R-134a

APCN-S Series

Air Cooled Packaged Chillers

Range 50 TR to 435 TR
(176 kW to 1529 kW)

اجهـــزة تكـييـف هـــواء
AIR CONDITIONING EQUIPMENT

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Sharjah Economic Excellence Award winner

SKM Air Cooled Packaged Chillers
APCN-S Series - R-134a

Contents

Legend

The following legends are used throughout this manual:

cfm..... Cubic feet per minute
EER ..... Energy Efficiency Ratio
Hz ..... Hertz
kW ..... Kilowatts
kg..... Kilogram
lbs..... Pounds
l/s..... Liters per second
MBH..... Btu/hr x 1000
Ph ..... Phase
PI ..... Power Input of Compressor
TR..... Tons of Refrigeration
V ..... Volts

Nomenclature

A P C N - 5 1 0 0 S Y

- A P C — Air Cooled Packaged Chillers
- N — N-version Screw Compressor, R-134a
- 5 — Power Supply Frequency: 5 : 50 Hz
- 6 — Power Supply Frequency: 6 : 60 Hz
- 1 0 0 — Unit Size
- S — S-Standard Efficiency
- Y — Power Supply Code

Y : 380V/3Ph/50Hz
Y1: 415V/3Ph/50Hz
P : 440V/3Ph/50Hz *
R : 380V/3Ph/60Hz *
E : 460V/3Ph/60Hz
T : 220V/3Ph/60Hz *

* Consult SKM for Availability

SKM reserves the right to change, in part or in whole the specifications of its Air Conditioning Equipment at any time in order to add the latest technology. Therefore, the enclosed information may change without any prior notice.

Introduction

The new SKM **APCN-S** Series environment friendly (R-134a) Air Cooled Screw Chillers are the latest innovation of SKM, designed and manufactured to provide utmost performance, efficiency, reliability, to meet the requirements and long life from Gulf's severe climatic condition.

APCN-S Series Chillers have low noise and minimum vibration ideal for vast range of applications including hotels, high-rise buildings, stores, hospitals, and modern cooling applications of modern manufacturing industries.

APCN-S units are factory assembled, leak tested, evacuated, internally wired and fully charged with refrigerant R-134a. Every unit is fully tested before delivery and is ready for installation.

APCN-S Series Chillers are designed and manufactured as per SKM Quality & Environmental manual ISO 9001:2015, ISO 14001:2015, and OHSAS 18001:2007 .

SKM Air Conditioning LLC

اجهزة تكييف هواء
AIR CONDITIONING EQUIPMENT

You name it.....We cool it

SKM Air Cooled Packaged Chillers APCN-S Series - R-134a

General Features

High COP

APCN-S Series chillers provide tremendous savings in operating costs by using high efficiency, semi hermetic screw compressor. High COP is made possible due to perfect screw profile and precise machining. The stepless capacity control provides precise capacity as required by the system load, and thus giving higher part load efficiencies. The compressor can be loaded from 25 to 100% of capacity depending upon the requirement through state of the art microprocessor control which precisely monitors the water temperature and accurately modulates the compressor accordingly.

Maintenance Free Operation

APCN-S Series chillers have compact design and are supplied as a complete package, ready to be wired and piped for operation. Screw compressors in SKM **APCN-S** Series provide virtually maintenance free operation as there are fewer moving parts. Special bearings facilitate longer run periods of compressor without any need for maintenance.

Wide Operating Range

APCN-S chillers are designed, as standard, to operate at a wide range of ambient temperatures from 25°F (-4°C) to 127.4°F (53°C).

Main Component Features

Compressors

APCN-S Series Chillers use high performance and high efficiency screw compressors which are double walled and robust in construction and have very few moving parts. The lubrication circuit is designed as is typical for the screw compressor in which oil is separated by a three stage oil separator and a long life fi lter (10 µm mesh size) is used. Oil sight glass, oil fill / drain service valve, insertion type oil heater with sleeve, discharge shut - off valve and suction gas filter are availabe as standard.

Additional features are as follows :

- Bearings are generously dimensioned to provide long life operation. Main elements are the roller bearings for the radial forces combined with robust axial bearings arranged in tandem configuration.
- Infinite capacity control and automatic start unloading are provided as standard.
- The compressor is protected by different devices and systems. Protection devices include check valve in the discharge gas outlet and differential pressure relief valve. The protection system includes motor internal thermal protection, phase sequence protection for direction of rotation, oil temperature protection and manual reset button.

Condensers

Condenser coils are manufactured from seamless Hi-x copper tubes mechanically bonded to aluminium fins to ensure optimum heat transfer. All coils are tested against leakage by air pressure of 450 psig (3102 kPa) under water. All standard coils are 3 rows ,16 FPI (1.59 mm fin spacing) ,3/8" (9.5mm) O.D. tubes.

Condenser fin materials should be matched with site conditions to inhibit coil corrosion and ensure extended equipment life.

For different application requirements, other optional condenser fin materials are available:

- Copper fins
- Copper fins electro-tinned after manufacturing
- Precoated Aluminum fins
  The pre-coated is hydrophobic polyurethane resin. This option provides substantial corrosion protection beyond standard coil construction.
- Aeris Guard Coil Coating
  The Aeris Guard Coil is a self etching high performance modified epoxy finish that is specifically designed to coat and protect Aluminum and Copper surfaces. In addition, the coating is ideal for the protection of ferrous and non ferrous materials.

Condenser Fans

The condenser fans are propeller type, aluminium alloy blades, directly driven by electric motors. Motors are Totally Enclosed Air Over (TEAO) six pole with class 'F' insulation and IP55 protection. The TEAO and class 'F' insulation features ensure long life and are unique to SKM.

The motors are factory wired to chiller unit control panel where the motor starters are located to control the operation of these motors. The fans are individually statically and dynamically balanced at the factory. Complete fan assembly is provided with suitable acrylic coated fan guard.

Evaporator

APCN-S evaporators are direct expansion, shell and tube, having 1, 2,3 or 4 refrigerant circuits. Evaporator shell is made of steel. Tubes of copper fixed to steel end plates. Baffles are provided in the water flow to increase heat transfer efficiency. Evaporators are provided with drain and vent plugs. Cooler shell is insulated with 1.0" (25mm) thick flexible closed cell insulation, K factor 0.28 Btu. in/ft².h.°F (0.04W/m.°K). Maximum working pressure of waterside is 145 psig (1000 kPa) and refrigerant side is 239.3 psig (1650 kPa).

Electronic Expansion Valve

APCN-S series chillers use electronic expansion valve for precise control refrigerant mass flow. Our electronic expansion valve improves EER (Energy Efficiency Ratio) at full & part-load conditions. Also it improves temperature control & increases the range of operating conditions.

Casing/Structure Frame

The unit casing in **APCN-S** series chillers is made of zinc coated galvanized steel sheets conforming to JIS-G 3302 and ASTM A 653 which is phosphatized and baked after an electrostatic powder coat of approximately 60 microns. This finish and coating can pass a 1000 hour in 5% salt spray testing at 95°F (35°C) and 95% RH as per ASTM B117.
APCN-S chillers are assembled on rigid structural steel skid channels painted with one coat galvanized primer and one coat black enamel. The package is assembled for easy handling during transportation and robust support during installation and operation.

Refrigerant Piping

The refrigeration circuit piping is fabricated from ACR grade copper piping. Each refrigeration circuit includes filter drier, electronic expansion valve, and shut off valve. The refrigeration circuit suction line is insulated with ½" (13mm) wall thickness closed cell pipe insulation.

Economizer

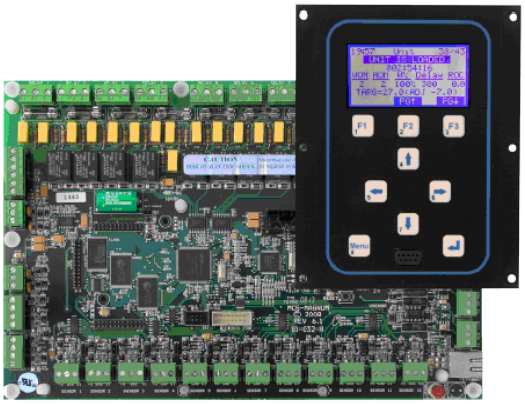
All refrigeration circuits are equipped with an economizer circuit. Economizer operation improves both cooling capacity and efficiency by increasing sub cooling of liquid refrigerant from the condenser. The components of an economiser cycle include thermostatic expansion valve, plate type heat exchanger, solenoid valve & ECO muffler kit.

Control Panel

The unit mounted chiller control panel enclosure is fabricated out of heavy gauge sheet steel in phosphatized powder coated baked finish. The enclosure conforms to IP54 as per guidelines in IEC 529. A hinged access door and key-fastener is provided for easy access and security. The panel is factory wired in accordance with NEC 430 & 440, labeled, tagged and features 220V / 240V controls.

- All compressors are with part winding start as standard.
- Individual compressor and condenser fan motor contactors.
- Thermal magnetic circuit breakers for compressors and condenser fan motors.
- Voltage monitoring module for protection against under voltage, over voltage, phase loss, phase reversal and phase unbalance of the incoming voltage.
- Circuit breaker for control circuit.
- Remote/Off/Local selector switch.
- Microprocessor master board with graphical display.
- Microprocessor expansion boards as required.
- Electronic expansion valve control boards with 24V transformer.
- Control Relays and control circuit fuses.
- Control circuit on/off switch and pump down switches.
- Indication light for common fault.
- Volt free contacts for run, common fault and auto mode indications.
- Provision for accepting volt free contact for remote start/ stop.
- Control terminal blocks and power terminal blocks/bus bars.

Microprocessor Controller



Microprocessor control system is available for **APCN-S** series chiller as a standard feature. Our high energy efficient chiller has a full function microprocessor control unit designed to keep the chiller running at its most energy efficient level. It is a rugged microprocessor based controller that is designed for the hostile environment of HVAC industry.
It provides flexibility with set points and control options that can be selected prior to commissioning a system or when the unit is live and functioning. Displays, alarms and other interfaces are accomplished in a clear and simple language that informs the user as to the status of the system. It is designed to safeguard the system that is being controlled, eliminate the need for manual intervention and to provide a simple but meaningful man-machine-interface.

SKM Air Cooled Packaged Chillers APCN-S Series - R-134a

This controller provides complete operational control for the chiller and has built-in auto diagnostic capability that can signal normal operation or alarm conditions as well as shutting down the chiller or system, if necessary.

The Main Features of the controller are as follows:

- A large graphical LCD Display (2.8″ diagonal) with back-lit that can be seen in bright or dim lighting.
- A nine button generic keypad that is so user friendly, it rarely requires a reference manual.
- Battery backed up built in real time clock to program the chiller for 2 starts and 2 stops daily to provide the information about the running hours of the compressors.
- Multiple authorization levels to provide tight security of the control system.
- Two operating schedules per each day of the week and 8 holidays.
- The system provides 'last time' enabled & disabled, number of cycles, and total run hours.
- Automatic Lead/Lag changeover of the compressors.
- Pump-down at the beginning and end of every circuit cycle.
- Capacity control based on leaving chilled water temperature. A special control zone based on leaving water temperature that reduces compressor cycling, and improved unit part load efficiency.
- Start/stop facility from remote through Volt Free Contact (VFC).
- Common Run, Fault and remote mode operation status volt free contacts provided for remote signaling

Display Information

SKM **APCN-S** chillers offer a graphics LCD display which allows the operator to access different parameters of the chiller. Operator can view and change the set point of chiller parameters. The graphical display has lot of features, trending is one of the key features of graphical display, which shows last 25 samples with an appropriate scale to allow it to fit on the display.

The well designed keypad with three function keys, four direction keys and two selection keys allows the operator to navigate through different Menu, such as:

- Status
- Outputs
- Inputs
- Alarms
- Graphs
- Setpoint
- Service tools
- Lockout Reset
- Lockout Alarm
- Password

System Control Philosophy

The unit may be enabled or disabled manually or through the use of an external signal from a building automation system.

Control is based upon leaving chilled water temperature. How fast the temperature changes is calculated and capacity decisions are based upon the rate, the current temperature, and the control temperature zone. Capacity is never added if the system is moving toward the temperature target at an acceptable rate. The unit will monitor all control functions and stage the compressor to maintain the required operating capacity.

Easy Accessible Measurements Include:

- Status of the chiller.
- Status of each circuit/compressor.
- Status of condenser fans.
- Leaving and Entering chilled water temperature.
- Suction pressure and temperature for each refrigerant circuit.
- Discharge pressure and temperature for each refrigerant circuit.
- Suction and discharge superheat for each refrigerant circuit.
- Ampere draw for each compressor.
- Expansion valve opening percentage.
- Ambient temperature.
- All active set points.
- Run time for each compressor.
- Number of compressor starts.
- Lockout and alarm status.
- Status of water flow switch, voltage monitor, compressor internal motor protector, oil level switch, run/stop input and pump down switches.
- Log of last 100 alarms.
- Lead compressor identification.
- Date and time.
- Graphs of all inputs and outputs.

System Protection

The following system protection controls will automatically act to insure system reliability and protection of the unit.

- Low suction pressure protection.
- High discharge pressure protection.
- High discharge temperature protection.
- Low discharge pressure protection.
- Low superheat protection.
- High compressor ampere protection.
- Compressor internal thermal protection.
- Freeze protection.
- Under voltage, over voltage, phase loss, phase reversal and phase unbalance protection.
- Chilled water flow loss protection.
- Sensor error protection.
- Pump down.
- Anti-recycle.
- Time delay between stages.
- 4-Levels of passwords to restrict the intentional mishandling.

Optional Features available for the Micro Controller

PC Support Software

PC software to communicate with **APCN-S** microprocessor is available as an optional feature. Software is named **MCS-Connect** and it can provide both local and remote communications to the chiller microprocessor. This program allows viewing the entire status of chiller, inputs, outputs, set points, alarms, graphs etc. Through proper authorization, changes can be made to the system. Configuration files can be transmitted to or received from the unit. Communication between PC and chiller microprocessor can be made through RS-232 serial port or Ethernet port.

If there is more than one chiller, these chillers can be connected together via Rs-485 network which can support up to 20 chillers. Access to this network can be local, via RS 232 or Ethernet connection, or remote via 14.4K Baud modem. Each chiller in the network must be assigned to a unique address. This address can be changed from the LCD/keypad of the unit or through **MCS-Connect** software. RS 232 transmission should not exceed 50 feet in length and RS 485 transmission should not exceed 1 mile without repeater. For Ethernet communication, it is necessary to use a crossover cable when connected directly to a PC.

This software can run with Windows 2000 or newer version.

BMS Communication

BMS communication with the chiller microprocessor is possible through hardwired signals or major BMS protocols.

Hard wired signals

Volt free contacts for Run, Common fault and Auto mode indications and provision for remote start/stop are provided as standard feature. In addition to these, below options can be provided if specified.

- Emergency Stop – A volt free contact from BMS to chiller, which is normally closed and opens on an emergency shut down condition. It will make the chiller to shut down immed -iately bypassing normal shut down procedure.
- Chilled water reset – A 0-5VDC signal from BMS to chiller, which allows resetting chilled water set point around an acceptable range.

BMS protocols

The chiller controller is capable to interface with four major building management systems, which are BACnet, Modbus, Lonworks and Johnson N2, by adding optional hardware. This interface allows to monitor the status of chiller and individual circuits, all inputs and outputs, chilled water set point etc. The required BMS protocol and number of chillers needs to be specified during the time of order as costing of the BMS interface involves these parameters.

Factory Installed Options

Alternative Condenser Material

Made of copper tubes and alternative fin material and/or protective coats.

- For Pre Coated aluminum fins, specify **(FAP)**.
- For Aluminum Fins with Aeris Coat Protection, specify **(FAA)**.
- For Copper Fins, specify **(FC)**.
- For Copper Fins with Aeris Coat Protection, specify **(FCA)**.
- For Copper Fins only electrotinned, specify **(CFT)**

Galvanized Frame (GFB)

Hot dip galvanized after manufacture, steel frame and base.

IP55 Control Panel Enclosure (ICP)

Control Panel for special applications to meet IP55 requirements.

Evaporator Casing (ECA/ECG/ECS)

Shell and insulation casing enclosed in a jacket/casing of aluminium, galvanized or stainless steel as required, injected with polyurethane foam. 1.5” (38mm) insulation thickness.

Condenser Coil Guard (CGP)

Galvanized wire mesh guard with painted finish for condenser coils. Recommended on ground level installations where coil needs to be protected against vandalism.

Main Isolator (ISO)

For main power isolation. (consult SKM)

Voltage Monitoring Module as per DEWA (DVM)

Under voltage relay as per DEWA regulations. This option is available for Dubai, UAE only.

Evaporator Freeze Up Protection (EFP)
Heating cable with thermostat to prevent evaporator freeze-up where low ambient temperatures below 32°F (0°C) are anticipated with/out chiller operation.

Star/Delta Starter For Compressors (SDS)
To reduce starting current of compressors by reduced voltage starting. Compressors will be started in star and after few seconds it will be changed over to delta.

Ammeter & Phase Selector Switch (AMPC)
To indicate running AMPS of each compressor.

Ammeter & Phase Selector switch (AMPI)
To indicate running AMPS on main incomer of a chiller.

Voltmeter & Selector Switch (VSS)
For incoming line voltage.

Pressure Gauges (SDG)
Suction & discharge pressure indication of each refrigerant circuit.

Low Noise Fan & Motor (LNF)
Low noise Fan & Motor assembly can be provided for applications where minimal unit sound is required.

Pressure Relief Valve (PRV)
To protect the chiller unit from being over-pressurized.

Marine Paint (MP)
To provide increased corrosion resistant in coastal environments and off-shore locations.

Compressor Sound Enclosure (CSE)
To reduce compressor sound, compressor sound enclosure with insulated panels is mounted around the compressor.

ASME Stamped Evaporator (STE)
Shell and Tube evaporator with ASME stamp.

Suction Shut off Valve (SSOV)
Screw compressors are with suction shut off valves to isolate the compressor from the evaporator, this may be beneficial when servicing the chiller.

UL 1995 (UL-LISTED)
Unit construction are certified and in compliance of UL 1995 safety standards. Consult SKM for availability of selected models .

Options for Field Installation

Chilled Water Flow Switch (CWFS)

Anti-vibration mounts, spring type (CAVM)

ENGINEERING SPECIFICATIONS - 50 Hz (Standard Efficiency)

Model	APCN	5050 S	5060 S	5070 S	5080 S	5090 S	5100 S	5115 S	5130 S
Cooling Capacity (1)	TR	50.6	57.8	70.8	80.4	89.3	100.6	111.9	130.7
	kW	177.9	203.4	249.1	282.7	314.1	354.0	393.6	459.6
Cooling Capacity (2)	TR	46.7	53.2	66.0	75.0	83.3	93.0	104.0	120.9
	kW	164.4	187.2	232.0	263.6	292.8	327.0	365.7	425.3
Compressor	-	Semi Hermetic, Screw							
Qty	#	1	1	1	1	1	2	2	2
Oil Charge (BSE170)	US Gal	4.0	4.0	5.8	5.0	5.0	4.0 / 4.0	4.0 / 4.0	5.8 / 4.0
Ckt (A / B / C / D)	Litre	15	15	22	19	19	15 / 15	15 / 15	22 / 15
Condenser Coil	-	Air Cooled 3 rows, 16 fpi (1.59mm) fin spacing, copper tubes Aluminum fins							
Face Area (Total)	ft²	75.0	83.3	100.0	153.3	153.3	173.3	208.0	240.0
	m²	6.97	7.75	9.30	14.25	14.25	16.11	19.33	22.31
Condenser Fan	-	Propeller Direct Drive 960 rpm							
Quantity	#	4	4	6	6	6	6	8	8
Air Flow Rate	cfm	42680	43768	61944	68268	68268	69540	91280	93184
	l/s	20141	20654	29231	32216	32216	32816	43075	43974
Condenser Fan Motor	-	Totally enclosed air over, Class F insulation, 6 pole, IP - 55 protected							
Size x Quantity	kW x #	1.5 x 4	1.5 x 4	1.5 x 6	1.5 x 6	1.5 x 6	1.5 x 6	1.5 x 8	1.5 x 8
Evaporator	-	Direct Expansion Shell and Tube							
Quantity	#	1	1	1	1	1	1	1	1
Refrigerant Circuits	#	1	1	1	1	1	2	2	2
Water Volume	US Gal	22.5	23.2	23.2	33.8	33.8	30.9	30.9	47.8
	Litre	85.0	88.0	88.0	128.0	128.0	117.0	117.0	181.0
Refrigerant Charge (R134a)	lbs	71.5	80.3	90.2	135.8	135.8	155.8	176.7	196.4
	kg	32.4	36.4	40.9	61.6	61.6	70.6	80.2	89.1

Model	APCN	5245 S	5255 S	5270 S	5285 S	5300 S	5310 S	5320 S	5325 S
Cooling Capacity (1)	TR	243.8	253.3	265.8	282.4	297.9	307.9	315.6	320.8
	kW	857.6	890.8	934.8	993.3	1047.7	1083.0	1109.9	1128.4
Cooling Capacity (2)	TR	225.5	234.2	246.6	261.2	275.3	284.8	292.4	296.9
	kW	793.3	823.6	867.2	918.6	968.3	1001.8	1028.3	1044.3
Compressor	-	Semi Hermetic, Screw							
Qty	#	3	3	3	3	4	4	4	4
Oil Charge (BSE170)	US Gal	5.0 / 5.0 / 5.0	5.0 / 5.0 / 5.0	5.0 / 5.0 / 5.0	5.0 / 5.0 / 5.0	5.0 / 5.8 / 5.8 / 5.8	5.0 / 5.0 / 5.8 / 5.8	5.0 / 5.0 / 5.0 / 5.8	5.0 / 5.0 / 5.0 / 5.0
Ckt (A / B / C / D)	Litre	19 / 19 / 19	19 / 19 / 19	19 / 19 / 19	19 / 19 / 19	19 / 22 / 22 / 22	19 / 19 / 22 / 22	19 / 19 / 19 / 22	19 / 19 / 19 / 19
Condenser Coil	-	Air Cooled 3 rows, 16 fpi (1.59mm) fin spacing, copper tubes Aluminum fins							
Face Area (Total)	ft²	409.3	409.3	460.0	460.0	496.0	496.0	512.0	512.0
	m²	38.05	38.05	42.76	42.76	46.10	46.10	47.59	47.59
Condenser Fan	-	Propeller Direct Drive 960 rpm							
Quantity	#	16	16	18	18	18	18	20	20
Air Flow Rate	cfm	182080	182080	204804	204804	207216	207216	227640	227640
	l/s	85924	85924	96647	96647	97785	97785	107423	107423
Condenser Fan Motor	-	Totally enclosed air over, Class F insulation, 6 pole, IP - 55 protected							
Size x Quantity	kW x #	1.5 x 16	1.5 x 16	1.5 x 18	1.5 x 18	1.5 x 18	1.5 x 18	1.5 x 20	1.5 x 20
Evaporator	-	Direct Expansion Shell and Tube							
Quantity	#	1	1	1	1	1	1	1	1
Refrigerant Circuits	#	3	3	3	3	4	4	4	4
Water Volume	US Gal	97.7	97.7	114.5	114.5	115.5	115.5	115.5	115.5
	Litre	369.7	369.7	433.5	433.5	437.2	437.2	437.2	437.2
Refrigerant Charge (R134a)	lbs	357.1	357.1	399.0	399.0	417.1	425.8	443.6	452.3
	kg	161.9	161.9	181.0	181.0	189.2	193.1	201.2	205.1

Table 1

Notes :

1). Capacity ratings are based on standard AHRI - 550 / 590 conditions of 95°F (35°C) ambient, 44°F (6.7°C) leaving chilled water temperature, 10°F (5.5°C) range and 0.0001 ft².h°F/Btu (0.018 m².°C/kW) fouling factor.

2). Capacity ratings are based on 115°F (46°C) ambient, 45°F (7.2°C) leaving chilled water temperature, 10°F (5.5°C) range and 0.0001 ft².h°F/Btu (0.018 m².°C/kW) fouling factor.

3). For availability of models at 440V/3/50Hz & 220/3/60Hz, please consult SKM.

SKM Air Cooled Packaged Chillers
APCN-S Series - R-134a

ENGINEERING SPECIFICATIONS - 50 Hz
(Standard Efficiency)

APCN	5145 S	5155 S	5160 S	5175 S	5185 S	5200 S	5220 S	5230 S	5235 S
TR	145.9	153.5	158.7	176.2	185.7	201.1	217.6	225.9	233.9
kW	513.2	539.9	558.2	619.6	653.2	707.3	765.5	794.5	822.8
TR	135.3	142.9	147.5	163.3	172.1	185.7	200.1	208.4	215.9
kW	476.1	502.8	518.7	574.5	605.5	653.1	703.7	732.9	759.5
-	Semi Hermetic, Screw								
#	2	2	2	2	2	3	3	3	3
US Gal	5.8 / 5.8	5.0 / 5.8	5.0 / 5.0	5.0 / 5.0	5.0 / 5.0	5.8 / 5.8 / 4.0	5.8 / 5.8 / 5.8	5.0 / 5.8 / 5.8	5.0 / 5.0 / 5.8
Litre	22 / 22	19 / 22	19 / 19	19 / 19	19 / 19	22 / 22 / 15	22 / 22 / 22	19 / 22 / 22	19 / 19 / 22
-	Air Cooled 3 rows, 16 fpi (1.59mm) fin spacing, copper tubes Aluminum fins								
ft²	240.0	256.0	256.0	306.7	306.7	344.0	360.0	393.3	376.0
m²	22.31	23.80	23.80	28.50	28.50	31.98	33.46	36.56	34.95
-	Propeller Direct Drive 960 rpm								
#	8	10	10	12	12	12	12	14	14
cfm	93184	113820	113820	136536	136536	138936	139776	161616	160552
l/s	43974	53712	53712	64431	64431	65564	65960	76267	75764
-	Totally enclosed air over, Class F insulation, 6 pole, IP - 55 protected								
kW x #	1.5 x 8	1.5 x 10	1.5 x 10	1.5 x 12	1.5 x 12	1.5 x 12	1.5 x 12	1.5 x 14	1.5 x 14
-	Direct Expansion Shell and Tube								
#	1	1	1	1	1	1	1	1	1
#	2	2	2	2	2	3	3	3	3
US Gal	85.6	85.6	85.6	84.8	84.8	75.8	75.8	100.6	100.6
Litre	324.0	324.0	324.0	321.0	321.0	286.9	286.9	380.8	380.8
lbs	209.0	226.8	235.5	272.4	272.4	283.8	293.4	327.2	326.0
kg	94.8	102.9	106.8	123.6	123.6	128.7	133.0	148.4	147.9

APCN	5335 S	5345 S	5350 S	5365 S	5375 S	5385 S	5400 S	5410 S	5425 S
TR	333.2	342.3	349.3	362.0	371.5	384.8	397.7	410.2	422.3
kW	1171.9	1203.9	1228.5	1273.1	1306.5	1353.3	1398.7	1442.6	1485.2
TR	309.2	317.5	322.9	335.5	344.3	354.6	364.4	373.8	382.8
kW	1087.4	1116.6	1135.6	1180.1	1210.9	1247.1	1281.7	1314.8	1346.5
-	Semi Hermetic, Screw								
#	4	4	4	4	4	4	4	4	4
US Gal	5.0 / 5.0 / 5.0 / 5.0	5.0 / 5.0 / 5.0 / 5.0	5.0 / 5.0 / 5.0 / 5.0	5.0 / 5.0 / 5.0 / 5.0	5.0 / 5.0 / 5.0 / 5.0	7.9 / 5.0 / 5.0 / 5.0	7.9 / 7.9 / 5.0 / 5.0	7.9 / 7.9 / 7.9 / 5.0	7.9 / 7.9 / 7.9 / 7.9
Litre	19 / 19 / 19 / 19	19 / 19 / 19 / 19	19 / 19 / 19 / 19	19 / 19 / 19 / 19	19 / 19 / 19 / 19	30 / 19 / 19 / 19	30 / 30 / 19 / 19	30 / 30 / 30 / 19	30 / 30 / 30 / 30
-	Air Cooled 3 rows, 16 fpi (1.59mm) fin spacing, copper tubes Aluminum fins								
ft²	562.7	562.7	562.7	613.3	613.3	613.3	613.3	613.3	613.3
m²	52.30	52.30	52.30	57.01	57.01	57.01	57.01	57.01	57.01
-	Propeller Direct Drive 960 rpm								
#	22	22	22	24	24	24	24	24	24
cfm	250360	250360	250360	273072	273072	273072	273072	273072	273072
l/s	118145	118145	118145	128863	128863	128863	128863	128863	128863
-	Totally enclosed air over, Class F insulation, 6 pole, IP - 55 protected								
kW x #	1.5 x 22	1.5 x 22	1.5 x 22	1.5 x 24	1.5 x 24	1.5 x 24	1.5 x 24	1.5 x 24	1.5 x 24
-	Direct Expansion Shell and Tube								
#	1	1	2	2	2	2	2	2	2
#	4	4	4	4	4	4	4	4	4
US Gal	115.5	115.5	169.6	169.6	169.6	169.6	169.6	169.6	169.6
Litre	437.2	437.2	642.0	642.0	642.0	642.0	642.0	642.0	642.0
lbs	481.2	481.2	516.0	544.9	544.9	544.9	544.9	544.9	544.9
kg	218.2	218.2	234.0	247.1	247.1	247.1	247.1	247.1	247.1

Table 1 Ends

Notes :

1). Capacity ratings are based on standard AHRI - 550 / 590 conditions of 95°F (35°C) ambient, 44°F (6.7°C) leaving chilled water temperature, 10°F (5.5°C) range and 0.0001 ft².h°F/Btu (0.018 m².°C/kW) fouling factor.

2). Capacity ratings are based on 115°F (46°C) ambient, 45°F (7.2°C) leaving chilled water temperature, 10°F (5.5°C) range and 0.0001 ft².h°F/Btu (0.018 m².°C/kW) fouling factor.

3). For availability of models at 440V/3/50Hz & 220/3/60Hz, please consult SKM.

ENGINEERING SPECIFICATIONS - 60 Hz (Standard Efficiency)

Model	APCN	6060 S	6070 S	6085 S	6095 S	6105 S	6130 S	6140 S
Cooling Capacity (1)	TR	60.9	66.7	85.3	93.1	105.3	126.4	138.1
	kW	214.2	234.7	300.0	327.4	370.2	444.5	485.9
Cooling Capacity (2)	TR	55.7	60.9	78.7	86.2	97.4	116.6	126.9
	kW	196.0	214.4	276.8	303.3	342.6	410.1	446.5
Compressor	-	Semi Hermetic, Screw						
Qty	#	1	1	1	1	1	2	2
Oil Charge (BSE170)	US Gal	4.0	4.0	5.8	5.0	5.0	4.0 / 4.0	4.0 / 4.0
Ckt (A / B / C / D)	Litre	15	15	22	19	19	15 / 15	15 / 15
Condenser Coil	-	Air Cooled 3 rows, 16 fpi (1.59mm) fin spacing, copper tubes Aluminum fins						
Face Area (Total)	ft²	75.0	83.3	100.0	153.3	153.3	240.0	240.0
	m²	6.97	7.75	9.30	14.25	14.25	22.31	22.31
Condenser Fan	-	Propeller Direct Drive 1150 rpm						
Quantity	#	4	4	6	6	6	8	8
Air Flow Rate	cfm	51552	52792	74988	82200	82200	112128	112128
	l/s	24327	24913	35387	38790	38790	52913	52913
Condenser Fan Motor	-	Totally enclosed air over, Class F insulation, 6 pole, IP - 55 protected						
Size x Quantity	kW x #	2.2 x 4	2.2 x 4	2.2 x 6	2.2 x 6	2.2 x 6	2.2 x 6	2.2 x 8
Evaporator	-	Direct Expansion Shell and Tube						
Quantity	#	1	1	1	1	1	1	1
Refrigerant Circuits	#	1	1	1	1	1	2	2
Water Volume	US Gal	23.2	23.2	33.8	33.8	30.9	47.8	47.8
	Litre	88.0	88.0	128.0	128.0	117.0	181.0	181.0
Refrigerant Charge (R134a)	lbs	75.0	80.3	95.8	135.8	138.9	194.8	196.0
	kg	34.0	36.4	43.5	61.6	63.0	88.4	88.9

Model	APCN	6265 S	6275 S	6285 S	6295 S	6305 S	6320 S	6335 S
Cooling Capacity (1)	TR	263.8	274.5	283.8	295.0	303.3	319.4	331.1
	kW	927.8	965.6	998.0	1037.6	1066.6	1123.4	1164.7
Cooling Capacity (2)	TR	241.5	251.1	260.1	270.3	277.0	293.1	303.7
	kW	849.4	883.2	914.8	950.7	974.2	1030.7	1068.0
Compressor	-	Semi Hermetic, Screw						
Qty	#	3	3	3	3	3	3	3
Oil Charge (BSE170)	US Gal	5.0 / 5.8 / 5.8	5.0 / 5.0 / 5.8	5.0 / 5.0 / 5.0	5.0 / 5.0 / 5.0	5.0 / 5.0 / 5.0	5.0 / 5.0 / 5.0	5.0 / 5.0 / 5.0
Ckt (A / B / C / D)	Litre	19 / 22 / 22	19 / 19 / 22	19 / 19 / 19	19 / 19 / 19	19 / 19 / 19	19 / 19 / 19	19 / 19 / 19
Condenser Coil	-	Air Cooled 3 rows, 16 fpi (1.59mm) fin spacing, copper tubes Aluminum fins						
Face Area (Total)	ft²	393.3	376.0	409.3	409.3	409.3	460.0	460.0
	m²	36.56	34.95	38.05	38.05	38.05	42.76	42.76
Condenser Fan	-	Propeller Direct Drive 1150 rpm						
Quantity	#	14	14	16	16	16	18	18
Air Flow Rate	cfm	194516	193256	219232	219232	219232	246600	246600
	l/s	91792	91198	103456	103456	103456	116371	116371
Condenser Fan Motor	-	Totally enclosed air over, Class F insulation, 6 pole, IP - 55 protected						
Size x Quantity	kW x #	2.2 x 14	2.2 x 14	2.2 x 16	2.2 x 16	2.2 x 16	2.2 x 18	2.2 x 18
Evaporator	-	Direct Expansion Shell and Tube						
Quantity	#	1	1	1	1	1	1	1
Refrigerant Circuits	#	3	3	3	3	3	3	3
Water Volume	US Gal	97.7	97.7	97.7	97.7	114.5	114.5	114.5
	Litre	369.7	369.7	369.7	369.7	433.5	433.5	433.5
Refrigerant Charge (R134a)	lbs	330.6	329.4	357.1	357.1	370.1	399.0	399.0
	kg	149.9	149.4	161.9	161.9	167.9	181.0	181.0

Table 2

Notes :

1). Capacity ratings are based on standard AHRI - 550 / 590 conditions of 95°F (35°C) ambient, 44°F (6.7°C) leaving chilled water temperature, 10°F (5.5°C) range and 0.0001 ft².h°F/Btu (0.018 m².°C/kW) fouling factor.

2). Capacity ratings are based on 115°F (46°C) ambient, 45°F (7.2°C) leaving chilled water temperature, 10°F (5.5°C) range and 0.0001 ft².h°F/Btu (0.018 m².°C/kW) fouling factor.

3). For availability of models at 440V/3/50Hz & 220/3/60Hz, please consult SKM.

ENGINEERING SPECIFICATIONS - 60 Hz
(Standard Efficiency)

APCN	6155 S	6170 S	6185 S	6190 S	6205 S	6220 S	6240 S	6255 S
TR	156.3	170.3	184.4	190.0	205.7	216.9	240.0	254.7
kW	549.9	598.9	648.5	668.4	723.4	763.0	844.0	895.9
TR	144.2	156.9	169.1	173.6	189.4	199.7	219.0	232.5
kW	507.1	551.9	594.7	610.7	666.0	702.4	770.1	817.9
-	Semi Hermetic, Screw							
#	2	2	2	2	2	2	3	3
US Gal	5.8 / 4.0	5.8 / 5.8	5.0 / 5.8	5.0 / 5.0	5.0 / 5.0	5.0 / 5.0	5.8 / 5.8 / 4.0	5.8 / 5.8 / 5.8
Litre	22 / 15	22 / 22	19 / 22	19 / 19	19 / 19	19 / 19	22 / 22 / 15	22 / 22 / 22
-	Air Cooled 3 rows, 16 fpi (1.59mm) fin spacing, copper tubes Aluminum fins							
ft²	240.0	240.0	256.0	256.0	306.7	306.7	344.0	360.0
m²	22.31	22.31	23.80	23.80	28.50	28.50	31.98	33.46
-		Propeller Direct						
#	8	8	10	10	12	12	12	12
cfm	112128	112128	137040	137040	164400	164400	167184	168192
l/s	52913	52913	64669	64669	77580	77580	78894	79370
-	Totally enclosed air over, Class F insulation, 6 pole, IP - 55 protected							
kW x #	2.2 x 8	2.2 x 8	2.2 x 10	2.2 x 10	2.2 x 12	2.2 x 12	2.2 x 12	2.2 x 12
-	Direct Expansion Shell and Tube							
#	1	1	1	1	1	1	1	1
#	2	2	2	2	2	2	3	3
US Gal	85.6	85.6	84.8	84.8	84.8	84.8	100.6	100.6
Litre	324.0	324.0	321.0	321.0	321.0	321.0	380.8	380.8
lbs	208.6	209.0	234.8	243.5	272.4	272.4	290.0	299.5
kg	94.6	94.8	106.5	110.4	123.6	123.6	131.5	135.8

APCN	6355 S	6365 S	6375 S	6380 S	6400 S	6410 S	6425 S	6435 S
TR	352.8	365.7	374.5	380.1	396.0	407.3	422.7	433.8
kW	1240.8	1286.4	1317.1	1336.8	1392.8	1432.6	1486.7	1525.9
TR	324.2	334.4	342.8	347.2	363.3	373.6	389.2	399.4
kW	1140.3	1176.1	1205.6	1221.3	1277.7	1314.1	1368.8	1404.9
-	Semi Hermetic, Screw							
#	4	4	4	4	4	4	4	4
US Gal	5.0 / 5.8 / 5.8 / 5.8	5.0 / 5.0 / 5.8 / 5.8	5.0 / 5.0 / 5.0 / 5.8	5.0 / 5.0 / 5.0 / 5.0	5.0 / 5.0 / 5.0 / 5.0	5.0 / 5.0 / 5.0 / 5.0	5.0 / 5.0 / 5.0 / 5.0	5.0 / 5.0 / 5.0 / 5.0
Litre	19 / 22 / 22 / 22	19 / 19 / 22 / 22	19 / 19 / 19 / 22	19 / 19 / 19 / 19	19 / 19 / 19 / 19	19 / 19 / 19 / 19	19 / 19 / 19 / 19	19 / 19 / 19 / 19
-	Air Cooled 3 rows, 16 fpi (1.59mm) fin spacing, copper tubes Aluminum fins							
ft²	496.0	496.0	512.0	512.0	562.7	562.7	613.3	613.3
m²	46.10	46.10	47.59	47.59	52.30	52.30	57.01	57.01
-	Propeller Direct Drive 1150 rpm							
#	18	18	20	20	22	22	24	24
cfm	249408	249408	274080	274080	301444	301444	328800	328800
l/s	117696	117696	129338	129338	142251	142251	155161	155161
-	Totally enclosed air over, Class F insulation, 6 pole, IP - 55 protected							
kW x #	2.2 x 18	2.2 x 18	2.2 x 20	2.2 x 20	2.2 x 22	2.2 x 22	2.2 x 24	2.2 x 24
-	Direct Expansion Shell and Tube							
#	2	2	2	2	2	2	2	2
#	4	4	4	4	4	4	4	4
US Gal	169.6	169.6	169.6	169.6	169.6	169.6	169.6	169.6
Litre	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0
lbs	451.9	460.6	478.4	487.1	516.0	516.0	544.9	544.9
kg	204.9	208.9	217.0	220.9	234.0	234.0	247.1	247.1

Table 2 Ends

Notes :

1). Capacity ratings are based on standard AHRI - 550 / 590 conditions of 95°F (35°C) ambient, 44°F (6.7°C) leaving chilled water temperature, 10°F (5.5°C) range and 0.0001 ft².h°F/Btu (0.018 m².°C/kW) fouling factor.

