

APCX Series Air Cooled Packaged Chillers

Range 35 TR to 247 TR
(123 kW to 870 kW)



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R-134a

SKM Air Cooled Packaged Chillers APCX Series - R134a

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Introduction

APCX Series Air Cooled Packaged Chillers are the new generation of SKM chillers. APCX Series have quite and low vibration design and are manufactured to meet the requirements of the severe climatic conditions of the gulf.

APCX Series Chillers are ideally suited for hotels, high-rise buildings, stores, hospitals and modern cooling applications of modern manufacturing industries. APCX 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.

APCX Series Chillers are designed and manufactured in accordance with the SKM Quality Management System, approved to ISO 9001-2000 and rated in accordance with AHRI 550/590.

APCX Chillers are available in 68 models covering capacity ranges of 35 to 212 TR (123 to 747 kW) in 50 Hz and 40 to 246.5 TR (140 to 870 kW) in 60 Hz.

Legend

The following legends are used throughout this manual:

| | |
|---|---|
| AMB.....Ambient Temperature | kWKilowatt |
| ARI.....Air Conditioning & Refrigeration Institute | lbsPounds |
| BTUBritish Thermal Unit | LCWTLeaving Chilled Water Temperature |
| C.CAP.....Cooling Capacity in TR (kW refrigeration) | L/SLiter per second |
| cfm.....Cubic feet per minute | mm.....Millimeters |
| ECWT.....Entering Chilled Water Temperature | PICompressor Power Input in kW |
| EEREnergy Efficiency Ratio | QtyQuantity |
| GPMGallons Per Minute | Range.....ECWT-LCWT |
| kg.....Kilogram | TR.....Tons of Refrigeration |
| kPaKilo pascals | WFRWater flow rate |
| | WPDWater Pressure Drop |

Nomenclature

APC X - 5 1 0 0 Y

Air Cooled
Packaged Chillers

R-134a
(Semi-Hermetic Compressor)

Power Supply
Frequency 5 : 50 Hz
 6 : 60 Hz

Nominal Tonnage

Power Supply Code

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

SKM Air Conditioning Equipment,



Built in the Gulf...for the World

SKM Air Cooled Packaged Chillers APCX Series - R134a

General Features

High Energy Efficiency Ratio (EER)

APCX chillers use, exclusively, high efficiency semi-hermetic compressors having a unique valve design. The EER of APCX is substantially higher compared to units using equivalent conventional compressors. EER ratings for APCX chillers at ARI conditions are listed in Capacity Ratings

Parallel Compressors Operation

APCX chillers are equipped with multiple compressors connected in parallel in order to achieve greater operating flexibility. By cycling individual compressors the system capacity can be modulated with full power savings for the compressors in operation. By using the system of parallel compressors operation, uncomplicated unload start is achieved by a simple time delay starting of single compressors as opposed to a compressor start with the total capacity.

Wide Operating Range

APCX chillers are designed, as standard, to operate at a wide range of ambient temperatures from 40°F (4°C), or lower if optional low ambient operation kit is included, to 125°F (51.7°C).

Main Component Features

Compressors

Compressors used in APCX series are fully accessible, semi-hermetic, reciprocating type, equipped with an oil sight glass, suction and discharge service valves and crankcase heater. These are refrigerant gas cooled and equipped with an oil pressure lubrication system. The oil pump working in either direction is protected by an oil screen and a valve provided for the fitting of an oil pressure gauge. For protection, all compressors are equipped with preset internal relief valve between suction and discharge sides.

The compressors are provided with vibration isolator mounting under the compressors skid and therefore, external to APCX chillers, AVM's may be necessary only for critical applications. The compressor motors have inherent thermal protection. This is in addition to other standard safety and protection controls. Compressors conform to DIN standards.

Condensers

Condenser coils are manufactured from seamless copper tubes mechanically bonded to aluminum fins to ensure optimum heat transfer. All coils are tested against leakage by air pressure of 450 psig (3100 kPa) under water. All standard coils are 3 or 4

rows with 12 FPI, (2.1 mm) fin spacing, 3/8" (9.5 mm) O.D. tubes. An integral sub-cooling circuit is provided to increase the chiller cooling capacity, without additional operating costs.

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

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

- Copper fins only electrotinned.
- Copper coils 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.

Condensers Fans & Motors

The condenser fans are propeller type, aluminum 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 condenser fans are individually statically and dynamically balanced at the factory. Complete fan assembly is provided with suitable acrylic coated fan guard.

Evaporator

All the evaporators are shell and tube, direct expansion, removable head and having 1, 2, and 3 refrigerant circuits. Evaporator shell, header, tubesheet, refrigerant and water connections are made of carbon steel. Baffles are provided in the waterflow to increase the heat transfer efficiency. High efficiency tubes are in copper. Evaporators are provided with drain and vent plugs. Shell and tube evaporator design and material specifications, the assembly process are in compliance with the following codes: CE, GOST, UDT and ASME Standards.

Maximum working pressure of waterside is 145 psig (1000 kPa) and for refrigerant side is 363 psig (2500 kPa).

All evaporators are insulated with 1" (25mm) thick flexible closed cell insulation, having K factor of 0.26 Btu.in/ft².hr.°F (0.038 W/m.°K).



SKM Air Cooled Packaged Chillers

APCX Series - R134a

Casing/Structure

The unit casing in APCX series chillers is made of zinc coated galvanized steel sheets conforming to JIS-G 3302 and ASTM A653 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. Unit casing is provided with access doors for easy servicing/maintenance.

