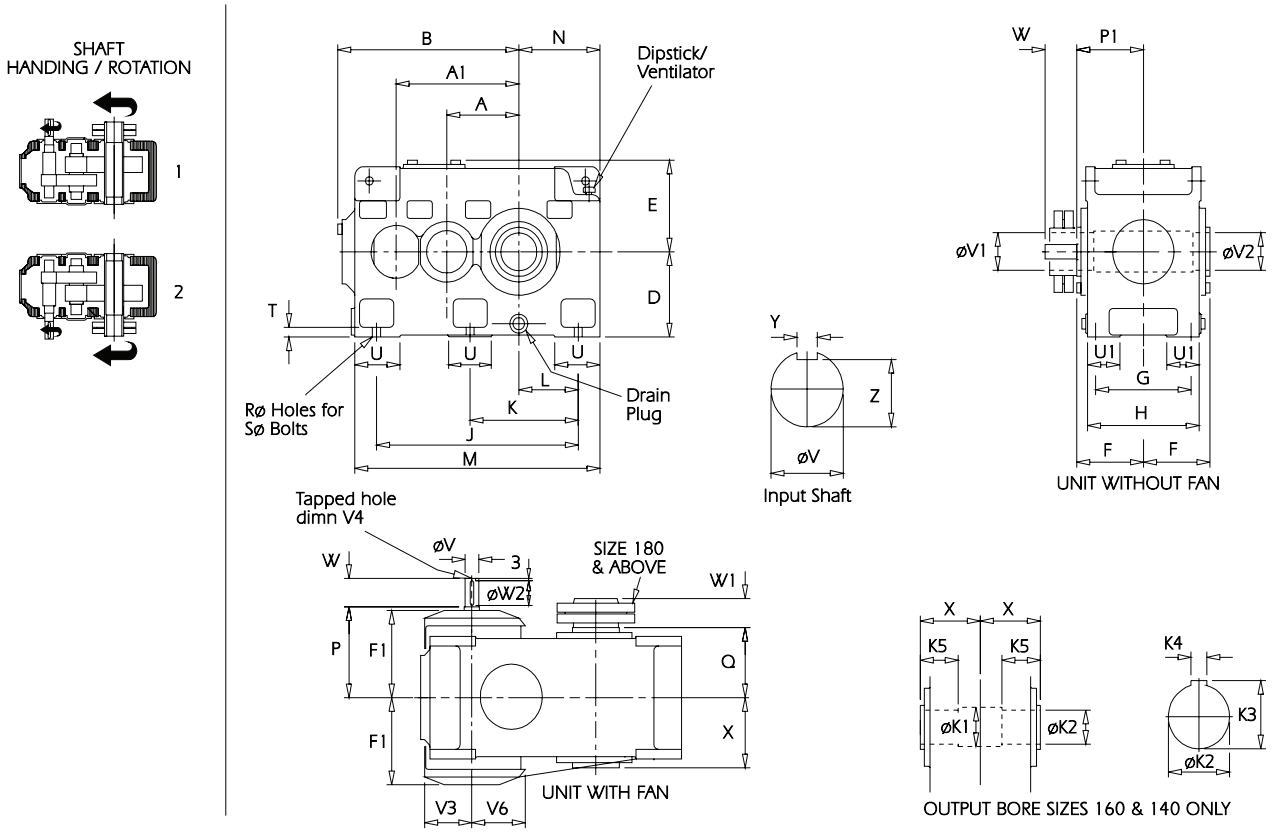




Unit Size	A	A1	B	E	F	F1				K	J	M	H	N	L	P1	Q	R	S	T	U
200	200	340	499	239	180	230	375	450	600	160	185	680	225	235	185	185	22	20	25	125	
225	225	385	567	267	203	255	400	500	670	175	205	760	250	260	205	205	22	20	30	130	
250	250	430	632	298	215	275	450	560	750	190	230	850	280	280	220	220	26	24	30	140	
280	280	480	687	327	237	300	500	620	850	210	265	950	315	305	240	240	26	24	35	160	
315	315	540	780	350	256	325	530	660	950	230	295	1070	355	330	260	260	33	30	40	180	
355	355	605	870	405	286	360	630	770	1060	255	332.5	1195	400	365	290	290	33	30	45	200	
400	400	680	972	456	320	400	710	870	1180	285	360	1360	450	405	325	325	39	36	50	220	
450	450	765	1101	497	360	445	750	940	1320	325	405	1510	500	450	365	365	39	36	55	250	

Unit Size						INPUT SHAFTS						OUTPUT SLEEVE BORES	
	U1	V3	V6	W1	X	V	V4	W	W2	Y	Z	V1	V2
200	90	130	148	70	185	38.018 38.002	M16 x 32	80	73	9.985 9.949	33.0 32.8	95.035 95.000	100.047 100.012
225	95	140	160	80	205	45.018 45.002	M16 x 32	110	102	13.982 13.939	39.5 39.3	115.035 115.000	120.047 120.012
250	115	155	175	90	220	55.030 55.011	M24 x 50	110	102	15.982 15.939	49.0 48.8	125.040 125.000	130.054 130.014
280	125	170	200	105	240	65.030 65.011	M24 x 50	140	130	17.982 17.939	58.0 57.8	140.040 140.000	145.054 145.014
315	130	190	220	110	260	75.030 75.011	M24 x 50	140	130	19.978 19.926	67.5 67.3	160.040 160.000	165.054 165.014
355	155	214	250	130	290	85.035 85.013	M24 x 50	170	160	21.978 21.926	76.0 75.8	170.040 170.000	175.054 175.014
400	175	245	275	150	325	90.035 90.013	M24 x 50	170	160	24.978 24.926	81.0 80.8	190.046 190.000	200.061 200.015
450	195	265	303	160	365	100.035 100.013	M24 x 50	210	200	27.978 27.926	90.0 89.8	220.046 220.000	230.061 230.015

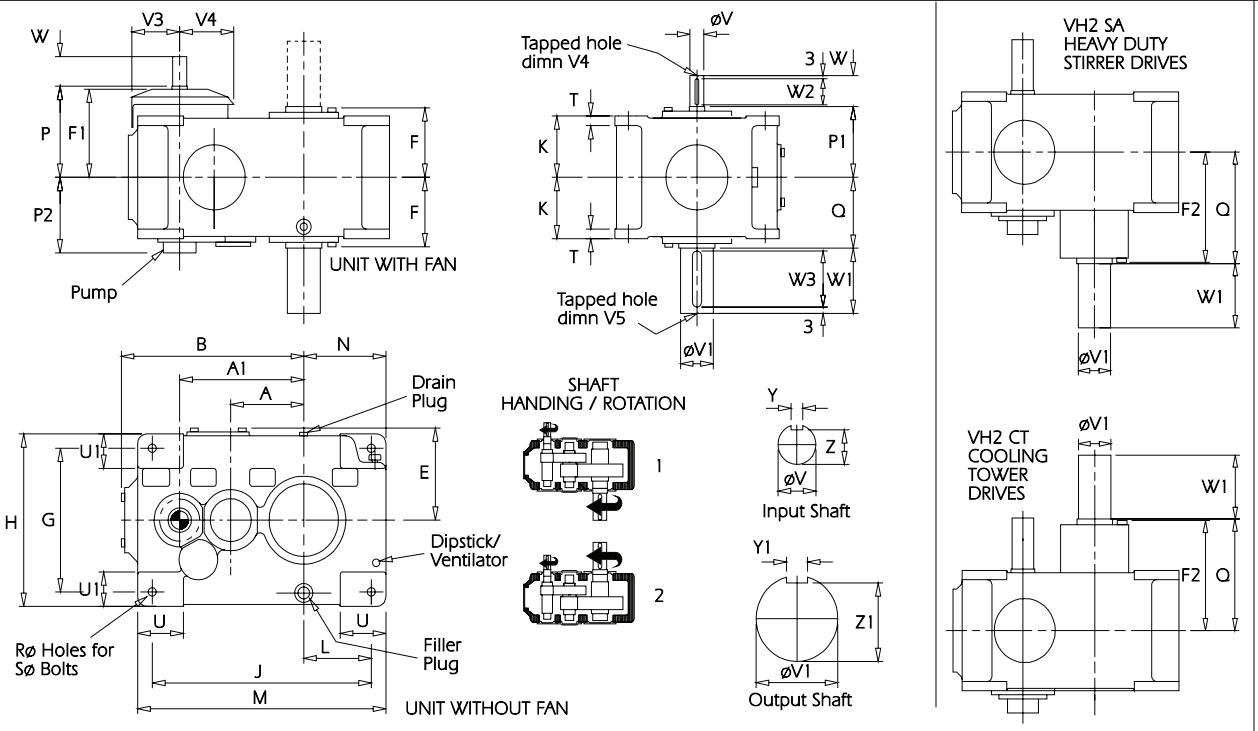
H2SF - HORIZONTAL FOOT & SHAFT MOUNTED UNIT WITH PARALLEL SHAFTS



Unit Size	A	A1	B	D	E	F	F1	G				L	K	N	JP	M	P1	H	Q	R	S	T	U	U1	V3	V6	W1	X
140	140	240	364	160	174	135	180	190	224	405	-	120	495	165	185	140	-	13.5	4x12	20	100	60	105	110	-	140
160	160	272	406	180	194	155	200	225	260	450	-	135	550	185	205	160	-	17.5	4x16	20	110	70	108	115	-	160
180	180	305	449	200	214	173	220	250	290	505	-	147.5	610	200	225	175	175	17.5	4x16	25	120	85	120	125	65	175
200	200	340	499	225	239	180	230	265	310	560	-	165	680	225	235	185	185	22	4x20	25	125	90	130	148	70	185
225	225	385	567	250	267	203	255	280	340	630	-	185	760	250	260	205	205	22	4x20	30	130	95	140	160	80	205
250	250	430	632	280	298	215	275	300	370	710	-	210	850	280	280	220	220	26	4x24	30	140	115	155	175	90	220
280	280	480	687	315	327	237	300	335	410	800	-	240	950	315	305	240	240	26	4x24	35	160	125	170	200	105	240
315	315	540	780	355	350	256	325	375	450	900	-	270	1070	355	330	260	260	33	4x30	40	180	130	190	220	110	260
355	355	605	870	400	405	286	360	425	500	1005	530	305	1195	400	365	290	290	33	6x30	50	200	155	214	250	130	290
400	400	680	972	450	456	320	400	475	560	1060	600	350	1360	450	405	325	325	39	6x36	55	220	175	245	275	150	325
450	450	765	1101	500	497	360	445	530	640	1300	670	395	1510	500	450	365	365	39	6x36	60	250	195	265	303	160	365

Unit Size	INPUT SHAFTS						OUTPUT SLEEVE BORES						
	V	V4	W	W2	Y	Z	K1	K2	K3	K4	K5	V1	V2
140	32.018 32.002	M8 x 20	80	73	9.985 9.949	27.0 26.8	76	75.060 75.030	80.1 79.9	20.026 19.974	75	-	-
160	35.018 35.002	M8 x 20	80	73	9.985 9.949	30.0 29.8	86	85.071 85.036	90.6 90.4	22.026 21.974	85	-	-
180	38.018 38.002	M16 x 36	80	73	9.885 9.949	33.0 32.8	-	-	-	-	-	85.035 85.000	90.047 90.012
200	38.018 38.002	M16 x 32	80	73	9.985 9.949	33.0 32.8	-	-	-	-	-	95.035 95.000	100.047 100.012
225	45.018 45.002	M16 x 32	110	102	13.982 13.939	39.5 39.3	-	-	-	-	-	115.035 115.000	120.047 120.012
250	55.030 55.011	M24 x 50	110	102	15.982 15.939	49.0 48.8	-	-	-	-	-	125.040 125.000	130.054 130.014
280	65.030 65.011	M24 x 50	140	130	17.982 17.939	58.0 57.8	-	-	-	-	-	140.040 140.000	145.054 145.014
315	75.030 75.011	M24 x 50	140	130	19.978 19.926	67.5 67.3	-	-	-	-	-	160.040 160.000	165.054 165.014
355	85.035 85.013	M24 x 50	170	160	21.978 21.926	76.0 75.8	-	-	-	-	-	170.040 170.000	175.054 175.014
400	90.035 90.013	M24 x 50	170	160	24.978 24.926	81.0 80.8	-	-	-	-	-	190.046 190.000	200.061 200.015
450	100.035 100.013	M24 x 50	210	200	27.978 27.926	90.0 89.8	-	-	-	-	-	220.046 220.000	230.061 230.015

VH2 - VERTICAL MOUNTED UNIT WITH PARALLEL SHAFTS



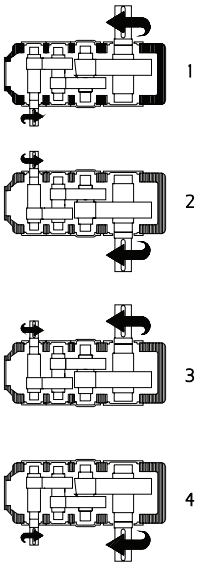
Unit Size	A	A1	B	E	F	F1	G				L	K	N	J	P	M	P1	P2	Q	R	S	T	U	U1
200	200	340	499	244	180	230	375	450	600	160	185	680	225	235			185	224	185	22	20	25	125	90
225	225	385	567	274	203	255	400	500	670	175	205	760	250	260			205	245	205	22	20	30	130	95
250	250	430	632	305	215	275	450	560	750	190	230	850	280	280			220	260	220	26	24	30	140	115
280	280	480	687	334	237	300	500	620	850	210	265	950	315	305			240	280	240	26	24	35	160	125
315	315	540	780	358	256	325	530	660	950	230	295	1070	355	330			260	310	260	33	30	40	180	130
355	355	605	870	413	286	360	630	770	1060	255	332.5	1195	400	365			290	335	290	33	30	45	200	155
400	400	680	972	464	320	400	710	870	1180	285	360	1360	450	405			325	380	325	39	36	50	220	175
450	450	765	1101	507	360	445	750	940	1320	325	405	1510	500	450			365	420	365	39	36	55	250	195

Unit Size	INPUT SHAFTS Ratios 5.60 - 14.0						INPUT SHAFTS Ratios 15.4 - 25.6						OUTPUT SHAFTS					
	V	V4	W	W2	Y	Z	V	V4	W	W2	Y	Z	V1	V5	W1	W2	Y1	Z
200	38.018 38.002	M12 x 25	80	73	9.985 9.949	33.0 32.8	32.018 32.002	M8 x 18	80	73	9.985 9.949	27.0 26.8	90.035 90.013	M24 x 50	170	160	24.978 24.926	81.0 80.8
225	45.018 45.002	M12 x 25	110	102	13.982 13.939	39.5 39.3	38.018 38.002	M12 x 25	80	73	9.985 9.949	33.0 32.8	100.035 100.013	M24 x 50	210	200	27.978 27.926	90.0 89.8
250	55.030 55.011	M20 x 40	110	102	15.982 15.939	49.0 48.8	45.018 45.002	M12 x 25	110	102	13.982 13.939	39.5 39.3	110.035 110.013	M24 x 50	210	200	27.978 27.926	100.0 99.8
280	65.030 65.011	M20 x 40	140	130	17.982 17.939	58.0 57.8	50.018 50.002	M12 x 25	110	102	13.982 13.939	44.5 44.3	125.040 125.015	M36 x 70	210	200	31.974 31.912	114.0 113.8
315	75.030 75.011	M20 x 40	140	130	19.978 19.926	67.5 67.3	60.030 60.011	M20 x 40	140	130	17.982 17.939	53.0 52.8	140.040 140.015	M36 x 70	250	240	35.974 35.912	128.0 127.7
355	85.035 85.013	M24 x 50	170	160	21.978 21.926	76.0 75.8	65.030 65.011	M20 x 40	140	130	17.982 17.939	58.0 57.8	160.040 160.015	M36 x 70	300	290	39.974 39.912	147.0 146.7
400	90.035 90.013	M24 x 50	170	160	24.978 24.926	81.0 80.8	75.030 75.011	M20 x 40	140	130	19.978 19.926	67.5 67.3	180.040 180.015	M36 x 70	300	290	44.974 44.912	165.0 164.7
450	100.035 100.013	M24 x 50	210	200	27.978 27.926	90.0 89.8	85.035 85.013	M24 x 50	170	160	21.978 21.926	76.0 75.8	200.046 200.017	M36 x 70	350	340	44.974 44.912	185.0 184.7