2). Capacity ratings are based on 115°F (46°C) ambient, 45°F (7.2°C) leaving chilled water temperature, 10°F (5.5°C) range and 0.0001 ft².h°F/Btu (0.018 m².°C/kW) fouling factor.

3). For availability of models at 440V/3/50Hz & 220/3/60Hz, please consult SKM.

CAPACITY RATINGS - 50 Hz
(Standard Efficiency)

Model	LCWT	Condenser Entering Air Temperature °F (°C)																			
		95.00 (35.0)				105.00 (40.6)				115.00 (46.1)				120.00 (48.9)				125.00 (51.7)			
		CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD
APCN S	°F	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg
EER	°C	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg
	42	48.8	54.2	117.1	5.4	46.7	61.1	112.1	4.9	44.3	68.8	106.4	4.5	43	72.9	103.2	4.2	41.6	77.2	99.9	3.9
	5.6	171.6	54.2	7.4	16.1	164.3	61.1	7.1	14.8	155.9	68.8	6.7	13.3	151.3	72.9	6.5	12.6	146.4	77.2	6.3	11.8
	44	50.6	55	121.4	5.8	48.4	62	116.2	5.3	45.9	69.8	110.2	4.8	44.6	73.9	107	4.5	43.1	78.2	103.5	4.2
5050 S	6.7	177.9	55	7.7	17.3	170.3	62	7.3	15.9	161.6	69.8	7	14.3	156.8	73.9	6.7	13.5	151.7	78.2	6.5	12.6
10.0	45	51.5	55.4	123.5	6	49.3	62.5	118.2	5.5	46.7	70.2	112.2	4.9	45.3	74.4	108.8	4.7	43.9	78.7	105.3	4.4
	7.2	181	55.4	7.8	17.8	173.2	62.5	7.5	16.4	164.4	70.2	7.1	14.8	159.5	74.4	6.9	13.9	154.3	78.7	6.6	13.1
	48	54.1	56.6	129.9	6.6	51.8	63.8	124.3	6	49.2	71.7	118	5.5	47.7	75.9	114.5	5.2	46.2	80.2	110.8	4.8
	8.9	190.3	56.6	8.2	19.7	182.2	63.8	7.8	18.1	172.9	71.7	7.4	16.3	167.8	75.9	7.2	15.4	162.4	80.2	7	14.4
	42	55.9	61.9	134.1	5.5	53.4	69.8	128.1	5	50.6	78.8	121.3	4.5	49	83.7	117.6	4.2	47.4	88.8	113.7	4
	5.6	196.5	61.9	8.5	16.4	187.8	69.8	8.1	15	177.8	78.8	7.7	13.5	172.4	83.7	7.4	12.7	166.6	88.8	7.2	11.9
	44	57.8	62.8	138.8	5.9	55.2	70.8	132.6	5.4	52.3	79.9	125.6	4.8	50.7	84.8	121.8	4.5	49	90	117.7	4.2
5060 S	6.7	203.4	62.8	8.8	17.5	194.3	70.8	8.4	16	184	79.9	7.9	14.4	178.4	84.8	7.7	13.6	172.5	90	7.4	12.7
10.1	45	58.8	63.2	141.2	6.1	56.2	71.4	134.9	5.5	53.2	80.5	127.8	5	51.6	85.4	123.9	4.7	49.9	90.6	119.8	4.4
	7.2	206.9	63.2	8.9	18.1	197.7	71.4	8.5	16.6	187.2	80.5	8.1	14.9	181.5	85.4	7.8	14	175.5	90.6	7.6	13.1
	48	61.9	64.7	148.5	6.7	59.1	72.9	141.9	6.1	56	82.2	134.4	5.5	54.3	87.2	130.3	5.2	52.5	92.4	126	4.9
	8.9	217.6	64.7	9.4	20.1	208	72.9	9	18.3	197	82.2	8.5	16.5	191	87.2	8.2	15.5	184.7	92.4	8	14.5
	42	68.5	74.4	164.4	8.2	65.8	84.6	157.9	7.6	62.7	96.1	150.4	6.9	61	102.4	146.3	6.5	59.1	108.9	141.9	6.1
	5.6	240.9	74.4	10.4	24.5	231.4	84.6	10	22.7	220.4	96.1	9.5	20.6	214.4	102.4	9.2	19.5	208	108.9	9	18.3
	44	70.8	75.4	170	8.8	68	85.7	163.3	8.1	64.8	97.4	155.6	7.4	63.1	103.7	151.4	7	61.2	110.4	146.9	6.6
5070 S	6.7	249.1	75.4	10.7	26.2	239.3	85.7	10.3	24.2	228.1	97.4	9.8	22	221.9	103.7	9.6	20.8	215.3	110.4	9.3	19.6
10.1	45	72	75.9	172.8	9.1	69.2	86.3	166.1	8.4	66	98	158.3	7.6	64.2	104.4	154	7.2	62.3	111.1	149.5	6.8
	7.2	253.3	75.9	10.9	27.1	243.4	86.3	10.5	25	232	98	10	22.8	225.7	104.4	9.7	21.6	219.1	111.1	9.4	20.3
	48	75.7	77.4	181.7	10	72.8	88	174.6	9.3	69.4	100	166.5	8.4	67.5	106.5	162.1	8	65.6	113.3	157.4	7.5
	8.9	266.3	77.4	11.5	30	255.9	88	11	27.7	244.1	100	10.5	25.2	237.5	106.5	10.2	23.9	230.6	113.3	9.9	22.5
	42	77.5	81.2	185.9	6.4	74.3	92.2	178.4	5.9	70.9	104.6	170	5.3	69	111.4	165.5	4.9	67	118.6	160.8	4.6
	5.6	272.4	81.2	11.7	19.2	261.5	92.2	11.3	17.5	249.2	104.6	10.7	15.7	242.6	111.4	10.4	14.7	235.6	118.6	10.1	13.7
	44	80.4	82.3	192.9	7	77.2	93.4	185.2	6.4	73.6	106.1	176.6	5.7	71.7	113	172	5.4	69.6	120.3	167.1	5
5080 S	6.7	282.7	82.3	12.2	20.8	271.4	93.4	11.7	19.1	258.8	106.1	11.1	17.1	252	113	10.8	16.1	244.9	120.3	10.5	15.1
10.6	45	81.8	82.9	196.4	7.2	78.6	94.1	188.6	6.6	75	106.8	179.9	6	73	113.8	175.2	5.6	70.9	121.1	170.3	5.3
	7.2	287.8	82.9	12.4	21.6	276.4	94.1	11.9	19.8	263.6	106.8	11.3	17.9	256.8	113.8	11.1	16.8	249.5	121.1	10.7	15.8
	48	86.1	84.5	206.7	8.1	82.7	95.9	198.5	7.4	78.9	108.9	189.4	6.7	76.9	116	184.5	6.3	74.7	123.4	179.3	5.9
	8.9	302.9	84.5	13	24.1	290.9	95.9	12.5	22.1	277.5	108.9	11.9	20	270.3	116	11.6	18.9	262.8	123.4	11.3	17.8
	42	86.1	93.3	206.6	8.1	82.6	105.6	198.2	7.4	78.7	119.6	188.9	6.7	76.6	127.2	183.9	6.3	74.4	135.2	178.6	5.9
	5.6	302.8	93.3	13	24.1	290.5	105.6	12.5	22.1	276.8	119.6	11.9	19.9	269.4	127.2	11.6	18.8	261.8	135.2	11.3	17.6
	44	89.3	94.6	214.4	8.7	85.7	107.2	205.7	8	81.7	121.3	196.1	7.2	79.6	129	191	6.8	77.4	137.1	185.7	6.4
5090 S	6.7	314.1	94.6	13.5	26	301.5	107.2	13	23.9	287.5	121.3	12.4	21.6	279.9	129	12.1	20.4	272.1	137.1	11.7	19.2
10.3	45	90.9	95.3	218.3	9	87.3	107.9	209.5	8.3	83.3	122.2	199.8	7.5	81.1	129.9	194.6	7.1	78.8	138.1	189.2	6.7
	7.2	319.9	95.3	13.8	26.9	307	107.9	13.2	24.8	292.8	122.2	12.6	22.5	285.2	129.9	12.3	21.2	277.3	138.1	11.9	20
	48	95.8	97.3	229.9	10	92	110.2	220.7	9.2	87.7	124.7	210.6	8.4	85.5	132.6	205.2	7.9	83.1	140.9	199.5	7.5
	8.9	336.9	97.3	14.5	29.9	323.5	110.2	13.9	27.5	308.6	124.7	13.3	25	300.7	132.6	12.9	23.7	292.4	140.9	12.6	22.4
	42	97.3	110.3	233.4	6.5	93.1	124.5	223.4	6	88.3	140	211.9	5.4	85.6	148.4	205.5	5.1	82.8	157	198.8	4.8
	5.6	342.1	110.3	14.7	19.5	327.4	124.5	14.1	17.9	310.5	140	13.4	16.2	301.2	148.4	13	15.3	291.3	157	12.5	14.3
	44	100.6	112	241.6	7	96.3	126.3	231.2	6.4	91.4	142	219.3	5.8	88.7	150.4	212.8	5.5	85.8	159.1	205.9	5.1
5100 S	6.7	354	112	15.2	20.9	338.8	126.3	14.6	19.2	321.4	142	13.8	17.3	311.8	150.4	13.4	16.3	301.7	159.1	13	15.3
10.0	45	102.4	112.8	245.7	7.2	98	127.2	235.2	6.6	93	143	223.1	6	90.2	151.4	216.5	5.6	87.3	160.2	209.5	5.3
	7.2	360.1	112.8	15.5	21.6	344.7	127.2	14.8	19.8	327	143	14.1	17.9	317.3	151.4	13.7	16.9	307	160.2	13.2	15.8
	48	107.7	115.4	258.5	8	103.1	130	247.4	7.3	97.8	146	234.7	6.6	94.9	154.6	227.8	6.2	91.9	163.5	220.5	5.8
	8.9	378.8	115.4	16.3	23.9	362.6	130	15.6	21.9	344	146	14.8	19.8	333.8	154.6	14.4	18.6	323.1	163.5	13.9	17.5
	42	108.1	117.4	259.5	8	103.7	132.7	249	7.4	98.7	150	236.8	6.7	95.9	159.4	230.2	6.4	92.9	169.4	223.1	6
	5.6	380.2	117.4	16.4	24	364.9	132.7	15.7	22.2	347.1	150	14.9	20.1	337.3	159.4	14.5	19	326.9	169.4	14.1	17.9
	44	111.9	118.9	268.6	8.6	107.4	134.4	257.7	7.9	102.2	151.9	245.3	7.2	99.3	161.4	238.4	6.8	96.3	171.4	231.1	6.4
5115 S	6.7	393.6	118.9	16.9	25.7	377.7	134.4	16.3	23.7	359.4	151.9	15.5	21.5	349.4	161.4	15	20.4	338.7	171.4	14.6	19.2
10.3	45	113.9	119.7	273.3	8.9	109.3	135.3	262.3	8.2	104	152.9	249.6	7.5	101.1	162.4	242.6	7	98	172.5	235.2	6.6
	7.2	400.5	119.7	17.2	26.6	384.3	135.3	16.5	24.6	365.7	152.9	15.7	22.3	355.5	162.4	15.3	21.1	344.7	172.5	14.8	19.8
	48	119.9	122.2	287.8	9.9	115.1	138	276.1	9.1	109.5	155.9	262.8	8.2	106.5	165.5	255.5	7.8	103.2	175.7	247.7	7.3
	8.9	421.7	122.2	18.2	29.5	404.7	138	17.4	27.2	385.2	155.9	16.6	24.7	374.4	165.5	16.1	23.3	363	175.7	15.6	22
	42	126.4	135.1	303.4	13.4	121.1	153.1	290.8	12.3	115.1	173.3	276.2	11.2	111.8	184.3	268.3	10.6	108.3	195.9	259.8	10
	5.6	444.7	135.1	19.1	40.2	426.1	153.1	18.3	36.9	404.8	173.3	17.4	33.4	393.2	184.3	16.9	31.6	380.8	195.9	16.4	29.9
	44	130.7	136.8	313.6	14.4	125.2	155	300.5	13.2	119	175.5	285.5	11.9	115.5	186.6	277.3	11.3	111.9	198.3	268.6	10.6
5130 S	6.7	459.6	136.8	19.8	43	440.4	155	19	39.4	418.4	175.5	18	35.6	406.4	186.6	17.5	33.6	393.7	198.3	16.9	31.7
10.5	45	132.8	137.7	318.7	14.9	127.2	156	305.4	13.6	120.9	176.6	290.2	12.3	117.4	187.7	281.8	11.6	113.8	199.5	273	10.9
	7.2	467.1	137.7	20.1	44.5	447.6	156	19.3	40.7	425.3	176.6	18.3	36.7	413	187.7	17.8	34.7	400.1	199.5	17.2	32.7
	48	139.3	140.3	334.2	16.4	133.4	159	320.2	15	126.8	179.9	304.3	13.5	123.1	191.2	295.6	12.7	119.3	203.1	286.3	12
	8.9	489.8	140.3	21.1	49.1	469.3	159	20.2	44.9	445.9	179.9	19.2	40.4	433.1	191.2	18.6	38.1	419.6	203.1	18.1	35.8

Table 3

* Power input mentioned in this page should not be used for cable or fuse selection. MCA and MFA values given in the electrical data pages (24-26) should be referred for the same.

Capacity ratings are based on 10°F (5.5°C) range and 0.0001 ft².h°F/Btu (0.018 m².°C/kW) fouling factor.

For Legend, please refer to page 15.

CAPACITY RATINGS - 50 Hz (Standard Efficiency)

Model	LCWT	Condenser Entering Air Temperature °F (°C)																			
		95.00 (35.0)				105.00 (40.6)				115.00 (46.1)				120.00 (48.9)				125.00 (51.7)			
		CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD
APCN S	°F	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg
EER	°C	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg
	42	141.2	155.2	338.8	10.5	135.1	176.3	324.1	9.6	128.1	199.9	307.4	8.5	124.3	212.7	298.3	8	120.3	226.1	288.7	7.4
	5.6	496.5	155.2	21.4	31.4	475	176.3	20.4	28.6	450.5	199.9	19.4	25.5	437.2	212.7	18.8	23.8	423.1	226.1	18.2	22
	44	145.9	157.3	350.2	11.3	139.7	178.8	335.3	10.3	132.6	202.8	318.3	9.2	128.7	215.8	309	8.6	124.7	229.4	299.2	8
5145 S	6.7	513.2	157.3	22.1	33.6	491.3	178.8	21.2	30.8	466.4	202.8	20.1	27.5	452.8	215.8	19.5	25.8	438.5	229.4	18.9	23.9
10.3	45	148.8	158.6	357	11.7	142.5	180.3	342	10.7	135.3	204.5	324.8	9.6	131.5	217.6	315.5	9	127.3	231.4	305.6	8.4
	7.2	523.2	158.6	22.5	35	501.2	180.3	21.6	32	476.1	204.5	20.5	28.8	462.3	217.6	19.9	27	447.9	231.4	19.3	25.2
	48	158.2	162.9	379.7	13.2	151.6	185.2	363.9	12.1	144.2	210.1	346	11	140.1	223.5	336.2	10.4	135.8	237.6	325.9	9.7
	8.9	556.4	162.9	24	39.4	533.3	185.2	23	36.3	507.1	210.1	21.8	32.8	492.7	223.5	21.2	30.9	477.6	237.6	20.6	29
	42	148.4	159.7	356.2	11.6	142.2	181.4	341.3	10.7	135.2	205.8	324.4	9.6	131.3	219.1	315.2	9	127.3	233.1	305.5	8.4
	5.6	522	159.7	22.5	34.8	500.1	181.4	21.5	31.9	475.4	205.8	20.5	28.7	461.9	219.1	19.9	27	447.8	233.1	19.3	25.1
	44	153.5	161.9	368.4	12.4	147.2	183.9	353.2	11.4	140	208.7	336	10.3	136.1	222.2	326.7	9.7	132.1	236.3	316.9	9.1
5155 S	6.7	539.9	161.9	23.2	37.2	517.6	183.9	22.3	34.2	492.5	208.7	21.2	30.9	478.8	222.2	20.6	29.1	464.5	236.3	20	27.3
10.4	45	156.5	163.2	375.7	12.9	150.1	185.4	360.3	11.9	142.9	210.4	343.1	10.8	139	224	333.7	10.2	134.9	238.3	323.9	9.6
	7.2	550.5	163.2	23.7	38.6	528.1	185.4	22.7	35.6	502.8	210.4	21.6	32.3	489.1	224	21.1	30.5	474.6	238.3	20.4	28.6
	48	166.7	167.5	400	14.6	160	190.3	384	13.5	152.5	216.1	366.1	12.3	148.5	230	356.3	11.7	144.2	244.7	346.1	11
	8.9	586.2	167.5	25.2	43.5	562.8	190.3	24.2	40.3	536.5	216.1	23.1	36.7	522.2	230	22.5	34.8	507.2	244.7	21.8	32.8
	42	153.4	171.8	368.2	12.4	146.8	195	352.2	11.4	139.4	221.2	334.4	10.2	135.4	235.5	324.9	9.6	131.2	250.4	314.8	9
	5.6	539.6	171.8	23.2	37.1	516.2	195	22.2	34	490.1	221.2	21.1	30.6	476.1	235.5	20.5	28.8	461.4	250.4	19.9	26.9
	44	158.7	174.3	380.9	13.3	151.9	197.9	364.7	12.2	144.4	224.5	346.6	11	140.4	239	336.9	10.4	136.1	254.2	326.7	9.8
5160 S	6.7	558.2	174.3	24	39.7	534.4	197.9	23	36.5	508	224.5	21.9	32.9	493.8	239	21.3	31.1	478.8	254.2	20.6	29.1
10.1	45	161.8	175.8	388.4	13.8	155	199.6	372.1	12.7	147.5	226.5	353.9	11.5	143.4	241.1	344.2	10.9	139.1	256.5	334	10.2
	7.2	569.2	175.8	24.5	41.2	545.3	199.6	23.5	37.9	518.7	226.5	22.3	34.4	504.4	241.1	21.7	32.5	489.4	256.5	21.1	30.5
	48	172.4	180.8	413.8	15.5	165.3	205.4	396.8	14.4	157.5	233.1	378	13.1	153.3	248.1	367.9	12.4	148.9	264	357.3	11.7
	8.9	606.4	180.8	26.1	46.4	581.6	205.4	25	42.9	554	233.1	23.9	39.1	539.2	248.1	23.2	37.1	523.7	264	22.5	35
	42	170.8	177.2	410	12.3	163.7	200.8	392.9	11.3	155.8	227.5	374	10.2	151.6	242	363.8	9.6	147.2	257.3	353.2	9
	5.6	600.8	177.2	25.9	36.7	575.8	200.8	24.8	33.6	548.1	227.5	23.6	30.3	533.2	242	23	28.6	517.6	257.3	22.3	26.8
	44	176.2	179.4	422.8	13.1	168.9	203.2	405.3	12	160.8	230.2	385.9	10.8	156.5	244.9	375.5	10.2	151.9	260.3	364.6	9.6
5175 S	6.7	619.6	179.4	26.7	39.1	593.9	203.2	25.6	35.9	565.5	230.2	24.3	32.4	550.3	244.9	23.7	30.6	534.3	260.3	23	28.7
10.7	45	178.9	180.5	429.4	13.5	171.5	204.5	411.6	12.4	163.3	231.6	392	11.2	158.9	246.3	381.5	10.6	154.4	261.9	370.5	10
	7.2	629.2	180.5	27.1	40.3	603.2	204.5	26	37	574.5	231.6	24.7	33.5	559	246.3	24.1	31.6	542.9	261.9	23.4	29.7
	48	186.9	183.6	448.5	14.7	179.2	208.1	430	13.5	170.7	235.6	409.6	12.3	166.1	250.6	398.6	11.6	161.3	266.3	387.2	10.9
	8.9	657.3	183.6	28.3	44	630.2	208.1	27.1	40.4	600.2	235.6	25.8	36.6	584.2	250.6	25.1	34.7	567.4	266.3	24.4	32.6
	42	180.1	189.9	432.1	13.7	172.5	214.9	414.1	12.5	164.2	243.1	394.1	11.3	159.7	258.4	383.4	10.7	155.1	274.5	372.2	10
	5.6	633.3	189.9	27.3	40.8	606.8	214.9	26.1	37.5	577.5	243.1	24.9	33.8	561.8	258.4	24.2	32	545.5	274.5	23.5	30
	44	185.7	192.3	445.8	14.5	178	217.6	427.2	13.3	169.5	246.1	406.7	12.1	164.9	261.5	395.7	11.4	160.1	277.8	384.3	10.7
5185 S	6.7	653.2	192.3	28.1	43.4	626	217.6	26.9	39.9	596	246.1	25.7	36.1	579.9	261.5	25	34.1	563.2	277.8	24.2	32.1
10.6	45	188.6	193.5	452.7	15	180.8	218.9	433.9	13.8	172.1	247.6	413.1	12.5	167.5	263.1	402.1	11.8	162.7	279.5	390.5	11.1
	7.2	663.4	193.5	28.6	44.8	635.8	218.9	27.4	41.2	605.5	247.6	26.1	37.3	589.2	263.1	25.4	35.3	572.3	279.5	24.6	33.2
	48	197.1	197	473.1	16.3	188.9	222.9	453.4	15	179.9	252	431.9	13.6	175.1	267.8	420.4	12.9	170.1	284.4	408.3	12.2
	8.9	693.3	197	29.8	48.9	664.5	222.9	28.6	44.9	632.9	252	27.2	40.8	616	267.8	26.5	38.6	598.4	284.4	25.8	36.4
	42	195	213.1	468.1	11.8	186.7	241.7	448.1	10.9	177.2	273.8	425.3	9.8	172	291.2	412.9	9.3	166.5	309.5	399.7	8.8
	5.6	686	213.1	29.5	35.3	656.7	241.7	28.3	32.5	623.3	273.8	26.8	29.4	605.1	291.2	26	27.8	585.7	309.5	25.2	26.2
	44	201.1	215.7	482.6	12.5	192.6	244.7	462.1	11.5	182.8	277.2	438.8	10.4	177.5	294.8	426.1	9.9	171.9	313.3	412.6	9.3
5200 S	6.7	707.3	215.7	30.4	37.5	677.3	244.7	29.2	34.5	643.1	277.2	27.7	31.2	624.4	294.8	26.9	29.5	604.7	313.3	26	27.8
10.3	45	204.1	217	489.9	12.9	195.5	246.2	469.2	11.9	185.7	278.9	445.7	10.8	180.3	296.6	432.8	10.2	174.7	315.2	419.2	9.6
	7.2	718	217	30.9	38.6	687.7	246.2	29.6	35.5	653.1	278.9	28.1	32.2	634.3	296.6	27.3	30.4	614.4	315.2	26.4	28.6
	48	213.9	221.3	513.3	14.1	204.9	251	491.9	13	194.8	284.3	467.5	11.8	189.2	302.3	454.2	11.2	183.4	321.3	440.1	10.5
	8.9	752.2	221.3	32.4	42.2	720.8	251	31	38.9	685.1	284.3	29.5	35.2	665.6	302.3	28.7	33.3	645	321.3	27.8	31.4
	42	212.7	233.2	510.4	10.7	203.3	264.9	488	9.9	192.7	300.3	462.6	8.9	187	319.4	448.7	8.4	180.9	339.5	434.1	7.9
	5.6	748	233.2	32.2	32.1	715.2	264.9	30.8	29.5	677.9	300.3	29.2	26.7	657.6	319.4	28.3	25.2	636.1	339.5	27.4	23.7
	44	217.6	235.5	522.3	11.2	208.2	267.5	499.7	10.3	197.5	303.3	474	9.3	191.6	322.7	460	8.8	185.5	343	445.2	8.3
5220 S	6.7	765.5	235.5	33	33.6	732.3	267.5	31.5	30.9	694.6	303.3	29.9	27.9	674.1	322.7	29	26.4	652.4	343	28.1	24.9
10.3	45	220.3	236.7	528.7	11.5	210.8	268.9	506	10.6	200.1	304.9	480.2	9.6	194.2	324.4	466.1	9.1	188	344.8	451.2	8.5
	7.2	774.9	236.7	33.4	34.4	741.5	268.9	31.9	31.6	703.7	304.9	30.3	28.6	683	324.4	29.4	27.1	661.2	344.8	28.5	25.5
	48	228.6	240.4	548.6	12.3	218.9	273.2	525.4	11.4	207.9	309.9	499	10.3	201.9	329.7	484.6	9.7	195.5	350.4	469.3	9.2
	8.9	804	240.4	34.6	36.9	770	273.2	33.1	33.9	731.3	309.9	31.5	30.8	710.3	329.7	30.6	29.1	687.8	350.4	29.6	27.4
	42	220.7	235.9	529.7	11.5	211.3	267.9	507.1	10.6	200.7	303.9	481.6	9.6	194.9	323.4	467.8	9.1	188.8	343.9	453.2	8.6
	5.6	776.3	235.9	33.4	34.5	743.2	267.9	32	31.7	705.8	303.9	30.4	28.8	685.5	323.4	29.5	27.3	664.1	343.9	28.6	25.7
	44	225.9	238.1	542.1	12.1	216.4	270.4	519.4	11.1	205.7	306.8	493.6	10.1	199.9	326.5	479.7	9.6	193.7	347.3	464.9	9
5230 S	6.7	794.5	238.1	34.2	36	761.1	270.4	32.8	33.2	723.4	306.8	31.1	30.2	702.9	326.5	30.3	28.6	681.3	347.3	29.3	26.9
10.5	45	228.7	239.3	548.8	12.3	219.1	271.7	526	11.4	208.4	308.4	500.1	10.3	202.5	328.2	486.1	9.8	196.4	349.1	471.3	9.2
	7.2	804.3	239.3	34.6	36.9	770.8	271.7	33.2	34	732.9	308.4	31.6	30.9	712.4	328.2	30.7	29.3	690.7	349.1	29.7	27.6
	48	237.3	242.9	569.6	13.3	227.7	276	546.4	12.2	216.7	313.2	520.1	11.1	210.8	333.4	505.8	10.6	204.5	354.7	490.8	10
	8.9	834.8	242.9	35.9	39.6	800.7	276	34.5	36.6	762.2	313.2	32.8	33.3	741.3	333.4	31.9	31.6	719.2	354.7	31	29.8
	42	227.2	250.7	545.3	7.2	217.2	284.6	521.3	6.6	206	322.6	494.5	6	200	343.3	480	5.6	193.7	365	464.9	5.3
	5.6	799.1	250.7	34.4	21.4	764	284.6	32.9	19.7	724.7	322.6	31.2	17.8	703.5	343.3	30.3	16.9	681.2	365	29.3	15.9
	44	233.9	253.9	561.4	7.6	223.8	288.1	537.1	7	212.4	326.8	509.9	6.3	206.3	347.7	495.2	6	199.9	369.7	479.8	5.6
5235 S	6.7	822.8	253.9	35.4	22.6	787.1	288.1	33.9	20.8	747.2	326.8	32.2	18.9	725.7	347.7	31.2	17.9	703.1	369.7	30.3	16.9
10.2	45	237.6	255.6	570.2	7.8	227.4	290.1	545.6	7.2	215.9	329	518.2	6.5	209.8	350.1	503.4	6.2	203.3	372.3	487.9	5.8
	7.2	835.6	255.6	36	23.3	799.6	290.1	34.4	21.4	759.5	329	32.7	19.5	737.8	350.1	31.8	18.4	715.1	372.3	30.8	17.4
	48	249.4	261.1	598.5	8.5	238.8	296.4	573.2	7.9	227.1	336.2	545	7.2	220.7	357.8	529.8	6.8	214.1	380.4	513.8	6.4
	8.9	877.1	261.1	37.8	25.5	840.1	296.4	36.2	23.5	798.7	336.2	34.4	21.4	776.4	357.8	33.4	20.3	753	380.4	32.4	19.2

Table 3 Contd.

* Power input mentioned in this page should not be used for cable or fuse selection. MCA and MFA values given in the electrical data pages (24-26) should be referred for the same.

Capacity ratings are based on 10°F (5.5°C) range and 0.0001 ft².h°F/Btu (0.018 m².°C/kW) fouling factor.

For Legend, please refer to page 15.

CAPACITY RATINGS - 50 Hz (Standard Efficiency)

Model	LCWT	Condenser Entering Air Temperature °F (°C)																			
		95.00 (35.0)				105.00 (40.6)				115.00 (46.1)				120.00 (48.9)				125.00 (51.7)			
		CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD
APCN S	°F	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg
EER	°C	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg
	42	236.5	254.8	567.7	7.6	226.3	289	543.2	7	215	327.8	515.9	6.4	208.9	348.8	501.2	6.1	202.5	371	485.9	5.7
	5.6	832	254.8	35.8	22.8	796	289	34.3	21	756.1	327.8	32.5	19.1	734.6	348.8	31.6	18.1	712.1	371	30.7	17.1
	44	243.8	257.9	585.2	8.1	233.4	292.7	560.2	7.4	221.9	331.9	532.5	6.8	215.7	353.3	517.6	6.4	209.2	375.8	502	6.1
5245 S	6.7	857.6	257.9	36.9	24.1	821	292.7	35.3	22.2	780.4	331.9	33.6	20.3	758.5	353.3	32.7	19.2	735.7	375.8	31.7	18.2
10.4	45	247.7	259.6	594.5	8.3	237.2	294.6	569.3	7.7	225.5	334.2	541.3	7	219.3	355.6	526.3	6.6	212.7	378.3	510.5	6.3
	7.2	871.3	259.6	37.5	24.9	834.3	294.6	35.9	22.9	793.3	334.2	34.2	20.9	771.2	355.6	33.2	19.8	748.2	378.3	32.2	18.8
	48	259.9	265	623.9	9.1	249.1	300.8	597.8	8.4	237.1	341.1	568.9	7.7	230.6	363.1	553.4	7.3	223.9	386.2	537.2	6.9
	8.9	914.3	265	39.4	27.2	876.1	300.8	37.7	25.1	833.8	341.1	35.9	22.9	811.1	363.1	34.9	21.8	787.3	386.2	33.9	20.6
	42	245.8	267.8	589.9	8.2	235.1	303.5	564.2	7.5	223.2	343.8	535.8	6.9	216.9	365.7	520.6	6.5	210.3	388.7	504.6	6.1
	5.6	864.5	267.8	37.2	24.5	826.8	303.5	35.6	22.5	785.2	343.8	33.8	20.5	762.9	365.7	32.8	19.4	739.6	388.7	31.8	18.4
	44	253.3	271.2	607.9	8.7	242.4	307.4	581.8	8	230.4	348.2	552.9	7.3	223.9	370.4	537.4	6.9	217.2	393.7	521.3	6.5
5255 S	6.7	890.8	271.2	38.3	25.9	852.6	307.4	36.7	23.9	810.3	348.2	34.9	21.7	787.6	370.4	33.9	20.6	763.9	393.7	32.9	19.5
10.3	45	257.3	273	617.5	8.9	246.3	309.4	591.1	8.2	234.2	350.6	562	7.5	227.7	372.9	546.4	7.1	220.9	396.4	530.1	6.7
	7.2	904.9	273	39	26.7	866.3	309.4	37.3	24.6	823.6	350.6	35.5	22.4	800.7	372.9	34.5	21.2	776.8	396.4	33.4	20.1
	48	269.9	278.7	647.8	9.8	258.6	316	620.6	9	246.1	358	590.6	8.2	239.4	380.7	574.5	7.8	232.4	404.7	557.7	7.4
	8.9	949.3	278.7	40.9	29.2	909.5	316	39.2	26.9	865.5	358	37.3	24.5	841.9	380.7	36.2	23.3	817.3	404.7	35.2	22.1
	42	257.9	270.9	619	9	247.1	306.8	593	8.3	235.1	347.4	564.2	7.5	228.7	369.4	548.8	7.2	221.9	392.6	532.7	6.8
	5.6	907.2	270.9	39.1	26.8	869	306.8	37.4	24.7	826.8	347.4	35.6	22.5	804.2	369.4	34.6	21.4	780.6	392.6	33.6	20.3
	44	265.8	274.1	637.9	9.5	254.7	310.5	611.4	8.8	242.6	351.5	582.2	8	236.1	373.8	566.5	7.6	229.2	397.3	550.2	7.2
5270 S	6.7	934.8	274.1	40.2	28.4	896	310.5	38.6	26.2	853.2	351.5	36.7	23.9	830.3	373.8	35.7	22.7	806.3	397.3	34.7	21.5
10.6	45	270	275.8	647.9	9.8	258.8	312.4	621.2	9	246.6	353.7	591.8	8.2	240	376.2	576	7.8	233.1	399.9	559.5	7.4
	7.2	949.5	275.8	40.9	29.2	910.4	312.4	39.2	27	867.2	353.7	37.3	24.6	844.1	376.2	36.3	23.4	820	399.9	35.3	22.2
	48	283.2	281.2	679.8	10.7	271.8	318.5	652.2	9.9	259.1	360.7	621.9	9.1	252.4	383.6	605.7	8.6	245.3	407.7	588.8	8.2
	8.9	996.2	281.2	42.9	32	955.9	318.5	41.2	29.6	911.4	360.7	39.2	27.1	887.6	383.6	38.2	25.7	862.9	407.7	37.1	24.4
	42	274.6	286.7	659	7.6	262.9	324.3	630.9	7	250	366.7	600	6.3	243.1	389.7	583.5	6	236	413.9	566.3	5.7
	5.6	965.8	286.7	41.6	22.6	924.6	324.3	39.8	20.8	879.3	366.7	37.9	19	855.1	389.7	36.8	18	829.9	413.9	35.7	17.1
	44	282.4	290	677.8	8	270.5	328	649.2	7.3	257.4	370.9	617.8	6.7	250.4	394.2	601	6.4	243.1	418.6	583.5	6
5285 S	6.7	993.3	290	42.8	23.8	951.4	328	41	22	905.3	370.9	39	20	880.8	394.2	37.9	19	855.2	418.6	36.8	18
10.7	45	286.4	291.6	687.4	8.2	274.4	329.9	658.5	7.5	261.2	373.1	626.8	6.9	254.1	396.4	609.9	6.5	246.8	421	592.3	6.2
	7.2	1007.4	291.6	43.4	24.4	965	329.9	41.5	22.6	918.6	373.1	39.5	20.6	893.8	396.4	38.5	19.6	868	421	37.4	18.5
	48	296.8	296	712.4	8.7	284.4	334.8	682.5	8.1	270.7	378.5	649.8	7.4	263.5	402.1	632.3	7	255.9	427	614.1	6.6
	8.9	1044	296	44.9	26.1	1000.2	334.8	43.1	24.1	952.2	378.5	41	22	926.6	402.1	39.9	20.9	900	427	38.7	19.8
	42	289.1	314.2	693.9	10.9	276.8	356.8	664.3	10	262.8	404.8	630.8	9.1	255.2	430.8	612.5	8.6	247.2	458.1	593.3	8.1
	5.6	1016.9	314.2	43.8	32.6	973.5	356.8	41.9	30	924.4	404.8	39.8	27.2	897.6	430.8	38.6	25.8	869.4	458.1	37.4	24.3
	44	297.9	318	714.9	11.5	285.3	361.2	684.7	10.6	271	409.8	650.5	9.6	263.3	436.1	631.9	9.1	255.1	463.8	612.3	8.6
5300 S	6.7	1047.7	318	45.1	34.5	1003.4	361.2	43.2	31.7	953.3	409.8	41	28.8	926.1	436.1	39.9	27.3	897.3	463.8	38.6	25.7
10.4	45	302.4	320	725.8	11.9	289.7	363.4	695.3	10.9	275.3	412.4	660.7	9.9	267.5	438.9	642	9.4	259.2	466.7	622.2	8.9
	7.2	1063.6	320	45.8	35.5	1018.9	363.4	43.9	32.7	968.3	412.4	41.7	29.7	940.8	438.9	40.5	28.1	911.8	466.7	39.3	26.5
	48	316.9	326.3	760.6	13	303.8	370.7	729.1	12	288.9	420.6	693.5	10.9	280.9	447.7	674.1	10.3	272.4	476	653.7	9.7
	8.9	1114.6	326.3	48	38.8	1068.5	370.7	46	35.8	1016.3	420.6	43.8	32.5	987.9	447.7	42.5	30.8	958	476	41.2	29.1
	42	299.4	328.9	718.5	8.9	286.3	373.4	687.2	8.2	271.7	423.5	652.1	7.4	263.8	450.6	633.1	7	255.5	479.1	613.1	6.6
	5.6	1052.9	328.9	45.3	26.6	1007.1	373.4	43.4	24.4	955.6	423.5	41.1	22.1	927.8	450.6	39.9	21	898.5	479.1	38.7	19.7
	44	307.9	332.9	739	9.4	294.8	378	707.5	8.6	280	428.8	672	7.8	272	456.3	652.8	7.4	263.6	485.3	632.7	7
5310 S	6.7	1083	332.9	46.6	28	1036.8	378	44.6	25.8	984.9	428.8	42.4	23.4	956.8	456.3	41.2	22.2	927.2	485.3	39.9	20.9
10.3	45	312.8	335.2	750.8	9.7	299.6	380.7	719.2	8.9	284.8	431.9	683.6	8.1	276.8	459.7	664.4	7.7	268.4	488.9	644.1	7.2
	7.2	1100.3	335.2	47.4	28.9	1053.9	380.7	45.4	26.6	1001.8	431.9	43.1	24.2	973.6	459.7	41.9	22.9	944	488.9	40.6	21.6
	48	331.5	343.8	795.7	10.8	318.1	390.8	763.4	10	303	443.6	727.2	9.1	294.8	472.2	707.5	8.6	286.2	502.2	686.9	8.2
	8.9	1166.1	343.8	50.2	32.2	1118.8	390.8	48.2	29.8	1065.7	443.6	45.9	27.2	1036.9	472.2	44.6	25.8	1006.6	502.2	43.3	24.4
	42	306.8	333.7	736.2	9.3	293.6	378.8	704.6	8.6	278.8	429.6	669.2	7.8	270.9	457.2	650.1	7.4	262.5	486.3	630	6.9
	5.6	1079	333.7	46.4	27.8	1032.5	378.8	44.5	25.6	980.7	429.6	42.2	23.2	952.7	457.2	41	22	923.3	486.3	39.7	20.8
	44	315.6	337.6	757.3	9.8	302.3	383.4	725.4	9	287.4	434.9	689.7	8.2	279.4	462.9	670.5	7.8	271	492.4	650.3	7.4
5320 S	6.7	1109.9	337.6	47.8	29.3	1063.1	383.4	45.8	27	1010.8	434.9	43.5	24.6	982.6	462.9	42.3	23.3	953	492.4	41	22
10.3	45	320.6	339.9	769.4	10.1	307.2	386	737.4	9.3	292.4	438	701.7	8.5	284.3	466.3	682.4	8.1	275.9	496	662.1	7.6
	7.2	1127.5	339.9	48.5	30.2	1080.6	386	46.5	27.9	1028.3	438	44.3	25.4	1000	466.3	43.1	24.1	970.3	496	41.8	22.8
	48	339.8	348.5	815.4	11.3	326.2	396.1	782.9	10.5	311.1	449.7	746.6	9.6	302.9	478.8	726.9	9.1	294.3	509.5	706.3	8.6
	8.9	1195	348.5	51.4	33.7	1147.3	396.1	49.4	31.2	1094.1	449.7	47.1	28.6	1065.3	478.8	45.9	27.2	1035.1	509.5	44.6	25.7
	42	311.9	346.1	748.6	9.6	298.3	392.7	715.8	8.8	283.1	445.3	679.5	8	275	473.9	660	7.6	266.5	504	639.6	7.1
	5.6	1097	346.1	47.2	28.7	1049.1	392.7	45.2	26.4	995.8	445.3	42.9	23.9	967.2	473.9	41.6	22.6	937.3	504	40.4	21.4
	44	320.8	350.3	770	10.1	307.1	397.6	737	9.3	291.9	451	700.5	8.5	283.7	480	680.8	8	275.1	510.6	660.2	7.6
5325 S	6.7	1128.4	350.3	48.6	30.3	1080.1	397.6	46.5	27.9	1026.6	451	44.2	25.3	997.8	480	43	24	967.6	510.6	41.7	22.7
10.1	45	325.9	352.7	782.2	10.4	312.2	400.4	749.2	9.6	296.9	454.3	712.6	8.8	288.7	483.6	692.9	8.3	280.1	514.4	672.3	7.8
	7.2	1146.3	352.7	49.3	31.2	1097.9	400.4	47.3	28.7	1044.3	454.3	45	26.2	1015.4	483.6	43.7	24.8	985.2	514.4	42.4	23.4
	48	345.4	361.9	828.9	11.6	331.4	411.2	795.4	10.8	316	466.8	758.3	9.8	307.6	497	738.3	9.4	298.9	528.8	717.4	8.9
	8.9	1214.8	361.9	52.3	34.8	1165.7	411.2	50.2	32.2	1111.3	466.8	47.8	29.4	1082	497	46.6	28	1051.4	528.8	45.3	26.5

Table 3 Contd.