APCX chillers are assembled on rigid structural steel skid channels painted with two 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 Pipework

The refrigeration circuit piping is fabricated from ACR grade copper piping. Each refrigeration circuit includes filter drier, liquid line solenoid valve, thermostatic expansion valve, sight glass, shut off valve and hot gas muffler. For single compressor circuits, additional vibration eliminators are provided.

After fabrication the refrigeration circuit suction line is insulated with ½" (13 mm) wall thickness closed cell pipe insulation.

Electrical Control Panel

The unit mounted control panel enclosure is fabricated out of heavy gauge sheet steel in phosphatized powder coated baked finish. The enclosure conforms to IP-54 as per guidelines in IEC 529. A Hinged access door and key fastener is provided for easy access and security. The control panel shall be ventilated through louvers and filters. The panel is factory wired in accordance with NEC 430 & 440, labeled, tagged and features 220/240V controls and the following as standard:

- Individual compressor and condenser fan motor contactors.
- Circuit breakers for compressors.
- Condenser fan motor protector circuit breaker.
- MCB for control circuit.
- Microprocessor control boards.
- Manual pump down switch for each circuit.
- Remote & Local Selection Switch.
- Common trip indication light.
- 13A Power Source Outlet.
- Volt free contacts for Remote, Run, and Trip indication.
- Power bus bar / terminal and control terminal blocks.

SKM Microprocessor Controller - MAGNUM

The Magnum Microprocessor Control System is available for APCX Series chiller as 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. The Magnum is a rugged microprocessor based controller that is designed for the hostile environment of HVAC/R industry.

Magnum 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.

This microprocessor provides complete operational control for the chiller and has built-in auto diagnostic capability that can signal off 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 is 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.
- The multiple authorization levels to provide tight security of the control system.
- 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 (for DX type evaporator).
- 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) is a standard feature.
- Common Run, Fault and remote mode operation status volt free contacts provided for remote signaling.

SKM Air Cooled Packaged Chillers APCX Series - R134a

Display Information

SKM APCX chillers offer a graphics LCD display which allows the operator to access different parameters of the chiller. Operator can view and change the setpoint 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.

(Remote adjustment of the leaving chilled water set point is accomplished through an external Building Automation System supplying a simple 0-5Vdc. signal) Specify during enquiry/order for this facility.

Easy Accessible Measurements Include:

- Current capacity status.
- Current circuit/compressor status.
- Leaving and Entering chilled water temperature.
- Evaporator pressure of each refrigerant circuit.
- Condenser pressure of each refrigerant circuit.
- Compressor elapsed run time.
- Number of compressor starts.
- Ambient temperature.
- Lockout and alarm status with time stamped.
- Water flow switch status.
- Compressor amperage monitoring.
- Condenser fan ON/OFF status.
- Logging of Last 60 Alarms. These include:

All the abnormal conditions of sensor inputs
Power Failure

- Power returned
- Battery failure
- Clock setting modifications
- CPU reset
- Ram integrity
- Changed set points
- Failure of Input / Output cards

System Protection

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

- Low suction pressure limiting.
- High discharge pressure limiting.
- High motor temperature / over current.
- Freeze protection.
- Power loss.
- Chilled water flow loss.
- Sensor errors.
- Pump down.
- Anti-recycle.
- Time delay between stages.
- 4-Levels of PASSWORDS to restrict the intentional mishandling.



MAGNUM Master micro controller board with twelve 0-5vdc sensor inputs, four 5vdc digital inputs, ten 230vac 6.3A relay outputs, four 0-10vdc analog outputs, keypad, 128x64 dot pixel STN monochrome graphics LCD with 2.8" diagonal viewing area, real time clock, MCD-I/O, RS-232, RS-485 and Ethernet communication ports. User selectable 115vac or 230vac operation.

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Optional Features available for Magnum

PC Support Software for Magnum

MCS-Connect program provides both local and remote communications to the MAGNUM independent of the type of software. Through this program, the status of the controller can be viewed and proper authorization changes can be made to the system. Configuration files can be transmitted to or received from a Magnum unit. The Magnum automatically performs history logging; this program has complete graphic functions.

485 Network

The MCS 485 Network can support up to 20 Magnums and their associated I/O's. Access to this network can be local, via RS 232 connection, or remote via 14.4K Baud modem. When using the dial up through the modem, there will be no degradation in the performance of the network. Each Magnum in the network must be assigned to a unique address when the configuration file is build using **MCS-Config** program. This address will be the key in establishing communications with the appropriate Magnum system. This address can be changed from the LCD/keypad of the unit. The current address of Magnum can be viewed or changed with factory authorization. RS 232 transmission should not exceed 30 feet in length and RS 485 transmission should not exceed 1 mile without repeater.

Ethernet Port

Communications can be through the 100 MBPS Ethernet communications port on the Magnum. It is necessary to use a crossover cable when connected directly to this port from a PC.

Requirements for PC Software

To install and run the program, we suggest the following system requirements:

Front End System Requirements

- Windows 2000 or above.
- Pentium 166 MHz or above.
- 10 Gigabyte hard disk with at least 25 Megabytes free as minimum.
- CD Drive
- Super VGA display capable of displaying 256 colors
- 64 Megabytes of RAM or more is recommended
- 19.2k baud modem

BMS Communication Protocols

Magnum supports BACnet MSTP, BACnet IP, Modbus RTU, Modbus TCP/IP, Lonworks and Johnson N2. Each protocols are supported with various baud rates.

Since green buildings are the major issue in HVAC industry and building integration is one of the tools to save energy.