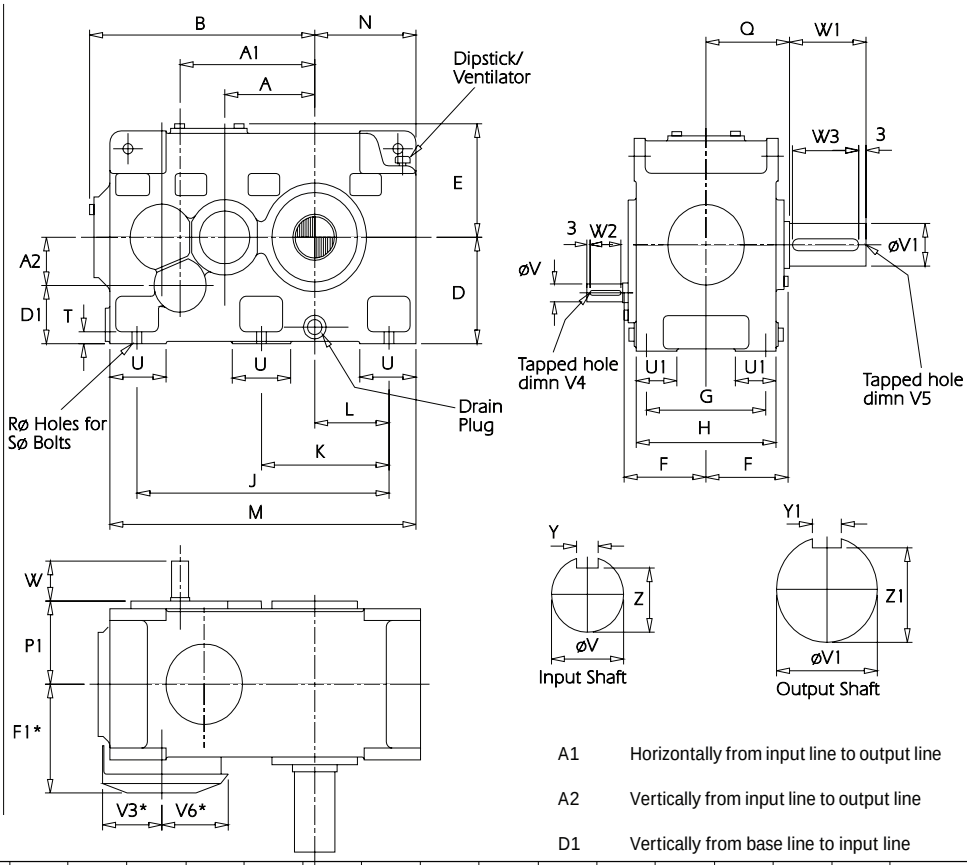
Unit Size	HEAVY DUTY STIRRER DRIVES								COOLING TOWER DRIVES						
	F2	Q	V1	V5	W1	W3	Y1	Z1	F2	Q	V1	V5	W1/W2	Y1	Z1
200	295	300	100.035 100.013	M24 x 50	210	200	27.978 27.926	90.0 89.8	290	295	90.035 90.013	M24 x 50	To suit customers fan requirements	24.978 24.926	81.0 80.8
225	330	335	110.035 110.013	M24 x 50	210	200	27.978 27.926	100.0 99.8	325	330	100.035 100.013	M24 x 50		27.978 27.926	90.0 89.8
250	355	360	125.040 125.015	M36 x 70	210	200	31.974 31.912	114.0 113.8	350	355	110.035 110.013	M24 x 50		27.978 27.926	100.0 99.8
280	390	395	140.040 140.015	M36 x 70	250	240	35.974 35.912	128.0 127.7	385	390	125.040 125.015	M36 x 70		31.974 31.912	114.0 113.8
315	435	440	160.040 160.015	M36 x 70	300	290	39.974 39.912	147.0 146.7	425	430	140.040 140.015	M36 x 70		35.974 35.912	128.0 127.7
355	470	475	180.040 180.015	M36 x 70	300	290	44.974 44.912	165.0 164.7	465	470	160.040 160.015	M36 x 70		39.974 39.912	147.0 146.7
400	535	540	200.046 200.017	M36 x 70	350	340	44.974 44.912	185.0 184.7	525	530	180.040 180.015	M36 x 70		44.974 44.912	165.0 164.7
450	600	605	220.046 220.017	M45 x 85	350	340	49.974 49.912	203.0 202.7	595	600	200.046 200.017	M36 x 70		44.974 44.912	185.0 184.7

H3 - HORIZONTAL FOOT MOUNTED UNIT WITH PARALLEL SHAFTS

SHAFT HANDING / ROTATION



OPPOSITE ROTATION AVAILABLE



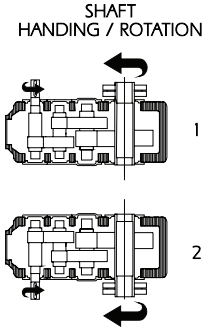
A1	Horizontally from input line to output line
A2	Vertically from input line to output line
D1	Vertically from base line to input line

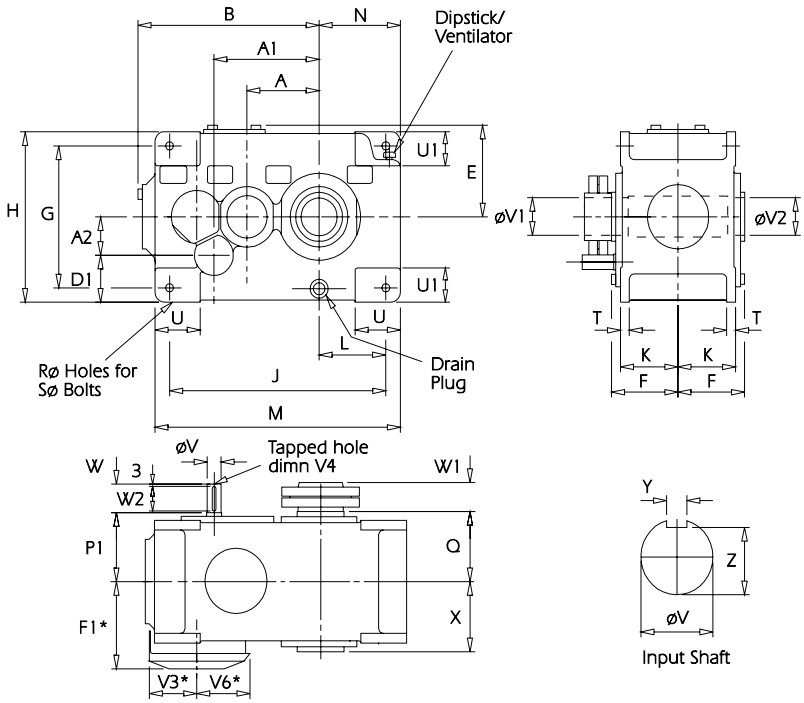
Unit Size	A	A1	A2	B	D	D1	E	F	F1*	G	H		K	L J	M	N	P1	Q	R	S
140	140	320	0	434	160	160	174	135	180	190	224	490	-	120	580	165	140	140	13.5	4 x 12
160	160	362	0	481	180	180	194	155	200	225	260	540	-	135	640	185	160	160	17.5	4 x 16
180	180	405	0	529	200	200	214	173	220	250	290	600	-	147.5	705	200	175	175	17.5	4 x 16
200	200	296	103	499	225	122	239	180	230	265	310	560	-	165	680	225	185	185	22	4 x 20
225	225	343.8	118	567	250	132	267	203	255	280	340	630	-	185	760	250	205	205	22	4 x 20
250	250	378	130	632	280	150	298	215	275	300	370	710	-	210	850	280	220	220	26	4 x 24
280	280	419.2	148	687	315	167	327	237	300	335	410	800	-	240	950	315	240	240	26	4 x 24
315	315	468	165	780	355	190	350	256	325	375	450	900	-	270	1070	355	260	260	33	4 x 30
355	355	536.8	188	870	400	212	405	286	360	425	500	1005	530	305	1195	400	290	290	33	6 x 30
400	400	596.7	209	972	450	241	456	320	400	475	560	1060	600	350	1360	450	325	325	39	6 x 36
450	450	679.7	235	1101	500	265	497	360	445	530	640	1300	670	395	1510	500	365	365	39	6 x 36

Unit Size				INPUT SHAFTS						OUTPUT SHAFTS					
	T	U	U1	V	V4	W	W2	Y	Z	V1	V5	W1	W3	Y1	Z1
140	20	100	60	19.009 18.996	M6 x 16	40	34	5.988 5.958	15.5 15.4	70.030 70.011	M24 x 52	140	130	19.978 19.926	62.5 62.3
160	20	110	70	22.009 21.996	M6 x 16	50	43	5.988 5.958	18.5 18.4	75.030 75.011	M24 x 52	140	130	19.978 19.926	67.5 67.3
180	25	120	85	25.009 24.996	M6 x 16	60	53	7.985 7.949	21.0 20.8	85.035 85.013	M24 x 52	170	160	21.978 21.926	76.0 75.8
200	25	125	90	28.009 27.996	M8 x 18	60	53	7.985 7.949	24.0 23.8	90.035 90.013	M24 x 50	170	160	24.978 24.926	81.0 80.8
225	30	130	95	32.018 32.002	M8 x 18	80	73	9.985 9.949	27.0 26.8	100.035 100.013	M24 x 50	210	200	27.978 27.926	90.0 89.8
250	30	140	115	38.018 38.002	M16 x 32	80	73	9.985 9.949	33.0 32.8	110.035 110.013	M30 x 60	210	200	27.978 27.926	100.0 99.8
280	35	160	125	45.018 45.002	M16 x 32	110	102	13.982 13.939	39.5 39.3	125.040 125.015	M30 x 60	210	200	31.974 31.912	114.0 113.8
315	40	180	130	50.018 50.002	M16 x 32	110	102	13.982 13.939	44.5 44.3	140.040 140.015	M30 x 60	250	240	35.974 35.912	128.0 127.7
355	50	200	155	55.030 55.011	M24 x 50	110	102	15.982 15.939	49.0 48.8	160.040 160.015	M42 x 80	300	290	39.974 39.912	147.0 146.7
400	55	220	175	65.030 65.011	M24 x 50	140	130	17.982 17.939	58.0 57.8	180.040 180.015	M42 x 80	300	290	44.974 44.912	165.0 164.7
450	60	250	195	75.030 75.011	M24 x 50	140	130	19.978 19.926	67.5 67.3	200.046 200.017	M42 x 80	350	340	44.974 44.912	185.0 184.7

* Fan can be fitted for ratios 20.9 to 70.6

H3S - HORIZONTAL SHAFT MOUNTED UNIT WITH PARALLEL SHAFTS





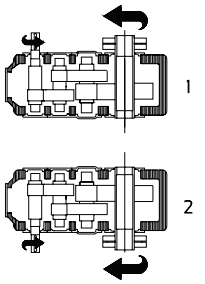
Unit Size	A	A1	A2	B	D1	E	F	F1*				K	J	M	H N L	P		R	S Q	T
200	200	296	103	499	122	239	180	230	375	450	600	160	185	680	225	185	185	22	20	25
225	225	343.8	118	567	132	267	203	255	400	500	670	175	205	760	250	205	205	22	20	30
250	250	378	130	632	150	298	215	275	450	560	750	190	230	850	280	220	220	26	24	30
280	280	419.2	148	687	162	327	237	300	500	620	850	210	265	950	315	240	240	26	24	35
315	315	468	165	780	165	350	256	325	530	660	950	230	295	1070	355	260	260	33	30	40
355	355	536.8	188	870	197	405	286	360	630	770	1060	255	332.5	1195	400	290	290	33	30	45
400	400	596.7	209	972	226	456	320	400	710	870	1180	285	360	1360	450	325	325	39	36	50
450	450	679.7	235	1101	235	497	360	445	750	940	1320	325	405	1510	500	365	365	39	36	55

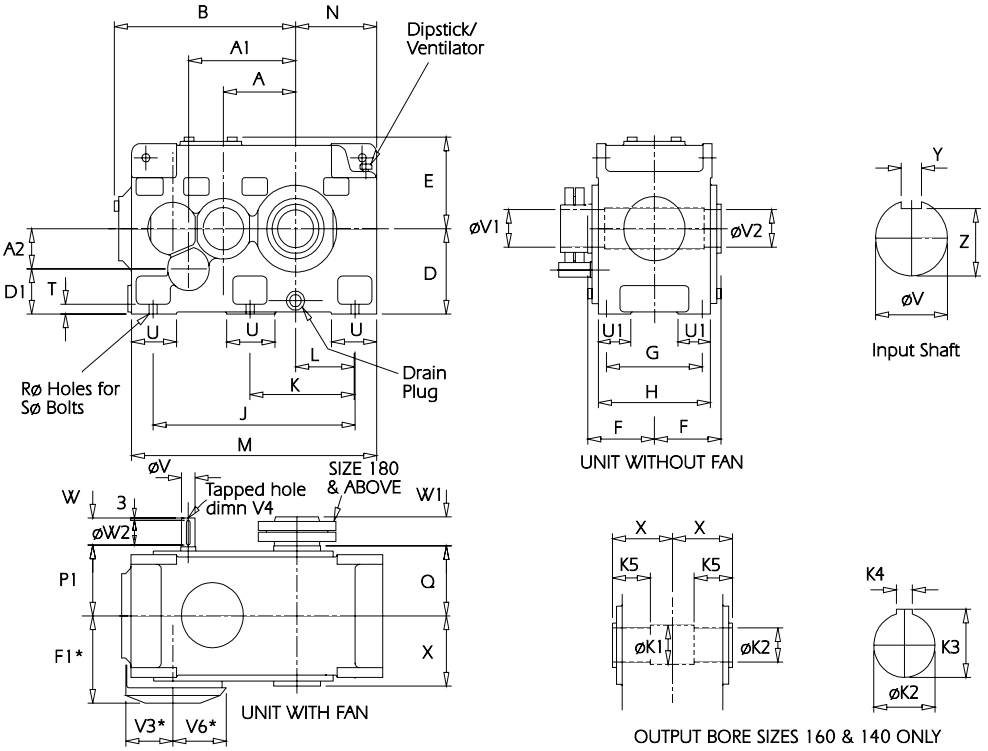
Unit Size							INPUT SHAFTS						OUTPUT SLEEVE BORES	
	U	U1	V3*	V6*	W1	X	V	V4	W	W2	Y	Z	V1	V2
200	125	90	130	148	70	185	28.009 27.996	M8 x 18	60	53	7.985 7.949	24.0 23.8	95.035 95.000	100.047 100.012
225	130	95	140	160	80	205	32.018 32.002	M8 x 18	80	73	9.985 9.949	27.0 26.8	115.035 115.000	120.047 120.012
250	140	115	155	175	90	220	38.018 38.002	M16 x 32	80	73	9.985 9.949	33.0 32.8	125.040 125.000	130.054 130.014
280	160	125	170	200	105	240	45.018 45.002	M16 x 32	110	102	13.982 13.939	39.5 39.3	140.040 140.000	145.054 145.014
315	180	130	190	220	110	260	50.018 50.002	M16 x 32	110	102	13.982 13.939	44.5 44.3	160.040 160.000	165.054 165.014
355	200	155	214	250	130	290	55.030 55.011	M24 x 50	110	102	15.982 15.939	49.0 48.8	170.040 170.000	175.054 175.014
400	220	175	245	275	150	325	65.030 65.011	M24 x 50	140	130	17.982 17.939	58.0 57.8	190.046 190.000	200.061 200.015
450	250	195	265	303	160	365	75.030 75.011	M24 x 50	140	130	19.978 19.926	67.5 67.3	220.046 220.000	230.061 230.015

* Fan can be fitted for ratios 20.9 to 70.6

H3SF - HORIZONTAL FOOT & SHAFT MOUNTED UNIT WITH PARALLEL SHAFTS

SHAFT HANDING / ROTATION





A1 Horizontally from input line to output line

A2 Vertically from input line to output line

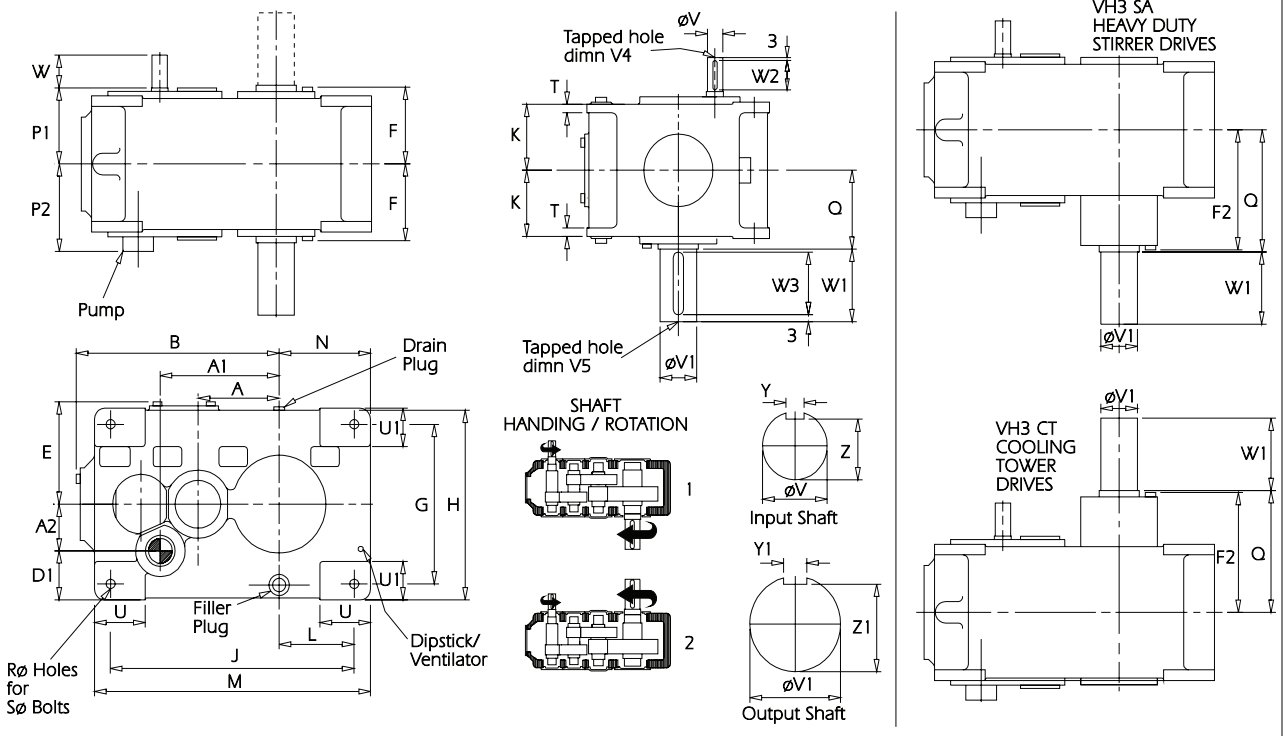
D1 Vertically from base line to input line