* Power input mentioned in this page should not be used for cable or fuse selection. MCA and MFA values given in the electrical data pages (24-26) should be referred for the same.

Capacity ratings are based on 10°F (5.5°C) range and 0.0001 ft².h°F/Btu (0.018 m².°C/kW) fouling factor.

For Legend, please refer to page 15.

SKM Air Cooled Packaged Chillers
APCN-S Series - R-134a

CAPACITY RATINGS - 50 Hz
(Standard Efficiency)

Model	LCWT	Condenser Entering Air Temperature °F (°C)																			
		95.00 (35.0)				105.00 (40.6)				115.00 (46.1)				120.00 (48.9)				125.00 (51.7)			
		CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD
APCN S	°F	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg
EER	°C	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg
	42	324	348.6	777.7	10.3	310.3	395.3	744.7	9.5	295.1	448.1	708.1	8.6	286.9	476.8	688.5	8.2	278.3	507.1	667.9	7.7
	5.6	1139.7	348.6	49.1	30.9	1091.4	395.3	47	28.4	1037.8	448.1	44.7	25.8	1008.9	476.8	43.4	24.5	978.8	507.1	42.1	23.2
	44	333.2	352.6	799.6	10.9	319.4	399.9	766.4	10	304	453.4	729.7	9.1	295.8	482.6	709.9	8.7	287.2	513.2	689.2	8.2
5335 S	6.7	1171.9	352.6	50.4	32.5	1123.2	399.9	48.4	30	1069.3	453.4	46	27.3	1040.3	482.6	44.8	26	1010	513.2	43.5	24.6
10.4	45	338.3	354.8	812	11.2	324.5	402.5	778.8	10.3	309.2	456.5	742	9.4	300.9	485.9	722.3	9	292.3	516.8	701.5	8.5
	7.2	1190	354.8	51.2	33.5	1141.4	402.5	49.1	30.9	1087.4	456.5	46.8	28.2	1058.5	485.9	45.6	26.8	1028.1	516.8	44.3	25.4
	48	358.2	363.4	859.8	12.5	344.3	412.6	826.2	11.6	328.7	468.2	789	10.6	320.4	498.4	769	10.1	311.7	530.3	748	9.6
	8.9	1260	363.4	54.2	37.3	1210.8	412.6	52.1	34.6	1156.3	468.2	49.8	31.7	1127	498.4	48.5	30.2	1096.2	530.3	47.2	28.7
	42	333.1	361.5	799.4	10.9	318.9	409.6	765.3	10	303.2	464	727.6	9.1	294.7	493.5	707.4	8.6	285.9	524.5	686.2	8.2
	5.6	1171.5	361.5	50.4	32.5	1121.5	409.6	48.3	29.9	1066.3	464	45.9	27.2	1036.6	493.5	44.6	25.8	1005.7	524.5	43.3	24.4
	44	342.3	365.5	821.5	11.4	328	414.4	787.3	10.6	312.3	469.5	749.4	9.6	303.8	499.4	729.1	9.1	295	530.9	707.9	8.6
5345 S	6.7	1203.9	365.5	51.8	34.2	1153.7	414.4	49.7	31.6	1098.3	469.5	47.3	28.8	1068.5	499.4	46	27.3	1037.4	530.9	44.7	25.8
10.3	45	347.5	367.8	834	11.8	333.2	417	799.7	10.9	317.5	472.6	761.9	9.9	309	502.8	741.6	9.4	300.2	534.6	720.4	8.9
	7.2	1222.2	367.8	52.6	35.2	1172	417	50.5	32.5	1116.6	472.6	48.1	29.7	1086.8	502.8	46.8	28.2	1055.7	534.6	45.4	26.7
	48	367.6	376.7	882.2	13.1	353.2	427.4	847.6	12.1	337.3	484.6	809.4	11.1	328.7	515.7	788.9	10.6	319.8	548.4	767.5	10.1
	8.9	1292.9	376.7	55.7	39.1	1242.2	427.4	53.5	36.3	1186.2	484.6	51.1	33.3	1156.2	515.7	49.8	31.7	1124.7	548.4	48.4	30.1
	42	338.8	364	813	12.1	324.2	412.4	778.2	11	308.2	467	739.6	9.9	299.5	496.6	718.9	9.3	290.5	527.8	697.2	8.7
	5.6	1191.5	364	51.3	36.1	1140.4	412.4	49.1	33	1083.8	467	46.7	29.6	1053.5	496.6	45.4	27.9	1021.7	527.8	44	26.1
	44	349.3	368.6	838.3	12.8	334.4	417.6	802.5	11.8	317.9	472.9	762.9	10.6	309	502.8	741.7	10	299.8	534.3	719.6	9.3
5350 S	6.7	1228.5	368.6	52.9	38.4	1176	417.6	50.6	35.1	1118	472.9	48.1	31.6	1087	502.8	46.8	29.8	1054.5	534.3	45.4	27.9
10.4	45	354.7	371	851.2	13.2	339.6	420.3	814.9	12.1	322.9	475.9	774.9	10.9	313.9	506	753.5	10.3	304.6	537.7	731.1	9.7
	7.2	1247.5	371	53.7	39.6	1194.3	420.3	51.4	36.3	1135.6	475.9	48.9	32.7	1104.2	506	47.5	30.8	1071.4	537.7	46.1	28.9
	48	370.3	377.9	888.8	14.4	354.6	428.1	851	13.2	337.2	484.6	809.3	12	327.9	515.2	787	11.3	318.2	547.3	763.8	10.6
	8.9	1302.6	377.9	56.1	43.2	1247.1	428.1	53.7	39.6	1186.1	484.6	51.1	35.7	1153.4	515.2	49.7	33.7	1119.3	547.3	48.2	31.7
	42	351	367.1	842.3	13	336.3	415.6	807.1	11.9	320.1	470.5	768.2	10.7	311.4	500.3	747.4	10.1	302.3	531.7	725.5	9.5
	5.6	1234.4	367.1	53.1	38.8	1182.9	415.6	50.9	35.5	1125.8	470.5	48.5	32.1	1095.3	500.3	47.2	30.3	1063.3	531.7	45.8	28.4
	44	362	371.6	868.7	13.8	346.9	420.7	832.6	12.7	330.3	476.2	792.7	11.5	321.4	506.3	771.4	10.8	312.1	538	749	10.2
5365 S	6.7	1273.1	371.6	54.8	41.2	1220.2	420.7	52.5	37.9	1161.7	476.2	50	34.3	1130.4	506.3	48.7	32.4	1097.7	538	47.3	30.4
10.7	45	367.6	373.9	882.2	14.2	352.3	423.3	845.6	13.1	335.5	479.1	805.3	11.8	326.5	509.4	783.7	11.2	317.1	541.3	761.1	10.5
	7.2	1292.9	373.9	55.7	42.5	1239.3	423.3	53.4	39.1	1180.1	479.1	50.8	35.4	1148.5	509.4	49.4	33.5	1115.4	541.3	48	31.5
	48	384.1	380.6	921.7	15.5	368.2	430.9	883.6	14.3	350.7	487.5	841.6	12.9	341.3	518.3	819.1	12.3	331.5	550.6	795.7	11.5
	8.9	1350.8	380.6	58.2	46.4	1294.9	430.9	55.7	42.7	1233.3	487.5	53.1	38.7	1200.4	518.3	51.7	36.6	1166.1	550.6	50.2	34.5
	42	360.1	379.8	864.3	13.7	345	429.8	828.1	12.5	328.4	486.2	788.2	11.3	319.5	516.7	766.8	10.7	310.2	549	744.4	10
	5.6	1266.6	379.8	54.5	40.8	1213.6	429.8	52.2	37.5	1155.1	486.2	49.7	33.8	1123.7	516.7	48.4	32	1090.9	549	47	30
	44	371.5	384.5	891.5	14.5	356	435.1	854.3	13.3	338.9	492.1	813.4	12.1	329.8	523	791.5	11.4	320.2	555.6	768.6	10.7
5375 S	6.7	1306.5	384.5	56.2	43.4	1252	435.1	53.9	39.9	1192	492.1	51.3	36.1	1159.9	523	49.9	34.1	1126.4	555.6	48.5	32.1
10.6	45	377.2	386.9	905.4	15	361.5	437.8	867.7	13.8	344.3	495.2	826.3	12.5	335.1	526.3	804.1	11.8	325.4	559	781	11.1
	7.2	1326.8	386.9	57.1	44.8	1271.6	437.8	54.7	41.2	1210.9	495.2	52.1	37.3	1178.5	526.3	50.7	35.3	1144.6	559	49.3	33.2
	48	394.2	394	946.2	16.3	377.9	445.8	906.9	15	359.9	504	863.7	13.6	350.3	535.6	840.7	12.9	340.3	568.8	816.7	12.2
	8.9	1386.6	394	59.7	48.9	1329	445.8	57.2	44.9	1265.8	504	54.5	40.8	1232	535.6	53	38.6	1196.8	568.8	51.5	36.4
	42	373	400.8	895.2	14.7	356.6	452.7	855.7	13.4	338.2	510.7	811.8	12	328.4	542	788.1	11.3	318	574.9	763.3	10.6
	5.6	1311.9	400.8	56.5	43.8	1254.1	452.7	54	40	1189.7	510.7	51.2	36	1155	542	49.7	33.8	1118.6	574.9	48.2	31.7
	44	384.8	405.8	923.4	15.6	367.9	458.4	882.8	14.3	349	517	837.7	12.8	338.9	548.7	813.4	12.1	328.3	581.9	788	11.3
5385 S	6.7	1353.3	405.8	58.3	46.6	1293.8	458.4	55.7	42.6	1227.7	517	52.9	38.3	1192.1	548.7	51.3	36.1	1154.8	581.9	49.7	33.8
10.5	45	390.8	408.4	937.8	16.1	373.6	461.2	896.7	14.7	354.6	520.3	851	13.2	344.3	552.1	826.4	12.5	333.6	585.5	800.6	11.7
	7.2	1374.4	408.4	59.2	48	1314.1	461.2	56.6	43.9	1247.1	520.3	53.7	39.6	1211.1	552.1	52.1	37.3	1173.4	585.5	50.5	35
	48	408.4	415.9	980.3	17.5	390.5	469.7	937.3	16	370.7	529.7	889.6	14.5	360	562	864	13.6	348.8	595.8	837.2	12.8
	8.9	1436.6	415.9	61.8	52.4	1373.6	469.7	59.1	48	1303.7	529.7	56.1	43.3	1266.2	562	54.5	40.8	1226.9	595.8	52.8	38.3
	42	385.5	422.1	925.1	15.6	367.6	475.9	882.4	14.2	347.7	535.5	834.4	12.7	336.8	567.5	808.4	11.9	325.5	600.9	781.1	11.1
	5.6	1355.7	422.1	58.4	46.7	1293.1	475.9	55.7	42.6	1222.8	535.5	52.6	38	1184.8	567.5	51	35.7	1144.8	600.9	49.3	33.2
	44	397.7	427.4	954.4	16.6	379.3	481.9	910.3	15.1	358.8	542.1	861	13.6	347.6	574.5	834.3	12.7	336	608.3	806.3	11.9
5400 S	6.7	1398.7	427.4	60.2	49.7	1334.1	481.9	57.4	45.3	1261.8	542.1	54.3	40.5	1222.7	574.5	52.6	38	1181.7	608.3	50.9	35.5
10.3	45	403.9	430.2	969.3	17.1	385.2	484.9	924.6	15.6	364.4	545.5	874.6	14	353.2	578.1	847.6	13.1	341.4	612.1	819.3	12.3
	7.2	1420.4	430.2	61.2	51.2	1355	484.9	58.3	46.7	1281.7	545.5	55.2	41.8	1242.2	578.1	53.5	39.3	1200.6	612.1	51.7	36.6
	48	422.2	438.2	1013.3	18.7	402.7	493.9	966.5	17	381	555.5	914.3	15.3	369.2	588.5	886.1	14.4	356.9	623.1	856.6	13.4
	8.9	1485.1	438.2	63.9	55.9	1416.5	493.9	61	50.9	1339.9	555.5	57.7	45.7	1298.6	588.5	55.9	42.9	1255.3	623.1	54	40.1
	42	397.5	443.7	954.1	16.6	378.3	499.3	908	15.1	356.7	560.4	856	13.4	344.9	593	827.8	12.5	332.5	627	798.1	11.6
	5.6	1398.2	443.7	60.2	49.7	1330.7	499.3	57.3	45	1254.5	560.4	54	40.1	1213.2	593	52.2	37.4	1169.6	627	50.4	34.7
	44	410.2	449.4	984.4	17.7	390.3	505.6	936.8	16	368	567.4	883.3	14.3	355.9	600.4	854.3	13.3	343.2	634.8	823.7	12.4
5410 S	6.7	1442.6	449.4	62.1	52.8	1372.9	505.6	59.1	47.9	1294.5	567.4	55.7	42.6	1251.9	600.4	53.9	39.9	1207.2	634.8	52	37.1
10.1	45	416.6	452.2	999.7	18.2	396.4	508.8	951.5	16.5	373.8	571	897.2	14.7	361.6	604.2	867.8	13.8	348.7	638.8	836.9	12.8
	7.2	1465.1	452.2	63.1	54.4	1394.4	508.8	60	49.4	1314.8	571	56.6	44	1271.7	604.2	54.7	41.2	1226.4	638.8	52.8	38.3
	48	435.6	460.8	1045.4	19.9	414.5	518.3	994.7	18	390.8	581.5	937.9	16.1	378	615.2	907.2	15	364.6	650.4	874.9	14
	8.9	1532	460.8	66	59.3	1457.8	518.3	62.8	53.9	1374.5	581.5	59.2	48	1329.5	615.2	57.2	45	1282.2	650.4	55.2	41.8
	42	409.2	465.5	982.1	17.6	388.6	522.8	932.7	15.9	365.3	585.4	876.7	14.1	352.6	618.6	846.3	13.1	339.2	653.2	814.2	12.1
	5.6	1439.2	465.5	62	52.6	1366.8	522.8	58.8	47.5	1284.9	585.4	55.3	42	1240.2	618.6	53.4	39.1	1193.2	653.2	51.4	36.2
	44	422.3	471.6	1013.4	18.7	401	529.5	962.3	16.9	376.9	592.8	904.6	15	363.8	626.4	873.2	13.9	350.1	661.4	840.2	12.9
5425 S	6.7	1485.2	471.6	63.9	55.9	1410.3	529.5	60.7	50.5	1325.7	592.8	57.1	44.7	1279.7	626.4	55.1	41.7	1231.3	661.4	53	38.6
10.0	45	428.8	474.6	1029.2	19.3	407.2	532.9	977.3	17.4	382.8	596.6	918.8	15.4	369.6	630.4	887	14.4	355.6	665.6	853.5	13.3
	7.2	1508.3	474.6	64.9	57.6	1432.3	532.9	61.7	52.1	1346.5	596.6	58	46.1	1299.9	630.4	56	43	1250.8	665.6	53.8	39.8
	48	448.5	483.7	1076.4	21	425.8	543	1021.9	19	400.2	607.7	960.5	16.8	386.3	642.1	927.2	15.7	371.8	677.8	892.2	14.6
	8.9	1577.5	483.7	67.9	62.8	1497.5	543	64.5	56.8	1407.6	607.7	60.6	50.3	1358.8	642.1	58.5	46.9	1307.6	677.8	56.3	43.5

Table 3 Ends

* Power input mentioned in this page should not be used for cable or fuse selection. MCA and MFA values given in the electrical data pages (24-26) should be referred for the same.

Capacity ratings are based on 10°F (5.5°C) range and 0.0001 ft².h°F/Btu (0.018 m².°C/kW) fouling factor.

Legends

CCAP = Cooling Capacity.
ECWT = Entering Chilled Water Temperature
EER = Energy Efficiency Ratio.
Net refrigeration capacity in Btuh divided by the total power input of the unit in Watts. The EER shown are at AHRI standard 550/590 rating conditions. [95°F (35°C) ambient, 54/44°F (12.2/6.7°C) ECWT/LCWT]

LCWT = Leaving Chilled Water Temperature
PI = Compressor(s) Power Input in KW
Range = ECWT-LCWT
TR = Tons of Refrigeration
WFR = Water Flow Rate
WPD = Water Pressure Drop

CAPACITY RATINGS - 60 Hz
(Standard Efficiency)

Model	LCWT	Condenser Entering Air Temperature °F (°C)																			
		95.00 (35.0)				105.00 (40.6)				115.00 (46.1)				120.00 (48.9)				125.00 (51.7)			
		CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD
APCN S	°F	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg
EER	°C	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg
	42	58.8	67.1	141.2	6.1	56.1	75.4	134.6	5.5	52.9	84.5	126.9	4.9	51.1	89.3	122.8	4.6	49.3	94.3	118.3	4.3
	5.6	207	67.1	8.9	18.2	197.2	75.4	8.5	16.5	186	84.5	8	14.7	179.9	89.3	7.7	13.8	173.4	94.3	7.5	12.8
	44	60.9	68.2	146.2	6.5	58	76.6	139.3	5.9	54.8	85.8	131.4	5.3	53	90.6	127.1	4.9	51.1	95.7	122.6	4.6
6060 S	6.7	214.2	68.2	9.2	19.4	204.1	76.6	8.8	17.7	192.6	85.8	8.3	15.8	186.3	90.6	8	14.8	179.6	95.7	7.7	13.7
9.5	45	62	68.7	148.7	6.7	59	77.2	141.7	6.1	55.7	86.4	133.7	5.5	53.9	91.3	129.4	5.1	52	96.4	124.8	4.8
	7.2	218	68.7	9.4	20.1	207.7	77.2	8.9	18.3	196	86.4	8.4	16.3	189.6	91.3	8.2	15.3	182.8	96.4	7.9	14.2
	48	65.2	70.3	156.5	7.5	62.1	79	149.1	6.8	58.7	88.4	140.8	6	56.8	93.4	136.2	5.7	54.7	98.6	131.4	5.3
	8.9	229.4	70.3	9.9	22.3	218.6	79	9.4	20.2	206.3	88.4	8.9	18	199.6	93.4	8.6	16.9	192.6	98.6	8.3	15.7
	42	64.5	75.4	154.8	7.3	61.4	84.9	147.3	6.6	57.9	95.4	138.9	5.9	55.9	101.1	134.3	5.5	53.9	107	129.4	5.1
	5.6	226.8	75.4	9.8	21.8	215.9	84.9	9.3	19.8	203.5	95.4	8.8	17.6	196.8	101.1	8.5	16.4	189.6	107	8.2	15.3
	44	66.7	76.5	160.2	7.8	63.5	86.1	152.5	7.1	59.9	96.8	143.8	6.3	57.9	102.6	139	5.9	55.8	108.6	134	5.5
6070 S	6.7	234.7	76.5	10.1	23.3	223.5	86.1	9.6	21.1	210.7	96.8	9.1	18.8	203.7	102.6	8.8	17.6	196.4	108.6	8.5	16.4
9.4	45	67.9	77.1	162.9	8.1	64.6	86.7	155.1	7.3	60.9	97.5	146.3	6.5	58.9	103.4	141.5	6.1	56.8	109.5	136.4	5.7
	7.2	238.8	77.1	10.3	24.1	227.3	86.7	9.8	21.9	214.4	97.5	9.2	19.5	207.3	103.4	8.9	18.2	199.8	109.5	8.6	16.9
	48	71.5	78.9	171.5	8.9	68	88.7	163.3	8.1	64.2	99.8	154	7.2	62	105.7	148.9	6.7	59.8	112	143.6	6.3
	8.9	251.3	78.9	10.8	26.7	239.3	88.7	10.3	24.2	225.6	99.8	9.7	21.6	218.2	105.7	9.4	20.2	210.4	112	9.1	18.8
	42	82.3	92.5	197.6	7.3	78.7	104.9	188.9	6.7	74.6	118.7	178.9	5.9	72.3	126.2	173.5	5.5	69.9	134.1	167.7	5.1
	5.6	289.6	92.5	12.5	21.9	276.8	104.9	11.9	19.9	262.2	118.7	11.3	17.7	254.2	126.2	10.9	16.5	245.8	134.1	10.6	15.2
	44	85.3	93.8	204.7	7.9	81.6	106.4	195.8	7.2	77.3	120.5	185.6	6.4	75	128.1	180	6	72.5	136.1	174.1	5.6
6085 S	6.7	300	93.8	12.9	23.6	286.9	106.4	12.4	21.5	271.9	120.5	11.7	19.2	263.8	128.1	11.4	17.9	255.1	136.1	11	16.6
9.6	45	86.8	94.5	208.3	8.2	83	107.2	199.2	7.5	78.7	121.4	188.9	6.7	76.3	129	183.2	6.2	73.9	137.1	177.3	5.8
	7.2	305.2	94.5	13.1	24.5	291.9	107.2	12.6	22.3	276.8	121.4	11.9	19.9	268.5	129	11.6	18.6	259.8	137.1	11.2	17.3
	48	91.2	96.6	218.8	9.1	87.2	109.5	209.3	8.3	82.7	124	198.5	7.4	80.2	131.7	192.6	6.9	77.7	139.9	186.4	6.5
	8.9	320.7	96.6	13.8	27.1	306.7	109.5	13.2	24.7	290.9	124	12.5	22.1	282.2	131.7	12.2	20.8	273.1	139.9	11.8	19.3
	42	89.7	98.3	215.3	8.8	85.8	111.3	205.9	8	81.5	125.9	195.5	7.2	79.1	133.9	189.8	6.7	76.6	142.3	183.9	6.3
	5.6	315.5	98.3	13.6	26.2	301.8	111.3	13	23.9	286.5	125.9	12.3	21.4	278.2	133.9	12	20.1	269.5	142.3	11.6	18.8
	44	93.1	99.7	223.4	9.4	89.1	112.9	213.8	8.6	84.6	127.7	203.1	7.8	82.2	135.8	197.3	7.3	79.7	144.3	191.2	6.8
6095 S	6.7	327.4	99.7	14.1	28.2	313.3	112.9	13.5	25.8	297.6	127.7	12.8	23.2	289.1	135.8	12.4	21.9	280.2	144.3	12.1	20.4
9.9	45	94.8	100.4	227.5	9.8	90.7	113.7	217.8	9	86.2	128.7	206.9	8.1	83.8	136.8	201.1	7.6	81.2	145.4	194.9	7.1
	7.2	333.4	100.4	14.4	29.3	319.2	113.7	13.7	26.8	303.3	128.7	13.1	24.2	294.7	136.8	12.7	22.7	285.6	145.4	12.3	21.3
	48	100	102.5	239.9	10.9	95.7	116.1	229.7	10	90.9	131.4	218.3	9	88.4	139.6	212.1	8.5	85.7	148.4	205.6	8
	8.9	351.6	102.5	15.1	32.5	336.6	116.1	14.5	29.8	319.9	131.4	13.8	26.9	310.8	139.6	13.4	25.4	301.4	148.4	13	23.8
	42	101.6	114	243.9	7.1	97.2	128.8	233.3	6.5	92.3	145.5	221.5	5.9	89.7	154.5	215.2	5.6	86.8	164	208.4	5.2
	5.6	357.4	114	15.4	21.3	342	128.8	14.7	19.5	324.7	145.5	14	17.7	315.3	154.5	13.6	16.7	305.5	164	13.2	15.7
	44	105.3	115.6	252.6	7.6	100.7	130.6	241.8	7	95.7	147.6	229.6	6.3	92.9	156.7	223	6	90	166.4	216.1	5.6
6105 S	6.7	370.2	115.6	15.9	22.8	354.3	130.6	15.3	20.9	336.5	147.6	14.5	18.9	326.8	156.7	14.1	17.9	316.7	166.4	13.6	16.8
9.8	45	107.1	116.5	257.1	7.9	102.5	131.6	246.1	7.3	97.4	148.6	233.8	6.6	94.6	157.9	227.1	6.2	91.6	167.5	219.9	5.8
	7.2	376.8	116.5	16.2	23.6	360.7	131.6	15.5	21.7	342.6	148.6	14.7	19.6	332.7	157.9	14.3	18.5	322.3	167.5	13.9	17.4
	48	112.9	119.1	270.9	8.8	108.1	134.6	259.4	8	102.7	152	246.4	7.3	99.7	161.3	239.4	6.9	96.7	171.2	232	6.5
	8.9	397.1	119.1	17.1	26.2	380.2	134.6	16.4	24	361.2	152	15.5	21.7	350.8	161.3	15.1	20.5	339.9	171.2	14.6	19.3
	42	122.1	124.9	293.1	12.5	116.9	140.6	280.5	11.5	110.8	157.8	266	10.4	107.5	167	258	9.9	103.9	176.6	249.4	9.4
	5.6	429.6	124.9	18.5	37.5	411.1	140.6	17.7	34.4	389.8	157.8	16.8	31.2	378	167	16.3	29.6	365.5	176.6	15.7	28
	44	126.4	126.5	303.3	13.4	120.9	142.3	290.2	12.3	114.7	159.7	275.2	11.1	111.2	169	266.9	10.5	107.6	178.7	258.1	9.9
6130 S	6.7	444.5	126.5	19.1	40.1	425.4	142.3	18.3	36.7	403.3	159.7	17.4	33.2	391.2	169	16.8	31.4	378.3	178.7	16.3	29.6
10.5	45	128.5	127.3	308.4	13.9	123	143.2	295.1	12.7	116.6	160.7	279.9	11.4	113.1	170	271.5	10.8	109.4	179.8	262.5	10.2
	7.2	452	127.3	19.5	41.5	432.5	143.2	18.6	38	410.1	160.7	17.7	34.2	397.8	170	17.1	32.3	384.7	179.8	16.6	30.5
	48	135	129.7	323.9	15.4	129.2	145.9	310	14	122.5	163.6	294	12.6	118.8	173.1	285.2	11.9	114.9	183	275.9	11.1
	8.9	474.7	129.7	20.4	46	454.3	145.9	19.6	42	430.8	163.6	18.5	37.7	417.9	173.1	18	35.5	404.3	183	17.4	33.3
	42	133.5	142.4	320.4	15	127.5	160.4	306	13.7	120.6	180.5	289.5	12.2	116.9	191.4	280.5	11.5	112.9	202.8	270.9	10.8
	5.6	469.5	142.4	20.2	44.9	448.4	160.4	19.3	40.9	424.3	180.5	18.3	36.6	411.1	191.4	17.7	34.4	397.1	202.8	17.1	32.2
	44	138.1	144.3	331.5	16.1	131.9	162.4	316.6	14.7	124.8	182.8	299.6	13.1	120.9	193.8	290.3	12.3	116.8	205.3	280.4	11.5
6140 S	6.7	485.9	144.3	20.9	48.3	464	162.4	20	43.8	439	182.8	18.9	39.1	425.4	193.8	18.3	36.7	410.9	205.3	17.7	34.3
10.2	45	140.5	145.2	337.1	16.7	134.1	163.4	322	15.2	126.9	183.9	304.6	13.5	123	195	295.2	12.7	118.8	206.6	285.1	11.9
	7.2	494.1	145.2	21.3	50	471.8	163.4	20.3	45.4	446.5	183.9	19.2	40.5	432.6	195	18.6	38	417.9	206.6	18	35.5
	48	147.6	148	354.1	18.5	140.9	166.6	338.2	16.8	133.3	187.4	320	15	129.2	198.7	310	14	124.8	210.6	299.5	13.1
	8.9	519	148	22.3	55.4	495.6	166.6	21.3	50.3	468.9	187.4	20.2	44.8	454.4	198.7	19.6	42	439	210.6	18.9	39.1

Table 4

* Power input mentioned in this page should not be used for cable or fuse selection. MCA and MFA values given in the electrical data pages (24-26) should be referred for the same.

Capacity ratings are based on 10°F (5.5°C) range and 0.0001 ft².h°F/Btu (0.018 m².°C/kW) fouling factor.

For Legend, please refer to page 15.