Complete control of the chillers along with the monitoring is possible if any of the above protocols are used to connect chillers to the BMS. The details of the parameters to be controlled, number of chillers in the building, the protocol, etc., are required

before the order as costing of the BMS interface depends on these parameters.

Hard Wired of BMS Connection

Within the hard wire structure there are five options as follows:

1. **Run / Stop – (BMS to Magnum)**
A Run / Stop input is provided, by chiller, to allow the end user to provide an enable / disable signal from a building management system. This input allows for a normal shutdown of the chiller package.
2. **Emergency Stop – (BMS to Magnum)**
The EMER. STOP input is an input that allows for immediate shut down. This feature is used for safety, especially in explosion proof installations. The chiller bypasses the normal shutdown and shuts down immediately.
3. **Chilled Water Reset – (BMS to Magnum) 'Max Trg Reset'**
Is a function of a signal from the building management system. This value is used to adjust the control LEV LIQ TARG set point #1. The amount of the actual adjustment is proportionally based upon the associated analog input value. The analog value can be between 0 and 5 volts.
4. **Compressor Run – (Magnum to BMS)**
This is a relay output (VFC) closure from the Chiller Controls to the BMS indicating the compressor/s is/are running.
5. **Alarm – (Magnum to BMS)**
This is a relay output (VFC) closure from the Magnum to the BMS indicating a problem. Communications to analysis the problem may be direct at the keypad, communications through PCconnection or direct from the BMS.

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Optional Features

Factory Installed

Low Ambient Operation Kit (LAO)

For operation down to 25°F (-4°C) ambient. Specify minimum design ambient temperature on order.

Alternative Condenser Material

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

- For Copper Fins specify (FC)
- For Copper Fins only electrotinned (CFT)
- For Copper Coil electrotinned specify (FCT)
- For Pre Coated Aluminum Fins specify (FAP)
- For Aluminum Fins with Aeris Coat Protection specify (FAA)
- For Copper Fins with Aeris Coat Protection specify (FCA)

Galvanised Frame (GFB)

Hot dip galvanised after manufacture, steel frame and base.

IP55 Control Panel (ICP)

The standard control panel replaced by an IP55 enclosure for extra protection against the extreme weather conditions.

Evaporator Casing (ECA/ECG/ECS)

Shell and insulation casing enclosed in a jacket/casing of aluminum, galvanized or stainless steel as required.

Condenser Coil Guard (CGP)

Coil wire mesh guard, in galvanised and painted finish, for condensers. Recommended on ground level installations where coil needs to be protected against vandalism.

Electronic Expansion Valve (EEV)

To provide energy saving benefits over mechanical thermostatic expansion valve (TXV).

Unload Start Kit (USK)

This option is required when the compressor needs a high starting torque such as when the load is high.

Individual Refrigerant Circuit (IRC)

For independent refrigeration circuits other than standard arrangement shown, consult SKM.

Load Limit Control Kit (LCK)

To prevent nuisance trip-out when the entering chilled water temperature is above 76°F (24.4°C) at start up or where chillers may be subject to shut down for long periods during season.

Voltage Monitoring Module (VMM)

To prevent Chiller operation in the event of :

- Phase burn-out
- Phase reversal
- Under / over voltage on the incoming line voltage.

Voltage Monitoring Module (DVM)

To meet DEWA regulations. This option is available for Dubai, U.A.E. 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.

Ammeter and Phase Selector Switch (AMPI)

To indicate running Amperes on main incomer/incomers of a chiller.

Voltmeter and Selector Switch (VSS)

For incoming line voltage.

Pressure Gauges (SDG)

Suction and discharge and oil pressure indication of each refrigerant circuit. Gauges mounted outside the Control Panel.

Vibration Eliminator (DVE)

For parallel compressor circuiting, vibration eliminators can be provided as an option.

Capacity Control Steps (CRS1 & CRS2)

Where loads may vary greatly and finer capacity control is desired, the standard control steps may not be suffice. Additional capacity control steps are available as options CRS1 and CRS2. See page 20 for this additional control options available.

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.

Note : Some optional items are not applicable, for all sizes/models, consult SKM.

Options for Field Installation

Chilled Water Flow Switch (CWFS)

Anti-Vibration, Spring Type (CAVM)