Unit Size	A	A1	A2	B	D	D1	E	F	F1*	G	H	J		L	M	K	N	P1	Q	R	S	T	U	U1	V3*	V6*	X
140	140	320	0	434	160	160	174	135	180	190	224	490	-	120	580		165	140	-	13.5	4x12	20	100	60	-	-	140
160	160	362	0	481	180	180	194	155	200	225	260	540	-	135	640		185	160	-	17.5	4x16	20	110	70	-	-	160
180	180	405	0	529	200	200	214	173	220	250	290	600	-	147.5	705		200	175	175	17.5	4x16	25	120	85	-	-	180
200	200	296	103	499	225	122	239	180	230	265	310	560	-	165	680		225	185	185	22	4x20	25	125	90	130	148	185
225	225	343.8	118	567	250	132	267	203	255	280	340	630	-	185	760		250	205	205	22	4x20	30	130	95	140	160	205
250	250	378	130	632	280	150	298	215	275	300	370	710	-	210	850		280	220	220	26	4x24	30	140	115	155	175	220
280	280	419.2	148	687	315	167	327	237	300	335	410	800	-	240	950		315	240	240	26	4x24	35	160	125	170	200	240
315	315	468	165	780	355	190	350	256	325	375	450	900	-	270	1070		355	260	260	33	4x30	40	180	130	190	220	260
355	355	536.8	188	870	400	212	405	286	360	425	500	1005	530	305	1195		400	290	290	33	6x30	50	200	155	214	250	290
400	400	596.7	209	972	450	241	456	320	400	475	560	1060	600	350	1360		450	325	325	39	6x36	55	220	175	245	275	325
450	450	679.7	235	1101	500	265	497	360	445	530	640	1300	670	395	1510		500	365	365	39	6x36	60	250	195	265	303	365

Unit Size		INPUT SHAFTS						OUTPUT SLEEVE BORES						
	W1	V	V4	W	W2	Y	Z	K1	K2	K3	K4	K5	V1	V2
140	-	19.009 18.996	M6 x 16	40	34	5.988 5.958	15.5 15.4	76	75.060 75.030	80.1 79.9	20.026 19.974	75	-	-
160	-	22.009 21.996	M6 x 16	50	43	5.988 5.958	18.5 18.4	86	85.071 85.036	90.6 90.4	22.026 21.974	85	-	-
180	65	25.009 24.996	M6 x 16	60	53	7.985 9.949	21.0 20.8	-	-	-	-	-	85.035 85.000	90.047 90.012
200	70	28.009 27.996	M8 x 18	60	53	7.985 7.949	24.0 23.8	-	-	-	-	-	95.035 95.000	100.047 100.012
225	80	32.018 32.002	M8 x 18	80	73	9.985 9.949	27.0 26.8	-	-	-	-	-	115.035 115.000	120.047 120.012
250	90	38.018 38.002	M16 x 32	80	73	9.985 9.949	33.0 32.8	-	-	-	-	-	125.040 125.000	130.054 130.014
280	105	45.018 45.002	M16 x 32	110	102	13.982 13.939	39.5 39.3	-	-	-	-	-	140.040 140.000	145.054 145.014
315	110	50.018 50.002	M16 x 32	110	102	13.982 13.939	44.5 44.3	-	-	-	-	-	160.040 160.000	165.054 165.014
355	130	55.030 55.011	M24 x 50	110	102	15.982 15.939	49.0 48.8	-	-	-	-	-	170.040 170.000	175.054 175.014
400	150	65.030 65.011	M24 x 50	140	130	17.982 17.939	58.0 57.8	-	-	-	-	-	190.046 190.000	200.061 200.015
450	160	75.030 75.011	M24 x 50	140	130	19.978 19.926	67.5 67.3	-	-	-	-	-	220.046 220.000	230.061 230.015

* Fan can be fitted for ratios 20.9 to 70.6 only

VH3 - VERTICAL MOUNTED UNIT WITH PARALLEL SHAFTS



Unit Size	A	A1	A2	B	D1	E	F				K	J	M	H N L	PG	P2	Q	R	S	T	U	U1
200	200	296	103	499	122	244	180	375	450	600	160	185	680	225	185	224	185	22	20	25	125	90
225	225	343.8	118	567	132	274	203	400	500	670	175	205	760	250	205	245	205	22	20	30	130	95
250	250	378	130	632	150	305	215	450	560	750	190	230	850	280	220	260	220	26	24	30	140	115
280	280	419.2	148	687	162	334	237	500	620	850	210	265	950	315	240	280	240	26	24	35	160	125
315	315	468	165	780	165	358	256	530	660	950	230	295	1070	355	260	310	260	33	30	40	180	130
355	355	536.8	188	870	197	413	286	630	770	1060	255	332.5	1195	400	290	335	290	33	30	45	200	155
400	400	596.7	209	972	226	464	320	710	870	1180	285	360	1360	450	325	380	325	39	36	50	220	175
450	450	679.7	235	1101	235	507	360	750	940	1320	325	405	1510	500	365	420	365	39	36	55	250	195

Unit Size	INPUT SHAFTS						OUTPUT SHAFTS					
	V	V4	W	W2	Y	Z	V1	V5	W1	W3	Y1	Z1
200	28.009 27.996	M8 x 18	60	53	7.985 7.949	24.0 23.8	90.035 90.013	M24 x 50	170	160	24.978 24.926	81.0 80.8
225	32.018 32.002	M8 x 18	80	73	9.985 9.949	27.0 26.8	100.035 100.013	M24 x 50	210	200	27.978 27.926	90.0 89.8
250	38.018 38.002	M12 x 25	80	73	9.985 9.949	33.0 32.8	110.035 110.013	M24 x 50	210	200	27.978 27.926	100.0 99.8
280	45.018 45.002	M12 x 25	110	102	13.982 13.939	39.5 39.3	125.040 125.015	M36 x 70	210	200	31.974 31.912	114.0 113.8
315	50.018 50.002	M12 x 25	110	102	13.982 13.939	44.5 44.3	140.040 140.015	M36 x 70	250	240	35.974 35.912	128.0 127.7
355	55.030 55.011	M20 x 40	110	102	15.982 15.939	49.0 48.8	160.040 160.015	M36 x 70	300	290	39.974 39.912	147.0 146.7
400	65.030 65.011	M20 x 40	140	130	17.982 17.939	58.0 57.8	180.040 180.015	M36 x 70	300	290	44.974 44.912	165.0 164.7
450	75.030 75.011	M20 x 40	140	130	19.978 19.926	67.5 67.3	200.046 200.017	M36 x 70	350	340	44.974 44.912	185.0 184.7

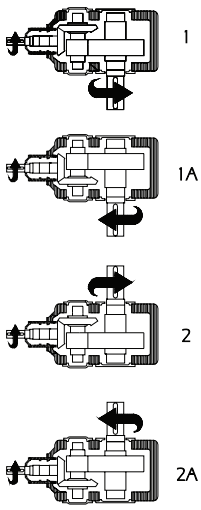
Unit Size	HEAVY DUTY STIRRER DRIVES								COOLING TOWER DRIVES						
	F2	Q	V1	V5	W1	W3	Y1	Z1	F2	Q	V1	V5	W1/W2	Y1	Z1
200	295	300	100.035 100.013	M24 x 50	210	200	27.978 27.926	90.0 89.8	290	295	90.035 90.013	M24 x 50	To suit customers fan requirements	24.978 24.926	81.0 80.8
225	330	335	110.035 110.013	M24 x 50	210	200	27.978 27.926	100.0 99.8	325	330	100.035 100.013	M24 x 50		27.978 27.926	90.0 89.8
250	355	360	125.040 125.015	M36 x 70	210	200	31.974 31.912	114.0 113.8	350	355	110.035 110.013	M24 x 50		27.978 27.926	100.0 99.8
280	390	395	140.040 140.015	M36 x 70	250	240	35.974 35.912	128.0 127.7	385	390	125.040 125.015	M36 x 70		31.974 31.912	114.0 113.8
315	435	440	160.040 160.015	M36 x 70	300	290	39.974 39.912	147.0 146.7	425	430	140.040 140.015	M36 x 70		35.974 35.912	128.0 127.7
355	470	475	180.040 180.015	M36 x 70	300	290	44.974 44.912	165.0 164.7	465	470	160.040 160.015	M36 x 70		39.974 39.912	147.0 146.7
400	535	540	200.046 200.017	M36 x 70	350	340	44.974 44.912	185.0 184.7	525	530	180.040 180.015	M36 x 70		44.974 44.912	165.0 164.7
450	600	605	220.046 220.017	M45 x 85	350	340	49.974 49.912	203.0 202.7	595	600	200.046 200.017	M36 x 70		44.974 44.912	185.0 184.7

DIMENSIONS
DOUBLE REDUCTION

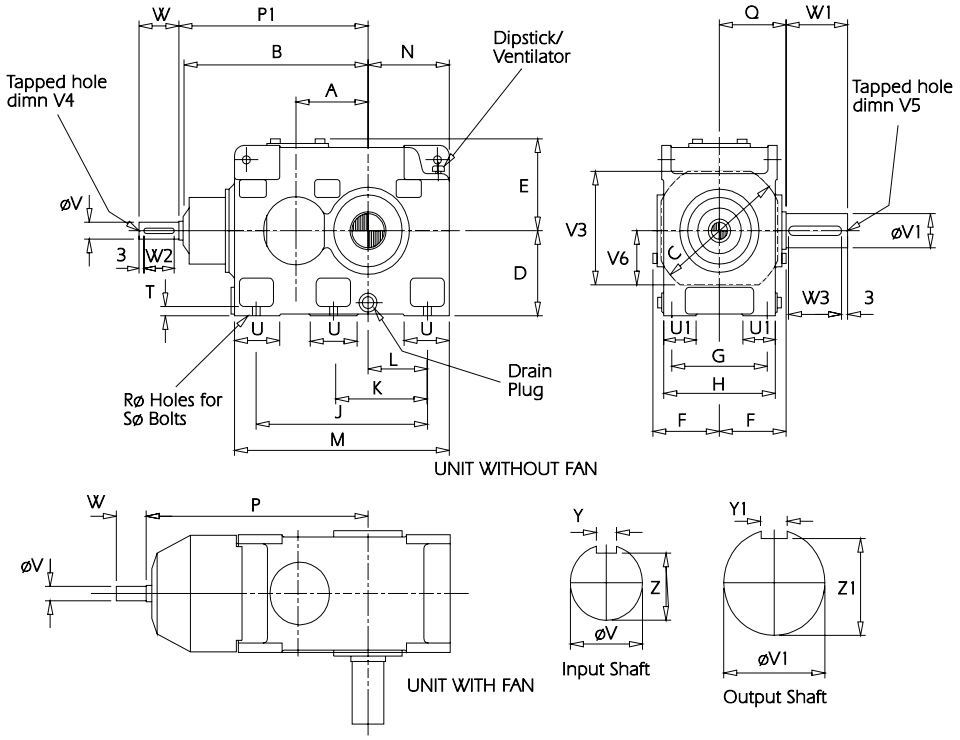
9512

B2 - **HORIZONTAL FOOT MOUNTED UNIT WITH RIGHT ANGLE SHAFTS**

SHAFT HANDING / ROTATION



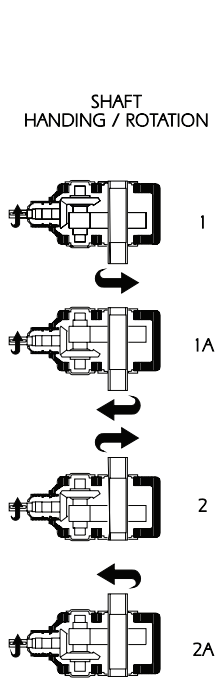
OPPOSITE ROTATION AVAILABLE

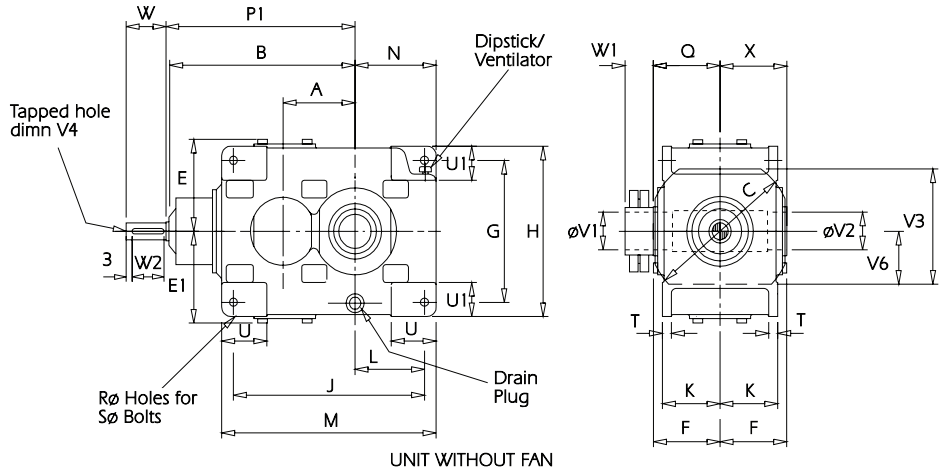


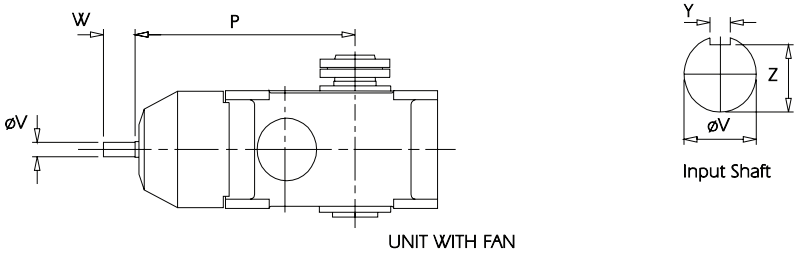
Unit Size	A					F	G E		D	C	L B	K	N	J P M	P1	Q	R	S	T	U
140	140	390	300	160	174	135	190	224	335	-	120	425	165	435	395	140	13.5	4 x 12	20	100
160	160	430	350	180	194	155	225	260	375	-	135	475	185	475	435	160	17.5	4 x 16	20	110
180	180	480	375	200	214	173	250	290	425	-	147.5	530	200	530	485	175	17.5	4 x 16	25	120
200	200	520	400	225	239	180	265	310	475	-	165	595	225	575	525	185	22	4 x 20	25	125
225	225	575	445	250	267	203	280	340	530	-	185	660	250	635	580	205	22	4 x 20	30	130
250	250	630	480	280	298	215	300	370	600	-	210	740	280	695	635	220	26	4 x 24	30	140
280	280	715	520	315	327	237	335	410	670	-	240	820	315	785	720	240	26	4 x 24	35	160
315	315	800	560	355	350	256	375	450	750	-	270	920	355	875	805	260	33	4 x 30	40	180
355	355	870	630	400	405	286	425	500	865	530	305	1055	400	950	875	290	33	6 x 30	50	200
400	400	990	700	450	456	320	475	560	1000	600	350	1200	450	1075	995	325	39	6 x 36	55	220
450	450	1100	780	500	497	360	530	640	1120	670	395	1330	500	1190	1105	365	39	6 x 36	60	250