CAPACITY RATINGS - 60 Hz
(Standard Efficiency)

Model	LCWT	Condenser Entering Air Temperature °F (°C)																			
		95.00 (35.0)				105.00 (40.6)				115.00 (46.1)				120.00 (48.9)				125.00 (51.7)			
		CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD
APCN S	°F	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg
EER	°C	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg
	42	151.2	165.7	362.9	12.1	144.3	187.2	346.3	11	136.4	211.2	327.3	9.8	132.1	224.2	317	9.1	127.5	237.8	306.1	8.4
	5.6	531.8	165.7	22.9	36.1	507.5	187.2	21.8	32.9	479.7	211.2	20.7	29.3	464.5	224.2	20	27.3	448.5	237.8	19.3	25.2
	44	156.3	167.9	375.2	12.9	149.3	189.8	358.3	11.8	141.3	214.2	339	10.5	136.9	227.4	328.5	9.9	132.3	241.2	317.4	9.2
6155 S	6.7	549.9	167.9	23.7	38.5	525	189.8	22.6	35.2	496.8	214.2	21.4	31.5	481.4	227.4	20.7	29.5	465.2	241.2	20	27.4
10.1	45	159.4	169.3	382.5	13.4	152.3	191.3	365.4	12.2	144.2	216	346	11	139.8	229.3	335.5	10.3	135.1	243.3	324.3	9.6
	7.2	560.6	169.3	24.1	40	535.5	191.3	23.1	36.6	507.1	216	21.8	32.8	491.6	229.3	21.2	30.8	475.3	243.3	20.5	28.7
	48	169.6	173.9	407.1	15.1	162.2	196.5	389.2	13.8	153.7	221.9	369	12.5	149.2	235.6	358	11.8	144.3	249.9	346.4	11
	8.9	596.6	173.9	25.7	45	570.4	196.5	24.6	41.3	540.8	221.9	23.3	37.3	524.6	235.6	22.6	35.1	507.6	249.9	21.9	32.9
	42	164.9	189.1	395.7	14.3	157.3	214.3	377.6	13.1	148.8	242.5	357	11.7	144.1	257.7	345.8	11	139.1	273.6	333.9	10.2
	5.6	579.9	189.1	25	42.7	553.4	214.3	23.8	39	523.2	242.5	22.5	35	506.7	257.7	21.8	32.8	489.3	273.6	21.1	30.5
	44	170.3	191.8	408.6	15.2	162.6	217.4	390.2	13.9	153.9	246	369.3	12.5	149.1	261.4	358	11.8	144.1	277.6	345.9	11
6170 S	6.7	598.9	191.8	25.8	45.3	571.9	217.4	24.6	41.6	541.3	246	23.3	37.4	524.6	261.4	22.6	35.1	507	277.6	21.8	32.8
9.8	45	173.4	193.3	416.1	15.7	165.7	219.2	397.6	14.4	156.9	248.1	376.6	13	152.2	263.7	365.2	12.2	147.2	280	353.2	11.4
	7.2	609.8	193.3	26.3	46.9	582.7	219.2	25.1	43.1	551.9	248.1	23.8	38.8	535.2	263.7	23	36.6	517.6	280	22.3	34.2
	48	184.1	198.7	441.9	17.6	176.1	225.4	422.7	16.2	167.1	255.1	401	14.6	162.2	271.1	389.2	13.8	157	287.9	376.8	13
	8.9	647.6	198.7	27.9	52.5	619.5	225.4	26.7	48.3	587.7	255.1	25.3	43.8	570.4	271.1	24.6	41.3	552.2	287.9	23.8	38.8
	42	178.9	197.2	429.2	13.5	170.7	223.3	409.6	12.3	161.5	252.5	387.5	10.9	156.5	268.2	375.5	10.2	151.2	284.8	362.9	9.5
	5.6	629.1	197.2	27.1	40.3	600.3	223.3	25.8	36.6	567.9	252.5	24.4	32.7	550.3	268.2	23.7	30.6	531.9	284.8	22.9	28.5
	44	184.4	199.8	442.5	14.3	176	226.2	422.3	13	166.5	255.7	399.6	11.7	161.4	271.6	387.3	10.9	156	288.4	374.5	10.2
6185 S	6.7	648.5	199.8	27.9	42.8	618.9	226.2	26.6	39	585.6	255.7	25.2	34.8	567.7	271.6	24.4	32.7	548.8	288.4	23.6	30.4
10.0	45	187.2	201.1	449.3	14.8	178.7	227.7	428.8	13.4	169.1	257.4	405.8	12	163.9	273.4	393.4	11.3	158.5	290.2	380.4	10.5
	7.2	658.4	201.1	28.3	44.1	628.4	227.7	27.1	40.2	594.7	257.4	25.6	36	576.5	273.4	24.8	33.7	557.4	290.2	24	31.4
	48	195.4	205	469.1	16.1	186.5	232	447.7	14.7	176.6	262.2	423.7	13.1	171.2	278.5	410.8	12.3	165.5	295.5	397.3	11.5
	8.9	687.4	205	29.6	48	656.1	232	28.2	43.8	621	262.2	26.7	39.2	602.1	278.5	25.9	36.9	582.2	295.5	25.1	34.4
	42	184.2	211.9	442.1	14.3	175.4	239.7	421	13	165.7	270.7	397.6	11.5	160.4	287.5	384.9	10.8	154.9	305.1	371.7	10
	5.6	648	211.9	27.9	42.7	617	239.7	26.6	38.7	582.6	270.7	25.1	34.5	564.1	287.5	24.3	32.2	544.7	305.1	23.5	30
	44	190	214.9	456.1	15.2	181	243	434.3	13.8	170.9	274.4	410.1	12.3	165.5	291.4	397.3	11.5	159.9	309.2	383.7	10.7
6190 S	6.7	668.4	214.9	28.8	45.5	636.5	243	27.4	41.2	600.9	274.4	25.9	36.7	582.2	291.4	25.1	34.4	562.3	309.2	24.2	32
9.6	45	193	216.4	463.2	15.7	183.8	244.7	441.1	14.2	173.6	276.4	416.7	12.7	168.2	293.4	403.6	11.9	162.4	311.4	389.8	11.1
	7.2	678.8	216.4	29.2	46.9	646.5	244.7	27.8	42.5	610.7	276.4	26.3	37.9	591.4	293.4	25.5	35.5	571.3	311.4	24.6	33.1
	48	201.7	221	484.1	17.1	192.1	249.8	461	15.5	181.5	281.9	435.5	13.9	175.8	299.3	421.8	13	169.8	317.5	407.6	12.1
	8.9	709.4	221	30.5	51.1	675.6	249.8	29.1	46.4	638.2	281.9	27.5	41.5	618.2	299.3	26.6	38.9	597.3	317.5	25.7	36.3
	42	199.2	215.4	478	16.7	190.3	243.5	456.8	15.3	180.5	275	433.1	13.7	175.1	292.2	420.3	12.9	169.5	310.2	406.8	12.1
	5.6	700.5	215.4	30.2	49.9	669.5	243.5	28.8	45.6	634.7	275	27.3	41	615.9	292.2	26.5	38.6	596.2	310.2	25.7	36.1
	44	205.7	218.2	493.6	17.8	196.6	246.6	471.7	16.3	186.4	278.6	447.2	14.6	180.8	295.9	434	13.8	175	314	420.1	12.9
6205 S	6.7	723.4	218.2	31.1	53.1	691.3	246.6	29.8	48.6	655.4	278.6	28.2	43.7	636.1	295.9	27.4	41.2	615.7	314	26.5	38.6
10.1	45	208.9	219.6	501.5	18.3	199.7	248.2	479.3	16.8	189.4	280.4	454.5	15.1	183.8	297.8	441	14.2	177.9	316	426.9	13.3
	7.2	734.9	219.6	31.6	54.8	702.4	248.2	30.2	50.1	666	280.4	28.7	45.1	646.3	297.8	27.8	42.5	625.7	316	26.9	39.8
	48	218.8	223.9	525	20	209	253	501.7	18.3	198.2	285.7	475.6	16.5	192.3	303.3	461.6	15.6	186.2	321.9	446.8	14.6
	8.9	769.4	223.9	33.1	59.9	735.2	253	31.7	54.8	697.1	285.7	30	49.4	676.5	303.3	29.1	46.5	654.8	321.9	28.2	43.6
	42	210	231	503.9	18.5	200.7	260.9	481.7	16.9	190.3	294.5	456.8	15.3	184.7	312.6	443.2	14.4	178.7	331.7	429	13.5
	5.6	738.5	231	31.8	55.3	705.9	260.9	30.4	50.6	669.4	294.5	28.8	45.6	649.6	312.6	28	42.9	628.7	331.7	27.1	40.2
	44	216.9	234.1	520.6	19.7	207.3	264.4	497.6	18	196.5	298.4	471.7	16.3	190.7	316.7	457.7	15.3	184.6	336	442.9	14.3
6220 S	6.7	763	234.1	32.8	58.9	729.2	264.4	31.4	53.9	691.3	298.4	29.8	48.6	670.8	316.7	28.9	45.8	649.1	336	27.9	42.9
10.0	45	220.4	235.7	529	20.3	210.7	266.2	505.6	18.6	199.7	300.3	479.3	16.8	193.8	318.8	465.1	15.8	187.5	338.2	450.1	14.8
	7.2	775.3	235.7	33.4	60.7	741	266.2	31.9	55.6	702.4	300.3	30.2	50.1	681.6	318.8	29.3	47.2	659.6	338.2	28.4	44.3
	48	230.9	240.5	554.1	22.2	220.7	271.6	529.6	20.4	209.1	306.3	501.9	18.3	202.9	325	486.9	17.3	196.3	344.6	471.1	16.2
	8.9	812	240.5	35	66.4	776.1	271.6	33.4	60.9	735.5	306.3	31.7	54.8	713.5	325	30.7	51.7	690.4	344.6	29.7	48.5
	42	234.6	262.7	563.1	13	223.6	297	536.6	11.8	211	335.2	506.5	10.6	204.2	355.8	490.1	10	197	377.4	472.9	9.3
	5.6	825.2	262.7	35.5	38.8	786.3	297	33.9	35.3	742.3	335.2	32	31.7	718.3	355.8	30.9	29.8	693	377.4	29.8	27.8
	44	240	265.2	575.9	13.5	228.8	299.9	549.2	12.4	216.2	338.6	518.9	11.1	209.3	359.4	502.4	10.4	202.1	381.3	485	9.8
6240 S	6.7	844	265.2	36.3	40.5	804.8	299.9	34.6	36.9	760.4	338.6	32.7	33.1	736.2	359.4	31.7	31.2	710.8	381.3	30.6	29.2
9.9	45	242.8	266.5	582.7	13.9	231.6	301.4	555.9	12.7	219	340.4	525.5	11.4	212.1	361.4	509	10.7	204.8	383.4	491.5	10
	7.2	854	266.5	36.8	41.4	814.6	301.4	35.1	37.8	770.1	340.4	33.2	34	745.9	361.4	32.1	32	720.4	383.4	31	29.9
	48	251.8	270.8	604.2	14.9	240.4	306.3	576.9	13.6	227.5	346	546	12.2	220.5	367.4	529.2	11.5	213.2	389.8	511.6	10.8
	8.9	885.5	270.8	38.1	44.5	845.5	306.3	36.4	40.6	800.2	346	34.4	36.5	775.6	367.4	33.4	34.4	749.7	389.8	32.3	32.3
	42	249.2	284.6	598.2	14.6	237.6	322.4	570.2	13.3	224.4	364.6	538.5	11.9	217.2	387.3	521.3	11.2	209.6	411.1	503.1	10.5
	5.6	876.6	284.6	37.7	43.6	835.7	322.4	36	39.7	789.2	364.6	34	35.6	763.9	387.3	32.9	33.4	737.3	411.1	31.7	31.3
	44	254.7	287.3	611.3	15.2	243	325.6	583.2	13.9	229.7	368.2	551.3	12.5	222.5	391.2	534	11.7	214.9	415.3	515.7	11
6255 S	6.7	895.9	287.3	38.6	45.5	854.6	325.6	36.8	41.5	807.9	368.2	34.8	37.2	782.5	391.2	33.7	35	755.8	415.3	32.5	32.8
9.7	45	257.6	288.7	618.2	15.6	245.8	327.3	590	14.2	232.5	370.2	558.1	12.7	225.3	393.3	540.8	12	217.7	417.6	522.5	11.2
	7.2	906	288.7	39	46.5	864.7	327.3	37.2	42.4	817.9	370.2	35.2	38.1	792.5	393.3	34.1	35.9	765.7	417.6	33	33.6
	48	266.8	293.4	640.3	16.7	254.9	332.6	611.7	15.2	241.4	376.3	579.4	13.7	234.1	399.9	561.9	12.9	226.4	424.5	543.4	12.1
	8.9	938.3	293.4	40.4	49.8	896.4	332.6	38.6	45.5	849.1	376.3	36.6	41	823.4	399.9	35.4	38.6	796.3	424.5	34.3	36.2

Table 4 Contd.

* Power input mentioned in this page should not be used for cable or fuse selection. MCA and MFA values given in the electrical data pages (24-26) should be referred for the same.

Capacity ratings are based on 10°F (5.5°C) range and 0.0001 ft².h°F/Btu (0.018 m².°C/kW) fouling factor.

For Legend, please refer to page 15.

CAPACITY RATINGS - 60 Hz
(Standard Efficiency)

Model	LCWT	Condenser Entering Air Temperature °F (°C)																			
		95.00 (35.0)				105.00 (40.6)				115.00 (46.1)				120.00 (48.9)				125.00 (51.7)			
		CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD
APCN S	°F	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg
EER	°C	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg
	42	258.1	287.2	619.5	15.6	246.3	325.3	591.2	14.3	233	368	559.2	12.8	225.8	391	541.9	12	218.2	415.2	523.6	11.3
	5.6	907.8	287.2	39.1	46.7	866.4	325.3	37.3	42.6	819.6	368	35.3	38.3	794.2	391	34.2	36	767.4	415.2	33	33.7
	44	263.8	289.9	633.1	16.3	251.9	328.4	604.7	14.9	238.6	371.5	572.5	13.4	231.3	394.8	555.1	12.6	223.7	419.3	536.8	11.8
6265 S	6.7	927.8	289.9	39.9	48.7	886.1	328.4	38.1	44.5	839.1	371.5	36.1	40	813.5	394.8	35	37.7	786.7	419.3	33.9	35.4
9.9	45	266.8	291.2	640.3	16.7	254.9	330	611.8	15.2	241.5	373.4	579.6	13.7	234.2	396.8	562.2	12.9	226.6	421.4	543.8	12.1
	7.2	938.3	291.2	40.4	49.8	896.5	330	38.6	45.5	849.4	373.4	36.6	41	823.9	396.8	35.5	38.6	797	421.4	34.3	36.3
	48	276.4	295.7	663.3	17.9	264.3	335.1	634.4	16.4	250.8	379.3	601.9	14.8	243.4	403.1	584.3	13.9	235.7	428.2	565.7	13.1
	8.9	972	295.7	41.8	53.4	929.7	335.1	40	48.9	882.1	379.3	38	44.1	856.3	403.1	36.9	41.6	829.1	428.2	35.7	39.1
	42	266.6	306.1	639.9	9.6	253.9	346.4	609.3	8.7	239.7	391.4	575.2	7.8	232	415.6	556.8	7.4	224	441.1	537.6	6.9
	5.6	937.7	306.1	40.4	28.6	893	346.4	38.4	26	843	391.4	36.3	23.4	816	415.6	35.1	22	787.8	441.1	33.9	20.6
	44	274.5	310.2	658.9	10.1	261.6	351	627.8	9.2	247.1	396.6	593.1	8.3	239.4	421.2	574.5	7.8	231.2	447	554.9	7.3
6275 S	6.7	965.6	310.2	41.6	30.2	920	351	39.6	27.5	869.2	396.6	37.4	24.7	841.9	421.2	36.2	23.3	813.2	447	35	21.9
9.7	45	278.8	312.3	669.1	10.4	265.7	353.4	637.7	9.5	251.1	399.4	602.7	8.5	243.3	424.1	583.8	8	235	450.1	564.1	7.5
	7.2	980.5	312.3	42.2	31.1	934.5	353.4	40.2	28.4	883.2	399.4	38	25.5	855.6	424.1	36.8	24	826.7	450.1	35.6	22.5
	48	292.2	319.2	701.2	11.4	278.7	361.2	668.8	10.4	263.6	408.2	632.7	9.4	255.6	433.5	613.3	8.8	247.1	460	593	8.3
	8.9	1027.6	319.2	44.2	34	980.1	361.2	42.2	31.1	927.3	408.2	39.9	27.9	898.8	433.5	38.7	26.4	869.1	460	37.4	24.7
	42	275.5	309.7	661.1	10.2	262.5	350.3	630	9.3	248.1	395.8	595.4	8.3	240.4	420.4	576.9	7.9	232.3	446.3	557.4	7.4
	5.6	968.8	309.7	41.7	30.4	923.2	350.3	39.7	27.7	872.6	395.8	37.6	24.9	845.4	420.4	36.4	23.5	816.9	446.3	35.2	22
	44	283.8	313.6	681	10.8	270.6	354.8	649.3	9.8	255.9	400.9	614.2	8.8	248.1	425.9	595.3	8.3	239.8	452.1	575.6	7.8
6285 S	6.7	998	313.6	43	32.2	951.6	354.8	41	29.4	900.1	400.9	38.8	26.4	872.5	425.9	37.6	24.9	843.5	452.1	36.3	23.4
9.8	45	288.2	315.8	691.6	11.1	274.9	357.2	659.7	10.1	260.1	403.6	624.2	9.1	252.2	428.8	605.2	8.6	243.9	455.2	585.3	8.1
	7.2	1013.6	315.8	43.6	33.1	966.8	357.2	41.6	30.3	914.8	403.6	39.4	27.2	886.9	428.8	38.2	25.7	857.7	455.2	36.9	24.1
	48	302.2	322.5	725.4	12.1	288.5	364.8	692.4	11.1	273.3	412.3	655.9	10	265.1	438	636.3	9.4	256.6	465	615.8	8.9
	8.9	1063	322.5	45.8	36.3	1014.7	364.8	43.7	33.2	961.2	412.3	41.4	29.9	932.4	438	40.1	28.2	902.4	465	38.8	26.6
	42	286.4	325.8	687.5	11	272.9	368.3	655.1	10	258	415.8	619.1	9	249.9	441.5	599.7	8.5	241.4	468.5	579.5	7.9
	5.6	1007.5	325.8	43.4	32.7	960	368.3	41.3	29.9	907.3	415.8	39.1	26.8	878.9	441.5	37.8	25.3	849.2	468.5	36.6	23.7
	44	295	330.1	708	11.6	281.3	373.1	675	10.6	266	421.2	638.4	9.5	257.8	447.3	618.7	9	249.2	474.6	598	8.4
6295 S	6.7	1037.6	330.1	44.7	34.7	989.3	373.1	42.6	31.6	935.6	421.2	40.3	28.4	906.7	447.3	39	26.8	876.4	474.6	37.7	25.1
9.7	45	299.6	332.3	719	11.9	285.7	375.6	685.7	10.9	270.3	424.1	648.7	9.8	262	450.4	628.8	9.2	253.3	477.9	607.9	8.7
	7.2	1053.7	332.3	45.4	35.7	1004.9	375.6	43.3	32.6	950.7	424.1	40.9	29.3	921.5	450.4	39.7	27.6	890.9	477.9	38.4	25.9
	48	314.1	339.5	753.9	13.1	299.8	383.8	719.5	12	283.9	433.4	681.3	10.8	275.3	460.1	660.7	10.2	266.3	488.2	639.2	9.5
	8.9	1104.9	339.5	47.6	39.1	1054.4	383.8	45.4	35.7	998.4	433.4	43	32.2	968.3	460.1	41.7	30.3	936.8	488.2	40.3	28.5
	42	294.9	330	707.8	8.6	280.8	372.8	674	7.9	265.2	420.7	636.6	7.1	256.9	446.6	616.5	6.7	248.1	473.8	595.4	6.3
	5.6	1037.2	330	44.7	25.8	987.8	372.8	42.5	23.6	932.9	420.7	40.2	21.2	903.5	446.6	38.9	19.9	872.6	473.8	37.6	18.7
	44	303.3	334.1	727.8	9.1	288.9	377.5	693.4	8.3	273	426	655.2	7.5	264.4	452.1	634.5	7	255.5	479.7	613.3	6.6
6305 S	6.7	1066.6	334.1	45.9	27.2	1016.2	377.5	43.7	24.8	960.3	426	41.3	22.3	929.8	452.1	40	21	898.7	479.7	38.7	19.8
9.9	45	307.5	336.2	738.1	9.4	293.1	379.9	703.3	8.5	277	428.7	664.7	7.7	268.3	455	644	7.2	259.3	482.7	622.3	6.8
	7.2	1081.7	336.2	46.6	28	1030.7	379.9	44.4	25.5	974.2	428.7	41.9	23	943.8	455	40.6	21.6	912	482.7	39.3	20.3
	48	319	341.9	765.5	10	303.9	386.2	729.3	9.1	287.2	435.7	689.3	8.2	278.3	462.3	667.9	7.7	268.9	490.3	645.4	7.3
	8.9	1121.8	341.9	48.3	29.9	1068.8	386.2	46	27.3	1010.2	435.7	43.5	24.6	978.7	462.3	42.1	23.2	945.8	490.3	40.7	21.7
	42	310.6	333.6	745.3	9.5	296.4	376.7	711.3	8.7	280.6	425.2	673.4	7.9	272.1	451.4	653	7.4	263.2	479	631.6	7
	5.6	1092.3	333.6	47	28.5	1042.5	376.7	44.9	26.1	986.9	425.2	42.5	23.5	957	451.4	41.2	22.2	925.6	479	39.8	20.9
	44	319.4	337.5	766.6	10	305	381.2	731.9	9.2	288.8	430.2	693.2	8.3	280.1	456.7	672.4	7.8	271	484.6	650.5	7.4
6320 S	6.7	1123.4	337.5	48.4	30	1072.6	381.2	46.2	27.5	1015.9	430.2	43.7	24.8	985.3	456.7	42.4	23.4	953.3	484.6	41	22
10.2	45	324	339.5	777.5	10.3	309.3	383.5	742.4	9.5	293.1	432.8	703.3	8.5	284.3	459.4	682.2	8.1	275	487.4	660.1	7.6
	7.2	1139.4	339.5	49.1	30.8	1088	383.5	46.8	28.3	1030.7	432.8	44.4	25.5	999.8	459.4	43	24.1	967.4	487.4	41.6	22.7
	48	336.3	345	807	11.1	321.1	389.6	770.5	10.1	304.1	439.5	729.9	9.2	295	466.5	708	8.6	285.4	494.8	685	8.1
	8.9	1182.7	345	50.9	33.1	1129.2	389.6	48.6	30.3	1069.6	439.5	46	27.4	1037.5	466.5	44.7	25.8	1003.9	494.8	43.2	24.3
	42	322	349.7	772.8	10.2	307.3	394.6	737.4	9.3	290.8	445	698	8.4	282	472.3	676.8	7.9	272.7	501	654.5	7.5
	5.6	1132.5	349.7	48.8	30.5	1080.7	394.6	46.5	27.9	1022.9	445	44	25.2	991.8	472.3	42.7	23.7	959.1	501	41.3	22.3
	44	331.1	353.8	794.7	10.8	316.1	399.3	758.7	9.8	299.3	450.4	718.4	8.9	290.3	477.9	696.6	8.4	280.7	506.9	673.8	7.9
6335 S	6.7	1164.7	353.8	50.1	32.1	1111.8	399.3	47.9	29.4	1052.8	450.4	45.3	26.6	1020.9	477.9	44	25.1	987.4	506.9	42.5	23.5
10.1	45	335.8	356	806	11	320.6	401.8	769.5	10.1	303.7	453.1	728.8	9.1	294.5	480.8	706.8	8.6	284.9	509.9	683.7	8.1
	7.2	1181.2	356	50.9	33	1127.8	401.8	48.6	30.2	1068	453.1	46	27.3	1035.8	480.8	44.6	25.8	1001.9	509.9	43.1	24.2
	48	348.7	361.9	836.9	11.9	332.9	408.4	798.9	10.9	315.2	460.3	756.4	9.8	305.6	488.4	733.5	9.2	295.6	517.8	709.5	8.7
	8.9	1226.5	361.9	52.8	35.4	1170.8	408.4	50.4	32.5	1108.5	460.3	47.7	29.3	1075	488.4	46.3	27.6	1039.7	517.8	44.8	25.9

Table 4 Contd.

* Power input mentioned in this page should not be used for cable or fuse selection. MCA and MFA values given in the electrical data pages (24-26) should be referred for the same.

Capacity ratings are based on 10°F (5.5°C) range and 0.0001 ft².h°F/Btu (0.018 m².°C/kW) fouling factor.

For Legend, please refer to page 15.

CAPACITY RATINGS - 60 Hz
(Standard Efficiency)

Model	LCWT	Condenser Entering Air Temperature °F (°C)																			
		95.00 (35.0)				105.00 (40.6)				115.00 (46.1)				120.00 (48.9)				125.00 (51.7)			
		CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD	CCap	PI*	WFR	WPD
APCN S	°F	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg	TR	kW	USgpm	ft.wg
EER	°C	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg	kW	kW	l/s	ft.wg
	42	343.7	385.7	824.8	11.5	328	436.9	787.1	10.6	310.2	494.2	744.4	9.5	300.5	525.1	721.3	9	290.4	557.5	696.9	8.4
	5.6	1208.8	385.7	52	34.5	1153.5	436.9	49.7	31.6	1091	494.2	47	28.4	1057	525.1	45.5	26.8	1021.3	557.5	44	25.1
	44	352.8	390	846.6	12.1	337	442	808.7	11.1	319.1	500.1	765.9	10	309.4	531.4	742.7	9.5	299.2	564.3	718.2	8.9
6355 S	6.7	1240.8	390	53.4	36.2	1185.2	442	51	33.2	1122.4	500.1	48.3	30	1088.4	531.4	46.9	28.3	1052.5	564.3	45.3	26.5
9.9	45	357.9	392.5	858.9	12.4	342.1	444.9	820.9	11.4	324.2	503.4	778.1	10.3	314.5	535.1	754.9	9.8	304.3	568.3	730.4	9.2
	7.2	1258.7	392.5	54.2	37.2	1203.1	444.9	51.8	34.2	1140.3	503.4	49.1	30.9	1106.3	535.1	47.6	29.2	1070.5	568.3	46.1	27.4
	48	377.6	402	906.3	13.8	361.7	456	868	12.7	343.6	516.3	824.8	11.5	333.9	548.9	801.3	10.9	323.6	583.1	776.6	10.3
	8.9	1328.2	402	57.2	41.2	1272	456	54.8	38	1208.7	516.3	52	34.5	1174.3	548.9	50.6	32.6	1138.1	583.1	49	30.8
	42	354.9	403.5	851.7	13.3	338.2	456.7	811.6	12	319.4	516.1	766.5	10.7	309.2	548.1	742.2	10	298.6	581.7	716.6	9.3
	5.6	1248.1	403.5	53.7	39.6	1189.4	456.7	51.2	35.9	1123.4	516.1	48.4	31.9	1087.6	548.1	46.8	29.8	1050.1	581.7	45.2	27.7
	44	365.7	409	877.8	14.1	348.6	462.9	836.5	12.8	329.3	523	790.3	11.4	318.9	555.4	765.4	10.7	308	589.4	739.2	9.9
6365 S	6.7	1286.4	409	55.4	42.1	1225.9	462.9	52.8	38.2	1158.2	523	49.9	34	1121.6	555.4	48.3	31.8	1083.2	589.4	46.6	29.6
9.8	45	371.3	411.8	891.1	14.5	353.9	466	849.3	13.2	334.4	526.5	802.5	11.8	323.9	559.1	777.3	11	312.8	593.3	750.8	10.2
	7.2	1305.9	411.8	56.2	43.4	1244.6	466	53.6	39.4	1176.1	526.5	50.6	35.1	1139.1	559.1	49	32.9	1100.2	593.3	47.4	30.6
	48	387.5	420.1	930.1	15.8	369.3	475.3	886.4	14.4	349	536.8	837.6	12.8	338.1	569.9	811.4	12	326.6	604.6	783.8	11.2
	8.9	1363.1	420.1	58.7	47.2	1299	475.3	55.9	42.9	1227.5	536.8	52.8	38.3	1189.1	569.9	51.2	35.9	1148.7	604.6	49.5	33.5
	42	363.1	409.1	871.5	13.9	346.1	462.9	830.8	12.6	327.2	523.1	785.2	11.2	316.9	555.7	760.6	10.5	306.1	589.8	734.7	9.8
	5.6	1277.2	409.1	55	41.5	1217.5	462.9	52.4	37.7	1150.7	523.1	49.5	33.6	1114.6	555.7	48	31.4	1076.7	589.8	46.4	29.2
	44	374.5	414.6	898.7	14.8	357	469.1	856.8	13.4	337.5	530.1	809.9	12	327	563	784.7	11.2	315.9	597.5	758.2	10.4
6375 S	6.7	1317.1	414.6	56.7	44.1	1255.6	469.1	54.1	40.1	1187	530.1	51.1	35.8	1150	563	49.5	33.5	1111.2	597.5	47.8	31.2
9.8	45	380.2	417.5	912.6	15.2	362.5	472.3	870	13.8	342.8	533.6	822.6	12.4	332.1	566.7	797.1	11.6	321	601.5	770.3	10.8
	7.2	1337.4	417.5	57.6	45.5	1275	472.3	54.9	41.4	1205.6	533.6	51.9	37	1168.1	566.7	50.3	34.6	1128.9	601.5	48.6	32.3
	48	397.2	425.9	953.3	16.6	378.7	481.7	908.8	15.1	358.1	544	859.4	13.5	347	577.7	832.8	12.7	335.4	612.9	805	11.8
	8.9	1397.1	425.9	60.1	49.6	1331.9	481.7	57.3	45.1	1259.4	544	54.2	40.4	1220.4	577.7	52.5	37.9	1179.7	612.9	50.8	35.3
	42	368.4	423.8	884.3	14.3	350.9	479.3	842.1	13	331.3	541.5	795.1	11.5	320.8	575	769.9	10.8	309.8	610.2	743.4	10
	5.6	1295.9	423.8	55.8	42.7	1234	479.3	53.1	38.7	1165.3	541.5	50.2	34.5	1128.2	575	48.6	32.2	1089.5	610.2	46.9	30
	44	380.1	429.8	912.2	15.2	361.9	486	868.7	13.8	341.8	548.9	820.4	12.3	331	582.8	794.5	11.5	319.7	618.5	767.4	10.7
6380 S	6.7	1336.8	429.8	57.5	45.5	1273	486	54.8	41.2	1202.3	548.9	51.8	36.7	1164.4	582.8	50.1	34.4	1124.6	618.5	48.4	32
9.6	45	386	432.9	926.4	15.7	367.6	489.5	882.3	14.2	347.2	552.7	833.4	12.7	336.3	586.9	807.1	11.9	324.9	622.7	779.7	11.1
	7.2	1357.6	432.9	58.4	46.9	1292.9	489.5	55.7	42.5	1221.3	552.7	52.6	37.9	1182.9	586.9	50.9	35.5	1142.6	622.7	49.2	33.1
	48	403.4	441.9	968.2	17.1	384.2	499.5	922	15.5	362.9	563.9	871	13.9	351.5	598.6	843.7	13	339.6	635	815.1	12.1
	8.9	1418.9	441.9	61.1	51.1	1351.2	499.5	58.2	46.4	1276.5	563.9	55	41.5	1236.4	598.6	53.2	38.9	1194.6	635	51.4	36.3
	42	383.7	426.7	920.8	15.5	366.1	482.5	878.6	14.1	346.4	545.1	831.4	12.6	335.8	578.9	805.9	11.9	324.7	614.5	779.2	11.1
	5.6	1349.5	426.7	58.1	46.3	1287.5	482.5	55.4	42.2	1218.4	545.1	52.5	37.8	1181.1	578.9	50.8	35.4	1141.9	614.5	49.2	33.1
	44	396	432.5	950.4	16.5	377.8	489	906.8	15	357.6	552.3	858.2	13.5	346.7	586.5	832	12.6	335.2	622.5	804.5	11.8
6400 S	6.7	1392.8	432.5	60	49.3	1328.9	489	57.2	44.9	1257.7	552.3	54.1	40.3	1219.3	586.5	52.5	37.8	1179	622.5	50.8	35.3
9.9	45	402.2	435.4	965.4	17	383.8	492.3	921.1	15.5	363.3	556	871.9	13.9	352.2	590.4	845.3	13.1	340.6	626.5	817.5	12.2
	7.2	1414.7	435.4	60.9	50.8	1349.9	492.3	58.1	46.3	1277.7	556	55	41.5	1238.8	590.4	53.3	39	1198	626.5	51.6	36.5
	48	420.8	444.2	1009.8	18.6	401.4	502	963.4	16.9	380	566.8	911.9	15.2	368.4	601.8	884.2	14.3	356.3	638.5	855.1	13.4
	8.9	1479.9	444.2	63.7	55.5	1411.9	502	60.8	50.6	1336.4	566.8	57.5	45.4	1295.7	601.8	55.8	42.7	1253.2	638.5	54	40
	42	394.6	442.8	946.9	16.4	376.5	500.4	903.5	14.9	356.3	565.1	855	13.4	345.4	600	828.8	12.6	333.9	636.7	801.3	11.7
	5.6	1387.7	442.8	59.7	48.9	1324.1	500.4	57	44.6	1253.1	565.1	53.9	40	1214.7	600	52.3	37.5	1174.3	636.7	50.6	35
	44	407.3	448.9	977.5	17.4	388.6	507.3	932.7	15.9	367.8	572.7	882.6	14.2	356.5	608	855.6	13.4	344.7	645.1	827.2	12.5
6410 S	6.7	1432.6	448.9	61.7	52.1	1366.8	507.3	58.8	47.5	1293.5	572.7	55.7	42.6	1253.9	608	54	40	1212.3	645.1	52.2	37.4
9.8	45	413.8	452	993	18	394.8	510.8	947.5	16.4	373.6	576.5	896.7	14.7	362.2	612.1	869.3	13.8	350.2	649.3	840.5	12.9
	7.2	1455.3	452	62.6	53.7	1388.5	510.8	59.8	49	1314.1	576.5	56.6	43.9	1273.9	612.1	54.8	41.3	1231.8	649.3	53	38.6
	48	433	461.4	1039.2	19.6	413	521.2	991.3	17.9	390.8	588	938	16.1	378.9	624.1	909.3	15.1	366.3	661.9	879.2	14.1
	8.9	1522.9	461.4	65.6	58.7	1452.7	521.2	62.5	53.5	1374.6	588	59.2	48	1332.6	624.1	57.4	45.2	1288.5	661.9	55.5	42.3
	42	409.2	446.3	982.1	17.6	391.1	504.2	938.7	16.1	370.9	569.4	890.1	14.5	359.9	604.7	863.7	13.6	348.3	641.8	836	12.8
	5.6	1439.3	446.3	62	52.6	1375.7	504.2	59.2	48.1	1304.4	569.4	56.2	43.3	1265.8	604.7	54.5	40.8	1225.2	641.8	52.7	38.2
	44	422.7	452.2	1014.4	18.7	404	510.9	969.5	17.1	383	576.8	919.2	15.4	371.6	612.5	891.9	14.5	359.7	649.9	863.3	13.6
6425 S	6.7	1486.7	452.2	64	56	1420.8	510.9	61.2	51.2	1347.1	576.8	58	46.1	1307.1	612.5	56.3	43.5	1265.1	649.9	54.5	40.7
10.0	45	429.5	455.3	1030.7	19.3	410.5	514.3	985.1	17.7	389.2	580.6	934	15.9	377.6	616.4	906.3	15	365.5	654.1	877.2	14.1
	7.2	1510.5	455.3	65	57.7	1443.7	514.3	62.2	52.9	1368.8	580.6	58.9	47.6	1328.2	616.4	57.2	44.9	1285.6	654.1	55.3	42.1
	48	449.8	464.4	1079.5	21.1	429.8	524.5	1031.5	19.3	407.4	591.8	977.7	17.4	395.3	628.2	948.7	16.4	382.6	666.3	918.2	15.4
	8.9	1582.1	464.4	68.1	63.2	1511.7	524.5	65.1	57.8	1432.9	591.8	61.7	52.1	1390.3	628.2	59.9	49.1	1345.6	666.3	57.9	46.1
	42	419.9	462	1007.8	18.5	401.4	521.7	963.4	16.9	380.6	588.9	913.5	15.3	369.4	625.3	886.5	14.4	357.5	663.5	858	13.5
	5.6	1476.9	462	63.6	55.3	1411.8	521.7	60.8	50.6	1338.7	588.9	57.6	45.6	1299.1	625.3	55.9	42.9	1257.4	663.5	54.1	40.2
	44	433.8	468.3	1041.2	19.7	414.6	528.8	995.1	18	393.1	596.7	943.4	16.3	381.4	633.5	915.4	15.3	369.1	672	885.9	14.3
6435 S	6.7	1525.9	468.3	65.7	58.9	1458.4	528.8	62.8	53.9	1382.6	596.7	59.5	48.6	1341.5	633.5	57.8	45.8	1298.3	672	55.9	42.9
10.0	45	440.8	471.5	1058	20.3	421.3	532.4	1011.2	18.6	399.4	600.7	958.6	16.8	387.6	637.6	930.1	15.8	375.1	676.4	900.2	14.8
	7.2	1550.6	471.5	66.8	60.7	1481.9	532.4	63.8	55.6	1404.9	600.7	60.5	50.1	1363.1	637.6	58.7	47.2	1319.2	676.4	56.8	44.3
	48	461.7	481	1108.2	22.2	441.3	543.1	1059.1	20.4	418.2	612.5	1003.7	18.3	405.7	650	973.7	17.3	392.6	689.3	942.2	16.2
	8.9	1624	481	69.9	66.4	1552.2	543.1	66.8	60.9	1470.9	612.5	63.3	54.8	1427	650	61.4	51.7	1380.8	689.3	59.4	48.5

Table 4 Ends

* Power input mentioned in this page should not be used for cable or fuse selection. MCA and MFA values given in the electrical data pages (24-26) should be referred for the same.

Capacity ratings are based on 10°F (5.5°C) range and 0.0001 ft².h°F/Btu (0.018 m².°C/kW) fouling factor.

For Legend, please refer to page 15.

Capacity Correction & Limits

Evaporator Chiller Limits of Operation

Maximum LCWT : 48°F (8.89°C)
Maximum ECWT : 76°F (24.4°C)*
Minimum LCWT : 42°F (5.55°C)
For Lower LCWT ethylene glycol solution to be used, consult SKM.
(**For short periods.)*

Range & Flow Limits

Range limit 8°F - 16°F (4.4°C - 8.9°C) except where limited by water flow rate limits for evaporator. For minimum & maximum water flow rate refer to page 27.

Working & Test Pressures

Evaporator Pressure		Refrigerant	Water
Maximum Working Pressure	psig	239.3	145
	kPa	1650	1000
Test Pressure	psig	342.3	207.4
	kPa	2360	1430

Table 5

Condenser Pressure		Refrigerant
Maximum Working Pressure	psig	300
	kPa	2068
Test Pressure	psig	450
	kPa	3102

Table 6

Cooler Fouling Factors

The units are rated at 0.0001 ft².h.°F/Btu (0.018m².°C/KW) Other than this fouling factor, apply the correction factors to get the effect on cooling capacity and power input.

Fouling Factor		Capacity Multiplier	Power Multiplier
IP	SI		
0.0001 *	0.018	1	1
0.00025	0.044	0.99	1
0.0005	0.088	0.98	0.99
0.001	0.176	0.95	0.98
0.002	0.352	0.90	0.96

Table 7

*Standard fouling factor, as per AHRI standard 550/590.

Altitude Correction Factor

The units ratings are based on sea level. Above sea level apply the following correction factors:

Altitude		Capacity Multiplier	Power Multiplier
Feet	Meters		
0	0	1	1
2000	610	0.99	1.01
4000	1219	0.98	1.02
6000	1829	0.97	1.03
8000	2438	0.96	1.04
10000	3048	0.95	1.05

Table 8

Range Correction Factors

Capacity ratings based on 10°F (5.5°C) chilled water range. For other than this range please use correction factor below.