SKM Air Cooled Packaged Chillers APCX Series - R134a

ENGINEERING SPECIFICATIONS - 50 HZ

| Model | APCX | 5035 | 5040 | 5045 | 5050 | 5055 | 5060 | 5065 | 5070 | |
|----------------------------|---------------------------|--|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Cooling Capacity (1) | TR | 35.0 | 40.3 | 46.4 | 51.4 | 57.0 | 61.2 | 66.4 | 68.9 | |
| | kW | 122.9 | 141.7 | 163.2 | 180.7 | 200.5 | 215.3 | 233.6 | 242.3 | |
| Cooling Capacity (2) | TR | 31.6 | 36.4 | 42.0 | 46.4 | 51.6 | 55.5 | 60.3 | 62.6 | |
| | kW | 111.2 | 128.1 | 147.7 | 163.1 | 181.3 | 195.0 | 212.0 | 220.0 | |
| Compressor | - | Semi-Hermetic Reciprocating, 1450 rpm | | | | | | | | |
| 1 | Code / Qty | - / # | D35X / 2 | D40X / 2 | D50X / 2 | D60X / 2 | D35X / 2 | D40X / 3 | D40X / 1 | D50X / 3 |
| | Oil (Polyol Ester) Charge | USGal Litre | 1.1 x 2 4.3 x 2 | 1.9 x 2 7.4 x 2 | 2.0 x 2 7.7 x 2 | 2.0 x 2 7.7 x 2 | 1.1 x 2 4.3 x 2 | 1.9 x 3 7.4 x 3 | 1.9 x 1 7.4 x 1 | 2.0 x 3 7.7 x 3 |
| 2 | Code / Qty | - / # | - | - | - | - | D40X / 1 | - | D50X / 2 | - |
| | Oil (Polyol Ester) Charge | USGal Litre | - - | - - | - - | - - | 1.9 x 1 7.4 x 1 | - - | 2.0 x 2 7.7 x 2 | - - |
| Condenser Coil | - | Air-cooled 3 or 4 rows, 12 fpi (2.1mm) fin spacing, copper tubes aluminum fins | | | | | | | | |
| Area | ft ² | 71.1 | | | 88.9 | | 106.7 | | 124.4 | 133.3 |
| | m ² | 6.6 | | | 8.3 | | 9.9 | | 11.6 | 12.4 |
| Condenser Fan (823) | - | Propeller direct drive 960 rpm | | | | | | | | |
| Qty | # | 4 | | | | 6 | | | | |
| | Airflow Rate | cfm l/s | 37804 17842 | 36756 17347 | 38132 17996 | | 56178 26513 | 55134 26021 | 56634 26729 | 57198 26995 |
| Condenser Fan Motor | - | Totally enclosed air over, Class-F insulation, 6 pole, IP-55 protected | | | | | | | | |
| Size / Qty | kW x # | 1.1 x 4 | | | | 1.1 x 6 | | | | |
| Evaporator | - | Direct Expansion shell & tube | | | | | | | | |
| Code / Qty | - / # | 1160R x 1 | 1210R x 1 | 1235R x 1 | 1235R x 1 | 3175 x 1 | 3175 x 1 | 3175 x 1 | 3175 x 1 | |
| | Ref. Circuits | # | 1 | | | | 3 | | | |
| Water Volume | USGal | 11.04 | 16.57 | 15.35 | 15.35 | 16.64 | 16.64 | 16.64 | 16.64 | |
| | Litre | 41.8 | 62.7 | 58.1 | 58.1 | 63 | 63 | 63 | 63 | |
| Refrigerant Charge (R134a) | Lb | 67 | 82 | 97 | 97 | 113 | 127 | 140 | 147 | |
| | Kg | 30 | 37 | 44 | 44 | 51 | 57 | 64 | 67 | |
| Operating Weight (Approx.) | Lb | 4035 | 4412 | 5052 | 5052 | 6383 | 6559 | 7215 | 7628 | |
| | Kg | 1830 | 2001 | 2291 | 2291 | 2895 | 2975 | 3272 | 3460 | |

| Model | APCX | 5120 | 5125 | 5135 | 5140 | 5145 | 5150 | 5155 | 5160 | |
|----------------------------|---------------------------|--|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Cooling Capacity (1) | TR | 121.9 | 126.4 | 132.9 | 138.9 | 141.8 | 147.0 | 152.0 | 156.9 | |
| | kW | 428.8 | 444.7 | 467.4 | 488.5 | 498.6 | 516.9 | 534.7 | 551.8 | |
| Cooling Capacity (2) | TR | 110.8 | 115.0 | 120.3 | 125.9 | 128.5 | 133.1 | 137.4 | 141.7 | |
| | kW | 389.8 | 404.4 | 423.1 | 442.8 | 452.1 | 468.0 | 483.4 | 498.4 | |
| Compressor | - | Semi-Hermetic Reciprocating, 1450 rpm | | | | | | | | |
| 1 | Code / Qty | - / # | D40X / 6 | D40X / 4 | D40X / 3 | D40X / 1 | D50X / 6 | D50X / 4 | D50X / 2 | D60X / 6 |
| | Oil (Polyol Ester) Charge | USGal Litre | 1.9 x 6 7.4 x 6 | 1.9 x 4 7.4 x 4 | 1.9 x 3 7.4 x 3 | 1.9 x 1 7.4 x 1 | 2.0 x 6 7.7 x 6 | 2.0 x 4 7.7 x 4 | 2.0 x 2 7.7 x 2 | 2.0 x 6 7.7 x 6 |
| 2 | Code / Qty | - / # | - | D50X / 2 | D50X / 3 | D50X / 5 | - | D60X / 2 | D60X / 4 | - |
| | Oil (Polyol Ester) Charge | USGal Litre | - - | 2.0 x 2 7.7 x 2 | 2.0 x 3 7.7 x 3 | 2.0 x 5 7.7 x 5 | - - | 2.0 x 2 7.7 x 2 | 2.0 x 4 7.7 x 4 | - - |
| Condenser Coil | - | Air-cooled 3 or 4 rows, 12 fpi (2.1mm) fin spacing, copper tubes aluminum fins | | | | | | | | |
| Area | ft ² | 213.3 | | | 248.9 | | 266.7 | | | |
| | m ² | 19.8 | | | 23.1 | | 24.8 | | | |
| Condenser Fan (823) | - | Propeller direct drive 960 rpm | | | | | | | | |
| Qty | # | 12 | | | | | | | | |
| | Airflow Rate | cfm l/s | 110268 52041 | | | 113268 53457 | | 114396 53989 | | |
| Condenser Fan Motor | - | Totally enclosed air over, Class-F insulation, 6 pole, IP-55 protected | | | | | | | | |
| Size / Qty | kW x # | 1.1 x 12 | | | | | | | | |
| Evaporator | - | Direct Expansion shell & tube | | | | | | | | |
| Code / Qty | - x # | 3350 x 1 | 3350 x 1 | 3440 x 1 | 3440 x 1 | 3440 x 1 | 3440 x 1 | 3440 x 1 | 3440 x 1 | |
| | Ref. Circuits | # | 3 | | | | | | | |
| Water Volume | USGal | 29.99 | 29.99 | 42.72 | 42.72 | 42.72 | 42.72 | 42.72 | 42.72 | |
| | Litre | 113.5 | 113.5 | 161.7 | 161.7 | 161.7 | 161.7 | 161.7 | 161.7 | |
| Refrigerant Charge (R134a) | Lb | 245 | 245 | 255 | 282 | 295 | 295 | 295 | 295 | |
| | Kg | 111 | 111 | 115 | 128 | 134 | 134 | 134 | 134 | |
| Operating Weight (Approx.) | Lb | 13258 | 13582 | 14218 | 15189 | 15846 | 15846 | 15846 | 15846 | |
| | Kg | 6013 | 6160 | 6448 | 6889 | 7186 | 7186 | 7186 | 7186 | |