Unit Size				INPUT SHAFTS						OUTPUT SHAFTS					
	U1	V3	V6	V	V4	W	W2	Y	Z	V1	V5	W1	W3	Y1	Z1
140	60	230	105	28.009 27.996	M8 x 20	60	53	7.985 7.949	24.0 23.8	70.030 70.011	M24 x 52	140	130	19.978 19.926	62.5 62.3
160	70	263	125	32.018 32.002	M8 x 20	80	73	9.985 9.949	27.0 26.8	75.030 75.011	M24 x 52	140	130	19.978 19.926	67.5 67.3
180	85	295	145	38.018 38.002	M16 x 36	80	73	9.985 9.949	33.0 32.8	85.035 85.013	M24 x 52	170	160	21.978 21.926	76.0 75.8
200	90	305	140	45.018 45.002	M16 x 32	110	102	13.982 13.939	39.5 39.3	90.035 90.013	M24 x 50	170	160	24.978 24.926	81.0 80.8
225	95	356	171	50.018 50.002	M16 x 32	110	102	13.982 13.939	44.5 44.3	100.035 100.013	M24 x 50	210	200	27.978 27.926	90.0 89.8
250	115	402	190	55.030 55.011	M24 x 50	110	102	15.982 15.939	49.0 48.8	110.035 110.013	M30 x 60	210	200	27.978 27.926	100.0 99.8
280	125	450	225	65.030 65.011	M24 x 50	140	130	17.982 17.939	58.0 57.8	125.040 125.015	M30 x 60	210	200	31.974 31.912	114.0 113.8
315	130	480	230	75.030 75.011	M24 x 50	140	130	19.978 19.926	67.5 67.3	140.040 140.015	M30 x 60	250	240	35.974 35.912	128.0 127.7
355	155	540	270	85.035 85.013	M24 x 50	170	160	21.978 21.926	76.0 75.8	160.040 160.015	M24 x 80	300	290	39.974 39.912	147.0 146.7
400	175	618	300	90.035 90.013	M24 x 50	170	160	24.978 24.926	81.0 80.8	180.040 180.015	M42 x 80	300	290	44.974 44.912	165.0 164.7
450	195	650	320	100.035 100.013	M24 x 50	210	200	27.978 27.926	90.0 89.8	200.046 200.017	M42 x 80	350	340	44.974 44.912	185.0 184.7

B2S - HORIZONTAL SHAFT MOUNTED UNIT WITH RIGHT ANGLE SHAFTS



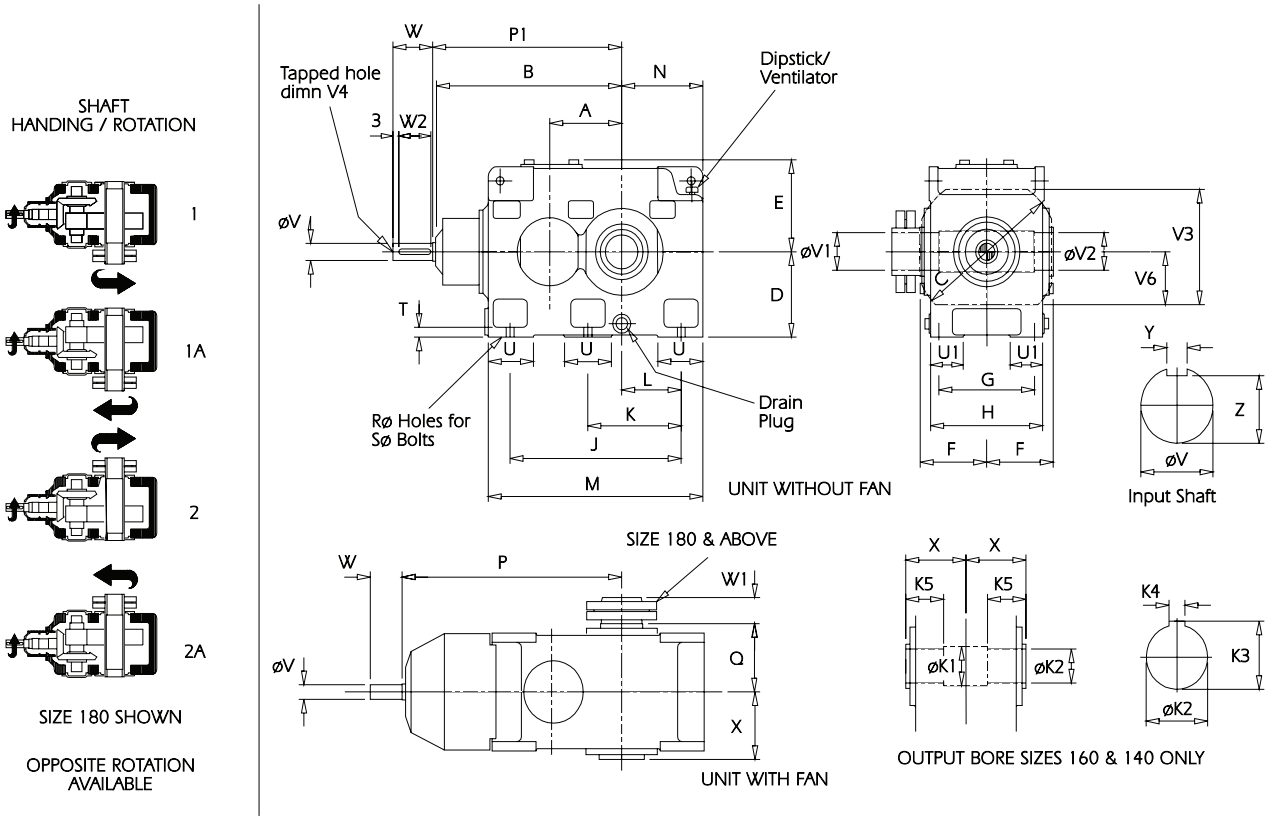




Unit Size	A	B	C	E	E1	F	G	H				M	L	P	KP1 N	Q		S	T R	U
200	200	520	400	239	239	180	375	450	530	160	192.5	595	225	575	525	185	22	20	25	125
225	225	575	445	267	267	203	400	500	560	175	200	660	250	635	580	205	22	20	30	130
250	250	630	480	298	298	215	450	560	630	190	225	740	280	695	635	220	26	24	30	140
280	280	715	520	327	327	237	500	620	710	210	260	820	315	785	720	240	26	24	35	160
315	315	800	560	350	350	256	530	660	800	230	295	920	355	875	805	260	33	30	40	180
355	355	870	630	405	405	286	630	770	900	255	322.5	1055	400	950	875	290	33	30	45	200
400	400	990	700	456	456	320	710	870	1000	285	350	1200	450	1075	995	325	39	36	50	220
450	450	1100	780	497	497	360	750	940	1120	325	395	1330	500	1190	1105	365	39	36	55	250

Unit Size						INPUT SHAFTS						OUTPUT SLEEVE BORES	
	U1	V3	V6	W1	X	V	V4	W	W2	Y	Z	V1	V2
200	90	305	140	70	185	45.018 45.002	M16 x 32	110	102	13.982 13.939	39.5 39.3	95.035 95.000	100.047 100.012
225	95	356	171	80	205	50.018 50.002	M16 x 32	110	102	13.982 13.939	44.5 44.3	115.035 115.000	120.047 120.012
250	115	402	190	90	220	55.030 55.011	M24 x 50	110	102	15.982 15.939	49.0 48.8	125.040 125.000	130.054 130.014
280	125	450	225	105	240	65.030 65.011	M24 x 50	140	130	17.982 17.939	58.0 57.8	140.040 140.000	145.054 145.014
315	130	480	230	110	260	75.030 75.011	M24 x 50	140	130	19.978 19.926	67.5 67.3	160.040 160.000	165.054 165.014
355	155	540	270	130	290	85.035 85.013	M24 x 50	170	160	21.978 21.926	76.0 75.8	170.040 170.000	175.054 175.014
400	175	618	300	150	325	90.035 90.013	M24 x 50	170	160	24.978 24.926	81.0 80.8	190.046 190.000	200.061 200.015
450	195	650	320	160	365	100.035 100.013	M24 x 50	210	200	27.978 27.926	90.0 89.8	220.046 220.000	230.061 230.015

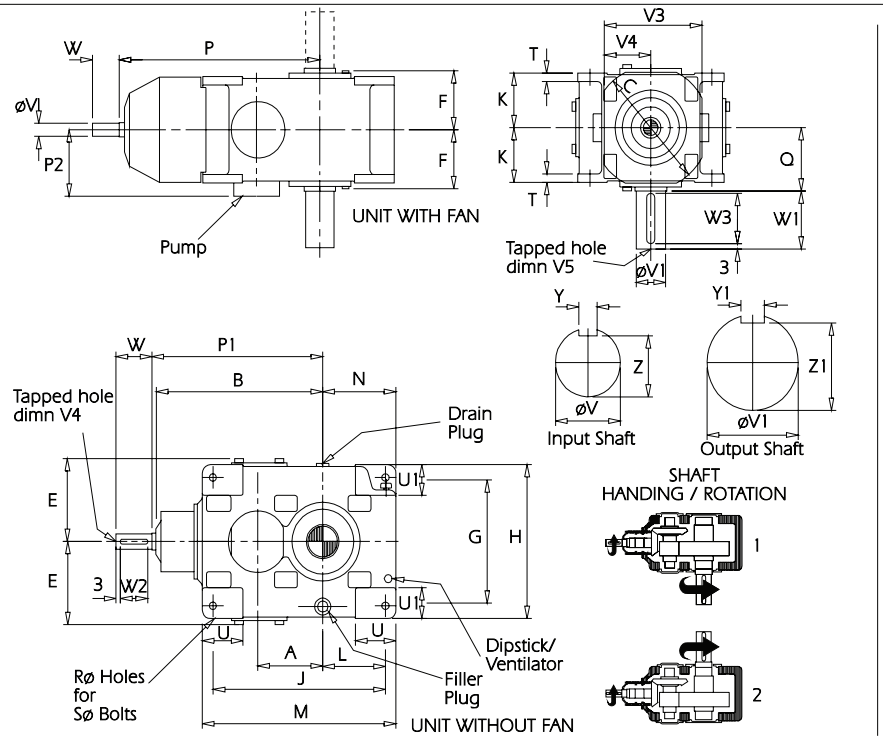
B2SF - HORIZONTAL FOOT & SHAFT MOUNTED UNIT WITH RIGHT ANGLE SHAFTS

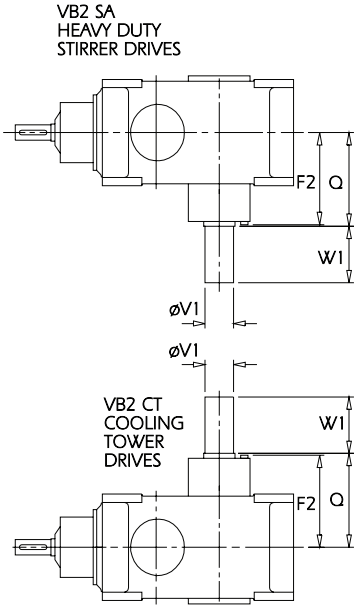


Unit Size	A	B	C				G	H	F		E	D	M		L	P	R1	N	Q	J	R	S	T	U	U1	V3	V6	W1	X
140	140	390	300	160	174	135	190	224	335	-	120	425	165	435	395	-	13.5	4 x 12	20	100	60	230	105	-	140
160	160	430	350	180	194	155	225	260	375	-	135	475	185	475	435	-	17.5	4 x 16	20	110	70	263	125	-	160
180	180	480	375	200	214	170	250	290	425	-	147.5	530	200	530	485	175	17.5	4 x 16	25	120	85	295	145	65	175
200	200	520	400	225	239	180	265	310	475	-	165	595	225	575	525	185	22	4 x 20	25	125	90	305	140	70	185
225	225	575	445	250	267	203	280	340	530	-	185	660	250	635	580	205	22	4 x 20	30	130	95	356	171	80	205
250	250	630	480	280	298	215	300	370	600	-	210	740	280	695	635	220	26	4 x 24	30	140	115	402	190	90	220
280	280	715	520	315	327	237	335	410	670	-	240	820	315	785	720	240	26	4 x 24	35	160	125	450	225	105	240
315	315	800	560	355	350	256	375	450	750	-	270	920	355	875	805	260	33	4 x 30	40	180	130	480	230	110	260
355	355	870	630	400	405	286	425	500	865	530	305	1055	400	950	875	290	33	6 x 30	50	200	155	540	270	130	290
400	400	990	700	450	456	320	475	560	1000	600	350	1200	450	1075	995	325	39	6 x 36	55	220	175	618	300	150	325
450	450	1100	780	500	497	360	530	640	1120	670	395	1330	500	1190	1105	365	39	6 x 36	60	250	195	650	320	160	365

Unit Size	INPUT SHAFTS						OUTPUT SLEEVE BORES						
	V	V4	W	W2	Y	Z	K1	K2	K3	K4	K5	V1	V2
140	28.009 27.996	M8 x 20	60	53	7.985 7.949	24.0 23.8	76	75.060 75.030	80.1 79.9	20.026 19.974	75	-	-
160	32.018 32.002	M8 x 20	80	73	9.985 9.949	27.0 26.8	86	85.071 85.036	90.6 90.4	22.026 21.974	85	-	-
180	38.018 38.002	M16 x 36	80	73	9.985 9.949	33.0 32.8	-	-	-	-	-	85.035 85.000	90.047 90.012
200	45.018 45.002	M16 x 32	110	102	13.982 13.939	39.5 39.3	-	-	-	-	-	95.035 95.000	100.047 100.012
225	50.018 50.002	M16 x 32	110	102	13.982 13.939	44.5 44.3	-	-	-	-	-	115.035 115.000	120.047 120.012
250	55.030 55.011	M24 x 50	110	102	15.982 15.939	49.0 48.8	-	-	-	-	-	125.040 125.000	130.054 130.014
280	65.030 65.011	M24 x 50	140	130	17.982 17.939	58.0 57.8	-	-	-	-	-	140.040 140.000	145.054 145.014
315	75.030 75.011	M24 x 50	140	130	19.978 19.926	67.5 67.3	-	-	-	-	-	160.040 160.000	165.054 165.014
355	85.035 85.013	M24 x 50	170	160	21.978 21.926	76.0 75.8	-	-	-	-	-	170.040 170.000	175.054 175.014
400	90.035 90.013	M24 x 50	170	160	24.978 24.926	81.0 80.8	-	-	-	-	-	190.046 190.000	200.061 200.015
450	100.035 100.013	M24 x 50	210	200	27.978 27.926	90.0 89.8	-	-	-	-	-	220.046 220.000	230.061 230.015

VB2 - VERTICAL MOUNTED UNIT WITH RIGHT ANGLE SHAFTS



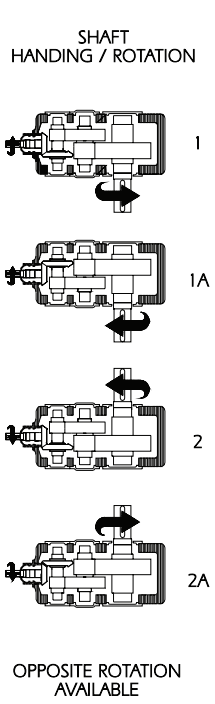


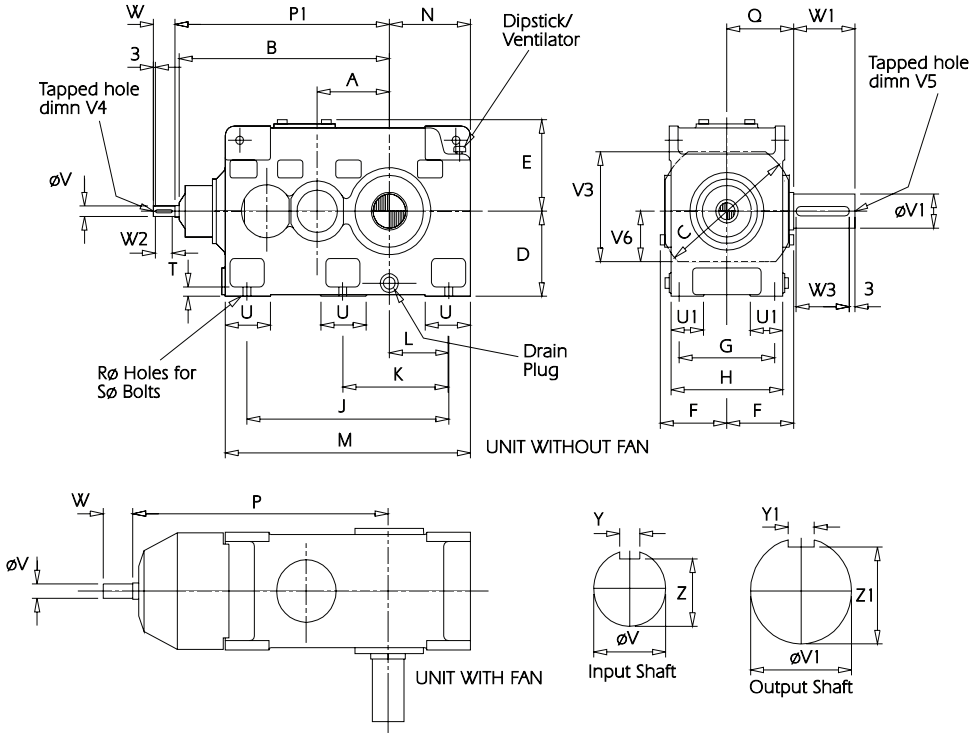
Unit Size	A					G	H	F		E	C	M	B	L	P	K	P1	N	P2	Q	R	S	T	U	U1	V3	V4
200	200	520	400	244	180	375	450	530		160	192.5	595	225	575	525	240	185	22	20	25	125	90	305	140
225	225	575	445	274	203	400	500	560		175	200	660	250	635	580	260	205	22	20	30	130	95	356	171
250	250	630	480	305	215	450	560	630		190	225	740	280	695	635	275	220	26	24	30	140	115	402	190
280	280	715	520	334	237	500	620	710		210	260	820	315	785	720	295	240	26	24	35	160	125	450	225
315	315	800	560	358	256	530	660	800		230	295	920	355	875	805	330	260	33	30	40	180	130	480	230
355	355	870	630	413	286	630	770	900		255	322.5	1055	400	950	875	355	290	33	30	45	200	155	540	270
400	400	990	700	464	320	710	870	1000		285	350	1200	450	1075	995	395	325	39	36	50	220	175	618	300
450	450	1100	780	507	360	750	940	1120		325	395	1330	500	1190	1105	445	365	39	36	55	250	195	650	320