Range		Capacity Multiplier	Power Multiplier
°F	°C		
8	4.4	0.995	0.998
10	5.5	1	1
12	6.7	1.005	1.002
14	7.8	1.01	1.004
16	8.9	1.015	1.006

Table 9

Fin Material Correction Factors

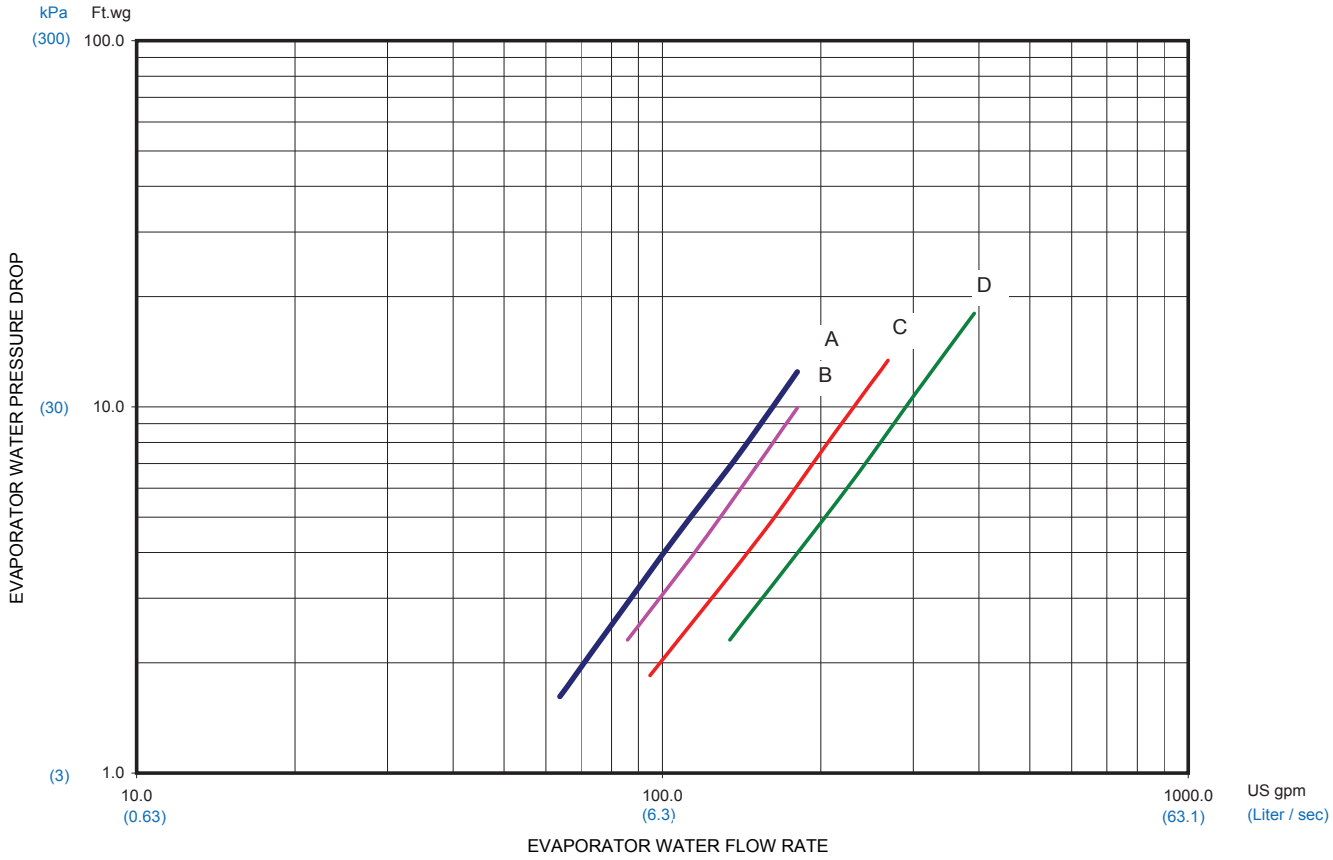
The unit ratings are based on copper tube and aluminium fins condenser. For alternative condenser material the following factors apply :

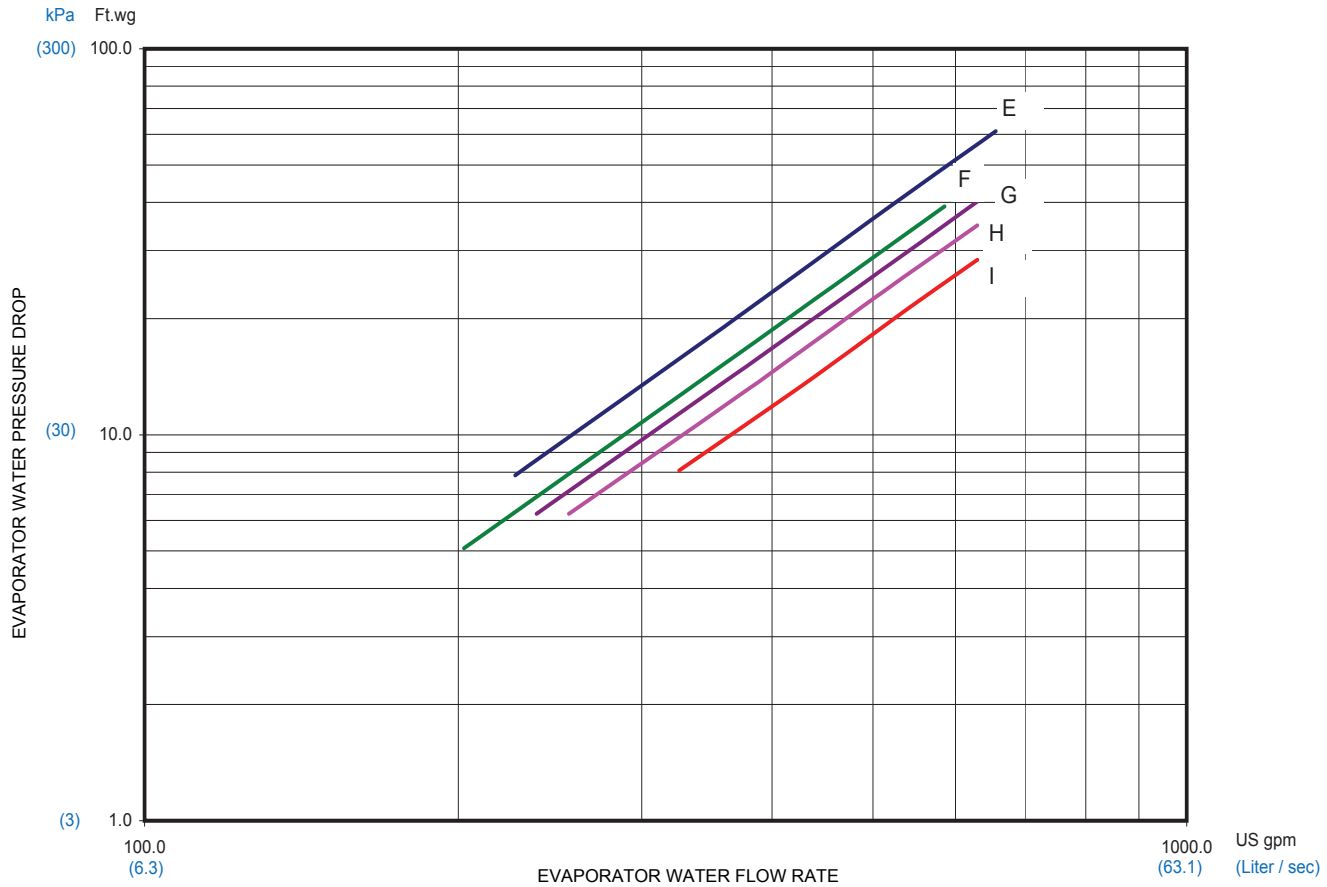
Condenser Fin Material	Capacity Multiplier	Power Multiplier
Precoated Aluminum	0.995	1.001
Copper	1.01	0.992

Table 10

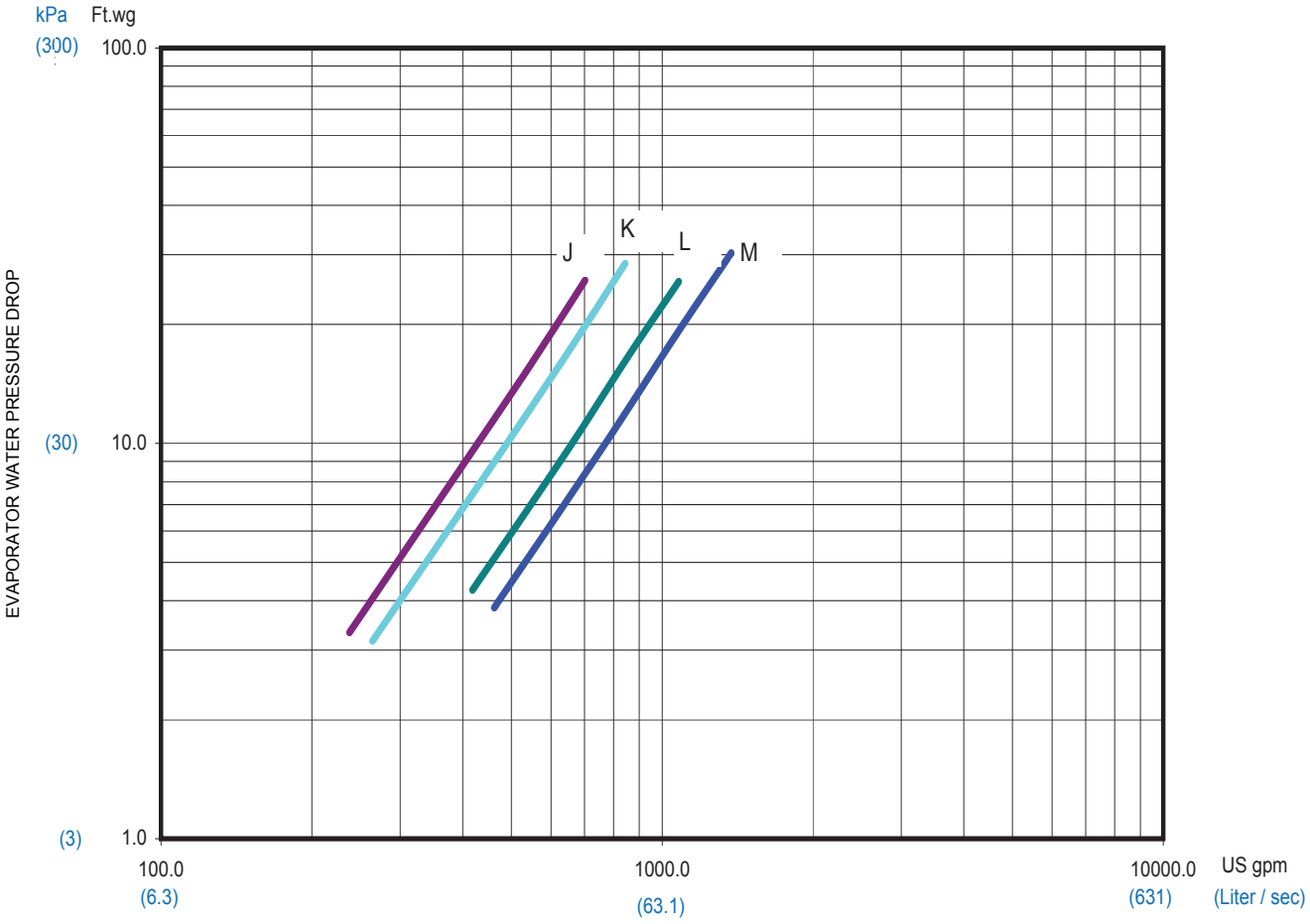
(Note: Aeris Coating does not affect Capacity and Power).

Evaporator Water Pressure Drop





Evaporator Water Pressure Drop



Graph	APCN S Models		Water Flow Rate			
	Std Eff.		Minimum		Maximum	
	50 Hz	60 Hz	US gpm	L/s	US gpm	L/s
A	5050	-	63.8	4.03	180.5	11.39
B	5060, 5070	6060, 6070	85.9	5.42	190.0	11.99
C	5080, 5090	6085, 6095	94.7	5.97	268.6	16.94
D	5100, 5115	6105	134.3	8.47	391.9	24.72
E	5130	6130, 6140	226.7	14.31	656.0	41.39
F	-	-	202.5	12.78	585.6	36.94
G	-	-	237.8	15.00	629.6	39.72
H	5145, 5155, 5160	6155, 6170	255.4	16.11	629.6	39.72
I	5175, 5185	6185, 6190, 6205, 6220	325.8	20.56	629.6	39.72
	5350, 5365, 5375, 5385, 5400, 5410, 5425	6365, 6375, 6380, 6400, 6410, 6425, 6435				
J	5200	-	237.8	15.00	701.6	44.26
K	5220, 5230	6240, 6255, 6265	264.2	16.67	843.8	53.24
L	5235	-	418.3	26.39	883.1	55.71
L	5245, 5255	6275, 6285, 6295	418.3	26.39	981.2	61.90
L	5300	-	418.3	26.39	1079.3	68.10
M	5270, 5285	6305, 6320, 6335, 6365	462.3	29.17	1275.6	80.48
M	5310, 5320, 5325, 5335, 5345	-	462.3	29.17	1275.6	80.48
M	-	-	462.3	29.17	1373.7	86.67

Table 11

Note : To calculate the water pressure drop for shaded models, use the indicated graphs and halve the WFR as the evaporators are connected in parallel

Selection Procedure

APCN-S Chillers should be selected with specific Design Considerations, requirements and parameters of the intended application. Care and good engineering should lead to an efficient and cost effective selection. Sample procedures are shown below:

Example 1: (IP System)

Select an Air Cooled Package Chiller giving a capacity of 170.0 TR to cool water from 54ºF to 44ºF at 2000 ft. altitude, 0.00075 fouling factor, power supply 415V/3Ph/50Hz an 115 ºF ambient Temperature.

Find compressor power input in kW.

Selection:

Apply the following factors to convert the required capacity to tabulated capacity ratings.

	Capacity Multiplier	Power Multiplier
Altitude	0.99	1.01
Fouling Factor	0.965	0.985

$$\text{Tabulated rated capacity} = \frac{170}{0.99 \times 0.965}$$

$$= 177.9 \text{ TR}$$

Refer to capacity rating 50Hz under 115 ºF condenser entering air temperature and select a chiller giving a capacity nearest larger to 177.9 at 44 ºF LCWT. Select model APCN 5200-S giving a capacity of 182.8 TR and PI = 277.2 kW.

Apply correction factors to the selected unit to find actual capacity and P I.

Capacity = 182.8x 0.99 x 0.965
= 174.6 TR

P I = 277.2 x 1.01 x 0.985
= 275.8 kW

Calculation of Water Flow Rate (WFR)

To calculate the water flow rate to be circulated, use the following:

$$\text{WFR (US gpm)} = \frac{\text{C.CAP (TR) x 24}}{\text{Range (ºF)}}$$

$$= \frac{174.6 \times 24}{10} = 419.0 \text{ US gpm}$$

Example 2: (SI System)

Select an Air Cooled Package Chiller giving a capacity of 630 kW of refrigeration to cool water from 12.2ºC to 6.7ºC at 610M altitude, 0.132 fouling factor, power supply 380V/3Ph/60Hz and 40.6 ºC ambient Temperature.

Find compressor power input in kW.

Selection:

Apply the following factors to convert the required capacity to tabulated capacity ratings.

	Capacity Multiplier	Power Multiplier
Altitude	0.99	1.01
Fouling Factor	0.965	0.985

$$\text{Tabulated rated capacity} = \frac{630}{0.99 \times 0.965}$$

$$= 659.4 \text{ kW}$$

Refer to capacity rating 60Hz under 40.6 ºC condenser entering air temperature and select a chiller giving a capacity nearest larger to 659.4 at 6.7 ºC LCWT. Select model APCN 6205-S giving a capacity of 691.3 kW and PI = 246.6 kW.

Apply correction factors to the selected unit to find actual capacity and P I.

Capacity = 691.3 x 0.99 x 0.965
= 660.4 kW

P I = 246.6 x 1.01 x 0.985
= 245.3 kW

Calculation of Water Flow Rate (WFR)

To calculate the water flow rate to be circulated, use the following:

$$\text{WFR (L/s)} = \frac{\text{C.CAP (kW) x 0.239}}{\text{Range (ºC)}}$$

$$= \frac{660.4 \times 0.239}{5.5} = 28.7 \text{ L/s.}$$

For more details refer to other specifications and dimensional drawings for the selected model.

ELECTRICAL DATA

Power Supply: 380~415V/3PH/50Hz

Model APCN	Unit Characteristic			Compressor			Condenser Fan Motor		
	MFA	MCA	ICF	QTY	RLA	LRA	QTY	FLA	LRA
5050 S	400	196	508	1	144	479	4	4.0	16.5
5060 S	400	220	545	1	163	516	4	4.0	16.5
5070 S	500	283	702	1	207	665	6	4.0	16.5
5080 S	630	319	766	1	236	729	6	4.0	16.5
5090 S	630	358	639	1	267	602	6	4.0	16.5
5100 S	500	348	660	2	144	479	6	4.0	16.5
5115 S	630	399	724	2	163	516	8	4.0	16.5
5130 S	800	454	873	1 + 1	207 + 163	665 + 516	8	4.0	16.5
5145 S	800	498	917	2	207	665	8	4.0	16.5
5155 S	800	542	989	1 + 1	236 + 207	729 + 665	10	4.0	16.5
5160 S	800	571	1018	2	236	729	10	4.0	16.5
5175 S	1000	618	899	1 + 1	267 + 236	602 + 729	12	4.0	16.5
5185 S	1000	649	930	2	267	602	12	4.0	16.5
5200 S	1000	677	1096	2 + 1	207 + 163	665 + 516	12	4.0	16.5
5220 S	1000	721	1140	3	207	665	12	4.0	16.5
5230 S	1000	765	1212	1 + 2	236 + 207	729 + 665	14	4.0	16.5
5235 S	1250	794	1241	2 + 1	236 + 207	729 + 665	14	4.0	16.5
5245 S	1250	831	1278	3	236	729	16	4.0	16.5
5255 S	1250	870	1151	1 + 2	267 + 236	602 + 729	16	4.0	16.5
5270 S	1250	909	1190	2 + 1	267 + 236	602 + 729	18	4.0	16.5
5285 S	1250	940	1221	3	267	602	18	4.0	16.5
5300 S	1250	988	1435	1 + 3	236 + 207	729 + 665	18	4.0	16.5
5310 S	1250	1017	1464	2 + 2	236 + 207	729 + 665	18	4.0	16.5
5320 S	1500	1054	1501	3 + 1	236 + 207	729 + 665	20	4.0	16.5
5325 S	1500	1083	1530	4	236	729	20	4.0	16.5
5335 S	1500	1130	1411	1 + 3	267 + 236	602 + 729	22	4.0	16.5
5345 S	1500	1161	1442	2 + 2	267 + 236	602 + 729	22	4.0	16.5
5350 S	1500	1161	1442	2 + 2	267 + 236	602 + 729	22	4.0	16.5
5365 S	1000+1000	648+618	930+1056	3 + 1	267 + 236	602 + 729	24	4.0	16.5
5375 S	1000+1000	648+648	930+930	4	267	602	24	4.0	16.5
5385 S	1000+1000	681+648	913+930	1 + 3	293 + 267	586 + 602	24	4.0	16.5
5400 S	1000+1000	707+648	940+930	2 + 2	293 + 267	586 + 602	24	4.0	16.5
5410 S	1000+1000	707+682	940+955	3 + 1	293 + 267	586 + 602	24	4.0	16.5
5425 S	1000+1000	707+707	940+940	4	293	586	24	4.0	16.5

Table 12

NOTE:

220V/1PH/50Hz control power must be supplied from a separate source, through field supplied and installed disconnect switch

Legend

MFA Maximum Fuse Amps (for fuse sizing), complies with NEC Article 440-22 & 430-52.

MCA Minimum Circuit Amps.(for wire sizing), complies with NEC article 440-33.

ICF Maximum Instantaneous Current Flow

RLA Rated Load Amps. (at worst operating condition)

LRA Locked Rotor Amps

FLA Full Load Amps

Note :

Voltage imbalance not to exceed ± 2 % of the rated voltage

SKM Air Cooled Packaged Chillers
APCN-S Series - R-134a

ELECTRICAL DATA

Power Supply: 460V/3PH/60Hz

Model APCN	Unit Characteristic			Compressor			Condenser Fan Motor		
	MFA	MCA	ICF	QTY	RLA	LRA	QTY	FLA	LRA
6060 S	400	199	515	1	143	479	4	5.0	21.0
6070 S	400	223	552	1	162	516	4	5.0	21.0
6085 S	500	288	711	1	206	665	6	5.0	21.0
6095 S	630	323	775	1	234	729	6	5.0	21.0
6105 S	630	361	648	1	265	602	6	5.0	21.0
6130 S	500	362	678	2	143	479	8	5.0	21.0
6140 S	630	405	734	2	162	516	8	5.0	21.0
6155 S	800	460	883	1 + 1	206 + 162	665 + 516	8	5.0	21.0
6170 S	800	504	927	2	206	665	8	5.0	21.0
6185 S	800	549	1001	1 + 1	234 + 206	729 + 665	10	5.0	21.0
6190 S	800	577	1029	2	234	729	10	5.0	21.0
6205 S	1000	625	912	1 + 1	265 + 234	602 + 729	12	5.0	21.0
6220 S	1000	656	943	2	265	602	12	5.0	21.0
6240 S	1000	686	1109	2 + 1	206 + 162	665 + 516	12	5.0	21.0
6255 S	1000	730	1153	3	206	665	12	5.0	21.0
6265 S	1000	775	1227	1 + 2	234 + 206	729 + 665	14	5.0	21.0
6275 S	1250	803	1255	2 + 1	234 + 206	729 + 665	14	5.0	21.0
6285 S	1250	841	1293	3	234	729	16	5.0	21.0
6295 S	1250	879	1166	1 + 2	265 + 234	602 + 729	16	5.0	21.0
6305 S	1250	879	1166	1 + 2	265 + 234	602 + 729	16	5.0	21.0
6320 S	1250	920	1207	2 + 1	265 + 234	602 + 729	18	5.0	21.0
6335 S	1250	951	1238	3	265	602	18	5.0	21.0
6355 S	1250	1001	1453	1 + 3	234 + 206	729 + 665	18	5.0	21.0
6365 S	1500	1029	1481	2 + 2	234 + 206	729 + 665	18	5.0	21.0
6375 S	1500	1067	1519	3 + 1	234 + 206	729 + 665	20	5.0	21.0
6380 S	1500	1095	1547	4	234	729	20	5.0	21.0
6400 S	1500	1143	1430	1 + 3	265 + 234	602 + 729	22	5.0	21.0
6410 S	1500	1174	1461	2 + 2	265 + 234	602 + 729	22	5.0	21.0
6425 S	1000+1000	656+625	943+1070	3 + 1	265 + 234	602 + 729	24	5.0	21.0
6435 S	1000+1000	656+656	943+943	4	265	602	24	5.0	21.0

Table 13

NOTE:

240V/1PH/60Hz control power must be supplied from a separate source, through field supplied and installed disconnect switch

Legend

MFA Maximum Fuse Amps (for fuse sizing), complies with NEC Article 440-22 & 430-52.

MCA Minimum Circuit Amps.(for wire sizing), complies with NEC article 440-33.

ICF Maximum Instantaneous Current Flow

RLA Rated Load Amps. (at worst operating condition)

LRA Locked Rotor Amps

FLA Full Load Amps

Note :

Voltage imbalance not to exceed ± 2 % of the rated voltage

ELECTRICAL DATA

Power Supply: 380V/3PH/60Hz

Model APCN	Unit Characteristic			Compressor			Condenser Fan Motor		
	MFA	MCA	ICF	QTY	RLA	LRA	QTY	FLA	LRA
6060 S	500	237	639	1	173	606	4	5.3	17.5
6070 S	500	266	686	1	196	653	4	5.3	17.5
6085 S	630	344	851	1	250	807	6	5.3	17.5
6095 S	800	387	967	1	284	923	6	5.3	17.5
6105 S	Please consult SKM								
6130 S	630	432	834	2	173	606	8	5.3	17.5
6140 S	800	483	904	2	196	653	8	5.3	17.5
6155 S	800	551	1058	1 + 1	250 + 196	807 + 653	8	5.3	17.5
6170 S	1000	605	1112	2	250	807	8	5.3	17.5
6185 S	1000	658	1238	1 + 1	284 + 250	923 + 807	10	5.3	17.5
6190 S	1000	692	1272	2	284	923	10	5.3	17.5
6205 S	Please consult SKM								
6220 S									
6240 S	1250	822	1329	2 + 1	250 + 196	807 + 653	12	5.3	17.5
6255 S	1250	876	1383	3	250	807	12	5.3	17.5
6265 S	1250	929	1509	1 + 2	284 + 250	923 + 807	14	5.3	17.5
6275 S	1250	963	1543	2 + 1	284 + 250	923 + 807	14	5.3	17.5
6285 S	1500	1008	1588	3	284	923	16	5.3	17.5
6295 S	Please consult SKM								
6305 S									
6320 S									
6335 S									
6355 S	1000+1000	652+610	1233+1117	1 + 3	284 + 250	923 + 807	18	5.3	17.5
6365 S	1000+1000	687+610	1267+1117	2 + 2	284 + 250	923 + 807	18	5.3	17.5
6375 S	1000+1000	692+658	1267+1233	3 + 1	284 + 250	923 + 807	20	5.3	17.5
6380 S	1000+1000	692+692	1272+1272	4	284	923	20	5.3	17.5
6400 S	Please consult SKM								
6410 S									
6425 S									
6435 S									

Table 14

NOTE:

220V/1PH/60Hz control power must be supplied from a separate source, through field supplied and installed disconnect switch

Legend

MFA Maximum Fuse Amps (for fuse sizing), complies with NEC Article 440-22 & 430-52.

MCA Minimum Circuit Amps.(for wire sizing), complies with NEC article 440-33.

ICF Maximum Instantaneous Current Flow

RLA Rated Load Amps. (at worst operating condition)

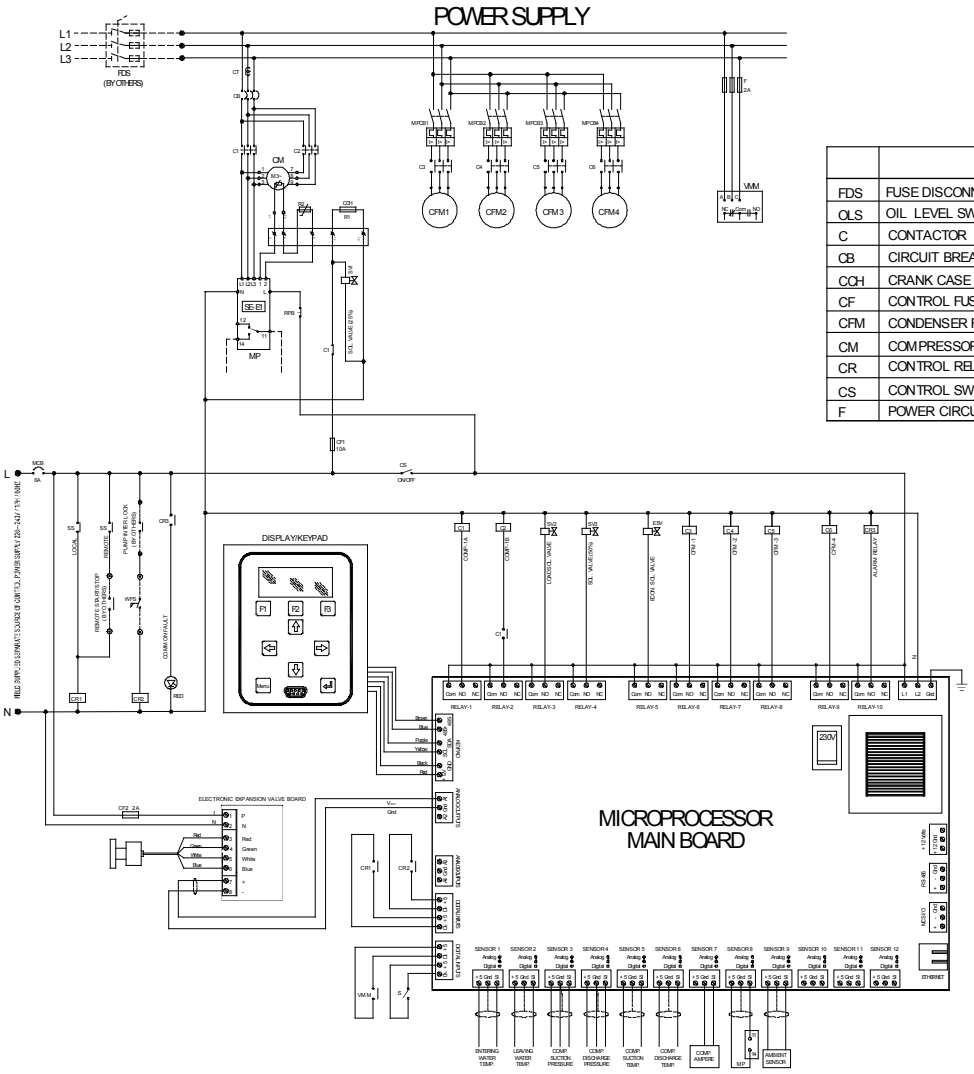
LRA Locked Rotor Amps

FLA Full Load Amps

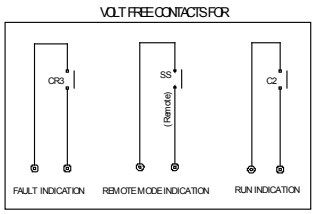
Note :

Voltage imbalance not to exceed ± 2 % of the rated voltage

Typical Wiring Diagram



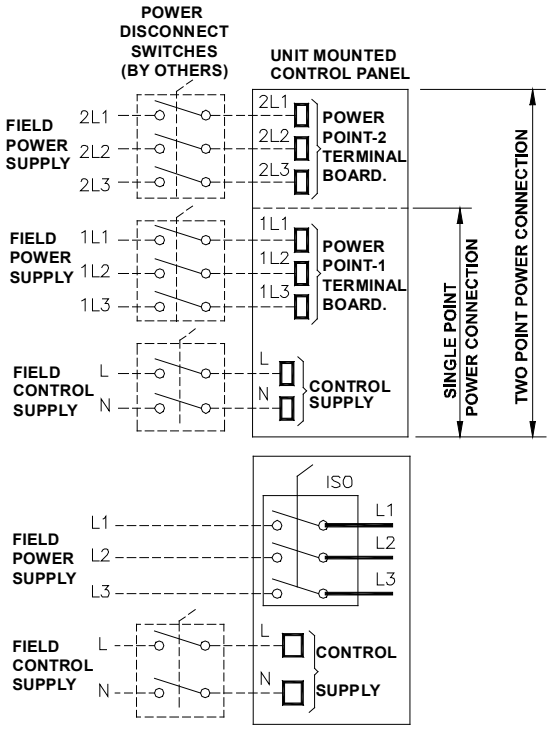
LEGEND			
FDS	FUSE DISCONNECT SWITCH	MP	MOTOR PROTECTOR
OLS	OIL LEVEL SWITCH	MCB	MINIATURE CIRCUIT BREAKER
C	CONTACTOR	MPCB	MOTOR PROTECTOR CIRCUIT BREAKER
CB	CIRCUIT BREAKER	SV	SOLENOID VALVE
CCH	CRANK CASE HEATER	S	MANUAL PUMPDOWN SWITCH
CF	CONTROL FUSE	SS	SELECTOR SWITCH
CFM	CONDENSER FAN MOTOR	VMM	VOLTAGE MONITORING MODULE
CM	COMPRESSOR MOTOR	WFS	WATER FLOW SWITCH
CR	CONTROL RELAY	RPB	RESET PUSH BUTTON
CS	CONTROL SWITCH	ESV	ECONOMISER SOLENOID VALVE
F	POWER CIRCUIT FUSE	– – –	FIELD WIRING



Power Entry Connections

Power Supply	Model APCN-S	No.of Entry Points
380-415/3PH/50Hz	5050-5350	ONE
	5365-5425	TWO
440/3PH/50Hz	PLEASE CONSULT SKM	
220/3PH/60Hz		
380/3PH/60Hz		
460/3PH/50Hz	6060-6410	ONE
	6425-6435	TWO

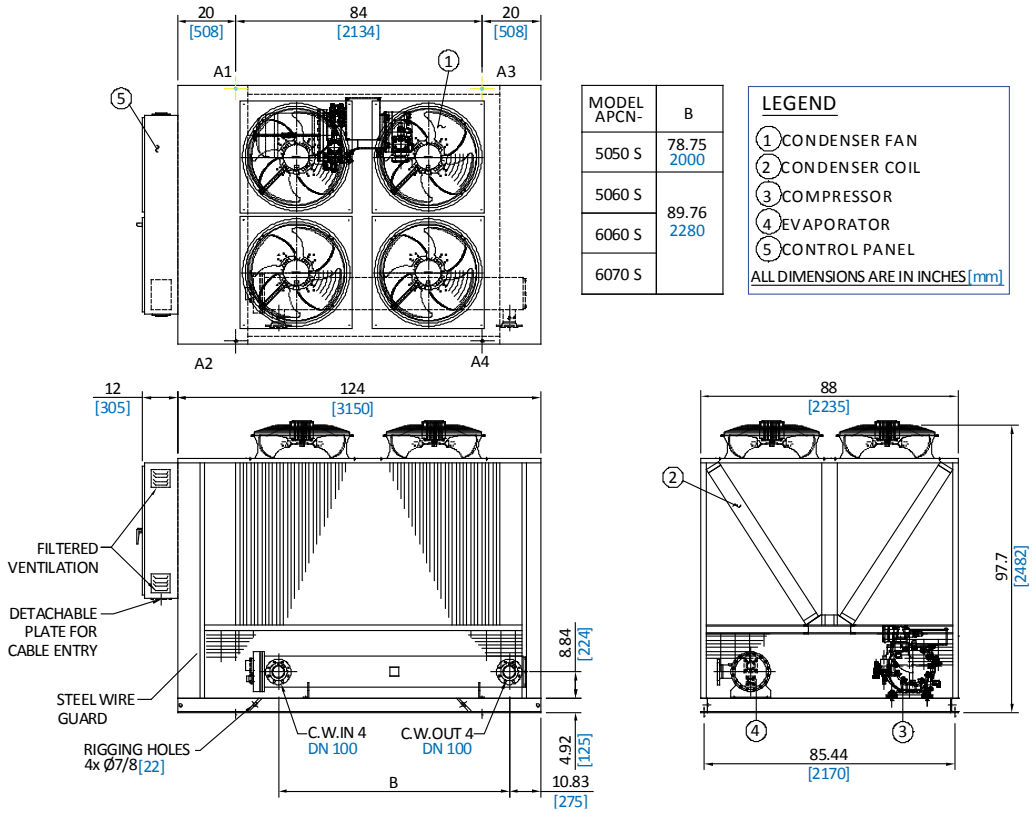
Table 15



(FOR SINGLE POINT POWER CONNECTION. WITH BUILT-IN ISOLATOR - CONSULT SKM)

Dimensional Data

APCN Models: 5050 S, 5060 S & 6060 S, 6070 S



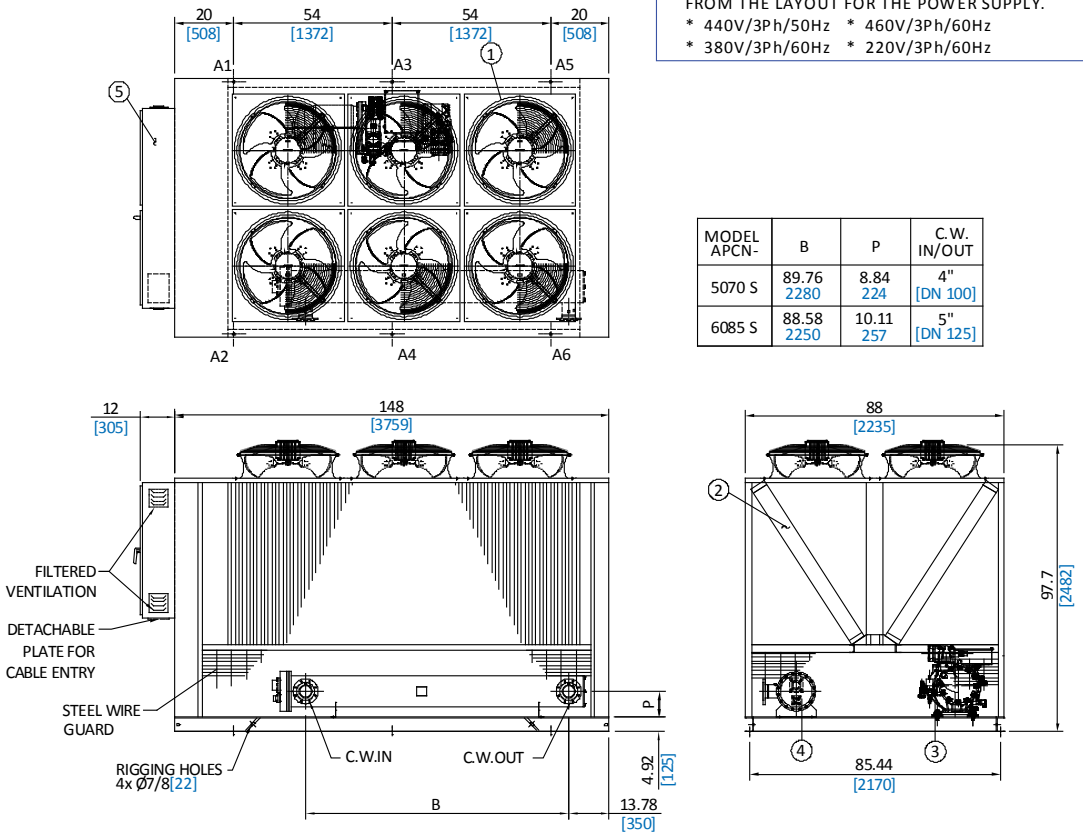
MODEL APCN-	B
5050 S	78.75 2000
5060 S	89.76 2280
6060 S	
6070 S	

LEGEND
1. CONDENSER FAN
2. CONDENSER COIL
3. COMPRESSOR
4. EVAPORATOR
5. CONTROL PANEL

ALL DIMENSIONS ARE IN INCHES [mm]

APCN Models: 5070 S & 6085 S

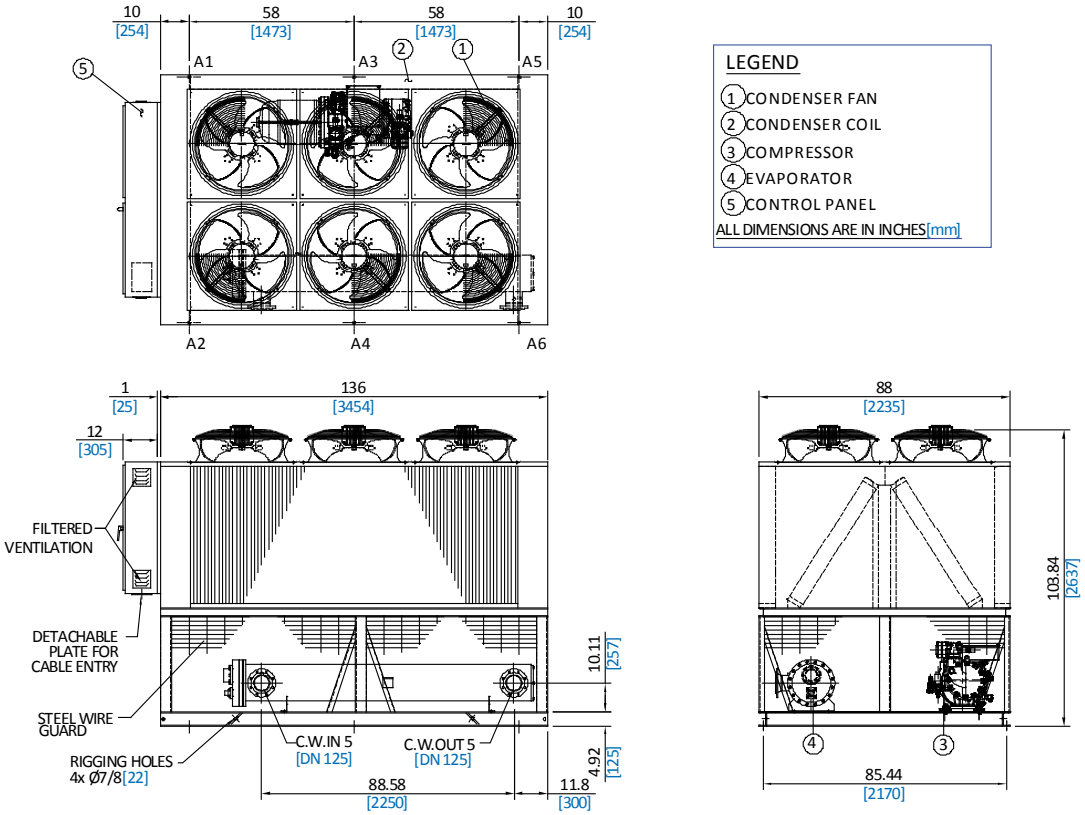
NOTE:
CONDENSER FAN & UNIT HEIGHT WILL BE DIFFERENT FROM THE LAYOUT FOR THE POWER SUPPLY.
* 440V/3Ph/50Hz * 460V/3Ph/60Hz
* 380V/3Ph/60Hz * 220V/3Ph/60Hz