Table 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 (0.018m².°C/kW) fouling factor
- 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 (0.018m².°C/kW) fouling factor.

SKM Air Cooled Packaged Chillers APCX Series - R134a

ENGINEERING SPECIFICATIONS - 50 HZ

| APCX | 5075 | 5080 | 5085 | 5090 | 5095 | 5100 | 5105 | 5110 | 5115 |
|-----------------|--|----------|----------|----------|----------|----------|----------|----------|----------|
| TR | 73.8 | 84.8 | 89.8 | 92.9 | 95.9 | 101.2 | 106.2 | 113.0 | 117.2 |
| kW | 259.5 | 298.2 | 316.0 | 326.9 | 337.3 | 355.9 | 373.5 | 397.5 | 412.1 |
| TR | 66.9 | 76.7 | 81.3 | 84.1 | 86.8 | 91.4 | 95.8 | 102.6 | 106.4 |
| kW | 235.2 | 269.7 | 285.8 | 295.9 | 305.4 | 321.6 | 337.0 | 360.8 | 374.2 |
| - | Semi-Hermetic Reciprocating, 1450 rpm | | | | | | | | |
| - / # | D50X / 1 | D40X / 4 | D40X / 2 | D40X / 1 | D50X / 4 | D50X / 2 | D60X / 4 | D35X / 4 | D35X / 2 |
| USGal | 2.0 x 1 | 1.9 x 4 | 1.9 x 2 | 1.9 x 1 | 2.0 x 4 | 2.0 x 2 | 2.0 x 4 | 1.1 x 4 | 1.1 x 2 |
| Litre | 7.7 x 1 | 7.4 x 4 | 7.4 x 2 | 7.4 x 1 | 7.7 x 4 | 7.7 x 2 | 7.7 x 4 | 4.3 x 4 | 4.3 x 2 |
| - / # | D60X / 2 | - | D50X / 2 | D50X / 3 | - | D60X / 2 | - | D40X / 2 | D40X / 4 |
| USGal | 2.0 x 2 | - | 2.0 x 2 | 2.0 x 3 | - | 2.0 x 2 | - | 1.9 x 2 | 1.9 x 4 |
| Litre | 7.7 x 2 | - | 7.7 x 2 | 7.7 x 3 | - | 7.7 x 2 | - | 7.4 x 2 | 7.4 x 4 |
| - | Air-cooled 3 or 4 rows, 12 fpi (2.1mm) fin spacing, copper tubes aluminum fins | | | | | | | | |
| ft ² | 133.3 | 142.2 | | 160.0 | | 177.8 | | 213.3 | |
| m ² | 12.4 | 13.2 | | 14.9 | | 16.5 | | 19.8 | |
| - | Propeller direct drive 960 rpm | | | | | | | | |
| # | 6 | | | 8 | | | | 12 | |
| cfm | 57198 | 73512 | | 75080 | | 76264 | | 113412 | 112356 |
| l/s | 26995 | 34694 | | 35434 | | 35993 | | 53525 | 53027 |
| - | Totally enclosed air over, Class-F insulation, 6 pole, IP-55 protected | | | | | | | | |
| kW x # | 1.1 / 6 | | | 1.1 x 8 | | | | 1.1 x 12 | |
| - | Direct Expansion shell & tube | | | | | | | | |
| - x # | 3175 x 1 | 2315 x 1 | 2315 x 1 | 2315 x 1 | 2315 x 1 | 2315 x 1 | 2315 x 1 | 3350 x 1 | 3350 x 1 |
| # | 3 | | | 2 | | | | 3 | |
| USGal | 16.64 | 34.21 | 34.21 | 34.21 | 34.21 | 34.21 | 34.21 | 29.99 | 29.99 |
| Litre | 63 | 129.5 | 129.5 | 129.5 | 129.5 | 129.5 | 129.5 | 113.5 | 113.5 |
| Lb | 147 | 168 | 168 | 182 | 195 | 195 | 200 | 204 | 218 |
| Kg | 67 | 76 | 76 | 82 | 89 | 89 | 91 | 93 | 99 |
| Lb | 7628 | 9062 | 9385 | 9908 | 10432 | 10432 | 10432 | 12780 | 12956 |
| Kg | 3460 | 4110 | 4256 | 4493 | 4731 | 4731 | 4731 | 5796 | 5876 |