Unit Size	INPUT SHAFTS						OUTPUT SHAFTS					
	V	V4	W	W2	Y	Z	V1	V5	W1	W3	Y1	Z1
200	45.018 45.002	M12 x 25	110	102	13.982 13.939	39.5 39.3	90.035 90.013	M24 x 50	170	160	24.978 24.926	81.0 80.8
225	50.018 50.002	M12 x 25	110	102	13.982 13.939	44.5 44.3	100.035 100.013	M24 x 50	210	200	27.978 27.926	90.0 89.8
250	55.030 55.011	M20 x 40	110	102	15.982 15.939	49.0 48.8	110.035 110.013	M24 x 50	210	200	27.978 27.926	100.0 99.8
280	65.030 65.011	M20 x 40	140	130	17.982 17.939	58.0 57.8	125.040 125.015	M36 x 70	210	200	31.974 31.912	114.0 113.8
315	75.030 75.011	M20 x 40	140	130	19.978 19.926	67.5 67.3	140.040 140.015	M36 x 70	250	240	35.974 35.912	128.0 127.7
355	85.035 85.013	M24 x 50	170	160	21.978 21.926	76.0 75.8	160.040 160.015	M36 x 70	300	290	39.974 39.912	147.0 146.7
400	90.035 90.013	M24 x 50	170	160	24.978 24.926	81.0 80.8	180.040 180.015	M36 x 70	300	290	44.974 44.912	165.0 164.7
450	100.035 100.013	M24 x 50	210	200	27.978 27.926	90.0 89.8	200.046 200.017	M36 x 70	350	340	44.974 44.912	185.0 184.7

Unit Size	HEAVY DUTY STIRRER DRIVES								COOLING TOWER DRIVES						
	F2	Q	V1	V5	W1	W3	Y1	Z1	F2	Q	V1	V5	W1/W2	Y1	Z1
200	295	300	100.035 100.013	M24 x 50	210	200	27.978 27.926	90.0 89.8	330	335	90.035 90.013	M24 x 50	To suit customers fan requirements	24.978 24.926	81.0 80.8
225	330	335	110.035 110.013	M24 x 50	210	200	27.978 27.926	100.0 99.8	370	375	100.035 100.013	M24 x 50		27.978 27.926	90.0 89.8
250	355	360	125.040 125.015	M36 x 70	210	200	31.974 31.912	114.0 113.8	395	400	110.035 110.013	M24 x 50		27.978 27.926	100.0 99.8
280	390	395	140.040 140.015	M36 x 70	250	240	35.974 35.912	128.0 127.7	430	435	125.040 125.015	M36 x 70		31.974 31.912	114.0 113.8
315	435	440	160.040 160.015	M36 x 70	300	290	39.974 39.912	147.0 146.7	465	470	140.040 140.015	M36 x 70		35.974 35.912	128.0 127.7
355	470	475	180.040 180.015	M36 x 70	300	290	44.974 44.912	165.0 164.7	510	515	160.040 160.015	M36 x 70		39.974 39.912	147.0 146.7
400	535	540	200.046 200.017	M36 x 70	350	340	44.974 44.912	185.0 184.7	575	580	180.040 180.015	M36 x 70		44.974 44.912	165.0 164.7
450	600	605	220.046 220.017	M45 x 85	350	340	49.974 49.912	203.0 202.7	645	650	200.046 200.017	M36 x 70		44.974 44.912	185.0 184.7

B3 - **HORIZONTAL FOOT MOUNTED UNIT WITH RIGHT ANGLE SHAFTS**

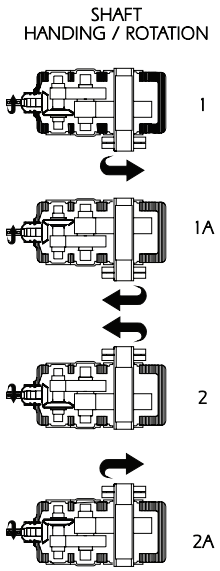


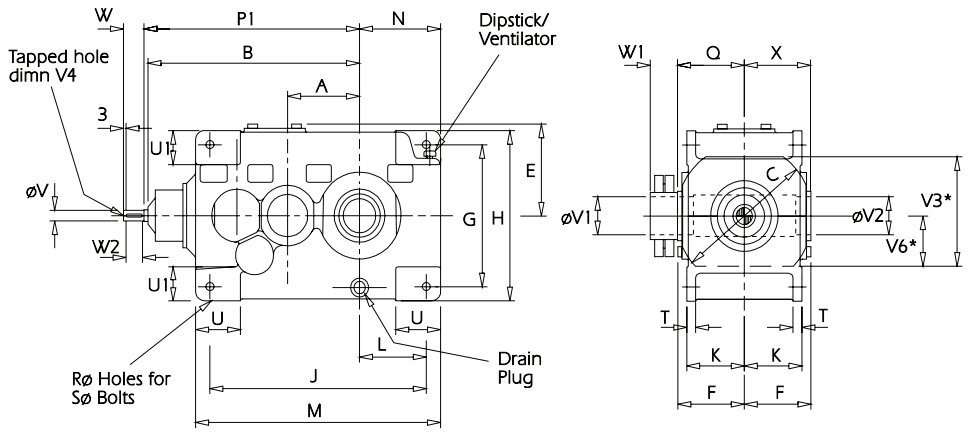


Unit Size	A					F	G	E		D	C	L	B	K	N	J	P	M	P1	Q	R	S	T	U
140	140	430	305	160	174	135	190	224		405	-	120		495	165	470			435	140	13.5	4 x 12	20	100
160	160	477	350	180	194	155	225	260		450	-	135		550	185	520			480	160	17.5	4 x 16	20	110
180	180	530	375	200	214	173	250	290		505	-	147.5		610	200	570			535	175	17.5	4 x 16	25	120
200	200	590	400	225	239	180	265	310		560	-	165		680	225	630			595	185	22	4 x 20	25	125
225	225	655	445	250	267	203	280	340		630	-	185		760	250	700			660	205	22	4 x 20	30	130
250	250	730	480	280	298	215	300	370		710	-	210		850	280	780			735	220	26	4 x 24	30	140
280	280	800	520	315	327	237	335	410		800	-	240		950	315	855			805	240	26	4 x 24	35	160
315	315	890	560	355	350	256	375	450		900	-	270		1070	355	950			895	260	33	4 x 30	40	180
355	355	985	630	400	405	286	425	500		1005	530	305		1195	400	1050			990	290	33	6 x 30	50	200
400	400	1115	700	450	456	320	475	560		1160	600	350		1360	450	1185			1120	325	39	6 x 36	55	220
450	450	1250	780	500	497	360	530	640		1300	670	395		1510	500	1325			1255	365	39	6 x 36	60	250

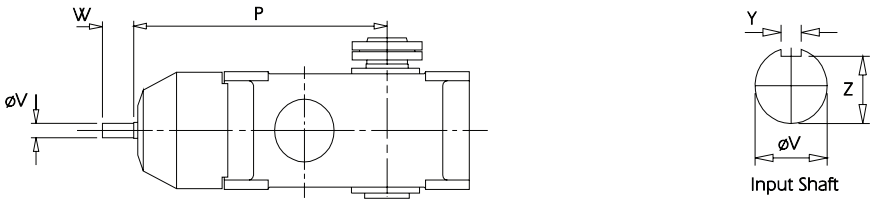
Unit Size				INPUT SHAFTS						OUTPUT SHAFTS					
	U1	V3	V6	V	V4	W	W2	Y	Z	V1	V5	W1	W3	Y1	Z1
140	60	220	95	20.009 19.996	M6 x 16	50	43	5.988 5.958	16.5 16.4	70.030 70.011	M24 x 52	140	130	19.978 19.926	62.5 62.3
160	70	248	110	25.009 24.996	M6 x 16	60	53	7.985 7.949	21.0 20.8	75.030 75.011	M24 x 52	140	130	19.978 19.926	67.5 67.3
180	85	280	130	28.009 27.996	M8 x 20	60	53	7.985 7.949	24.0 23.8	85.035 85.013	M24 x 52	170	160	21.978 21.926	76.0 75.8
200	90	305	140	28.009 27.996	M8 x 18	60	53	7.985 7.949	24.0 23.8	90.035 90.013	M24 x 50	170	160	24.978 24.926	81.0 80.8
225	95	356	171	32.018 32.002	M8 x 18	80	73	9.985 9.949	27.0 26.8	100.035 100.013	M24 x 50	210	200	27.978 27.926	90.0 89.8
250	115	390	190	38.018 38.002	M16 x 32	80	73	9.985 9.949	33.0 32.8	110.035 110.013	M30 x 60	210	200	27.978 27.926	100.0 99.8
280	125	450	225	45.018 45.002	M16 x 32	110	102	13.982 13.939	39.5 39.3	125.040 125.015	M30 x 60	210	200	31.974 31.912	114.0 113.8
315	130	460	230	50.018 50.002	M16 x 32	110	102	13.982 13.939	44.5 44.3	140.040 140.015	M30 x 60	250	240	35.974 35.912	128.0 127.7
355	155	540	270	55.030 55.011	M24 x 50	110	102	15.982 15.939	49.0 48.8	160.040 160.015	M42 x 80	300	290	39.974 39.912	147.0 146.7
400	175	600	300	65.030 65.011	M24 x 50	140	130	17.982 17.939	58.0 57.8	180.040 180.015	M42 x 80	300	290	44.974 44.912	165.0 164.7
450	195	640	320	75.030 75.011	M24 x 50	140	130	19.978 19.926	67.5 67.3	200.046 200.017	M42 x 80	350	340	44.974 44.912	185.0 184.7

B3S - HORIZONTAL SHAFT MOUNTED UNIT WITH RIGHT ANGLE SHAFTS





UNIT WITHOUT FAN



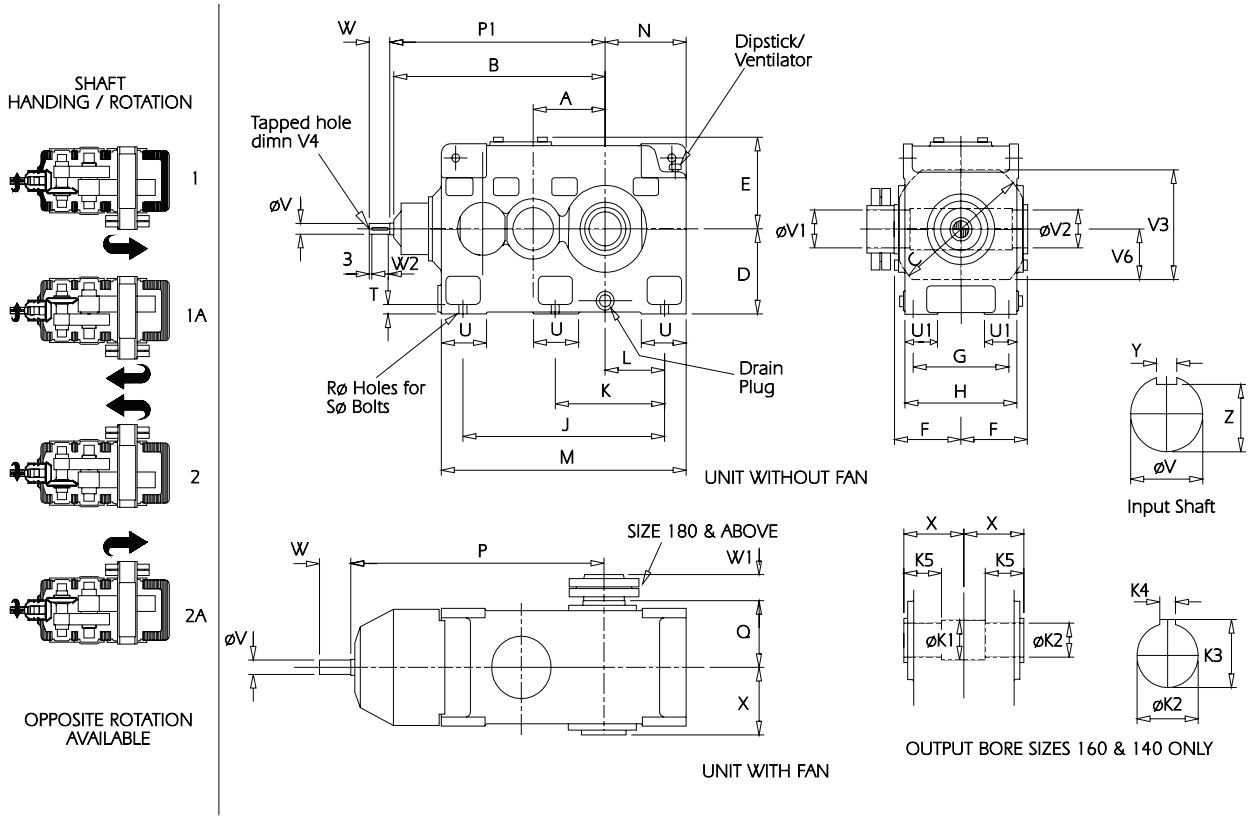
UNIT WITH FAN

Unit Size	A	B	C*	E	F	G	H				M	N	L	P*	KP1	Q		S	T	R	U
200	200	590	400	239	180	375	450	600	160	185	680	225		630	595	185	22	20	25		125
225	225	655	445	267	203	400	500	670	175	205	760	250		700	660	205	22	20	30		130
250	250	730	480	298	215	450	560	750	190	230	850	280		780	735	220	26	24	30		140
280	280	800	520	327	237	500	620	850	210	265	950	315		855	805	240	26	24	35		160
315	315	890	560	350	256	530	660	950	230	295	1070	355		950	895	260	33	30	40		180
355	355	985	630	405	286	630	770	1060	255	332.5	1195	400		1050	990	290	33	30	45		200
400	400	1115	700	456	320	710	870	1180	285	360	1360	450		1185	1120	325	39	36	50		220
450	450	1250	780	497	360	750	940	1320	325	405	1510	500		1325	1255	365	39	36	55		250

Unit Size						INPUT SHAFTS						OUTPUT SLEEVE BORES	
	U1	V3*	V6*	W1	X	V	V4	W	W2	Y	Z	V1	V2
200	90	305	140	70	185	28.009 27.996	M8 x 18	60	53	7.985 7.949	24.0 23.8	95.035 95.000	100.047 100.012
225	95	356	171	80	205	32.018 32.002	M8 x 18	80	73	9.985 9.949	27.0 26.8	115.035 115.000	120.047 120.012
250	115	390	190	90	220	38.018 38.002	M16 x 32	80	73	9.985 9.949	33.0 32.8	125.040 125.000	130.054 130.014
280	125	450	225	105	240	45.018 45.002	M16 x 32	110	102	13.982 13.939	39.5 39.3	140.040 140.000	145.054 145.014
315	130	460	230	110	260	50.018 50.002	M16 x 32	110	102	13.982 13.939	44.5 44.3	160.040 160.000	165.054 165.014
355	155	540	270	130	290	55.030 55.011	M24 x 50	110	102	15.982 15.939	49.0 48.8	170.040 170.000	175.054 175.014
400	175	600	300	150	325	65.030 65.011	M24 x 50	140	130	17.982 17.939	58.0 57.8	190.046 190.000	200.061 200.015
450	195	640	320	160	365	75.030 75.011	M24 x 50	140	130	19.978 19.926	67.5 67.3	220.046 220.000	230.061 230.015