MODEL APCN-	B	P	C.W. IN/OUT
5070 S	89.76 2280	8.84 224	4" [DN 100]
6085 S	88.58 2250	10.11 257	5" [DN 125]

Dimensional Data

APCN Models: 5080 S, 5090 S & 6095 S, 6105 S

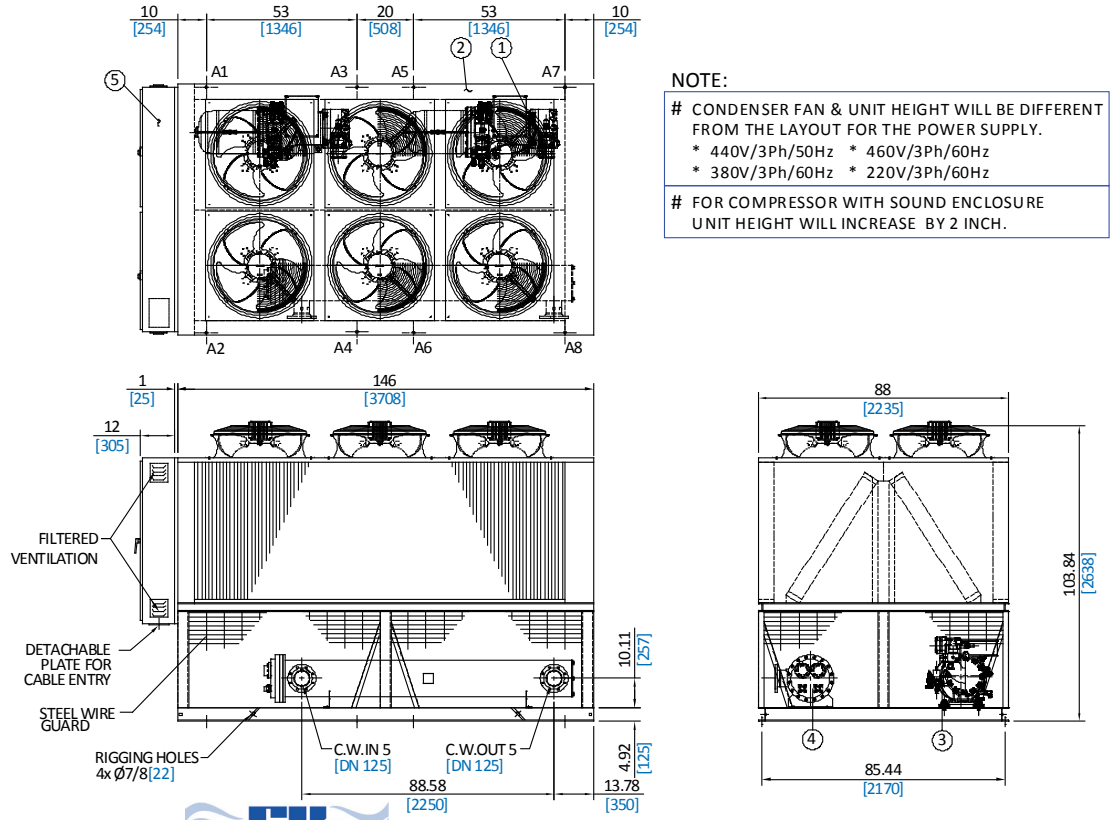


LEGEND

1. CONDENSER FAN
2. CONDENSER COIL
3. COMPRESSOR
4. EVAPORATOR
5. CONTROL PANEL

ALL DIMENSIONS ARE IN INCHES[mm]

APCN Models: 5100 S



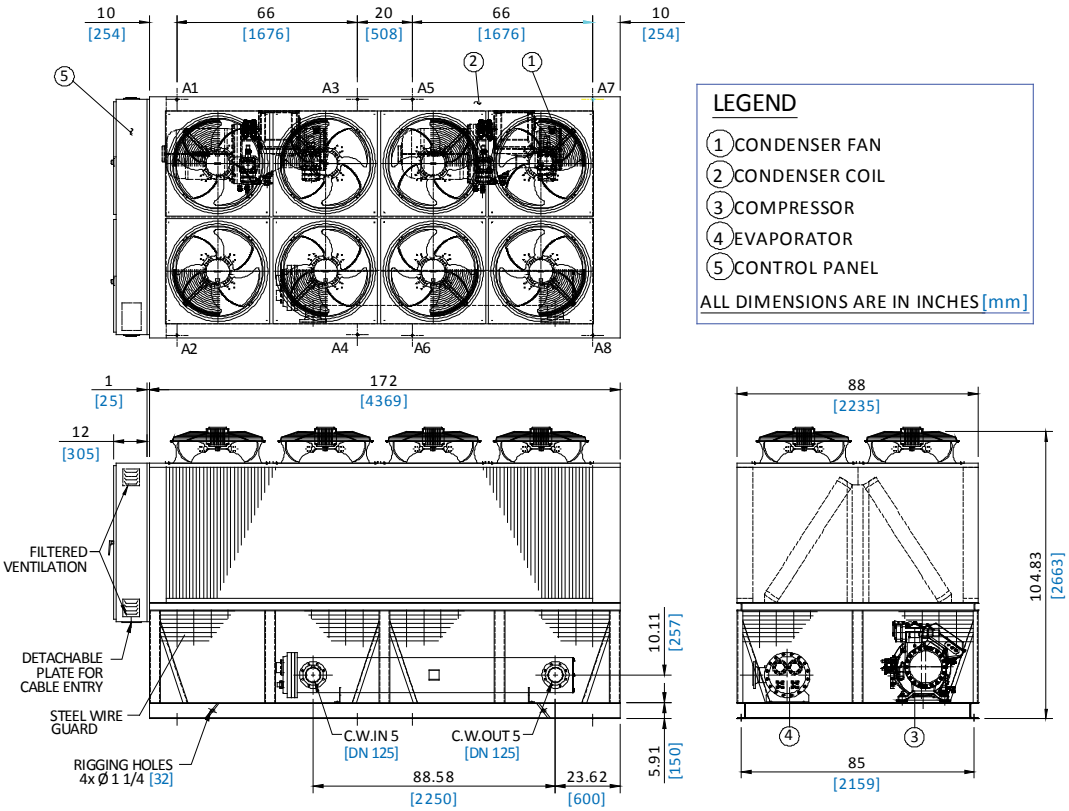
NOTE:

CONDENSER FAN & UNIT HEIGHT WILL BE DIFFERENT FROM THE LAYOUT FOR THE POWER SUPPLY.
* 440V/3Ph/50Hz * 460V/3Ph/60Hz
* 380V/3Ph/60Hz * 220V/3Ph/60Hz

FOR COMPRESSOR WITH SOUND ENCLOSURE UNIT HEIGHT WILL INCREASE BY 2 INCH.

Dimensional Data

APCN Models: 5115 S

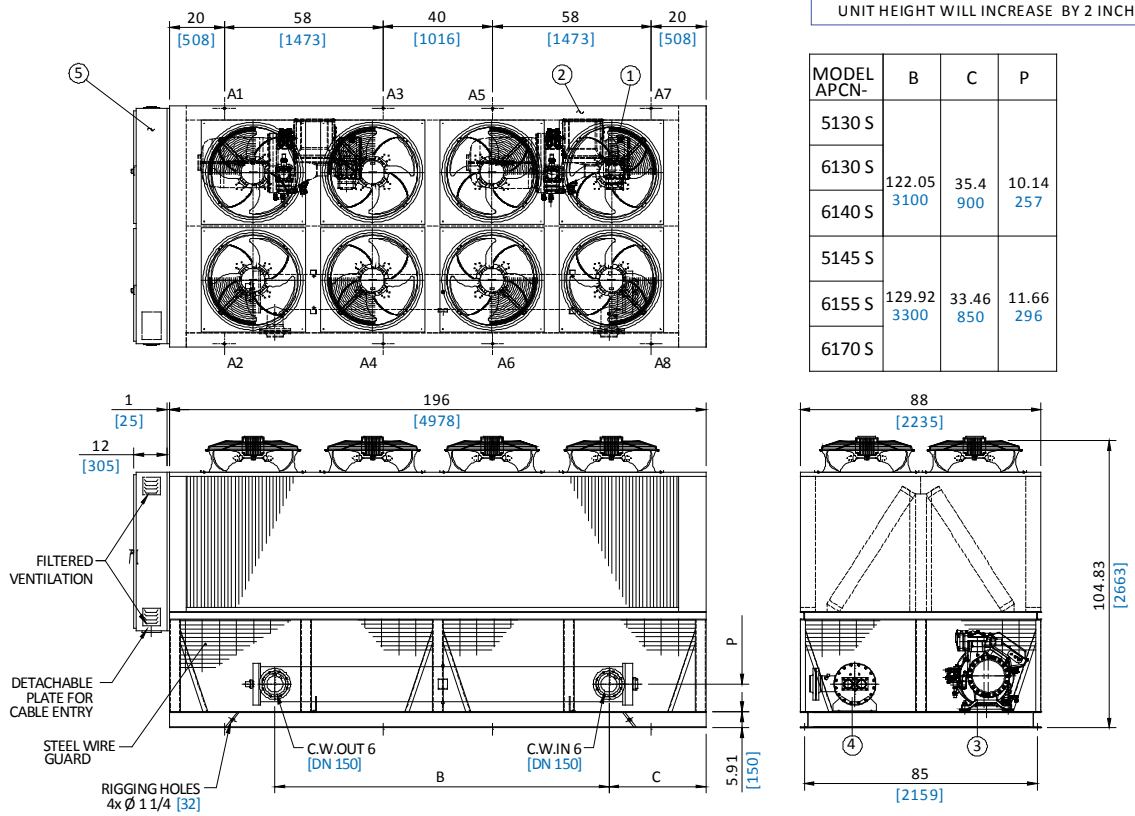


LEGEND

1. CONDENSER FAN
2. CONDENSER COIL
3. COMPRESSOR
4. EVAPORATOR
5. CONTROL PANEL

ALL DIMENSIONS ARE IN INCHES [mm]

APCN Models: 5130 S, 5145 S & 6130 S, 6140 S, 6155 S, 6170 S



NOTE:

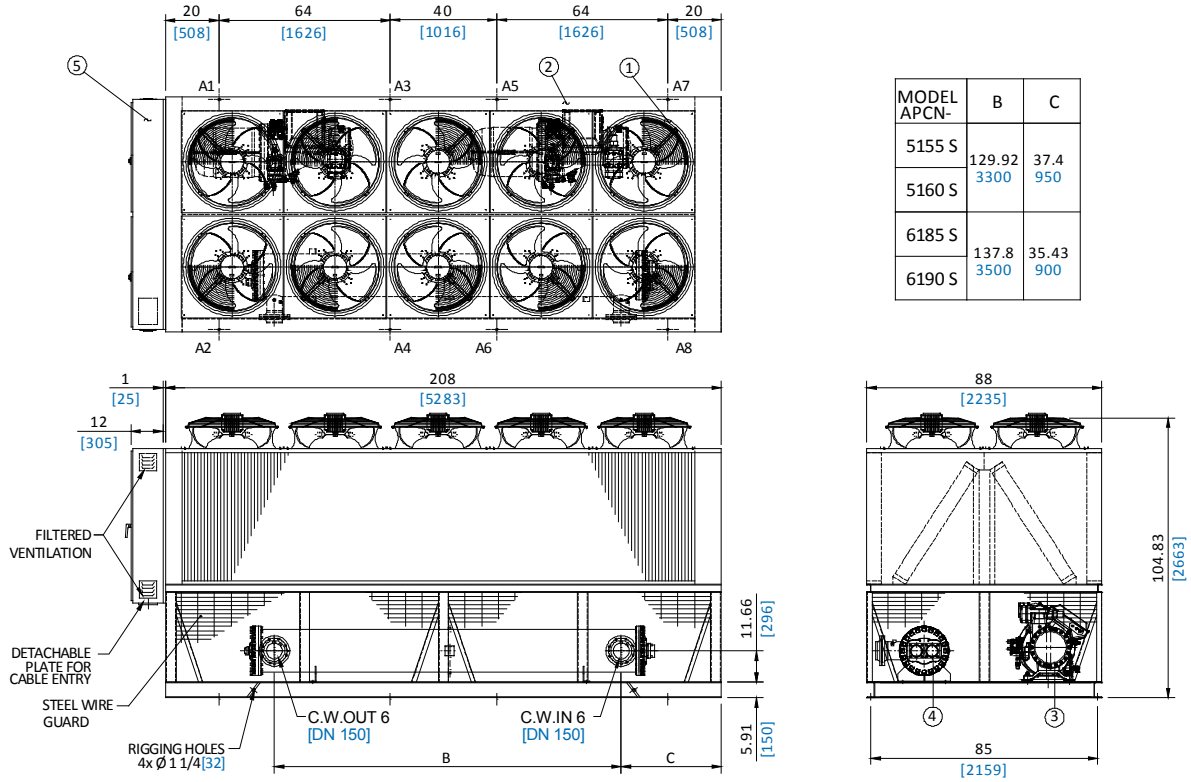
CONDENSER FAN & UNIT HEIGHT WILL BE DIFFERENT FROM THE LAYOUT FOR THE POWER SUPPLY.
* 440V/3Ph/50Hz * 460V/3Ph/60Hz
* 380V/3Ph/60Hz * 220V/3Ph/60Hz

FOR COMPRESSOR WITH SOUND ENCLOSURE UNIT HEIGHT WILL INCREASE BY 2 INCH.

MODEL APCN-	B	C	P
5130 S	122.05 3100	35.4 900	10.14 257
6130 S			
6140 S			
5145 S	129.92 3300	33.46 850	11.66 296
6155 S			
6170 S			

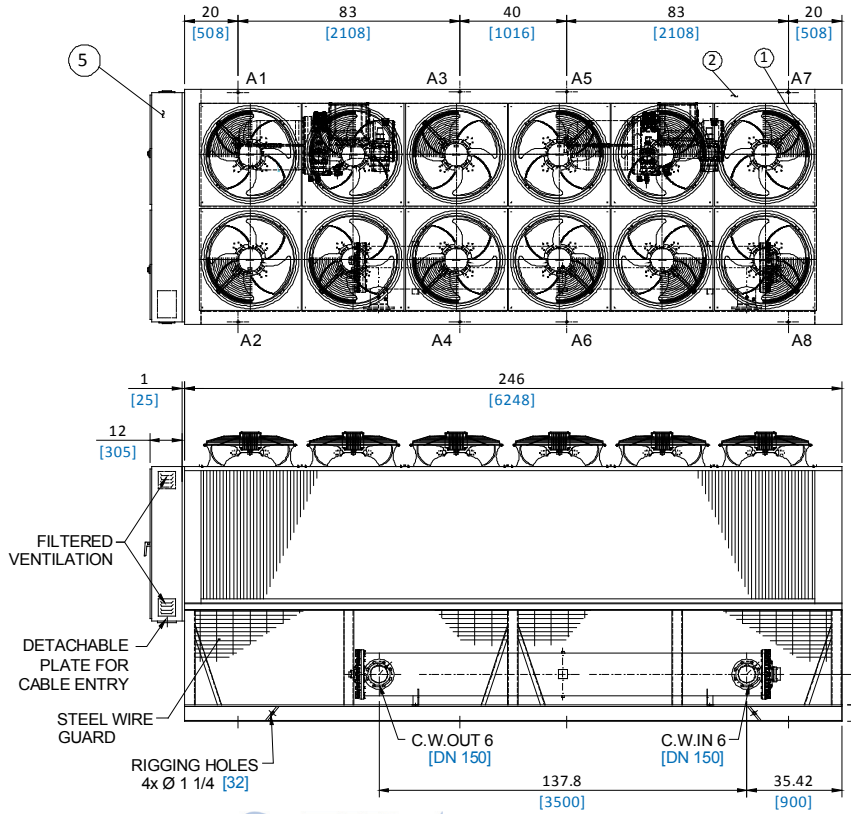
Dimensional Data

APCN Models: 5155 S, 5160 S & 6185 S, 6190 S



MODEL APCN-	B	C
5155 S	129.92 3300	37.4 950
5160 S		
6185 S	137.8 3500	35.43 900
6190 S		

APCN Models: 5175 S, 5185 S & 6205 S, 6220 S



LEGEND

1. CONDENSER FAN
2. CONDENSER COIL
3. COMPRESSOR
4. EVAPORATOR
5. CONTROL PANEL

ALL DIMENSIONS ARE IN INCHES [mm]

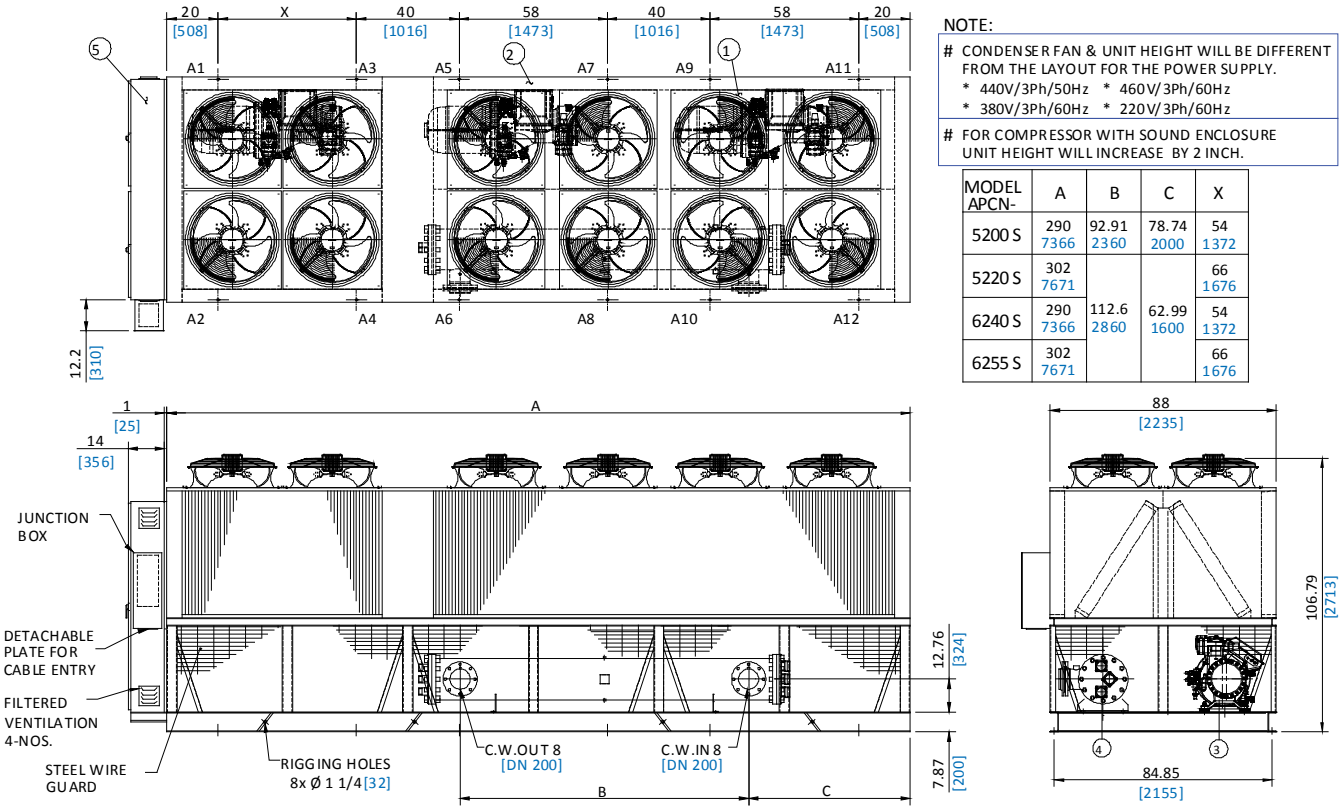
NOTE:

CONDENSER FAN & UNIT HEIGHT WILL BE DIFFERENT FROM THE LAYOUT FOR THE POWER SUPPLY.
* 440V/3Ph/50Hz * 460V/3Ph/60Hz
* 380V/3Ph/60Hz * 220V/3Ph/60Hz

FOR COMPRESSOR WITH SOUND ENCLOSURE UNIT HEIGHT WILL INCREASE BY 2 INCH.

Dimensional Data

APCN Models: 5200 S, 5220 S & 6240 S, 6255 S



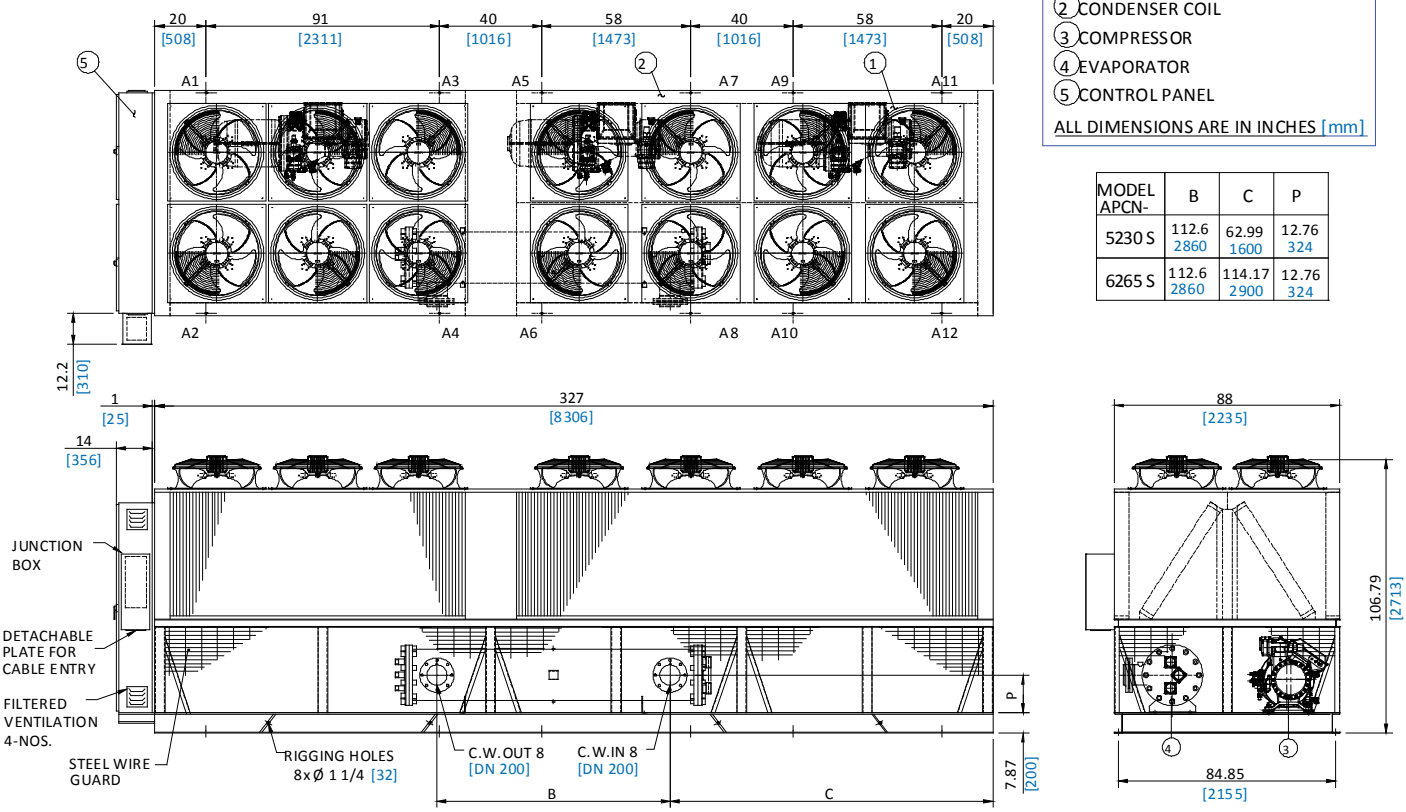
NOTE:

CONDENSER FAN & UNIT HEIGHT WILL BE DIFFERENT FROM THE LAYOUT FOR THE POWER SUPPLY.
* 440V/3Ph/50Hz * 460V/3Ph/60Hz
* 380V/3Ph/60Hz * 220V/3Ph/60Hz

FOR COMPRESSOR WITH SOUND ENCLOSURE UNIT HEIGHT WILL INCREASE BY 2 INCH.

MODEL APCN-	A	B	C	X
5200 S	290 7366	92.91 2360	78.74 2000	54 1372
5220 S	302 7671	112.6 2860	62.99 1600	66 1676
6240 S	290 7366			54 1372
6255 S	302 7671			66 1676

APCN Models: 5230 S & 6265 S



LEGEND

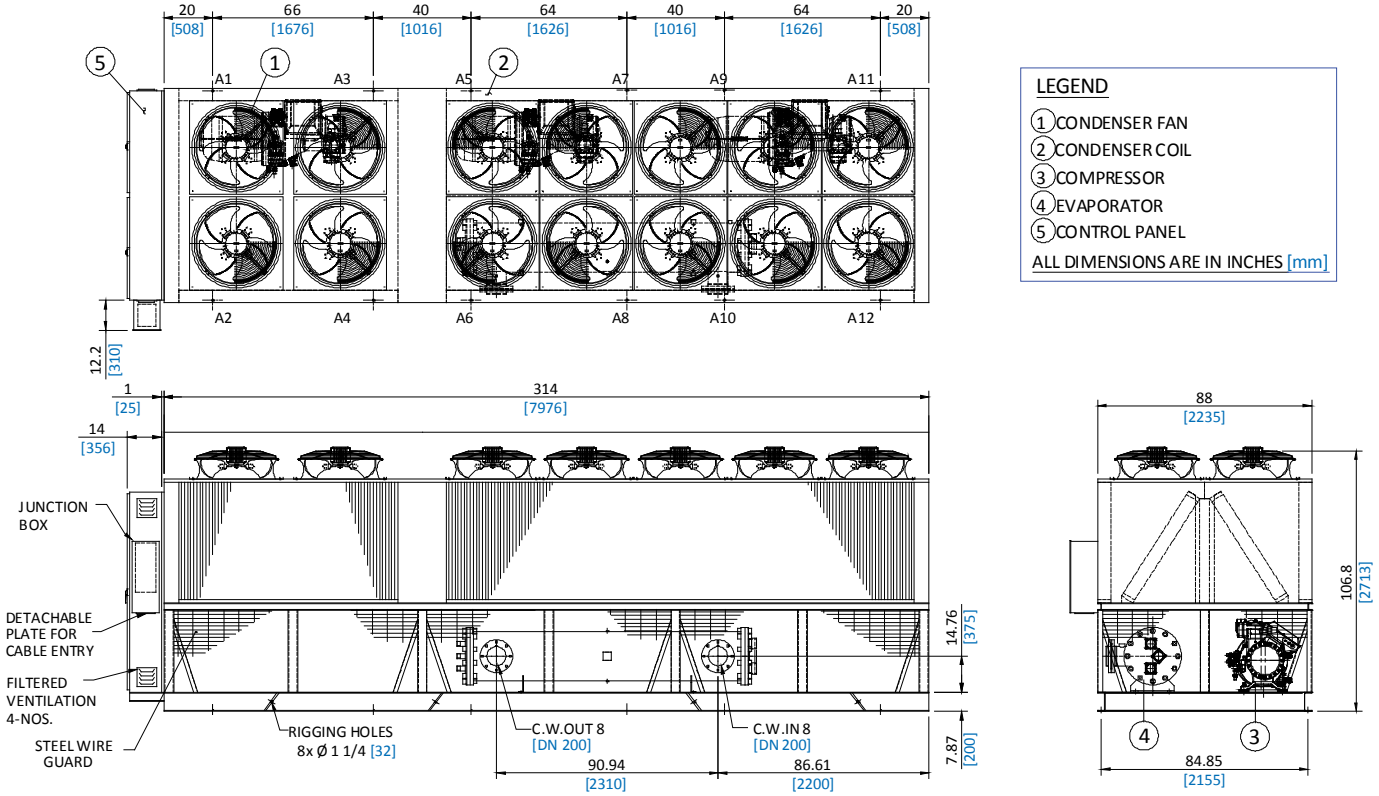
1. CONDENSER FAN
2. CONDENSER COIL
3. COMPRESSOR
4. EVAPORATOR
5. CONTROL PANEL

ALL DIMENSIONS ARE IN INCHES [mm]

MODEL APCN-	B	C	P
5230 S	112.6 2860	62.99 1600	12.76 324
6265 S	112.6 2860	114.17 2900	12.76 324

Dimensional Data

APCN Models: 5235 S & 6275 S

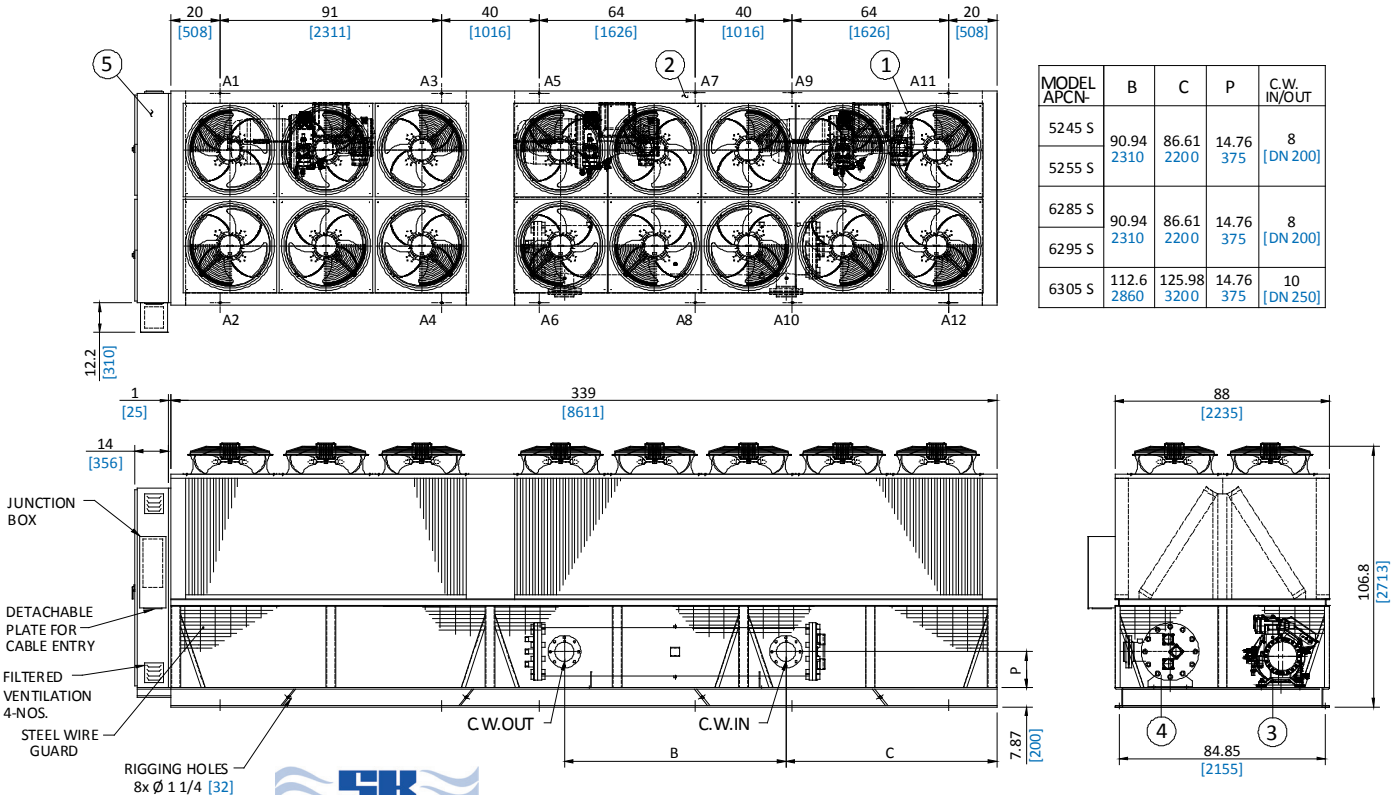


LEGEND

1. CONDENSER FAN
2. CONDENSER COIL
3. COMPRESSOR
4. EVAPORATOR
5. CONTROL PANEL

ALL DIMENSIONS ARE IN INCHES [mm]

APCN Models: 5245 S, 5255 S & 6285 S, 6295 S, 6305 S



NOTE:

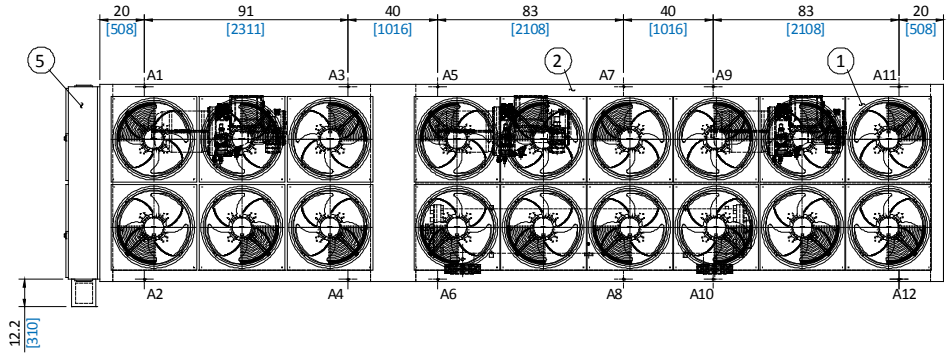
CONDENSER FAN & UNIT HEIGHT WILL BE DIFFERENT FROM THE LAYOUT FOR THE POWER SUPPLY.
* 440V/3Ph/50Hz * 460V/3Ph/60Hz
* 380V/3Ph/60Hz * 220V/3Ph/60Hz

FOR COMPRESSOR WITH SOUND ENCLOSURE UNIT HEIGHT WILL INCREASE BY 2 INCH.

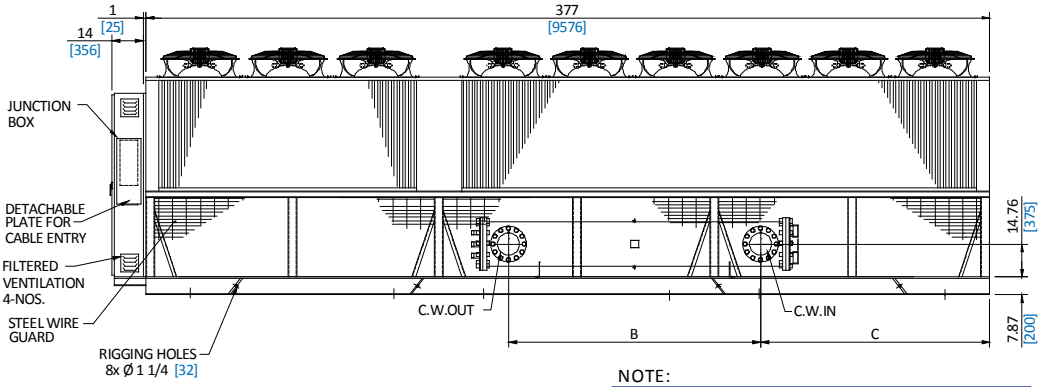
MODEL APCN-	B	C	P	C.W. IN/OUT
5245 S	90.94 2310	86.61 2200	14.76 375	8 [DN 200]
5255 S				
6285 S	90.94 2310	86.61 2200	14.76 375	8 [DN 200]
6295 S				
6305 S	112.6 2860	125.98 3200	14.76 375	10 [DN 250]

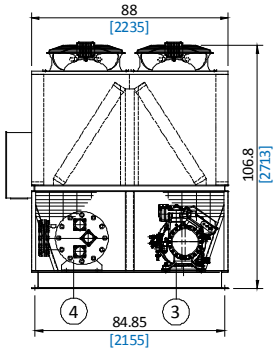
Dimensional Data

APCN Models: 5270 S, 5285 S & 6320 S, 6335 S



MODEL APCN-	B	C	C.W. IN/OUT
5270 S	90.94 2310	106.3 2700	8 [DN 200]
5285 S	112.6 2860	102.36 2600	10 [DN 250]
6320 S			
6335 S			





NOTE:

CONDENSER FAN & UNIT HEIGHT WILL BE DIFFERENT FROM THE LAYOUT FOR THE POWER SUPPLY.
* 440V/3Ph/50Hz * 460V/3Ph/60Hz
* 380V/3Ph/60Hz * 220V/3Ph/60Hz

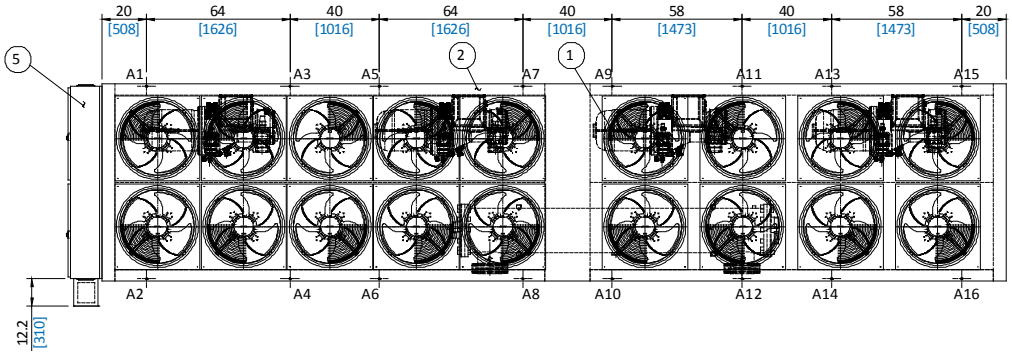
FOR COMPRESSOR WITH SOUND ENCLOSURE UNIT HEIGHT WILL INCREASE BY 2 INCH.