| APCX | 5165 | 5170 | 5175 | 5185 | 5190 | 5195 | 5200 | 5205 | 5210 |
|-----------------|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| TR | 169.6 | 174.7 | 179.7 | 185.9 | 191.8 | 197.2 | 202.4 | 207.5 | 212.4 |
| kW | 596.5 | 614.4 | 632.0 | 653.8 | 674.6 | 693.4 | 711.8 | 729.6 | 747.0 |
| TR | 153.4 | 158.0 | 162.5 | 168.3 | 173.8 | 178.4 | 182.9 | 187.3 | 191.6 |
| kW | 539.5 | 555.7 | 571.6 | 591.9 | 611.1 | 627.4 | 643.3 | 658.8 | 674.0 |
| - | Semi-Hermetic Reciprocating, 1450 rpm | | | | | | | | |
| - / # | D40X / 8 | D40X / 6 | D40X / 4 | D40X / 2 | D50X / 8 | D50X / 6 | D50X / 4 | D50X / 2 | D60X / 8 |
| USGal | 1.9 x 8 | 1.9 x 6 | 1.9 x 4 | 1.9 x 2 | 2.0 x 8 | 2.0 x 6 | 2.0 x 4 | 2.0 x 2 | 2.0 x 8 |
| Litre | 7.4 x 8 | 7.4 x 6 | 7.4 x 4 | 7.4 x 2 | 7.7 x 8 | 7.7 x 6 | 7.7 x 4 | 7.7 x 2 | 7.7 x 8 |
| - / # | - | D50X / 2 | D50X / 4 | D50X / 6 | - | D60X / 2 | D60X / 4 | D60X / 6 | - |
| USGal | - | 2.0 x 2 | 2.0 x 4 | 2.0 x 6 | - | 2.0 x 2 | 2.0 x 4 | 2.0 x 6 | - |
| Litre | - | 7.7 x 2 | 7.7 x 4 | 7.7 x 6 | - | 7.7 x 2 | 7.7 x 4 | 7.7 x 6 | - |
| - | Air-cooled 3 or 4 rows, 12 fpi (2.1mm) fin spacing, copper tubes aluminum fins | | | | | | | | |
| ft ² | | 284.4 | | 320.0 | | | 355.6 | | |
| m ² | | 26.4 | | 29.7 | | | 33.0 | | |
| - | Propeller direct drive 960 rpm | | | | | | | | |
| # | | | | 16 | | | | | |
| cfm | | 147024 | | 150160 | | | 152528 | | |
| l/s | | 69388 | | 70868 | | | 71986 | | |
| - | Totally enclosed air over, Class-F insulation, 6 pole, IP-55 protected | | | | | | | | |
| kW x # | | | | 1.1 x 16 | | | | | |
| - | Direct Expansion shell & tube | | | | | | | | |
| - x # | 2315 x 2 | 2315 x 2 | 2315 x 2 | 2315 x 2 | 2315 x 2 | 2315 x 2 | 2315 x 2 | 2315 x 2 | 2315 x 2 |
| # | | | | 4 | | | | | |
| USGal | 34.21 x 2 | 34.21 x 2 | 34.21 x 2 | 34.21 x 2 | 34.21 x 2 | 34.21 x 2 | 34.21 x 2 | 34.21 x 2 | 34.21 x 2 |
| Litre | 129.5 x 2 | 129.5 x 2 | 129.5 x 2 | 129.5 x 2 | 129.5 x 2 | 129.5 x 2 | 129.5 x 2 | 129.5 x 2 | 129.5 x 2 |
| Lb | 327 | 327 | 327 | 354 | 381 | 381 | 381 | 381 | 381 |
| Kg | 148 | 148 | 148 | 160 | 173 | 173 | 173 | 173 | 173 |
| Lb | 18069 | 18393 | 18716 | 20046 | 21374 | 21374 | 21374 | 21374 | 21374 |
| Kg | 8195 | 8341 | 8488 | 9091 | 9693 | 9693 | 9693 | 9693 | 9693 |

Table 1 ends

- 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 (0.018m².°C/kW) fouling factor.
- 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 (0.018m².°C/kW) fouling factor.