* Unit with fan

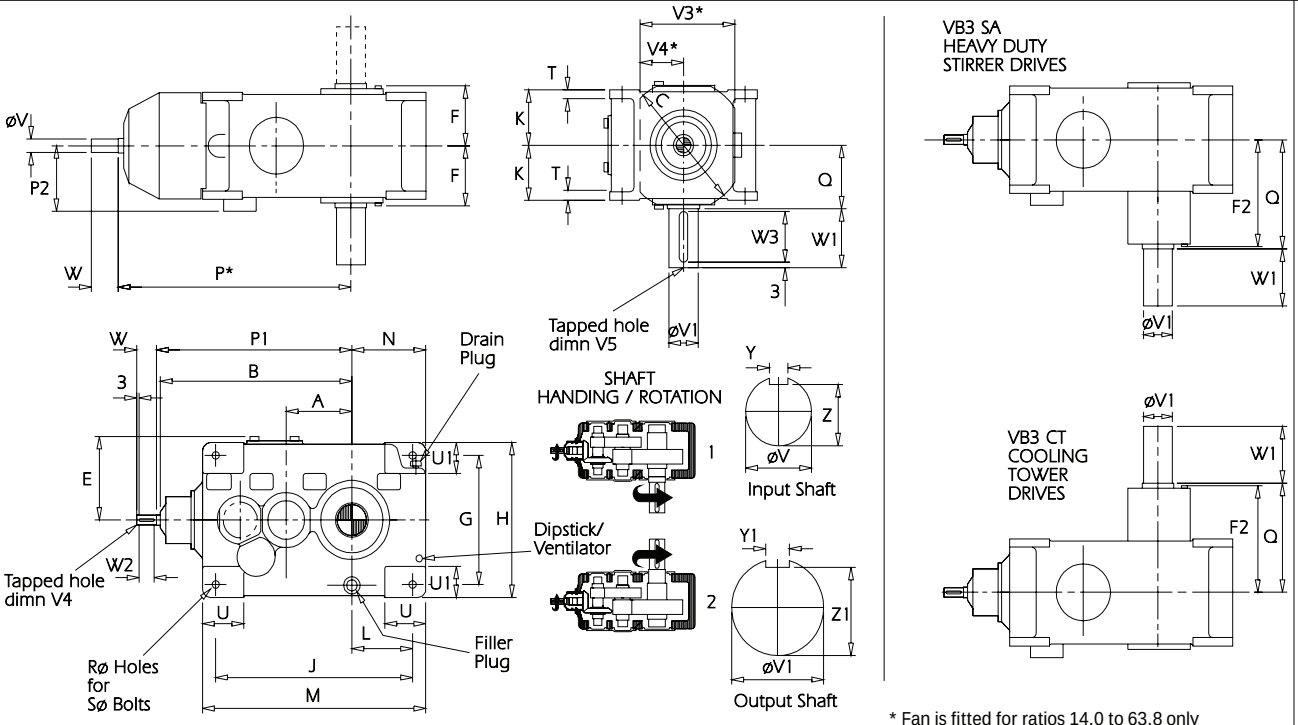
B3SF - **HORIZONTAL FOOT & SHAFT MOUNTED UNIT WITH RIGHT ANGLE SHAFTS**



Unit Size	A	B	C				G	H	F		E	D	M		L	P	R1	N	Q	J	R	S	T	U	U1	V3	V6	W1	X
140	140	430	305	160	174	135	190	224	405	-	120	495	165	470	435	140	13.5	4 x 12	20	100	60	220	95	-	140
160	160	477	350	180	194	155	225	260	450	-	135	550	185	520	480	160	17.5	4 x 16	20	110	70	248	110	-	160
180	180	530	375	200	214	173	250	290	505	-	147.5	610	200	570	535	175	17.5	4 x 16	25	120	85	280	130	65	175
200	200	590	400	225	239	180	265	310	560	-	165	680	225	630	595	185	22	4 x 20	25	125	90	305	140	70	185
225	225	655	445	250	267	203	280	340	630	-	185	760	250	700	660	205	22	4 x 20	30	130	95	356	171	80	205
250	250	730	480	280	298	215	300	370	710	-	210	850	280	780	735	220	26	4 x 24	30	140	115	390	190	90	220
280	280	800	520	315	327	237	335	410	800	-	240	950	315	855	805	240	26	4 x 24	35	160	125	450	225	105	240
315	315	890	560	355	350	256	375	450	900	-	270	1070	355	950	895	260	33	4 x 30	40	180	130	460	230	110	260
355	355	985	630	400	405	286	425	500	1005	530	305	1195	400	1050	990	290	33	6 x 30	50	200	155	540	270	130	290
400	400	1115	700	450	456	320	475	560	1160	600	350	1360	450	1185	1120	325	39	6 x 36	55	220	175	600	300	150	325
450	450	1250	780	500	497	360	530	640	1300	670	395	1510	500	1325	1255	365	39	6 x 36	60	250	195	640	320	160	365

Unit Size	INPUT SHAFTS						OUTPUT SLEEVE BORES						
	V	V4	W	W2	Y	Z	K1	K2	K3	K4	K5	V1	V2
140	20.009 19.996	M6 x 16	50	43	5.988 5.958	16.5 16.4	76	75.060 75.030	80.1 79.9	20.026 19.974	75	-	-
160	25.009 24.996	M6 x 16	60	53	7.985 7.949	21.0 20.8	86	85.071 85.036	90.6 90.4	22.026 21.974	85	-	-
180	28.009 27.996	M8 x 20	60	53	7.985 7.949	24.0 23.8	-	-	-	-	-	85.035 85.000	90.047 90.012
200	28.009 27.996	M8 x 18	60	53	7.985 7.949	24.0 23.8	-	-	-	-	-	95.035 95.000	100.047 100.012
225	32.018 32.002	M8 x 18	80	73	9.985 9.949	27.0 26.8	-	-	-	-	-	115.035 115.000	120.047 120.012
250	38.018 38.002	M16 x 32	80	73	9.985 9.949	33.0 32.8	-	-	-	-	-	125.040 125.000	130.054 130.014
280	45.018 45.002	M16 x 32	110	102	13.982 13.939	39.5 39.3	-	-	-	-	-	140.040 140.000	145.054 145.014
315	50.018 50.002	M16 x 32	110	102	13.982 13.939	44.5 44.3	-	-	-	-	-	160.040 160.000	165.054 165.014
355	55.030 55.011	M24 x 50	110	102	15.982 15.939	49.0 48.8	-	-	-	-	-	170.040 170.000	175.054 175.014
400	65.030 65.011	M24 x 50	140	130	17.982 17.939	58.0 57.8	-	-	-	-	-	190.046 190.000	200.061 200.015
450	75.030 75.011	M24 x 50	140	130	19.978 19.926	67.5 67.3	-	-	-	-	-	220.046 220.000	230.061 230.015

VB3 - VERTICAL MOUNTED UNIT WITH RIGHT ANGLE SHAFTS



* Fan is fitted for ratios 14.0 to 63.8 only

Unit Size	A	B	C*	E	F	G	H				M	N	L	P*	K	P1	P2	Q	R	S	T	U	U1	V3*	V4*
200	200	590	400	244	180	375	450	600	160	185	680	225		630	595	224	185	22	20	25	125	90	305	140	
225	225	655	445	274	203	400	500	670	175	205	760	250		700	660	245	205	22	20	30	130	95	356	171	
250	250	730	480	305	215	450	560	750	190	230	850	280		780	735	260	220	26	24	30	140	115	390	190	
280	280	800	520	334	237	500	620	850	210	265	950	315		855	805	280	240	26	24	35	160	125	450	225	
315	315	890	560	358	256	530	660	950	230	295	1070	355		950	895	310	260	33	30	40	180	130	460	230	
355	355	985	630	413	286	630	770	1060	255	332.5	1195	400		1050	990	335	290	33	30	45	200	155	540	270	
400	400	1115	700	464	320	710	870	1180	285	360	1360	450		1185	1120	380	325	39	36	50	220	175	600	300	
450	450	1250	780	507	360	750	940	1320	325	405	1510	500		1325	1255	420	365	39	36	55	250	195	640	320	

Unit Size	INPUT SHAFTS						OUTPUT SHAFTS					
	V	V4	W	W2	Y	Z	V1	V5	W1	W3	Y1	Z1
200	28.009 27.996	M8 x 18	60	53	7.985 7.949	24.0 23.8	90.035 90.013	M24 x 50	170	160	24.978 24.926	81.0 80.8
225	32.018 32.002	M8 x 18	80	73	9.985 9.949	27.0 26.8	100.035 100.013	M24 x 50	210	200	27.978 27.926	90.0 89.8
250	38.018 38.002	M12 x 25	80	73	9.985 9.949	33.0 32.8	110.035 110.013	M24 x 50	210	200	27.978 27.926	100.0 99.8
280	45.018 45.002	M12 x 25	110	102	13.982 13.939	39.5 39.3	125.040 125.015	M36 x 70	210	200	31.974 31.912	114.0 113.8
315	50.018 50.002	M12 x 25	110	102	13.982 13.939	44.5 44.3	140.040 140.015	M36 x 70	250	240	35.974 35.912	128.0 127.7
355	55.030 55.011	M20 x 40	110	102	15.982 15.939	49.0 48.8	160.040 160.015	M36 x 70	300	290	39.974 39.912	147.0 146.7
400	65.030 65.011	M20 x 40	140	130	17.982 17.939	58.0 57.8	180.040 180.015	M36 x 70	300	290	44.974 44.912	165.0 164.7
450	75.030 75.011	M20 x 40	140	130	19.978 19.926	67.5 67.3	200.046 200.017	M36 x 70	350	340	44.974 44.912	185.0 184.7

Unit Size	HEAVY DUTY STIRRER DRIVES								COOLING TOWER DRIVES						
	F2	Q	V1	V5	W1	W3	Y1	Z1	F2	Q	V1	V5	W1/W2	Y1	Z1
200	295	300	100.035 100.013	M24 x 50	210	200	27.978 27.926	90.0 89.8	330	335	90.035 90.013	M24 x 50	To suit customers fan requirements	24.978 24.926	81.0 80.8
225	330	335	110.035 110.013	M24 x 50	210	200	27.978 27.926	100.0 99.8	370	375	100.035 100.013	M24 x 50		27.978 27.926	90.0 89.8
250	355	360	125.040 125.015	M36 x 70	210	200	31.974 31.912	114.0 113.8	395	400	110.035 110.013	M24 x 50		27.978 27.926	100.0 99.8
280	390	395	140.040 140.015	M36 x 70	250	240	35.974 35.912	128.0 127.7	430	435	125.040 125.015	M36 x 70		31.974 31.912	114.0 113.8
315	435	440	160.040 160.015	M36 x 70	300	290	39.974 39.912	147.0 146.7	465	470	140.040 140.015	M36 x 70		35.974 35.912	128.0 127.7
355	470	475	180.040 180.015	M36 x 70	300	290	44.974 44.912	165.0 164.7	510	515	160.040 160.015	M36 x 70		39.974 39.912	147.0 146.7
400	535	540	200.046 200.017	M36 x 70	350	340	44.974 44.912	185.0 184.7	575	580	180.040 180.015	M36 x 70		44.974 44.912	165.0 164.7
450	600	605	220.046 220.017	M45 x 85	350	340	49.974 49.912	203.0 202.7	645	650	200.046 200.017	M36 x 70		44.974 44.912	185.0 184.7

Each shaft mounted gear unit is fitted with a 'shrink disc' device located on the hollow output shaft to provide a positive outer locking connection between gear unit and driven shaft. The 'shrink disc' is a friction device, without keys, which exerts an external clamping force on the hollow output shaft, thus establishing a mechanical shrink fit between the gear unit hollow shaft and driven shaft. 'Shrink disc' capacities have ample margins in dealing with transmitted torques and external loading imposed on gear units.

WORKING PRINCIPLE

The 'shrink disc' consists of two locking collars, a double tapered inner ring, locking screws and a sealing ring. By tightening the locking screws, the locking collars are pulled together, exerting radial forces on the inner ring, thus creating a positive friction connection between hollow shaft and driven shaft (See Figure 2).

As the tapered surfaces of locking collars and inner ring are lubricated with Molykote 321R or similar and the taper angle is not self locking, locking collars will not seize on the inner ring and can be released easily when removal is necessary.

When the shrink disc is clamped in position the high contact pressures between tapered surfaces and screw heads and their seatings ensure hermetic sealing and eliminate the possibility of fretting corrosion.

UNIT SIZE	SHRINK DISC						HOLLOW SHAFT					
	Size Ref	F	G	H	Screws M	Screws Ma	J	L	A	B	N	E
180	110-72	110	185	49	M10	58	175	415	4.5	12	M5 x 6	107
200	125-72	125	215	53	M10	58	185	440	4.5	12	M6 x 6	110
225	155-71	155	263	62	M12	100	205	490	4.5	18	M10 x 4	135
250	165-71	165	290	68	M16	240	220	530	4.5	18	M10 x 4	145
280	185-71	185	330	85	M16	240	240	585	4.5	18	M10 x 6	160
315	200-71	200	350	85	M16	240	260	630	4.5	18	M10 x 6	180
355	220-71	220	370	103	M16	240	290	710	4.5	22	M12 x 4	195
400	260-71	260	430	119	M20	470	325	800	4.5	22	M12 x 6	225
450	280-71	280	460	132	M20	470	365	890	4.5	22	M12 x 6	250

UNIT SIZE	SHAFT OF DRIVEN MACHINE									
	d*	d1	D*	D1 MIN	L1	L2	L3	C	R	K
180	85	87	90	103	412	332	80	3	2	M24 x 50
200	95	97	100	113	437	347	90	3	2	M24 x 50
225	115	117	120	133	487	377	110	3	2	M24 x 50
250	125	127	130	143	527	407	120	3	2	M36 x 70
280	140	142	145	160	580	445	135	4	2	M36 x 70
315	160	162	165	180	625	475	150	4	2	M36 x 70
355	170	172	175	190	705	540	165	4	2	M36 x 70
400	190	195	200	220	795	615	180	4	2	M36 x 70
450	220	225	230	250	885	695	190	4	2	M45 x 85

Shrink disc locking screws M must be tightened to the torque figures Ma shown in Nm
Tolerances for shaft diameters D and d are to h6 for diameters 95 to 165 and g6 for 165 and above

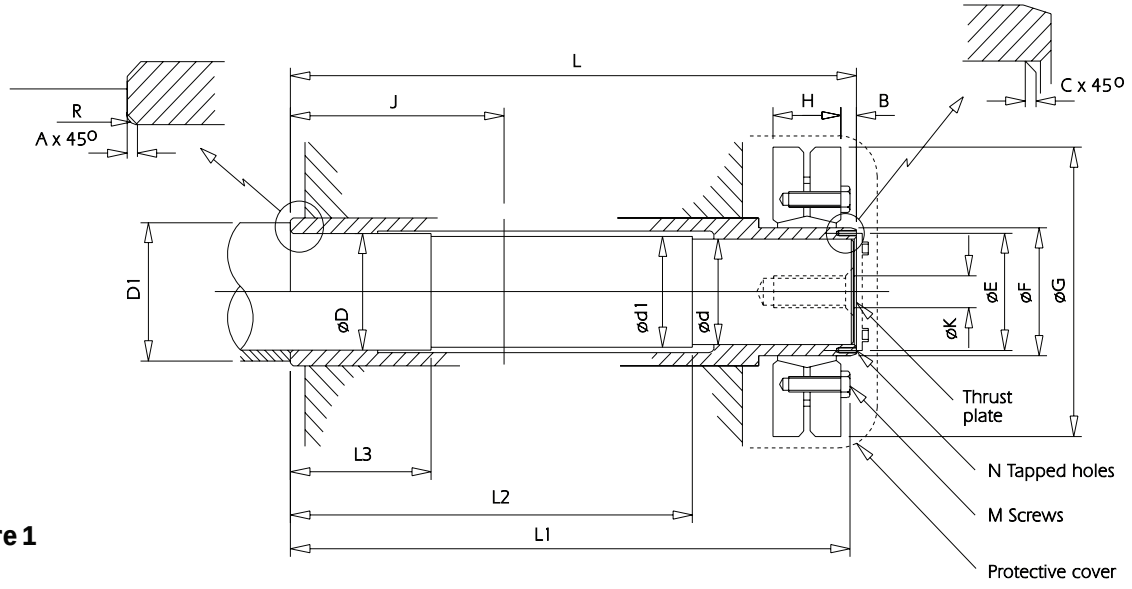


Figure 1

INSTALLATION

'Shrink discs' are supplied with shaft mounted units. The following procedures should be followed when fitting or removing units from the driven shaft.

1 Release locking screws gradually and in succession. Initially a quarter of a turn on each screw will avoid tilting and jamming of collars.
2 Remove collars and 'shrink disc' thoroughly.
3 Clean and degrease locating diameters of gear unit hollow shaft, driven shaft and 'shrink disc' locating diameter on hollow shaft extension.
4 Draw the gear unit onto the driven shaft (See Figure 3).
5 Grease tapered surfaces of locking collars and inner ring with Molykote 321R or similar.
6 Fit 'shrink disc' on gear unit hollow shaft to position shown in Figure 1.
7 Tighten all locking screws gradually and in succession. Do not tighten in a diametrically opposite sequence. Several passes are required until all screws are tightened to the torque figures Ma shown in the table opposite in Nm. This is stamped on the inner face of the 'shrink disc'.
8 Fit protective cover.
Locking collars must remain equidistant over 360°.

Note: When the hollow output shaft is to operate in a vertical position it is essential that the shaft of the driven machine is provided with a shoulder. When the thrust load is not taken by the shoulder on the driven shaft, a thrust plate, as shown in Figure 1, must be fitted.

It is recommended that customers' shafts at the non-clamped end of the sleeve should be coated with Molykote 321 R or equivalent.

REMOVAL

1 Removal procedure is similar to the reverse of installation.
Note: Do not remove 'shrink disc' locking screws completely.
2 Remove any rust and dirt from gear unit hollow shaft.
3 Withdraw gear unit from driven shaft (See Figure 4).