LEGEND

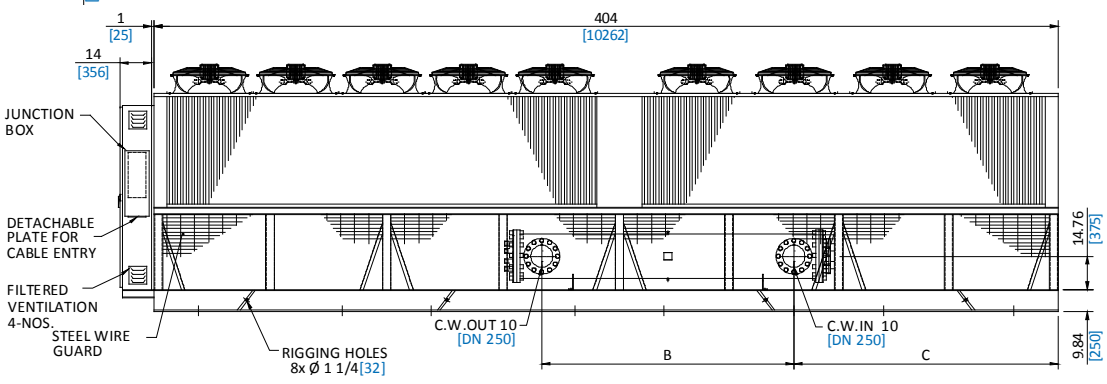
1. CONDENSER FAN
2. CONDENSER COIL
3. COMPRESSOR
4. EVAPORATOR
5. CONTROL PANEL

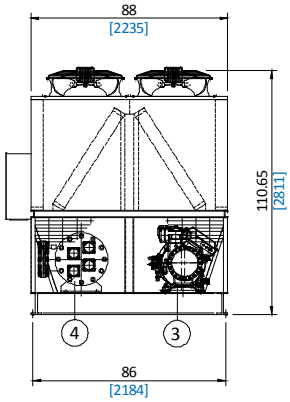
ALL DIMENSIONS ARE IN INCHES [mm]

APCN Models: 5300 S, 5310 S & 6355 S



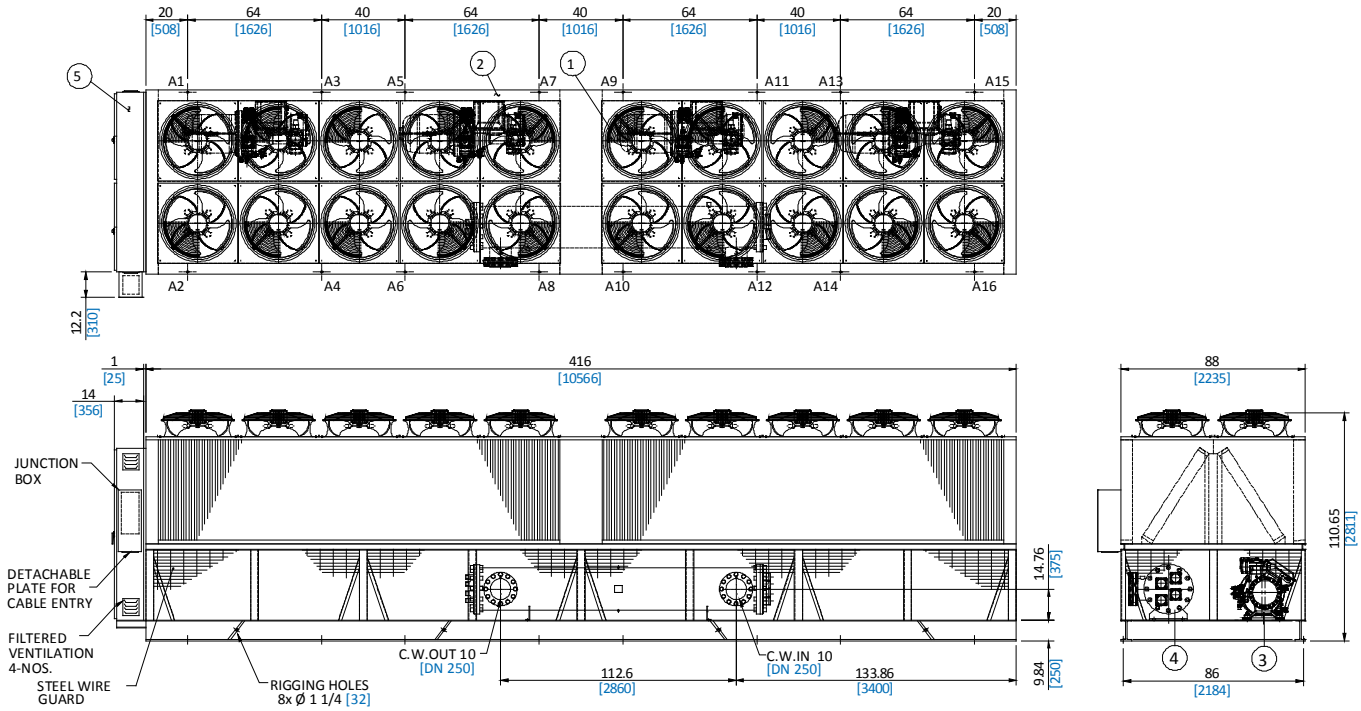
MODEL APCN-	B	C
5300 S	90.94 2310	125.98 3200
5310 S	112.6 2860	118.11 3000
6355 S		



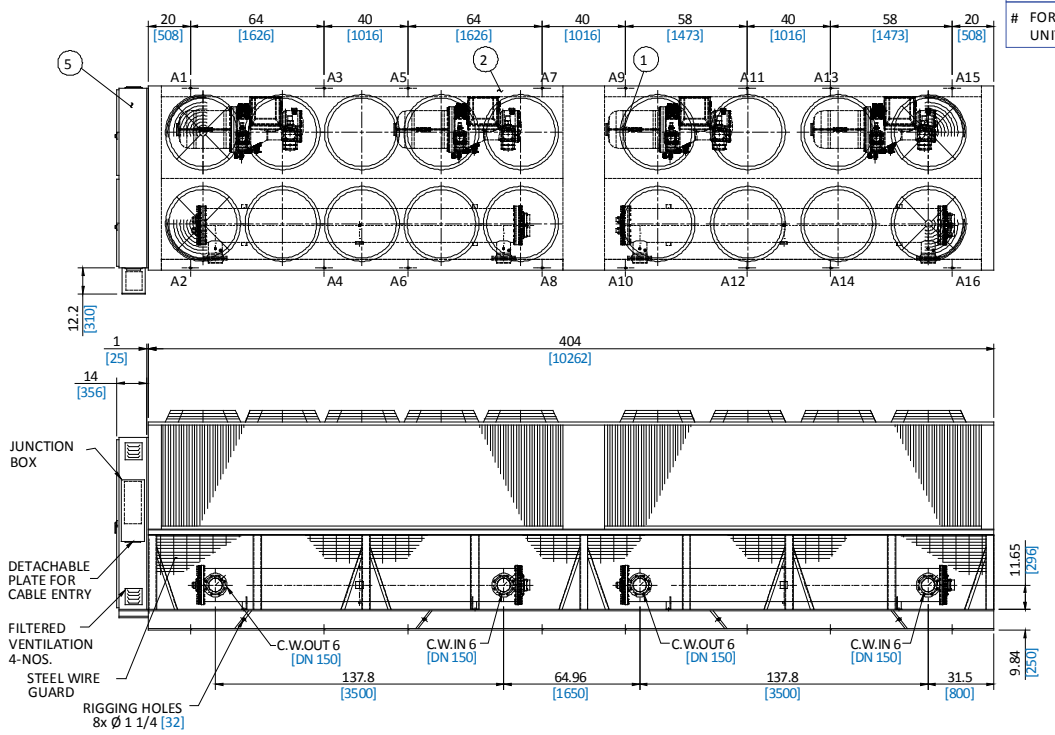


Dimensional Data

APCN Models: 5320 S & 5325 S



APCN Models: 6365 S



NOTE:

CONDENSER FAN & UNIT HEIGHT WILL BE DIFFERENT FROM THE LAYOUT FOR THE POWER SUPPLY.
* 440V/3Ph/50Hz * 460V/3Ph/60Hz
* 380V/3Ph/60Hz * 220V/3Ph/60Hz

FOR COMPRESSOR WITH SOUND ENCLOSURE UNIT HEIGHT WILL INCREASE BY 2 INCH.

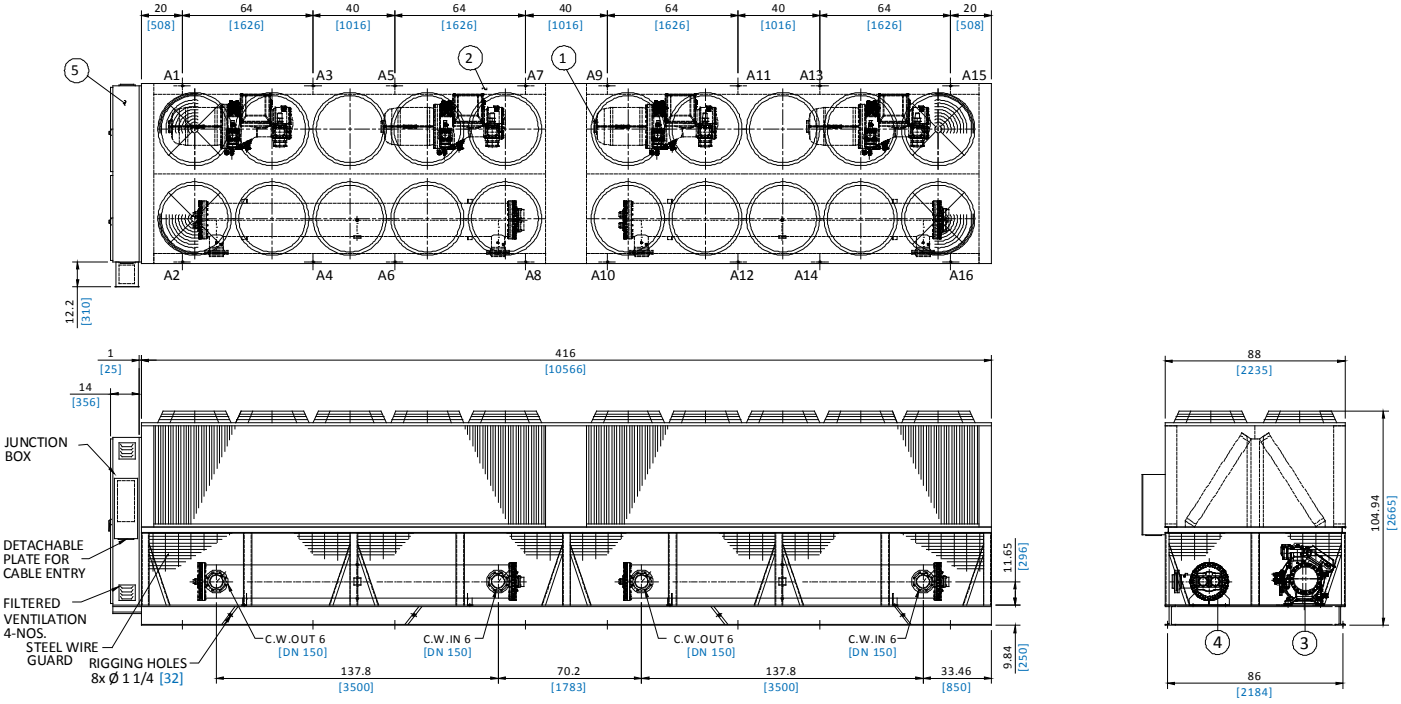
LEGEND

1. CONDENSER FAN
2. CONDENSER COIL
3. COMPRESSOR
4. EVAPORATOR
5. CONTROL PANEL

ALL DIMENSIONS ARE IN INCHES [mm]

Dimensional Data

APCN Models: 6375 S & 6380 S

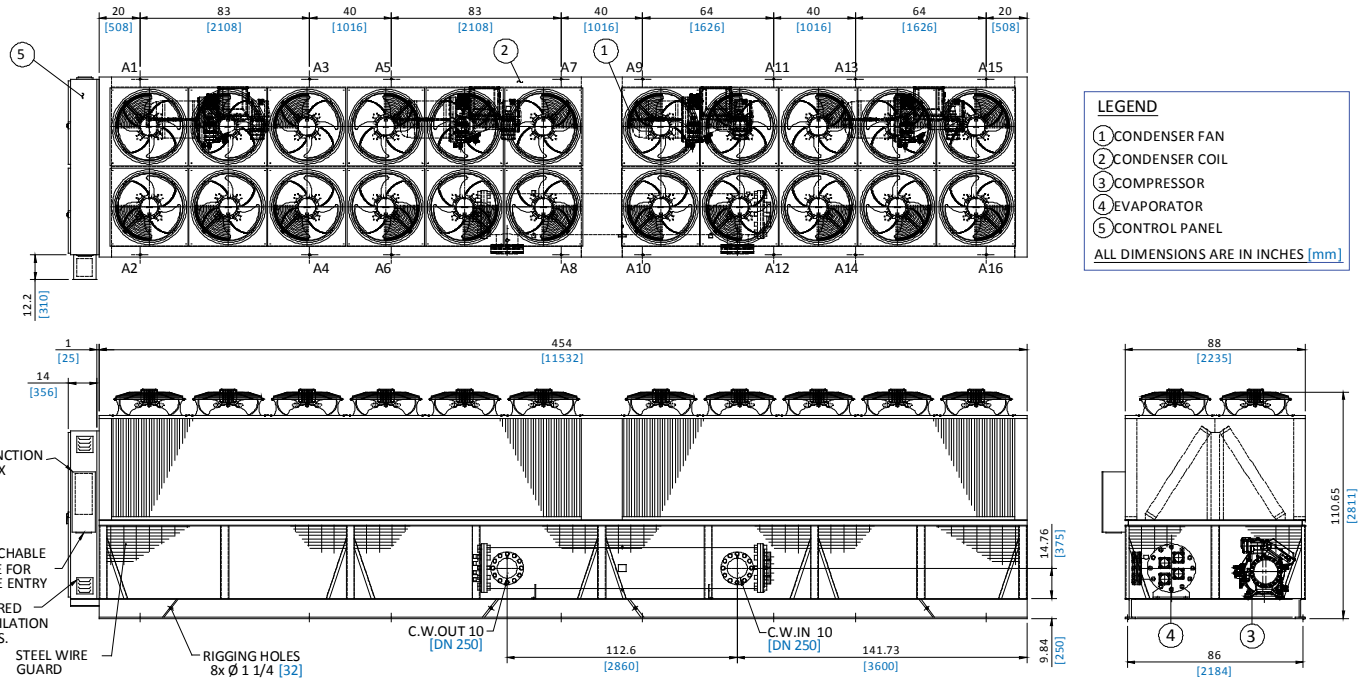


APCN Models: 5335 S & 5345 S

NOTE:

CONDENSER FAN & UNIT HEIGHT WILL BE DIFFERENT FROM THE LAYOUT FOR THE POWER SUPPLY.
* 440V/3Ph/50Hz * 460V/3Ph/60Hz
* 380V/3Ph/60Hz * 220V/3Ph/60Hz

FOR COMPRESSOR WITH SOUND ENCLOSURE UNIT HEIGHT WILL INCREASE BY 2 INCH.



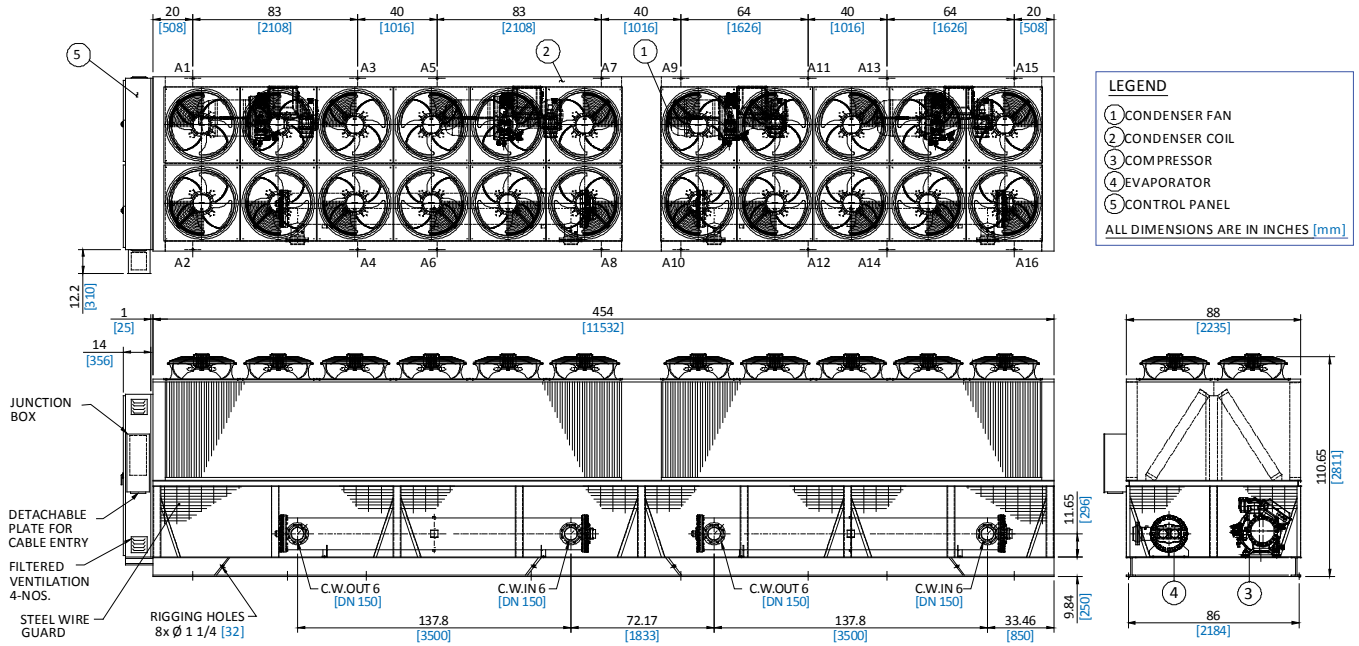
LEGEND

1. CONDENSER FAN
2. CONDENSER COIL
3. COMPRESSOR
4. EVAPORATOR
5. CONTROL PANEL

ALL DIMENSIONS ARE IN INCHES [mm]

Dimensional Data

APCN Models: 5350 S & 6400 S & 6410 S

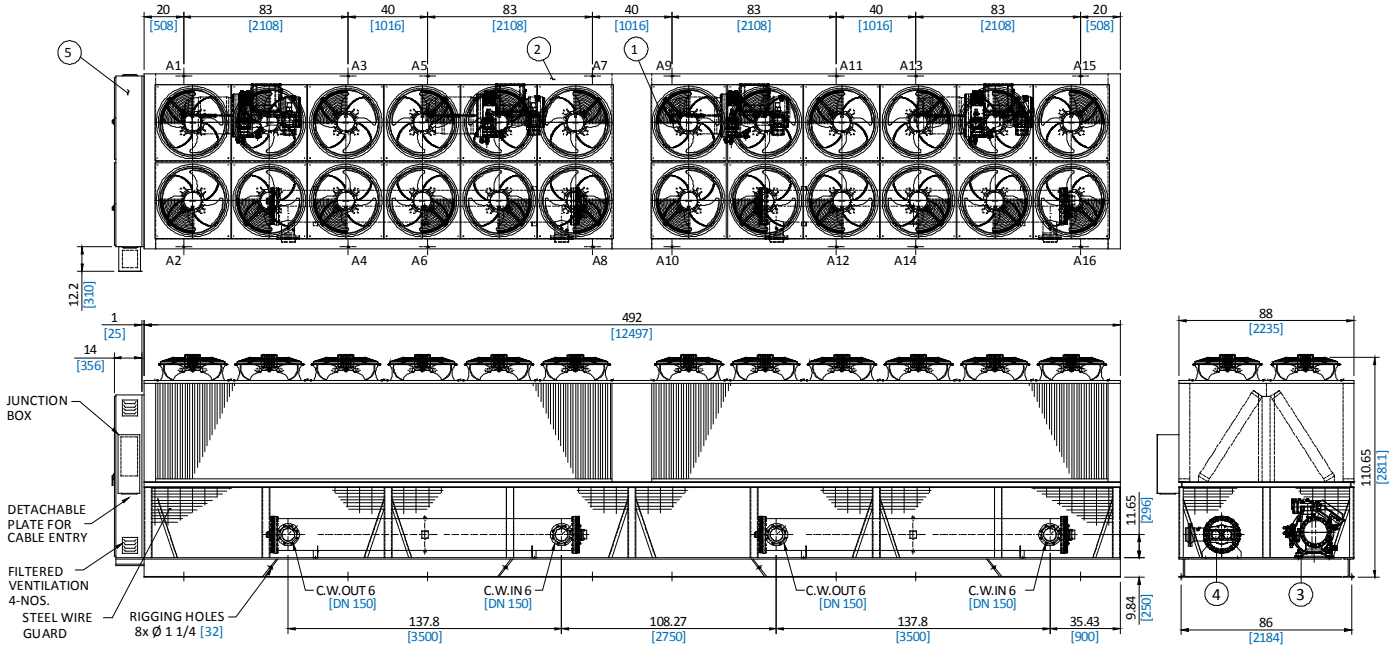


NOTE:

CONDENSER FAN & UNIT HEIGHT WILL BE DIFFERENT FROM THE LAYOUT FOR THE POWER SUPPLY.
* 440V/3Ph/50Hz * 460V/3Ph/60Hz
* 380V/3Ph/60Hz * 220V/3Ph/60Hz

FOR COMPRESSOR WITH SOUND ENCLOSURE UNIT HEIGHT WILL INCREASE BY 2 INCH.

APCN Models: 5365 S, 5375 S, 5385 S, 5400 S, 5410 S, 5425 S & 6425 S, 6435 S



Loading Points

APCN Models	Units	Mounting Loads																Operating Weight
		A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15	A16	
5050 S	lbs	1429	1211	1555	1479	-	-	-	-	-	-	-	-	-	-	-	-	5674
	kg	648	549	705	671	-	-	-	-	-	-	-	-	-	-	-	-	2573
5060 S	lbs	1470	1276	1584	1482	-	-	-	-	-	-	-	-	-	-	-	-	5812
	kg	667	579	718	672	-	-	-	-	-	-	-	-	-	-	-	-	2636
5070 S	lbs	850	860	2205	1327	723	867	-	-	-	-	-	-	-	-	-	-	6832
	kg	385	390	1000	602	328	393	-	-	-	-	-	-	-	-	-	-	3098
5080 S	lbs	1124	1188	2539	1811	1019	1223	-	-	-	-	-	-	-	-	-	-	8904
	kg	510	539	1151	821	462	555	-	-	-	-	-	-	-	-	-	-	4038
5090 S	lbs	1130	1193	2576	1826	1025	1228	-	-	-	-	-	-	-	-	-	-	8978
	kg	512	541	1168	828	465	557	-	-	-	-	-	-	-	-	-	-	4072
5100 S	lbs	1437	1218	1239	1193	1174	946	1234	1175	-	-	-	-	-	-	-	-	9616
	kg	652	552	562	541	532	429	560	533	-	-	-	-	-	-	-	-	4361
5115 S	lbs	1512	1256	1334	1307	1271	1068	1307	1207	-	-	-	-	-	-	-	-	10262
	kg	686	570	605	593	576	484	593	547	-	-	-	-	-	-	-	-	4654
5130 S	lbs	1886	1592	1641	1379	1348	1244	1348	1246	-	-	-	-	-	-	-	-	11684
	kg	855	722	744	625	611	564	611	565	-	-	-	-	-	-	-	-	5299
5145 S	lbs	1966	1809	1680	1462	1677	1453	1701	1529	-	-	-	-	-	-	-	-	13277
	kg	892	820	762	663	761	659	771	693	-	-	-	-	-	-	-	-	6021
5155 S	lbs	2057	1856	1818	1656	1805	1592	1820	1637	-	-	-	-	-	-	-	-	14241
	kg	933	842	824	751	819	722	825	742	-	-	-	-	-	-	-	-	6459
5160 S	lbs	2060	1860	1821	1659	1800	1593	1814	1637	-	-	-	-	-	-	-	-	14244
	kg	934	844	826	752	816	722	823	742	-	-	-	-	-	-	-	-	6460
5175 S	lbs	2142	1768	2056	2041	1903	1616	1992	1893	-	-	-	-	-	-	-	-	15411
	kg	971	802	932	926	863	733	903	859	-	-	-	-	-	-	-	-	6989
5185 S	lbs	2142	1768	2056	2041	1920	1622	2010	1899	-	-	-	-	-	-	-	-	15458
	kg	971	802	932	926	871	736	912	861	-	-	-	-	-	-	-	-	7010
5200 S	lbs	1701	1421	1182	870	1683	1632	1636	1479	1675	1606	1486	988	-	-	-	-	17359
	kg	771	644	536	395	763	740	742	671	760	728	674	448	-	-	-	-	7873
5220 S	lbs	2009	1543	1490	992	1721	1751	1558	1219	1780	1946	1499	1024	-	-	-	-	18532
	kg	911	700	676	450	780	794	707	553	807	883	680	464	-	-	-	-	8405
5230 S	lbs	2180	1720	2030	2235	1917	1909	1989	2116	1658	1160	1658	1160	-	-	-	-	21732
	kg	989	780	921	1014	869	866	902	960	752	526	752	526	-	-	-	-	9856
5235 S	lbs	2140	1674	1621	1123	1988	2112	1967	2051	1991	2119	1663	1171	-	-	-	-	21620
	kg	971	759	735	509	902	958	892	930	903	961	754	531	-	-	-	-	9805
5245 S	lbs	2299	1839	1780	1288	2028	2155	2006	2093	2030	2162	1701	1208	-	-	-	-	22589
	kg	1043	834	807	584	920	977	910	949	921	980	771	548	-	-	-	-	10244
5255 S	lbs	2325	1837	1806	1286	2036	2147	2014	2085	2038	2154	1709	1200	-	-	-	-	22637
	kg	1054	833	819	583	923	974	913	946	924	977	775	544	-	-	-	-	10266
5270 S	lbs	2347	1871	1829	1320	2101	2066	2229	2438	2166	2254	1845	1324	-	-	-	-	23790
	kg	1064	849	829	599	953	937	1011	1106	982	1022	837	600	-	-	-	-	10789
5285 S	lbs	2365	1877	1846	1326	2233	2448	2170	2267	2223	2419	1845	1324	-	-	-	-	24343
	kg	1073	851	837	601	1013	1110	984	1028	1008	1097	837	600	-	-	-	-	11040
5300 S	lbs	2176	1705	1598	1106	1607	1109	1981	2190	1858	1874	1889	2022	1555	1057	1555	1057	26339
	kg	987	773	725	502	729	503	898	993	843	850	857	917	705	479	705	479	11945
5310 S	lbs	2178	1707	1600	1108	1623	1152	2140	2648	1713	1474	1971	2281	1557	1058	1557	1058	26825
	kg	988	774	726	502	736	522	971	1201	777	668	894	1034	706	480	706	480	12166
5320 S	lbs	2266	1795	1688	1196	1735	1331	2187	2639	1925	1822	2039	2212	1697	1199	1697	1199	28627
	kg	1028	814	766	542	787	604	992	1197	873	826	925	1003	770	544	770	544	12983
5325 S	lbs	2268	1797	1690	1197	1737	1333	2189	2641	1927	1824	2041	2214	1690	1197	1690	1197	28632
	kg	1029	815	766	543	788	605	993	1198	874	827	926	1004	766	543	766	543	12985
5335 S	lbs	2407	1908	1830	1309	1899	1557	2270	2630	2038	2047	2018	2047	1734	1225	1734	1225	29878
	kg	1092	865	830	594	861	706	1029	1193	924	928	915	928	786	556	786	556	13550
5345 S	lbs	2407	1908	1830	1309	1899	1557	2270	2630	2056	2053	2036	2053	1734	1225	1734	1225	29926
	kg	1092	865	830	594	861	706	1029	1193	932	931	923	931	786	556	786	556	13572
5350 S	lbs	2468	2095	2072	2057	1919	1633	2008	1908	1953	1784	1896	1676	1863	1624	1907	1761	30624
	kg	1119	950	940	933	870	741	911	865	886	809	860	760	845	737	865	799	13888
5365 S	lbs	2507	2133	2111	2096	1975	1678	2064	1952	1972	1598	2111	2096	1957	1671	2047	1947	31915
	kg	1137	967	957	951	896	761	936	885	894	725	957	951	888	758	928	883	14474
5375 S	lbs	2507	2133	2111	2096	1975	1678	2064	1952	1972	1598	2111	2096	1975	1677	2064	1953	31962
	kg	1137	967	957	951	896	761	936	885	894	725	957	951	896	761	936	886	14495
5385 S	lbs	2889	2258	2493	2221	1975	1678	2064	1952	1972	1598	2111	2096	1975	1677	2064	1953	32976
	kg	1310	1024	1131	1007	896	761	936	885	894	725	957	951	896	761	936	886	14955
5400 S	lbs	2889	2258	2493	2221	1975	1678	2064	1952	2354	1723	2493	2221	1975	1677	2064	1953	33990
	kg	1310	1024	1131	1007	896	761	936	885	1068	781	1131	1007	896	761	936	886	15415
5410 S	lbs	2889	2258	2493	2221	2358	1803	2446	2077	2354	1723	2493	2221	1975	1677	2064	1953	35005
	kg	1310	1024	1131	1007	1069	818	1109	942	1068	781	1131	1007	896	761	936	886	15875
5425 S	lbs	2889	2258	2493	2221	2358	1803	2446	2077	2354	1723	2493	2221	2357	1802	2447	2078	36020
	kg	1310	1024	1131	1007	1069	818	1109	942	1068	781	1131	1007	1069	817	1110	942	16336

Table 16

SKM Air Cooled Packaged Chillers
APCN-S Series - R-134a

Loading Points

APCN Models	Units	Mounting Loads																Operating Weight
		A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15	A16	
6060 S	lbs	1394	1209	1492	1400	-	-	-	-	-	-	-	-	-	-	-	-	5495
	kg	632	548	677	635	-	-	-	-	-	-	-	-	-	-	-	-	2492
6070 S	lbs	1423	1228	1524	1422	-	-	-	-	-	-	-	-	-	-	-	-	5597
	kg	645	557	691	645	-	-	-	-	-	-	-	-	-	-	-	-	2538
6085 S	lbs	868	916	2231	1411	766	1009	-	-	-	-	-	-	-	-	-	-	7201
	kg	394	415	1012	640	347	458	-	-	-	-	-	-	-	-	-	-	3266
6095 S	lbs	1124	1188	2540	1812	1019	1223	-	-	-	-	-	-	-	-	-	-	8906
	kg	510	539	1152	822	462	555	-	-	-	-	-	-	-	-	-	-	4039
6105 S	lbs	1130	1190	2582	1847	1026	1228	-	-	-	-	-	-	-	-	-	-	9003
	kg	512	540	1171	838	465	557	-	-	-	-	-	-	-	-	-	-	4083
6130 S	lbs	1581	1481	1336	1268	1324	1228	1325	1232	-	-	-	-	-	-	-	-	10775
	kg	717	672	606	575	600	557	601	559	-	-	-	-	-	-	-	-	4887
6140 S	lbs	1600	1492	1355	1279	1343	1239	1344	1243	-	-	-	-	-	-	-	-	10895
	kg	726	677	615	580	609	562	610	564	-	-	-	-	-	-	-	-	4941
6155 S	lbs	1963	1806	1678	1462	1393	1355	1418	1431	-	-	-	-	-	-	-	-	12506
	kg	890	819	761	663	632	615	643	649	-	-	-	-	-	-	-	-	5672
6170 S	lbs	1965	1808	1680	1464	1677	1453	1701	1529	-	-	-	-	-	-	-	-	13277
	kg	891	820	762	664	761	659	771	693	-	-	-	-	-	-	-	-	6021
6185 S	lbs	2096	1975	1795	1584	1807	1597	1834	1679	-	-	-	-	-	-	-	-	14367
	kg	951	896	814	718	820	724	832	761	-	-	-	-	-	-	-	-	6516
6190 S	lbs	2099	1978	1799	1587	1802	1597	1828	1679	-	-	-	-	-	-	-	-	14369
	kg	952	897	816	720	817	724	829	761	-	-	-	-	-	-	-	-	6517
6205 S	lbs	2142	1768	2056	2041	1903	1616	1992	1893	-	-	-	-	-	-	-	-	15411
	kg	971	802	932	926	863	733	903	859	-	-	-	-	-	-	-	-	6989
6220 S	lbs	2143	1769	2057	2042	1921	1623	2011	1900	-	-	-	-	-	-	-	-	15466
	kg	972	802	933	926	871	736	912	862	-	-	-	-	-	-	-	-	7014
6240 S	lbs	1702	1421	1183	870	1742	1727	1563	1210	1807	1915	1498	1022	-	-	-	-	17660
	kg	772	644	537	395	790	783	709	549	820	868	679	463	-	-	-	-	8009
6255 S	lbs	2010	1543	1491	992	1744	1729	1566	1213	1809	1917	1500	1024	-	-	-	-	18538
	kg	912	700	676	450	791	784	710	550	820	869	680	464	-	-	-	-	8407
6265 S	lbs	2181	1721	1976	2077	1730	1366	1939	1969	1659	1161	1659	1161	-	-	-	-	20599
	kg	989	780	896	942	785	620	879	893	752	527	752	527	-	-	-	-	9342
6275 S	lbs	2141	1675	1622	1124	1991	2118	1970	2056	1993	2125	1664	1171	-	-	-	-	21650
	kg	971	760	736	510	903	961	893	932	904	964	755	531	-	-	-	-	9819
6285 S	lbs	2192	1732	1673	1181	1961	2088	1939	2026	1990	2122	1660	1168	-	-	-	-	21732
	kg	994	785	759	536	889	947	879	919	902	962	753	530	-	-	-	-	9856
6295 S	lbs	2325	1837	1806	1286	2035	2146	2014	2085	2038	2154	1708	1200	-	-	-	-	22634
	kg	1054	833	819	583	923	973	913	946	924	977	775	544	-	-	-	-	10265
6305 S	lbs	2326	1838	2320	2772	1870	1666	2128	2411	1710	1201	1710	1201	-	-	-	-	23153
	kg	1055	834	1052	1257	848	756	965	1093	776	545	776	545	-	-	-	-	10500
6320 S	lbs	2349	1872	1830	1321	2234	2449	2172	2268	2224	2420	1846	1325	-	-	-	-	24310
	kg	1065	849	830	599	1013	1111	985	1029	1009	1098	837	601	-	-	-	-	11025
6335 S	lbs	2366	1878	1847	1327	2234	2449	2172	2268	2224	2420	1846	1325	-	-	-	-	24356
	kg	1073	852	838	602	1013	1111	985	1029	1009	1098	837	601	-	-	-	-	11046
6355 S	lbs	2177	1706	1599	1106	1622	1151	2139	2647	1722	1478	1978	2280	1556	1057	1556	1057	26831
	kg	987	774	725	502	736	522	970	1200	781	670	897	1034	706	479	706	479	12168
6365 S	lbs	2336	2196	1744	1553	1738	1509	1782	1646	1734	1562	1707	1547	1637	1305	1779	1746	27521
	kg	1059	996	791	704	788	684	808	746	786	708	774	702	742	592	807	792	12481
6375 S	lbs	2424	2284	1832	1641	1817	1594	1862	1731	1889	1749	1832	1641	1826	1597	1870	1734	29323
	kg	1099	1036	831	744	824	723	844	785	857	793	831	744	828	724	848	786	13298
6380 S	lbs	2426	2285	1834	1642	1819	1596	1863	1733	1891	1750	1834	1642	1819	1596	1863	1733	29326
	kg	1100	1036	832	745	825	724	845	786	858	794	832	745	825	724	845	786	13300
6400 S	lbs	2468	2095	2072	2057	1919	1633	2008	1908	1935	1778	1878	1671	1863	1624	1907	1761	30577
	kg	1119	950	940	933	870	741	911	865	878	806	852	758	845	737	865	799	13867
6410 S	lbs	2469	2095	2073	2058	1920	1634	2009	1909	1954	1785	1897	1677	1864	1625	1908	1762	30639
	kg	1120	950	940	933	871	741	911	866	886	810	860	761	845	737	865	799	13895
6425 S	lbs	2508	2134	2112	2097	1976	1679	2065	1953	1973	1599	2112	2097	1958	1672	2048	1948	31931
	kg	1137	968	958	951	896	761	937	886	895	725	958	951	888	758	929	883	14481
6435 S	lbs	2509	2135	2112	2098	1977	1680	2066	1954	1974	1600	2112	2098	1977	1679	2066	1955	31992
	kg	1138	968	958	951	897	762	937	886	895	726	958	951	897	761	937	887	14509

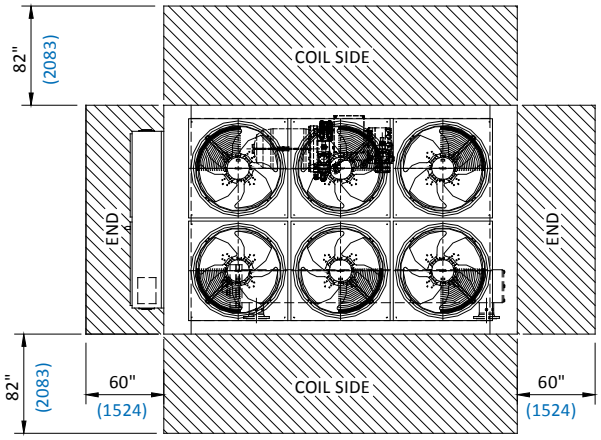
Table 17

Location And Space Requirements

To enhance system performance and operating economy, certain precautions should be followed before installation.