SKM Air Cooled Packaged Chillers APCX Series - R134a

ENGINEERING SPECIFICATIONS - 60 HZ

| Model | APCX | 6040 | 6045 | 6055 | 6060 | 6065 | 6070 | 6080 | 6085 | |
|----------------------------|---------------------------|--|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Cooling Capacity (1) | TR | 39.7 | 44.1 | 54.3 | 60.2 | 64.0 | 68.8 | 74.4 | 85.9 | |
| | kW | 139.7 | 155.0 | 191.0 | 211.6 | 225.3 | 241.9 | 261.7 | 302.0 | |
| Cooling Capacity (2) | TR | 36.1 | 41.7 | 49.2 | 54.3 | 58.0 | 62.3 | 67.5 | 77.7 | |
| | kW | 126.9 | 146.6 | 173.1 | 190.8 | 204.0 | 219.3 | 237.6 | 273.5 | |
| Compressor | | Semi-Hermetic Reciprocating, 1750 rpm | | | | | | | | |
| 1 | Code / Qty | - / # | D35X / 2 | D40X / 2 | D50X / 2 | D60X / 2 | D35X / 2 | D40X / 3 | D40X / 1 | D50X / 3 |
| | Oil (Polyol Ester) Charge | USGal Litre | 1.1 x 2 4.3 x 2 | 1.9 x 2 7.4 x 2 | 2.0 x 2 7.7 x 2 | 2.0 x 2 7.7 x 2 | 1.1 x 2 4.3 x 2 | 1.9 x 3 7.4 x 3 | 1.9 x 1 7.4 x 1 | 2.0 x 3 7.7 x 3 |
| 2 | Code / Qty | - / # | - | - | - | - | D40X / 1 | - | D50X / 2 | - |
| | Oil (Polyol Ester) Charge | USGal Litre | - - | - - | - - | - - | 1.9 x 1 7.4 x 1 | - - | 2.0 x 2 7.7 x 2 | - - |
| Condenser Coil | | Air-cooled 3 or 4 rows, 12 fpi (2.1mm) fin spacing, copper tubes aluminum fins | | | | | | | | |
| Area | ft ² | 71.1 | | | 88.9 | | 106.7 | | 124.4 | 133.3 |
| | m ² | 6.6 | | | 8.3 | | 9.9 | | 11.6 | 12.4 |
| Condenser Fan (823) | | Propeller direct drive 1150 rpm | | | | | | | | |
| Qty | # | 4 | | | | 6 | | | | |
| | Airflow Rate | cfm l/s | 46036 21727 | 44740 21115 | 46436 21916 | | 68394 32279 | 67110 31673 | 68958 32545 | 69654 32873 |
| Condenser Fan Motor | | Totally enclosed air over, Class-F insulation, 6 pole, IP-55 protected | | | | | | | | |
| Size / Qty | kW x # | 1.5 x 4 | | | | 1.5 x 6 | | | | |
| Evaporator | | Direct Expansion shell & tube | | | | | | | | |
| Code / Qty | - x # | 1160R x 1 | 1210R x 1 | 1275R x 1 | 1275R x 1 | 3390R x 1 | 3390R x 1 | 3390R x 1 | 3315 x 1 | |
| | Ref. Circuits | 1 | | | | 3 | | | | |
| Water Volume | USGal | 11.04 | 16.57 | 14.06 | 14.06 | 28.03 | 28.03 | 28.03 | 34.21 | |
| | Litre | 41.8 | 62.7 | 53.2 | 53.2 | 106.1 | 106.1 | 106.1 | 129.5 | |
| Refrigerant Charge (R134a) | Lb | 67 | 82 | 98 | 98 | 115 | 129 | 143 | 155 | |
| | Kg | 30 | 37 | 44 | 44 | 52 | 58 | 65 | 70 | |
| Operating Weight (Approx.) | Lb | 4035 | 4412 | 5076 | 5076 | 6532 | 6708 | 7364 | 7964 | |
| | Kg | 1830 | 2001 | 2302 | 2302 | 2962 | 3042 | 3340 | 3612 | |

| Model | APCX | 6145 | 6150 | 6155 | 6160 | 6165 | 6175 | 6180 | 6185 | |
|----------------------------|---------------------------|--|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Cooling Capacity (1) | TR | 143.6 | 149.0 | 151.7 | 158.5 | 167.4 | 173.6 | 179.5 | 185.1 | |
| | kW | 505.1 | 524.1 | 533.4 | 557.4 | 588.9 | 610.4 | 631.2 | 651.2 | |
| Cooling Capacity (2) | TR | 130.1 | 135.1 | 137.5 | 143.9 | 152.1 | 157.4 | 162.4 | 167.3 | |
| | kW | 457.7 | 475.1 | 483.6 | 506.0 | 535.0 | 553.5 | 571.3 | 588.5 | |
| Compressor | | Semi-Hermetic Reciprocating, 1750 rpm | | | | | | | | |
| 1 | Code / Qty | - / # | D40X / 6 | D40X / 4 | D40X / 3 | D40X / 1 | D50X / 6 | D50X / 4 | D50X / 2 | D60X / 6 |
| | Oil (Polyol Ester) Charge | USGal Litre | 1.9 x 6 7.4 x 6 | 1.9 x 4 7.4 x 4 | 1.9 x 3 7.4 x 3 | 1.9 x 1 7.4 x 1 | 2.0 x 6 7.7 x 6 | 2.0 x 4 7.7 x 4 | 2.0 x 2 7.7 x 2 | 2.0 x 6 7.7 x 6 |
| 2 | Code / Qty | - / # | - | D50X / 2 | D50X / 3 | D50X / 5 | - | D60X / 2 | D60X / 4 | - |
| | Oil (Polyol Ester) Charge | USGal Litre | - - | 2.0 x 2 7.7 x 2 | 2.0 x 3 7.7 x 3 | 2.0 x 5 7.7 x 5 | - - | 2.0 x 2 7.7 x 2 | 2.0 x 4 7.7 x 4 | - - |
| Condenser Coil | | Air-cooled 3 or 4 rows, 12 fpi (2.1mm) fin spacing, copper tubes aluminum fins | | | | | | | | |
| Area | ft ² | 213.3 | | | 248.9 | | 266.7 | | | |
| | m ² | 19.8 | | | 23.1 | | 24.8 | | | |
| Condenser Fan (823) | | Propeller direct drive 1150 rpm | | | | | | | | |
| Qty | # | 12 | | | | | | | | |
| | Airflow Rate | cfm l/s | 134220 63345 | | | 137916 65090 | | 139308 65747 | | |
| Condenser Fan Motor | | Totally enclosed air over, Class-F insulation, 6 pole, IP-55 protected | | | | | | | | |
| Size / Qty | kW x # | 1.5 x 12 | | | | | | | | |
| Evaporator | | Direct Expansion shell & tube | | | | | | | | |
| Code / Qty | - x # | 3440 x 1 | 3440 x 1 | 3440 x 1 | 3440 x 1 | 3535 x 1 | 3535 x 1 | 3535 x 1 | 3535 x 1 | |
| | Ref. Circuits | 3 | | | | | | | | |
| Water Volume | USGal | 42.72 | 42.72 | 42.72 | 42.72 | 48.72 | 48.72 | 48.72 | 48.72 | |
| | Litre | 161.7 | 161.7 | 161.7 | 161.7 | 184.4 | 184.4 | 184.4 | 184.4 | |
| Refrigerant Charge (R134a) | Lb | 255 | 255 | 255 | 282 | 300 | 300 | 300 | 300 | |
| | Kg | 115 | 115 | 115 | 128 | 136 | 136 | 136 | 136 | |
| Operating Weight (Approx.) | Lb | 13733 | 14056 | 14218 | 15189 | 16087 | 16087 | 16087 | 16087 | |
| | Kg | 6228 | 6375 | 6448 | 6889 | 7296 | 7296 | 7296 | 7296 | |