Note: 'Shrink disc' should be removed and cleaned thoroughly, and Molykote 321 R or similar applied to the tapered surfaces of inner ring and locking collars before re-use. The 'O' ring should be replaced if worn or damaged.

Note: Protective covers are supplied with all 'shrink discs'. Assembly or removal kits and thrust plates are not provided by Radicon.

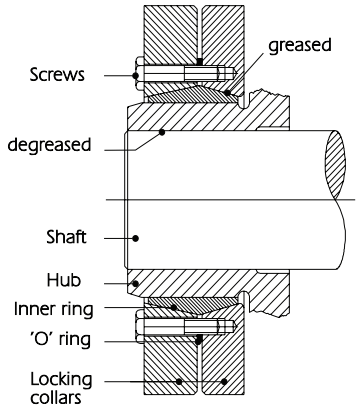


Figure 2

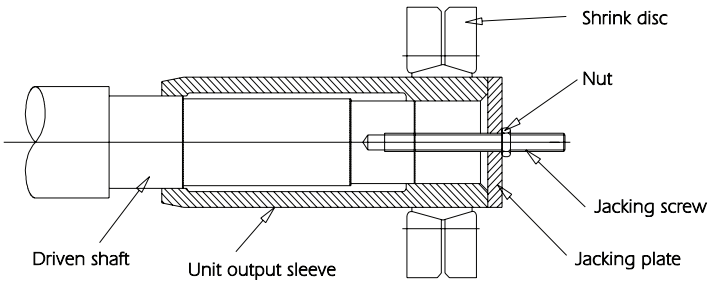


Figure 3 Mounting Gear Unit

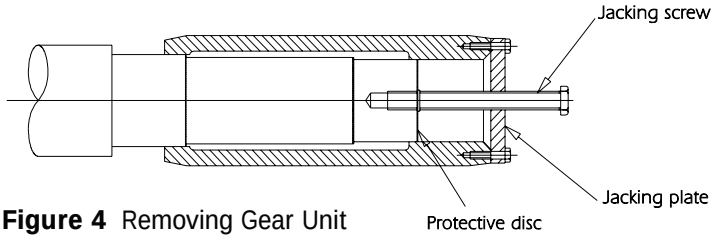


Figure 4 Removing Gear Unit

COOLING COIL CONNECTIONS

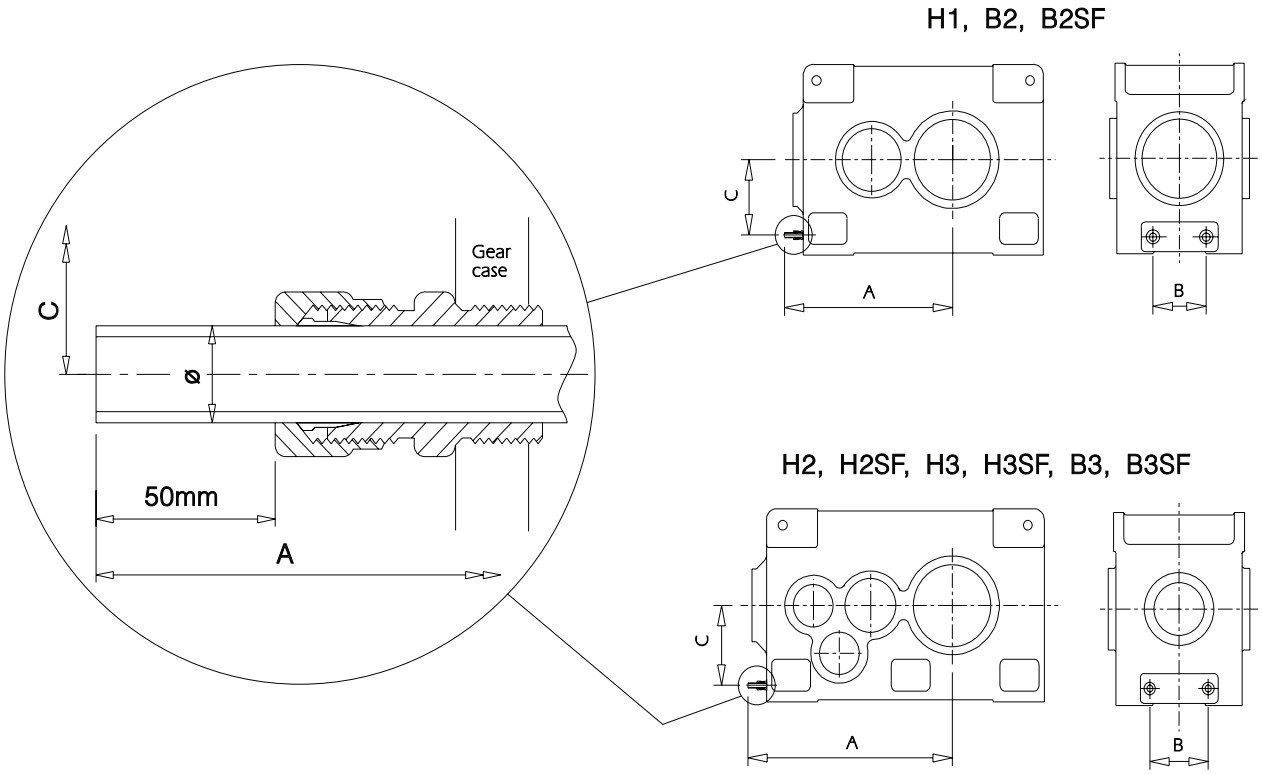
9709

Cooling coil connections for water inlet and outlet pipes are provided as indicated:
ø10mm on 140, 160 and 180
ø12mm on all other sizes

The protruding cooling coil pipe can be connected to customers pipe work via a suitable straight coupling.

Cooling coils are suitable for fresh, brackish or sea water with flow in either direction. Connections are therefore interchangeable.

Note: Cooling coils are not available on shaft mounted units types H2S, H3S, B2S and B3S.
Cooling coils cannot be fitted to vertical units.



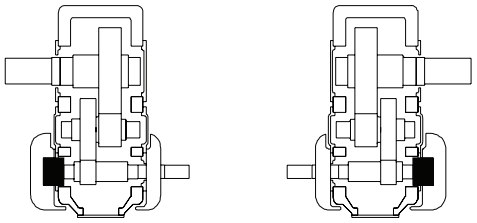
SIZE OF UNIT	H1, B2, B2SF			H2, H2SF, B3, B3SF			H3, H3SF		
	A	B	C	A	B	C	A	B	C
140	350	90	127	420	90	127	420	90	127
160	382	110	145	457	110	145	457	110	145
180	422	110	165	502	110	165	502	110	165
200	465	135	185	550	135	185	550	135	185
225	505	135	210	605	135	210	605	135	210
250	555	150	237	665	150	237	665	150	237
280	600	150	272	730	150	272	730	150	272
315	660	150	305	810	150	305	810	150	305
355	750	150	345	890	150	345	890	150	345
400	845	150	393	1005	150	393	1005	150	393
450	925	150	442	1105	150	442	1105	150	442

Holdbacks can be fitted to all Series H gear unit types with the exception of H1 single reduction units. They are located externally on helical pinion shafts, positioned as indicated on the diagrams below.

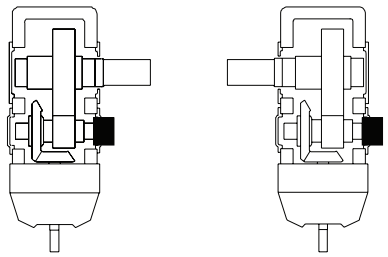
The holdback position for units with right angle shafts, types B2, B2S, B2SF, B3, B3S and B3SF depends on relative shaft rotations.

Position of the holdback on types B2S and B2SF sizes 225, 250, 280 and 315 is on the side opposite to the shrink disc for shaft handings 1 and 2A (See Pages 100 and 101).

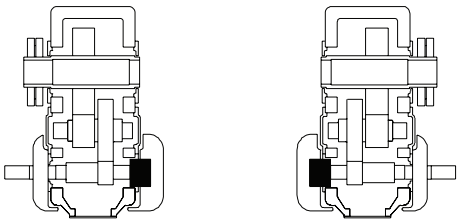
Type H2



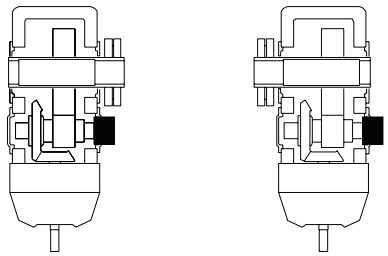
Type B2



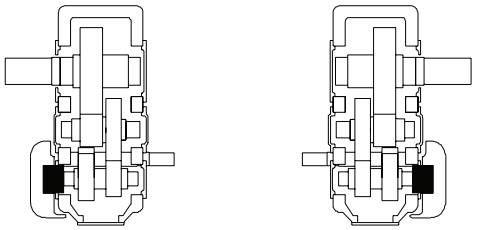
Types H2S and H2SF



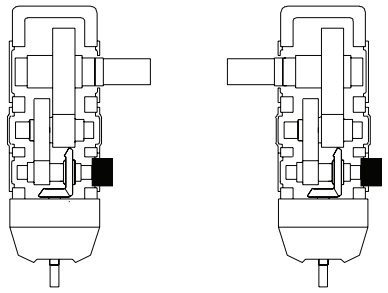
Types B2S and B2SF



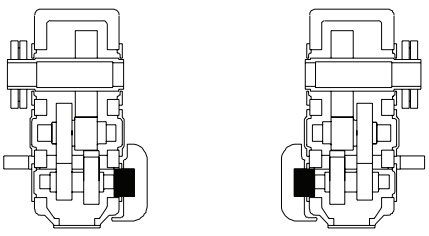
Type H3



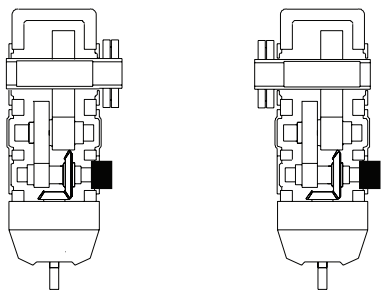
Type B3



Types H3S and H3SF



Types B3S and B3SF



TORQUE ARM

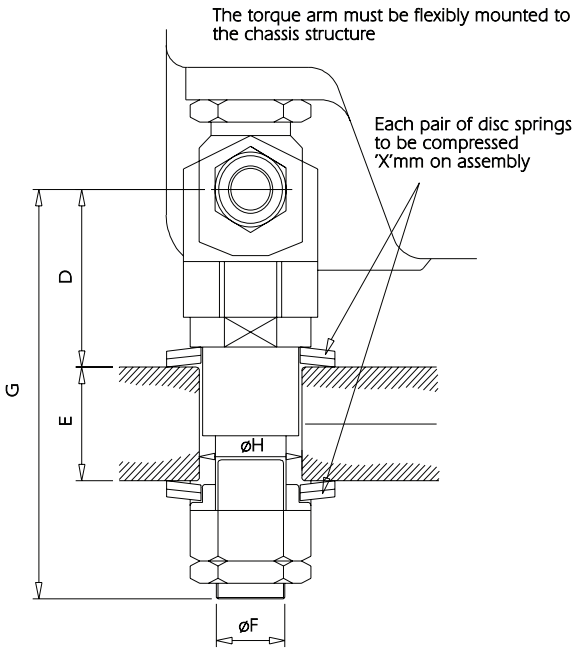
Torque arms are available for double and triple reduction shaft mounted units with a parallel or right angle shafts, types H2S, H3S, B2S and B3S. They are supplied as optional extras and are secured to gear cases as shown below.

Torque arms must be secured to the chassis structure in a flexible mounting as indicated, within a maximum angle of 30° between the vertical plane and a plane towards the gear unit output shaft as illustrated.

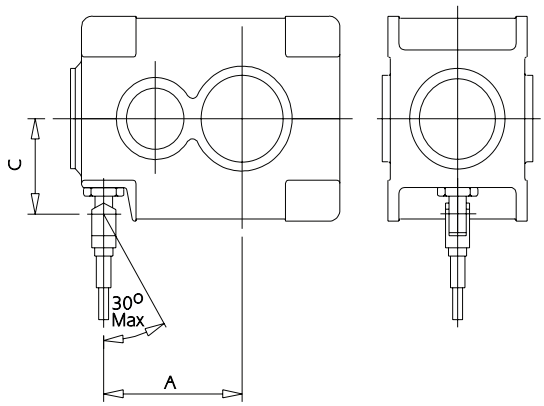
Shaft mounted units are designed to operate in the horizontal position. Reference must be made to Radicon, with details, where units are required to operate in an inclined position or where torque arm mounting positions exceed the 30° maximum angle of inclination to the vertical plane.

SHAFT MOUNTED UNITS FOR HIGH INERTIA DRIVE

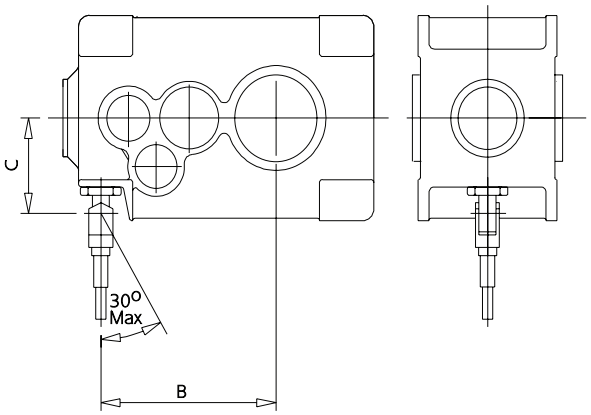
Consult Radicon with specific application details.



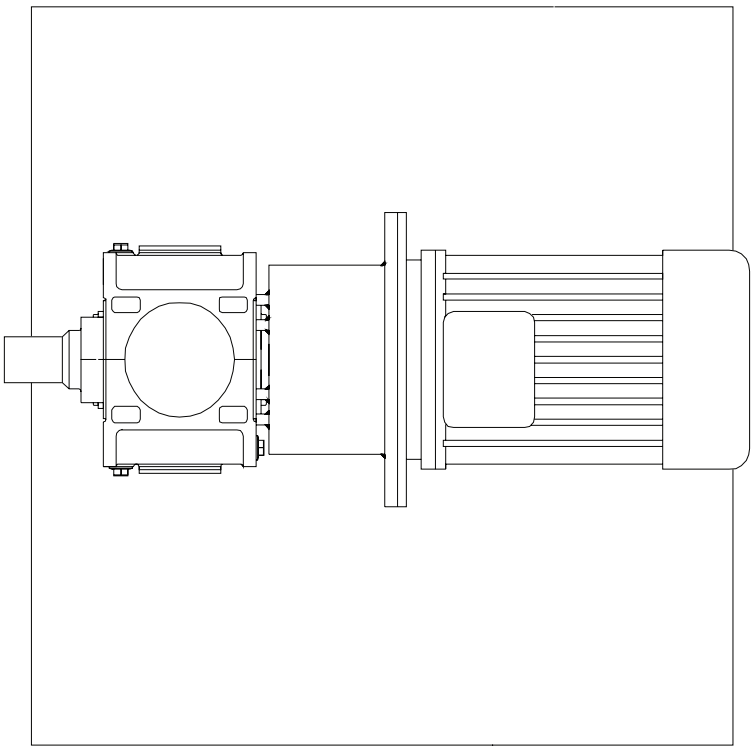
Types B2S



Types H2S, H3S and B3S



SIZE OF UNIT	Types H2S, H3S, B2S and B3S										
	A	B	C	D	E		F	G	Disc Spring Ref	X	H
					MIN	MAX					
200	335	420	187	72	35	52	M24	168	71 x 36 x 4	0.8	36
225	370	470	214	76	40	60	M30	188	80 x 41 x 4	1.1	41
250	418	528	247	98	50	75	M36	237	100 x 51 x 5	1.4	52
280	465	595	260	100	50	75	M36	237	100 x 51 x 6	1.1	52
315	517	667	292	108	60	90	M42	270	125 x 61 x 6	1.8	62
355	595	735	320	122	70	105	M48	308	125 x 71 x 6	1.7	72
400	680	840	371	133	70	105	M52	329	140 x 72 x 8	1.6	72
450	750	930	391	149	80	120	M56	364	150 x 81 x 8	1.8	82

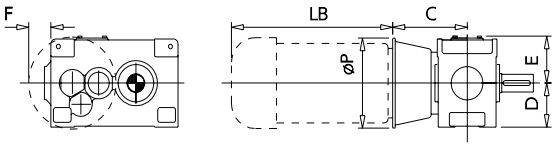


MOTORISED

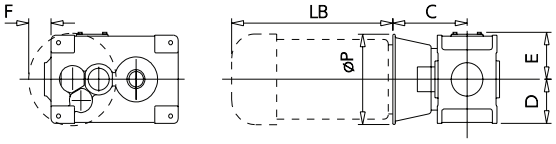
MOTORISED UNITS
PARALLEL SHAFTS

9709

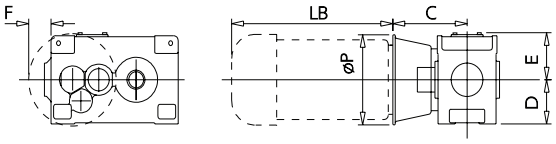
H2M - Foot Mounted



H2SM - Shaft Mounted



H2SFM - Foot / Shaft Mounted

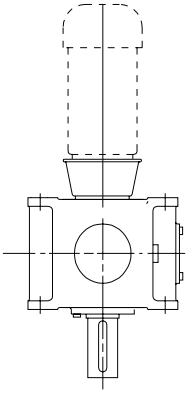


Types H2M, H2SM and H2SFM Parallel Shafts

Unit Size	Motor Frame Size	C	P	LB (Max)	D	E	F
200	D225 D250	408 408	450 550	786 839	225	239	110 160
225	D250 ● D280	458 488	550 550	839 951	250	267	150
250	D250 D280 D315	473 503 503	550 550 660	839 951 1028	280	298	135 135 190

- For types H2M, H2SM and H2SFM
  C = 458 for frame D280 when fitted to units with ratios 12.6 to 25.6

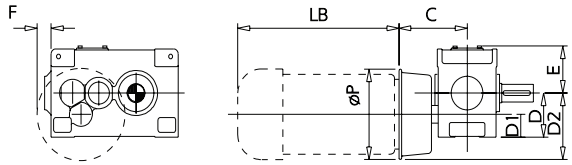
Dimensions LB show maximum recommended motor lengths. Where motor lengths greater than those indicated are considered, refer to Radicon



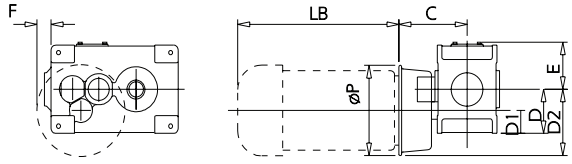
VERTICAL DRIVES
Types VH2M and VH3M Parallel Shafts

Motorised parallel shaft units of double and triple reduction types are available over an extensive power range. Please consult Radicon with details of application.