1. There should be no obstruction on the air discharge.
2. Unit must not be installed in a pit or near a parapet wall that is taller than the unit height.
3. Orient the unit so that prevailing winds blow parallel to unit length. If it is not practical to orient in this manner, a wind deflecting shield should be considered.
4. Provide adequate clearance on all sides of the unit for service access and avoid coil starvation. Refer to figure below for recommended clearances.

UNIT INSTALLATION



MULTIPLE UNIT INSTALLATION

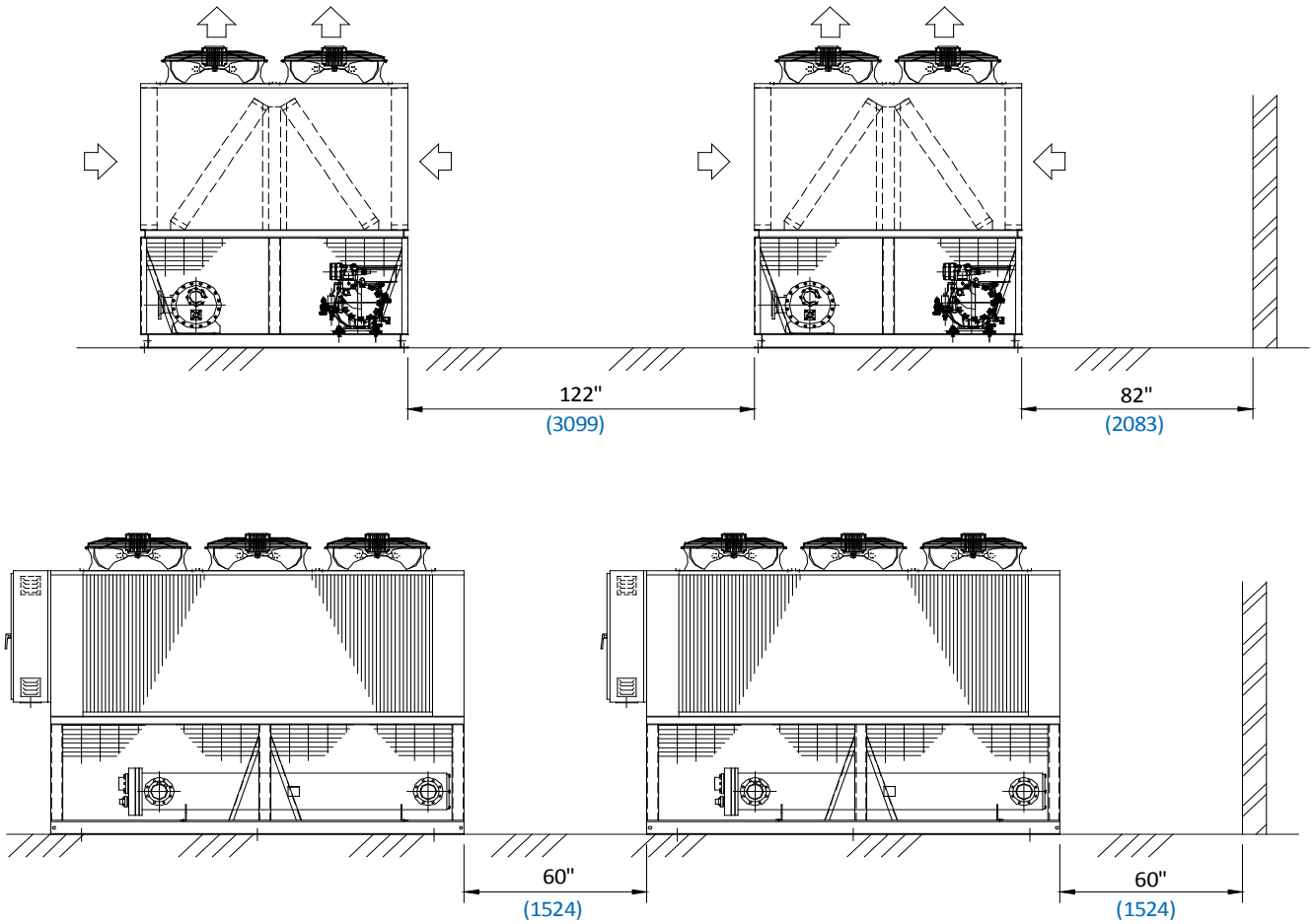


Figure A

Foundation

Provide a level and rigid concrete foundation or a steel platform that is strong enough to carry the operating weight of the unit. SKM Air Conditioning is not liable for any damages and problems in the equipment caused by erroneous design in the foundation.

Water Piping Practices

SKM suggests abiding by the local authorities' chilled water piping recommendations and practices as they can provide the installer the building and safety codes required for the installation.

Water piping should be designed to have a minimum number of bends and horizontal piping levels. Below are the following components it should have:

1. Temperature and pressure gauges in entering and leaving chiller water piping for unit servicing and commissioning. Pressure gauges must be installed on the same level.
2. Vibration eliminators in entering and leaving chilled water piping to lessen the sound and vibration transmitted to the building.
3. Pipe strainer in the evaporator entering piping to protect the evaporator from water debris and maintain chiller efficiency.
4. Water flow switch in the leaving chilled water piping, wired to the terminals provided in the control panel, to make sure that it has sufficient flow of water in the evaporator. This will prevent the evaporator from freezing up when the water flow is interrupted and avoid compressor slugging on start-up.
5. To isolate the unit from the piping system when servicing or during maintenance, install a shut off valve on the entering and leaving chilled water piping.
6. Expansion Tank provides additional space in the chilled water piping system as temperature rises and furthermore, it maintains a positive pressure within the working limitations of the system.
7. Air Vents at high points in the chilled water system to bleed air from the system.
8. Vapor barrier on the outside of the insulation to avoid condensation in the cold surface of the pipe that may cause damage on the building structure. A thorough leak test should be made before insulating the pipe.

Flush all chilled water piping before making the final connection to the unit. SKM recommends hiring services of water treatment specialist to determine the type of necessary treatment. Improper or untreated chilled water leads to scaling, erosion, corrosion or algae that can cause inefficient operation and tube damage. SKM will not be liable for damages caused by improper or untreated chilled water.

TYPICAL CHILLED WATER PIPING

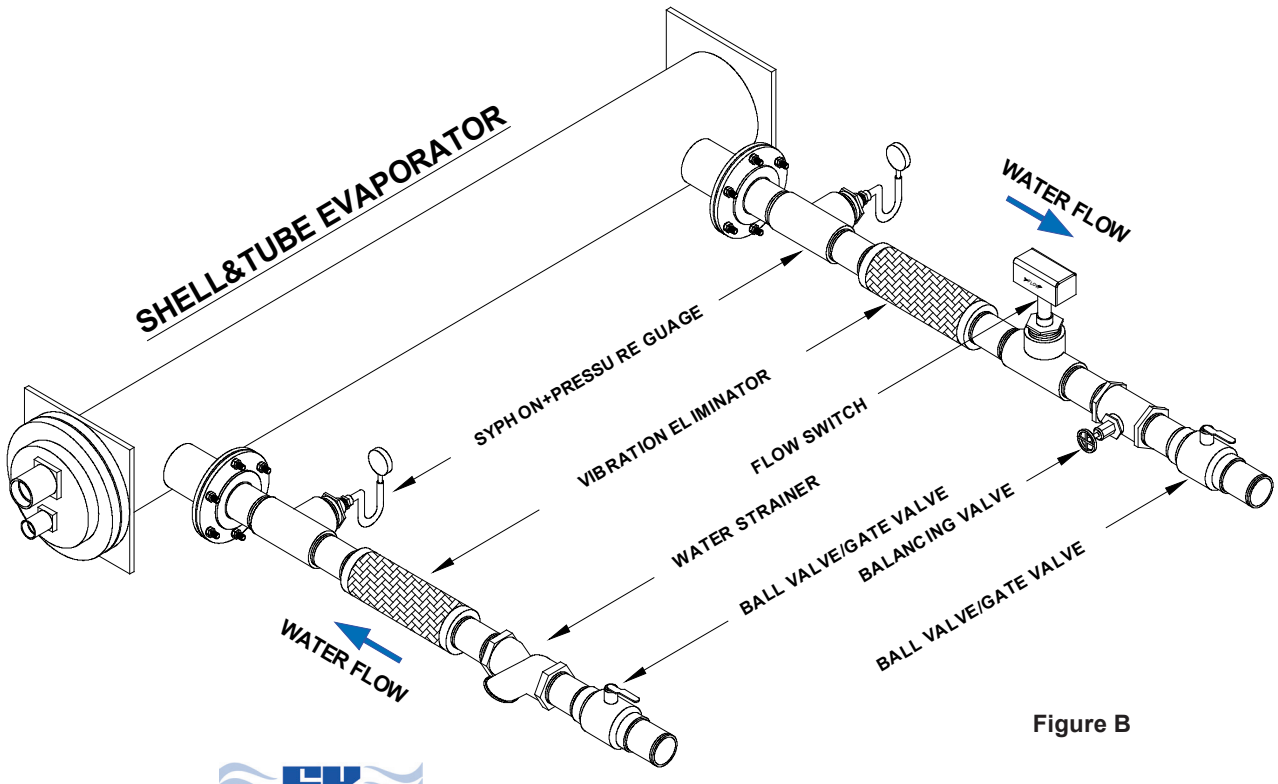
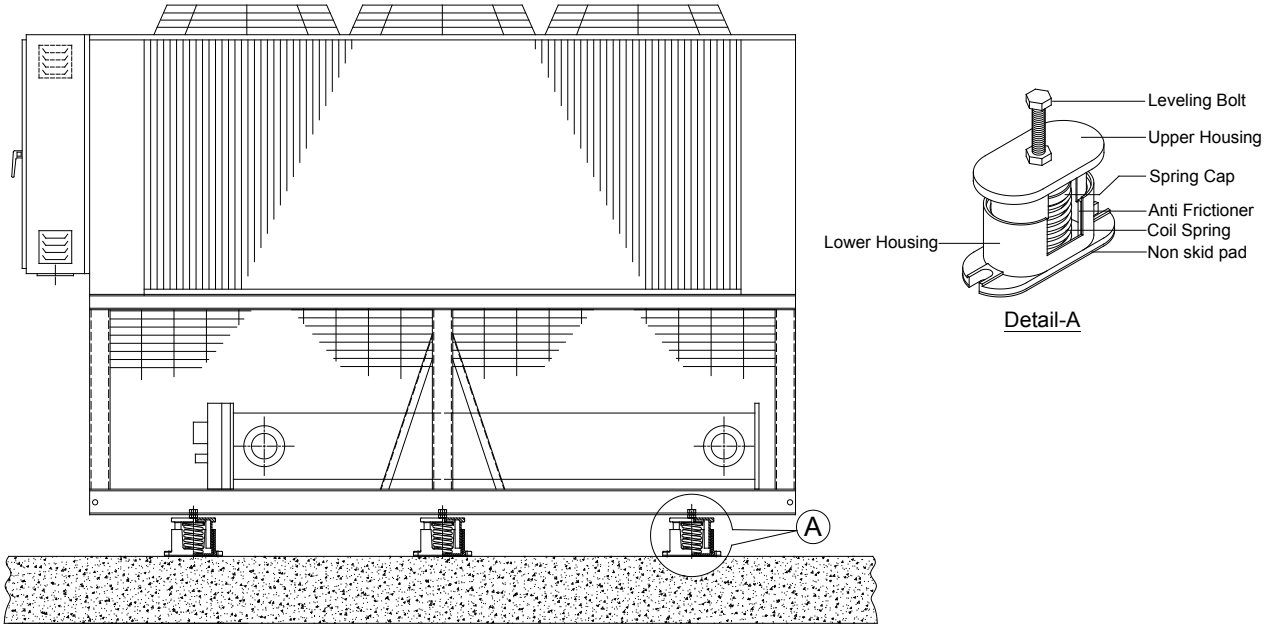


Figure B

Vibration Isolation

It is recommended to install under the base of the unit a vibration isolation of rubber-in-shear or spring type for further reduction of sound and vibration transmission to building structures . Vibration isolators must be correctly designed for each mounting loads of the unit. Refer to unit certified drawing for operating weight at each mounting points.



Note : SKM can supply CAVM Spring type Anti-vibration mounts (optional). The CAVM has a deflection of 25mm and each rated load can be distinguished easily as it is represented by different colours.

Water Loop Volume

In chilled water system, presence of sufficient volume of water in the piping system is crucial to achieve proper operation, unfortunately, some systems will run with less water volume than needed, this will result in inconsistence system operation, and uncontrolled compressor cycling, this condition is called " short water loop".

If our building for example didn't provide enough water volume to achieve stable controls, a storage tank should be installed to increase the water volume.

In a standard air conditioning application, the tank should be sized to attain a 2 minute water loop, and 2.5 – 4 minute water loop for process cooling systems.

Having enough water loop time, hence enough water volume in the evaporator loop will prevent irregular compressor cycling, which means smoother operation.

Unit Sizing

It is strongly recommended to size the chiller for the present load. For future expansion, it is recommended to install another chiller to meet the additional load demand.

Over sizing of chillers by more than 10% at design conditions must be avoided. Over sizing causes energy inefficiency (more power consumption), erratic system operation and shortened compressor life due to excessive cycling of compressors.

Multiple Chiller Operation

If the capacity requires installing more than one chiller unit or where standby units are desired, units should be of equal size (or near) to ensure balanced water flow.

SKM recommends that water flow supply & return are connected either parallel in case of range < 16°F (8.9°C) or in series if range > 16°F (8.9°C).

Chilled Water Piping for Typical Multiple Chiller (with two evaporators) Installation

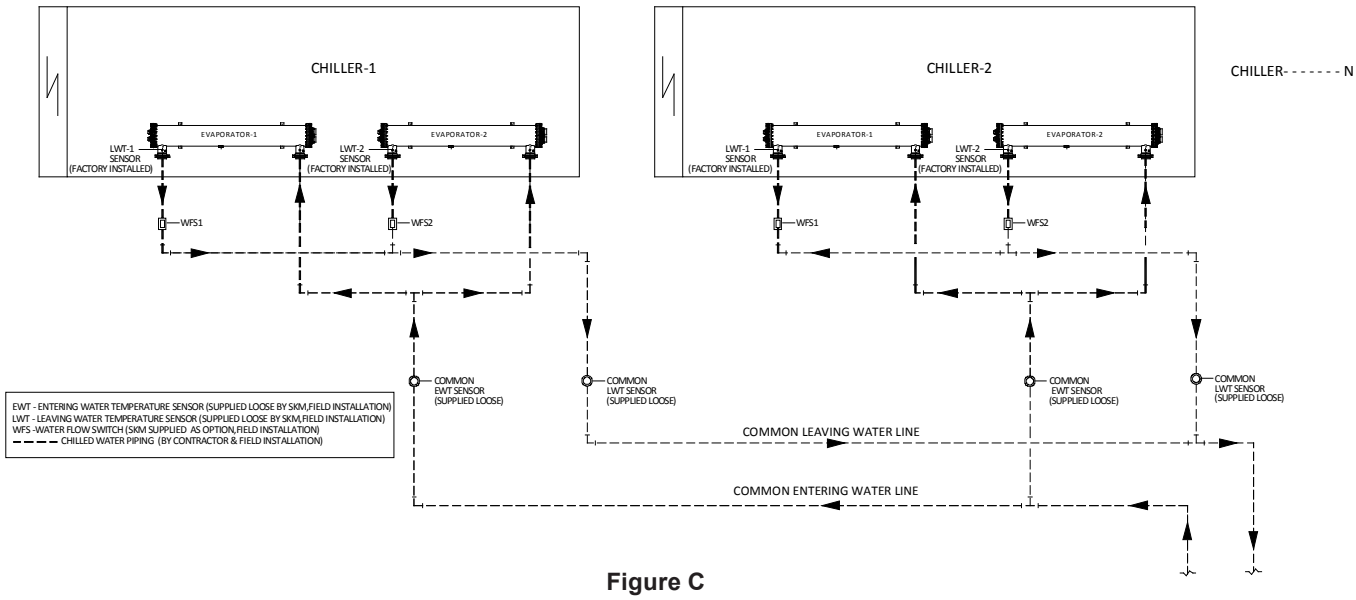


Figure C

For chillers with two evaporators, pipes for leaving and entering water, from one evaporator should be joined to the corresponding pipe from the other evaporator, before connecting to the main header of the installation.

GUIDE SPECIFICATIONS

GENERAL

The contractor shall supply and install factory assembled air-cooled packaged water chillers, the number and capacity of which shall be as indicated in the capacity schedule shown on the drawings.

Each machine shall consist of at least one refrigerating circuit comprising of semi hermetic compact screw compressor(s), air-cooled condenser, evaporator, interconnecting refrigerant piping, controls, safety devices and accessories.

The machine shall be factory assembled, leak tested, evacuated and completely charged with refrigerant R-134a. All factory wiring and piping shall be contained within the machine enclosure. All electrical components shall be protected from the weather.

Air cooled chillers shall be rated in accordance with AHRI-550/590. Each machine shall be capable of operating satisfactorily in a wide range of ambient air temperatures ranging from 25°F (-4°C) to 127.4°F (53 °C).

Unless indicated otherwise on electrical wiring diagram, each unit shall be factory equipped to connect to only one electrical power feeder with the necessary circuit breakers.

Each unit shall be mounted on anti vibration isolators flexible enough to dampen any vibrations.

COMPRESSOR

Compressor shall be high performance and high efficiency screw type. The compressor shall be driven by an electric motor in a single housing. For stability and additional sound attenuation, the rotors (male and female) shall be mounted in a double wall housing.

The compressor motor shall be refrigerant gas cooled. Each compressor shall be mounted on anti-vibration mounts to minimize vibration transmission.

Compressor shall have discharge shut off valves, built in three- stage oil separator, long life fine oil filter 10u m mesh size, insertion type oil heater with sleeve, oil sight glass, oil fill & drain service valves and suction gas filter with large surface area and fine mesh.

Compressor shall have inherent oil lubrication system in which oil pressure is maintained by compression ratio. Bearings shall be generously dimensioned to provide long life operation.
Compressor shall have automatic start unloading and shall have infinite capacity control. Each compressor shall be provided with safety devices including check valve in discharge gas outlet, differential relief valve, thermal motor protection by integrated PTC sensors in each winding coil, phase sequence protection for direction of rotation, manual reset lock-out and oil temperature protection by PTC sensor.

EVAPORATOR

Evaporator shall be of direct expansion, shell & tube type with and 1, 2, 3 or 4 refrigeration circuits. The bundle shall be made of copper tubes, expanded into steel tube sheets, with brass baffles located into a steel shell.

The evaporator shall be provided with water drain, air vent and fittings for temperature sensors. The shell shall be insulated with 1" (25mm) thick flexible closed cell insulation with a maximum K factor of 0.28 Btu.in/ft^2.hr.°F (0.04 W/m.°K).

The evaporator shall be designed for 239.3 psig (1650 kPa) refrigerant side working pressure and 145 psig (1000 kPa) waterside working pressure.

CONDENSER COIL

Condenser coil shall be air cooled and shall be constructed of seamless Hi-X copper tubes, maximum 3 rows deep, 3/8" (9.52 mm) O.D. and mechanically bonded to the wavy type aluminum fins .

Fins spacing shall be maximum 16 FPI (1.59 mm). Slit fins shall not be accepted. Precoated fins shall be used for saline and corrosive environment.

The coils shall be tested against leakage by air pressure of 450 psig (3102 kPa) under water.

CONDENSER FANS & MOTORS

The machine shall be furnished with direct driven propeller type discharging air upward condenser fans. Fans shall be constructed of corrosion resistant blades such as heavy gauge aluminum. The fan and drive shall be held in proper alignment. Fan assemblies shall be provided with heavy gauge, rust resistant steel. The fan assembly shall be protected with an acrylic coated steel wire fan guard. All condenser fans shall be individually statically and dynamically balanced for vibration free operation.

Condenser fan motor shall be Totally Enclosed Air Over (TEAO), 3-phase type, 6 poles with Class F insulation, Class B temperature rise and IP55 protection. Also, Motor shall be with permanently lubricated bearings and inherent corrosion resistance shaft.

Condenser fan motors shall be provided with individual 3 pole motor protector circuit breakers and contactor rated for AC3 duty operation.

GUIDE SPECIFICATIONS

REFRIGERATION CIRCUITS

Refrigeration circuits piping shall be fabricated from ACR grade copper pipes and each refrigeration circuit shall include a removable core filter drier, electronic expansion valve, and shut off valve.

CASING

Machine casing shall be made of heavy gauge zinc coated galvanized steel sheets conforming to JIS-G 3302 and ASTM-A 635.

To provide an extremely tough, scratch resistance, excellent anti-corrosive protection, fabricated steel shall be thoroughly de-greased and then phosphatized before application of an average 60 micron backed electrostatic polyester dry powder coating in RAL 7032 color scheme. This finish shall pass 1000 hour, 5% salt spray test at 95°F (35°C) and 95% relative humidity as per (ASTM B 117).

The machine shall be fully assembled on welded rigid structural steel skid painted with one coat primer and minimum one coat of rust-preventing black enamel.

CONTROL PANEL & CONTROLS

Control panel enclosure shall be fabricated out of heavy gauge steel in phosphatized, powder coated baked finish. The enclosure shall be conformed to IP54 as per guidelines in IEC 529. A hinged access door and key fastener shall be provided for easy access and security.
The control panel shall be ventilated using louvers and filters. The panel shall be factory wired in accordance with NEC 430 & 440, labeled, tagged and have 1 phase, 220 / 240 V for controls.

Control Panel should include the following components as minimum :

- Individual compressor and condenser fan motor contactors.
- Thermal magnetic circuit breakers for compressors and condenser fan motors.
- Voltage monitoring module for protection against under voltage, over voltage, phase loss, phase reversal and phase unbalance of the incoming voltage.
- Circuit breaker for control circuit.
- Remote/Off/Local selector switch.
- Microprocessor master board with graphical display.
- Microprocessor expansion boards as required.
- Electronic expansion valve control boards with 24V transformer.
- Control Relays and control circuit fuses.
- Control circuit on/off switch and pump down switches.
- Indication light for common fault.
- Volt free contacts for run, common fault and auto mode indications.
- Provision for accepting volt free contact for remote start/ stop.
- Control terminal blocks and power terminal blocks/bus bars.

A Microprocessor must be provided to control the chiller as a standard. The controller shall provide the flexibility with set points and control options that can be selected prior to the commisioning. The microprocessor shall provide a complete operational control for the chiller and shall have built-in auto diagnostic capability that can signal off normal operation or alarm conditions as well as shutting down the chiller.

The main features of the Controller shall be as follows :

- A large graphical LCD Display with back-lit that can be seen in bright or dim lighting.
- A nine button generic keypad.
- Battery backed up built in real time clock to program the chiller for 2 starts and 2 stops daily to provide the information about the running hours of the compressors.
- Multiple authorization levels to provide tight security of the control system.
- Two operating schedules per each day of the week and 8 holidays.
- Automatic Lead/Lag changeover of the compressors.
- Pump-down at the beginning and end of every circuit cycle.
- Capacity control based on leaving chilled water temperature.
- Start/stop facility from remote through Volt Free Contact (VFC)
- Common Run, Fault and remote mode operation status volt free contacts provided for remote signaling

GUIDE SPECIFICATIONS

Easy Accessible Measurements shall include the following :

- Status of the chiller.
- Status of each circuit/compressor.
- Status of condenser fans.
- Leaving and Entering chilled water temperature.
- Suction pressure and temperature for each refrigerant circuit.
- Discharge pressure and temperature for each refrigerant circuit.
- Suction and discharge superheat for each refrigerant circuit.
- Ampere draw for each compressor.
- Expansion valve opening percentage.
- Ambient temperature.
- All active set points.
- Run time for each compressor.
- Number of compressor starts.
- Lockout and alarm status.
- Status of water flow switch, voltage monitor, compressor internal motor protector, oil level switch, run/stop input and pump down switches.
- Log of last 100 alarms.
- Lead compressor identification.
- Date and time.
- Graphs of all inputs and outputs.

The following system protection controls shall automatically act to ensure system reliability and protection of the unit thru the microprocessor:

- Low suction pressure protection.
- High discharge pressure protection.
- High discharge temperature protection.
- Low discharge pressure protection.
- Low superheat protection.
- High compressor ampere protection.
- Compressor internal thermal protection.
- Freeze protection.
- Under voltage, over voltage, phase loss, phase reversal and phase unbalance protection.
- Chilled water flow loss protection.
- Sensor error protection.
- Pump down.
- Anti-recycle.
- Time delay between stages.
- 4-Levels of passwords to restrict the intentional mishandling.

SUPPLEMENTARY MODELS

ENGINEERING SPECIFICATIONS

50 Hz

Model	APCN	5039	5044	5076	5081	5089
Nom. Cooling Capacity (1)	TR	39.0	44.0	76.0	82.4	88.0
	kW	137.0	154.7	267.3	289.8	309.5
Nom. Cooling Capacity (2)	TR	35.5	40.8	69.9	75.8	81.3
	kW	124.8	143.4	245.9	266.7	286.1
Compressor	-	Semi Hermetic, Screw				
Qty	#	1	1	2	2	2
Oil Charge(BSE170)	US Gal	3.96 X 1	3.96 X 1	3.96 X 2	3.96 X 2	3.96 X 2
Ckt (A / B)	Litre	15 X 1	15 X 1	15 X 2	15 X 2	15 X 2
Condenser Coil	-	Air Cooled 2 or 3 rows, 16 fpi (1.59mm) fin spacing, copper tubes Aluminum fins				
Face Area (Total)	ft²	75.0	75.0	153.3	153.3	153.3
	m²	6.97	6.97	14.24	14.24	14.24
Condenser Fan	-	Propeller Direct Drive				
Quantity	#	4	4	6	6	6
Air Flow Rate	cfm	44888	42680	68268	68268	68268
	l/s	21185	20143	32219	32219	32219
Condenser Fan Motor	-	Totally enclosed air over, Class F insulation, 6 pole, IP - 55 protected				
Size x Quantity	kW x #	1.5 x 4	1.5 x 4	1.5 x 6	1.5 x 6	1.5 x 6
Evaporator	-	Direct Expansion Shell and Tube				
Quantity	#	1	1	1	1	1
Refrigerant Circuits	#	1	1	2	2	2
Water Volume	US Gal	16.6	16.6	23.7	34.2	30.0
	Litre	63.0	63.0	89.8	129.5	113.5
Refrigerant Charge (R134a)	lbs	58.6	74.0	141.8	145.1	148.4
	kg	26.6	33.6	64.3	65.8	67.3

60 Hz

Model	APCN	6046	6054	6094	6099	6104
Nom. Cooling Capacity (1)	TR	46.5	53.8	93.4	98.2	105.2
	kW	163.4	189.3	328.4	345.3	370.1
Nom. Cooling Capacity (2)	TR	42.5	49.4	85.6	90.3	96.7
	kW	149.3	173.8	301.1	317.7	340.0
Compressor	-	Semi Hermetic, Screw				
Qty	#	1	1	2	2	2
Oil Charge(BSE170)	US Gal	3.96 X 1	3.96 X 1	3.96 X 2	3.96 X 2	3.96 X 2
Ckt (A / B)	Litre	15 X 1	15 X 1	15 X 2	15 X 2	15 X 2
Condenser Coil	-	Air Cooled 3 rows, 16 fpi (1.59mm) fin spacing, copper tubes Aluminum fins				
Face Area (Total)	ft²	75.0	75.0	173.3	173.3	173.3
	m²	6.97	6.97	16.10	16.10	16.10
Condenser Fan	-	Propeller Direct Drive				
Quantity	#	4	4	6	6	6
Air Flow Rate	cfm	51552	51552	83688	83688	83688
	l/s	24330	24330	39496	39496	39496
Condenser Fan Motor	-	Totally enclosed air over, Class F insulation, 6 pole, IP - 55 protected				
Size x Quantity	kW x #	2.2 x 4	2.2 x 4	2.2 x 6	2.2 x 6	2.2 x 6
Evaporator	-	Direct Expansion Shell and Tube				
Quantity	#	1	1	1	1	1
Refrigerant Circuits	#	1	1	2	2	2
Water Volume	US Gal	16.6	23.2	30.0	30.0	48.0
	Litre	63.0	88.0	113.5	113.5	181.7
Refrigerant Charge (R134a)	lbs	74.0	77.3	160.4	160.4	170.6
	kg	33.6	35.1	72.7	72.7	77.4

Table 18

Notes :

1). Capacity ratings are based on standard AHRI - 550 / 590 conditions of 95°F (35°C) ambient, 44°F (6.7°C) leaving chilled water temperature, 10°F (5.5°C) range and 0.0001 ft².h°F/Btu (0.018 m².°C/kW) fouling factor.

2). Capacity ratings are based on 115°F (46°C) ambient, 45°F (7.2°C) leaving chilled water temperature, 10°F (5.5°C) range and 0.0001 ft².h°F/Btu (0.018 m².°C/kW) fouling factor.

* Available for 380-415V / 3Ph / 50Hz and 460V / 3Ph / 60Hz.

SUPPLEMENTARY MODELS

ELECTRICAL DATA

50 Hz

Power Supply: 380~415V/3PH/50Hz

Model APCN	Unit Characteristic			Compressor			Condenser Fan Motor		
	MFA	MCA	ICF	QTY	RLA	LRA	QTY	FLA	LRA
5039	315	155	379	1	111	350	4	4.0	16.5
5044	315	171	452	1	124	423	4	4.0	16.5
5076	400	274	498	2	111	350	6	4.0	16.5
5081	500	290	571	1 + 1	124 + 111	423 + 350	6	4.0	16.5
5089	500	303	584	2	124	423	6	4.0	16.5

Table 19

NOTE:

220V/1PH/50Hz control power must be supplied from a separate source, through field supplied and installed disconnect switch

60 Hz

Power Supply: 460V/3PH/60Hz

Model APCN	Unit Characteristic			Compressor			Condenser Fan Motor		
	MFA	MCA	ICF	QTY	RLA	LRA	QTY	FLA	LRA
6046	315	159	386	1	111	350	4	5.0	21
6054	315	175	459	1	124	423	4	5.0	21
6094	400	280	507	2	111	350	6	5.0	21
6099	500	296	580	1 + 1	124 + 111	423 + 350	6	5.0	21
6104	500	309	593	2	124	423	6	5.0	21

Table 20

NOTE:

240V/1PH/60Hz control power must be supplied from a separate source, through field supplied and installed disconnect switch

Legend

MFA Maximum Fuse Amps (for fuse sizing), complies with NEC Article 440-22 & 430-52.

MCA Minimum Circuit Amps.(for wire sizing), complies with NEC article 440-33.

ICF Maximum Instantaneous Current Flow

RLA Rated Load Amps. (at worst operating condition)

LRA Locked Rotor Amps

FLA Full Load Amps

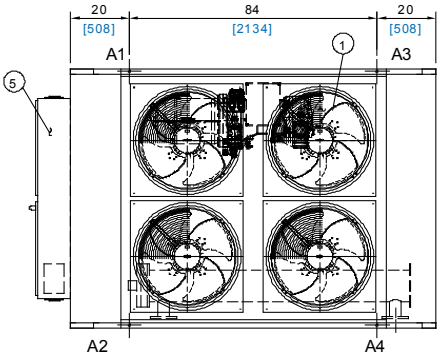
Note :

Voltage imbalance not to exceed ± 2 % of the rated voltage

SUPPLEMENTARY MODELS

Dimensional Data

APCN Models: 5039, 5044, 6046 & 6054

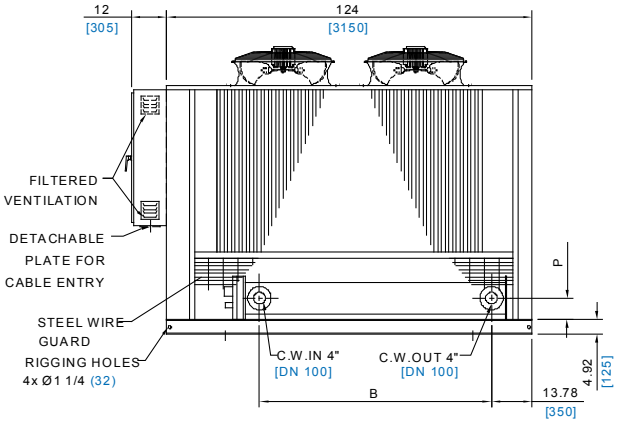


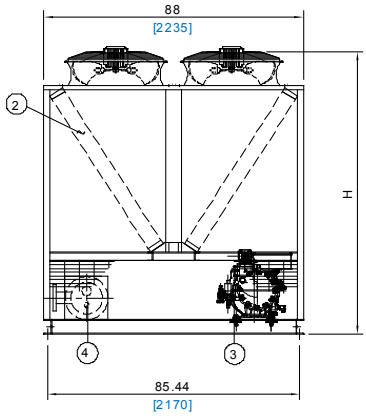
APCN MODEL	H	B	P
5039	97.7 2482	78.74 2000	7.28 185
5044	97.7 2482	78.74 2000	7.28 185
6046	92 2337	78.74 2000	7.28 185
6054	92 2337	89.76 2280	8.84 224

A1-A4 ARE LOADING POINTS Ø3/4 [19]

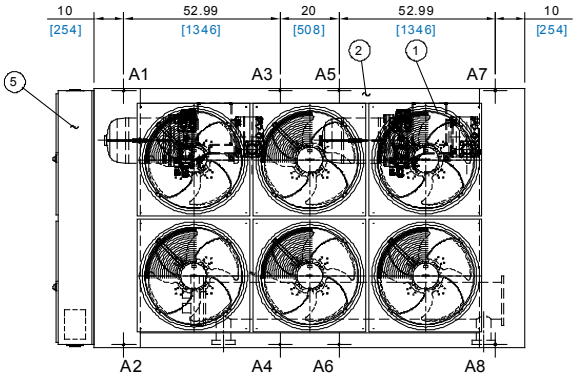
LEGEND
1. CONDENSER FAN
2. CONDENSER COIL
3. COMPRESSOR
4. EVAPORATOR
5. CONTROL PANEL

ALL DIMENSIONS ARE IN INCHES [MM]



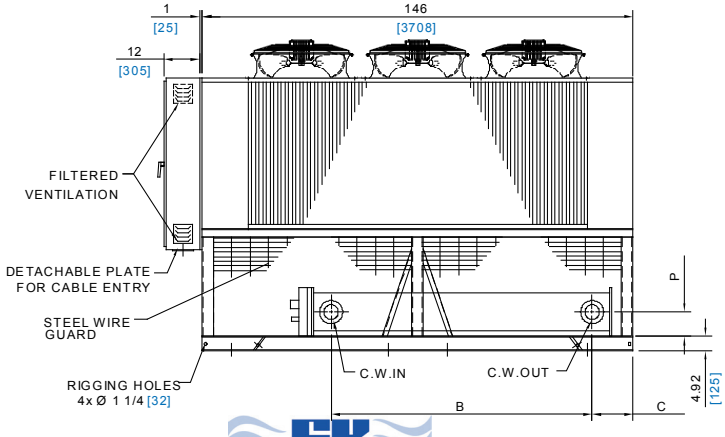


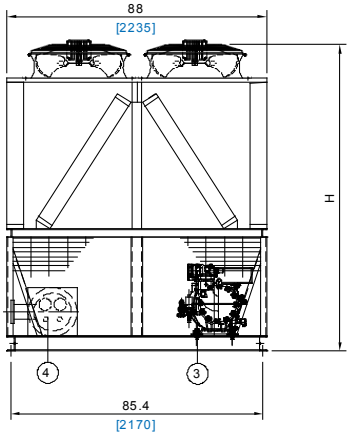
APCN Models: 5076, 5081, 5089, 6094, 6099 & 6104



APCN MODEL	H	B	C	P	C.W. IN/OUT
5076 5081 5089	103.84 2637	88.58 2250	13.78 350	8.27 210	5 DN 125
6094 6099	98.13 2492	88.58 2250	13.78 350	8.27 210	5 DN 125
6104	98.13 2492	86.61 2200	15.75 400	10.04 255	6 DN 150

A1-A8 ARE LOADING POINTS Ø3/4 [19]





SUPPLEMENTARY MODELS

Loading Points

50 Hz

Models APCN	Units	Mounting Loads								Operating Weight
		A1	A2	A3	A4	A5	A6	A7	A8	
5039	lbs	1543	1478	1483	1393	-	-	-	-	**5897**
	kg	700	670	673	632	-	-	-	-	**2674**
5044	lbs	1596	1524	1536	1440	-	-	-	-	**6096**
	kg	724	691	697	653	-	-	-	-	**2765**
5076	lbs	1692	1605	1182	1024	1142	841	1246	1256	**9988**
	kg	767	728	536	464	518	381	565	570	**4530**
5081	lbs	1709	1641	1195	1048	1143	842	1260	1308	**10146**
	kg	775	744	542	475	518	382	571	593	**4601**
5089	lbs	1713	1661	1199	1064	1152	845	1277	1346	**10257**
	kg	777	753	544	483	522	383	579	610	**4652**

Table 21

60 Hz

Models APCN	Units	Mounting Loads								Operating Weight
		A1	A2	A3	A4	A5	A6	A7	A8	
6046	lbs	1549	1484	1490	1400	-	-	-	-	**5923**
	kg	702	673	676	635	-	-	-	-	**2686**
6054	lbs	1553	1419	1485	1377	-	-	-	-	**5834**
	kg	704	644	673	624	-	-	-	-	**2646**
6094	lbs	1695	1647	1182	1054	1135	833	1260	1334	**10140**
	kg	769	747	536	478	515	378	571	605	**4599**
6099	lbs	1704	1652	1190	1055	1135	833	1260	1334	**10163**
	kg	773	749	540	478	515	378	571	605	**4609**
6104	lbs	1738	1804	1205	1120	1145	838	1322	1547	**10719**
	kg	788	818	546	508	519	380	600	702	**4861**

Table 22

NOTES

اجهزة تكييف هواء
AIR CONDITIONING EQUIPMENT

you name it
we cool it

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