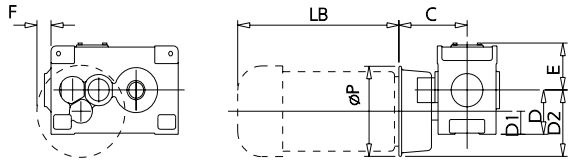
H3M - Foot Mounted



H3SM - Shaft Mounted



H3SFM - Foot / Shaft Mounted

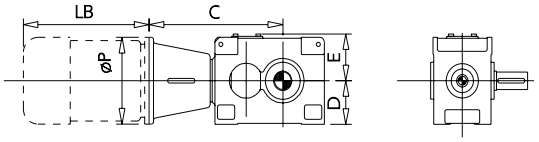


Types H3M, H3SM and H3SFM Parallel Shafts

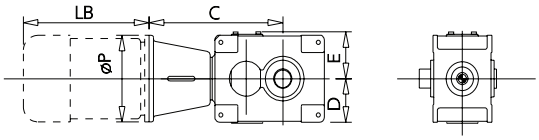
Unit Size	Motor Frame Size	C	P	LB (Max)	D	D1	D2	E	F
200	D160 D180 D200 D225	358 358 358 388	350 350 400 450	540 598 651 786	225	122	278 278 303 328	239	16 16 41 66
225	D160 D180 D200 D225 D250	378 378 378 428 428	350 350 400 450 550	540 598 651 786 839	250	132	293 293 318 343 393	267	9 9 34 59 109
250	D180 D200 D225 D250 D280	413 413 443 443 473	350 400 450 550 550	598 651 786 839 951	280	150	305 330 355 405 405	298	- 8 33 83 83
280	D200 D225 D250 D280 D315	443 463 493 523 523	400 450 550 550 660	651 786 839 951 1028	315*	167*	348 373 423 423 478	327	- 9 59 59 114
315	D225 D250 D280 D315	483 513 543 543	450 550 550 660	786 839 951 1028	355*	190*	390 440 440 495	350	- 28 28 83

* Note: For shaft mounted units, type H3SM
D = 310 and D1 = 162 for size 280
D = 330 and D1 = 165 for size 315

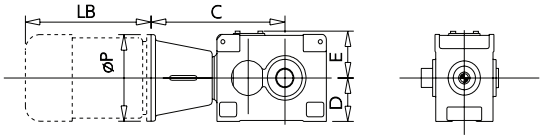
B2M - Foot Mounted



B2SM - Shaft Mounted



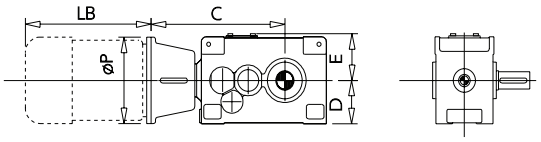
B2SFM - Foot / Shaft Mounted



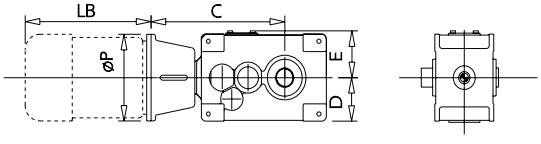
Types B2M, B2SM and B2SFM Right Angle Shafts

Unit Size	Motor Frame Size	C	P	LB (Max)	D	E
200	D225 D250 D280	748 778 808	450 550 550	786 839 951	225	239
225	D250 D280 D315	833 863 863	550 550 660	839 951 1028	250	267
250	D280 D315	918 918	550 660	951 1028	280	298

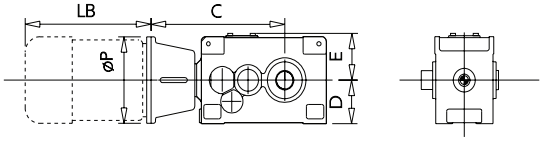
B3M - Foot Mounted



B3SM - Shaft Mounted



B3SFM - Foot / Shaft Mounted



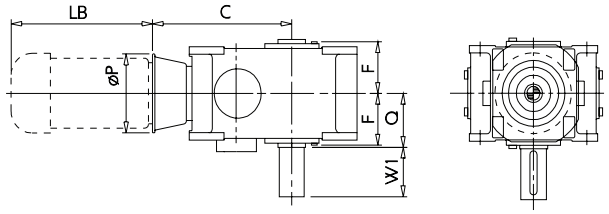
Types B3M, B3SM and B3SFM Right Angle Shafts

Unit Size	Motor Frame Size	C	P	LB (Max)	D	E
200	D132 D160 D180 D200 D225 D250	738 768 768 768 798 798	300 350 350 400 450 550	418 540 598 651 786 839	225	239
225	D200 D225 D250 D280	833 883 883 913	400 450 550 550	651 786 839 951	250	268
250	D225 D250 D280 D315	958 958 988 988	450 550 550 660	786 839 951 1028	280	298
280	D225 D250 D280 D315	1028 1058 1088 1088	450 550 550 660	786 839 951 1028	315*	327
315	D250 D280 D315	1148 1178 1178	550 550 660	839 951 1028	355*	350

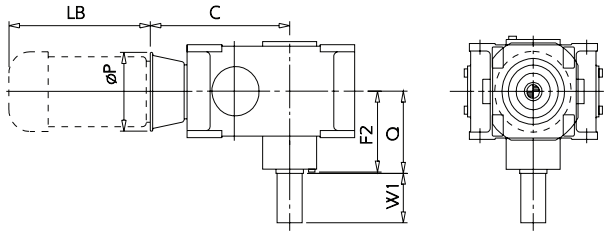
* Note: For shaft mounted units, type B3SM
D = 310 for size 280
D = 330 for size 315

9709

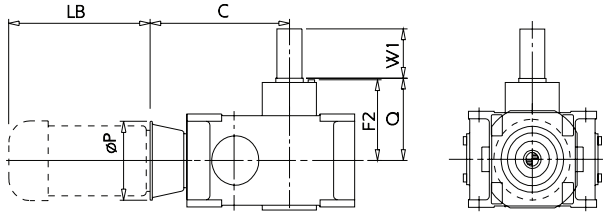
VB2 M - Standard Unit



VB2 SAM - Heavy Duty Stirrer Drives



VB2 CTM - Cooling Tower Drives



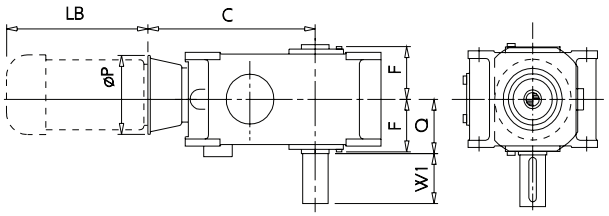
Types VB2M, VB2 SAM, VB2 STM - Right Angle Shafts

Unit Size	Motor Frame Size	C	P	LB (Max)	F	F2		Q			W1 *	
						SAM	CTM	M	SAM	CTM	M	SAM
200	D225 D250 D280	748 778 808	450 550 550	786 839 951	180	295	330	185	300	335	170	210
225	D250 D280 D315	833 863 863	550 550 660	839 951 1028	203	330	370	205	335	375	210	210
250	D280 D315	918 918	550 660	951 1028	215	355	395	220	360	400	210	210

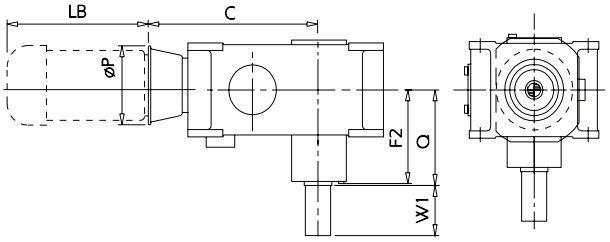
* Dimension W1 for VB2 CTM cooling tower units are made to suit customers' fan hub requirements

Dimensions LB show maximum recommended motor lengths. Where motor lengths greater than those indicated are considered, refer to Radicon

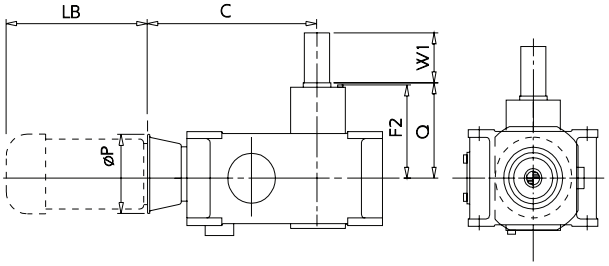
VB3 M - Standard Unit



VB3 SAM - Heavy Duty Stirrer Drives



VB3 CTM - Cooling Tower Drives



Types VB3M, VB3 SAM, VB3 STM - Right Angle Shafts

Unit Size	Motor Frame Size	C	P	LB (Max)	F	F2		Q			W1 *	
						SAM	CTM	M	SAM	CTM	M	SAM
200	D132 D160 D180 D200 D225 D250	728 768 758 758 798 798	300 350 350 400 450 550	418 540 598 651 786 839	180	295	330	185	300	335	170	210
225	D200 D225 D250 D280	833 883 883 913	400 450 550 550	651 786 839 951	203	330	370	205	335	375	210	210
250	D225 D250 D280 D315	958 958 988 988	450 550 550 660	786 839 951 1028	215	355	395	220	360	400	210	210
280	D225 D250 D280 D315	1028 1058 1088 1088	450 550 550 660	786 839 951 1028	237	390	430	240	395	435	210	250
315	D250 D280 D315	1148 1178 1178	550 550 660	839 951 1028	256	435	465	260	440	470	250	300

* Dimension W1 for VB3 CTM cooling tower units are made to suit customers' fan hub requirements

Dimensions LB show maximum recommended motor lengths. Where motor lengths greater than those indicated are considered, refer to Radicon

WEIGHT

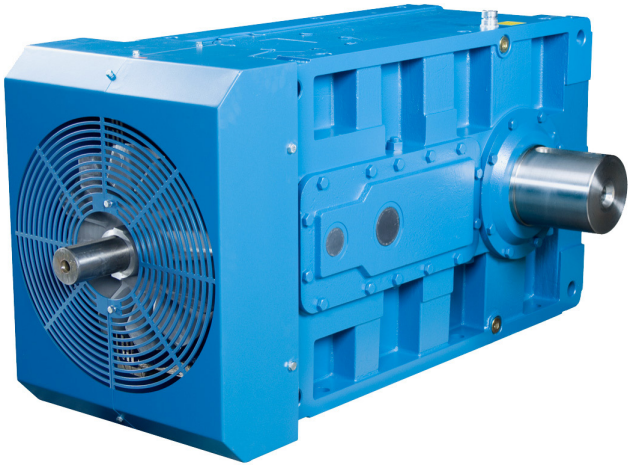
UNIT TYPE	UNIT SIZE										
	140	160	180	200	225	250	280	315	355	400	450
H1	150	190	240	300	395	495	680	915	1210	1650	2265
H2	235	265	300	360	470	590	810	1090	1445	1970	2690
H2SF	235	265	300	360	470	590	810	1090	1445	1970	2690
H2S	235	265	300	352	460	580	795	1070	1420	1930	2640
VH2	235	265	300	360	470	590	810	1090	1445	1970	2690
VH2SA	260	295	330	400	520	650	890	1200	1590	2170	2960
VH2CT	260	295	330	400	520	650	890	1200	1590	2170	2960
H3	290	310	330	380	490	630	850	1150	1525	2080	2840
H3SF	290	310	330	380	490	630	850	1150	1525	2080	2840
H3S	290	310	330	373	480	620	835	1130	1500	2040	2790
VH3	290	310	330	380	490	630	850	1150	1525	2080	2840
VH3SA	320	340	365	420	540	695	935	1265	1680	2290	3125
VH3CT	320	340	365	420	540	695	935	1265	1680	2290	3125
B2	270	285	305	340	455	560	750	1000	1520	2050	2680
B2SF	270	285	305	340	455	560	750	1000	1520	2050	2680
B2S	270	285	305	334	448	550	738	985	1500	2010	2630
VB2	270	285	305	340	455	560	750	1000	1520	2050	2680
VB2SA	300	315	335	375	500	615	825	1100	1670	2255	2950
VB2CT	300	315	335	375	500	615	825	1100	1670	2255	2950
B3	300	310	330	380	490	630	850	1150	1525	2080	2840
B3SF	300	310	330	380	490	630	850	1150	1525	2080	2840
B3S	300	310	330	373	480	620	835	1130	1500	2040	2790
VB3	300	310	330	380	490	630	850	1150	1525	2080	2840
VB3SA	330	340	365	420	540	695	935	1265	1680	2290	3125
VB3CT	330	340	365	420	540	695	935	1265	1680	2290	3125

ALL WEIGHTS IN KG

ALL WEIGHTS EXCLUDE LUBRICANT

UNIT TYPE	UNIT SIZE										
	140	160	180	200	225	250	280	315	355	400	450
H1	0.073	0.112	0.152	0.200	0.281	0.377	0.489	0.695	0.975	1.322	1.867
H2	0.088	0.092	0.161	0.208	0.308	0.401	0.534	0.728	1.073	1.443	2.059
H2SF	0.079	0.107	0.141	0.183	0.264	0.351	0.479	0.636	0.915	1.256	1.764
H2S	-	-	-	0.178	0.255	0.340	0.463	0.596	0.875	1.206	1.663
VH2	-	-	-	0.202	0.298	0.388	0.516	0.682	1.027	1.386	1.941
VH2SA	-	-	-	0.269	0.374	0.490	0.677	0.906	1.281	1.812	2.430
H3	0.092	0.127	0.175	0.202	0.296	0.385	0.515	0.704	1.012	1.404	1.947
H3SF	0.064	0.092	0.125	0.160	0.228	0.303	0.418	0.556	0.777	1.114	1.516
H3S	-	-	-	0.155	0.221	0.294	0.404	0.521	0.743	1.070	1.430
VH3	-	-	-	0.195	0.286	0.373	0.497	0.659	0.968	1.348	1.836
VH3SA	-	-	-	0.246	0.339	0.444	0.618	0.832	1.149	1.676	2.197
B2	0.086	0.119	0.163	0.221	0.300	0.382	0.518	0.702	1.019	1.383	1.945
B2SF	0.058	0.084	0.131	0.176	0.238	0.314	0.441	0.495	0.826	1.171	1.611
B2S	-	-	-	0.181	0.246	0.324	0.450	0.573	0.831	1.178	1.606
VB2	-	-	-	0.225	0.318	0.403	0.539	0.713	1.046	1.416	1.978
VB2SA	-	-	-	0.290	0.385	0.491	0.692	0.927	1.266	1.813	2.420
B3	0.090	0.123	0.170	0.218	0.316	0.408	0.542	0.734	1.058	1.216	1.634
B3SF	0.061	0.087	0.967	0.167	0.251	0.335	0.462	0.604	0.857	1.239	1.681
B3S	-	-	-	0.180	0.251	0.335	0.458	0.583	0.841	1.219	1.631
VB3	-	-	-	0.214	0.306	0.396	0.524	0.688	1.012	1.406	1.915
VB3SA	-	-	-	0.285	0.388	0.503	0.762	0.932	1.270	1.860	2.435

ALL VOLUMES IN m^3



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