Table 2

- 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.
- 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.

SKM Air Cooled Packaged Chillers APCX Series - R134a

ENGINEERING SPECIFICATIONS - 60 HZ

| APCX | 6090 | 6095 | 6100 | 6105 | 6110 | 6120 | 6125 | 6135 | 6140 |
|-----------------|--|----------|----------|----------|----------|----------|----------|----------|----------|
| TR | 92.3 | 97.1 | 102.6 | 106.1 | 109.5 | 117.9 | 123.6 | 132.5 | 137.6 |
| kW | 324.5 | 341.5 | 360.9 | 373.3 | 385.1 | 414.5 | 434.7 | 466.1 | 484.1 |
| TR | 83.2 | 87.9 | 92.9 | 96.2 | 99.3 | 106.9 | 111.8 | 119.9 | 124.6 |
| kW | 292.7 | 309.2 | 326.9 | 338.5 | 349.4 | 375.9 | 393.2 | 421.7 | 438.1 |
| - | Semi-Hermetic Reciprocating, 1750 rpm | | | | | | | | |
| - / # | D50X / 1 | D40X / 4 | D40X / 2 | D40X / 1 | D50X / 4 | D50X / 2 | D60X / 4 | D35X / 4 | D35X / 2 |
| USGal | 2.0 x 1 | 1.9 x 4 | 1.9 x 2 | 1.9 x 1 | 2.0 x 4 | 2.0 x 2 | 2.0 x 4 | 1.1 x 4 | 1.1 x 2 |
| Litre | 7.7 x 1 | 7.4 x 4 | 7.4 x 2 | 7.4 x 1 | 7.7 x 4 | 7.7 x 2 | 7.7 x 4 | 4.3 x 4 | 4.3 x 2 |
| - / # | D60X / 2 | - | D50X / 2 | D50X / 3 | - | D60X / 2 | - | D40X / 2 | D40X / 4 |
| USGal | 2.0 x 2 | - | 2.0 x 2 | 2.0 x 3 | - | 2.0 x 2 | - | 1.9 x 2 | 1.9 x 4 |
| Litre | 7.7 x 2 | - | 7.7 x 2 | 7.7 x 3 | - | 7.7 x 2 | - | 7.4 x 2 | 7.4 x 4 |
| - | Air-cooled 3 or 4 rows, 12 fpi (2.1mm) fin spacing, copper tubes aluminum fins | | | | | | | | |
| ft ² | 133.3 | 142.2 | 160.0 | 177.8 | 213.3 | | | | |
| m ² | 12.4 | 13.2 | 14.9 | 16.5 | 19.8 | | | | |
| - | Propeller direct drive 1150 rpm | | | | | | | | |
| # | 6 | 8 | | | 12 | | | | |
| cfm | 69654 | 89480 | 91400 | 92872 | 138108 | 136788 | | | |
| l/s | 32873 | 42230 | 43136 | 43831 | 65180 | 64557 | | | |
| - | Totally enclosed air over, Class-F insulation, 6 pole, IP-55 protected | | | | | | | | |
| kW x # | 1.5 x 6 | 1.5 x 8 | | | 1.5 x 12 | | | | |
| - | Direct Expansion shell & tube | | | | | | | | |
| - x # | 3315 x 1 | 2315 x 1 | 2315 x 1 | 2315 x 1 | 2315 x 1 | 2350 x 1 | 2350 x 1 | 3440 x 1 | 3440 x 1 |
| # | 3 | 2 | | | 3 | | | | |
| USGal | 34.21 | 34.21 | 34.21 | 34.21 | 34.21 | 29.99 | 29.99 | 42.72 | 42.72 |
| Litre | 129.5 | 129.5 | 129.5 | 129.5 | 129.5 | 113.5 | 113.5 | 161.7 | 161.7 |
| Lb | 155 | 168 | 168 | 182 | 195 | 198 | 203 | 213 | 227 |
| Kg | 70 | 76 | 76 | 82 | 89 | 90 | 92 | 97 | 103 |
| Lb | 7964 | 9062 | 9385 | 9908 | 10432 | 10518 | 10518 | 13254 | 13431 |
| Kg | 3612 | 4110 | 4256 | 4493 | 4731 | 4770 | 4770 | 6011 | 6091 |

| APCX | 6190 | 6195 | 6200 | 6210 | 6215 | 6230 | 6235 | 6240 | 6245 |
|-----------------|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| TR | 194.2 | 199.8 | 205.2 | 212.3 | 219.0 | 229.7 | 235.7 | 241.5 | 247.2 |
| kW | 683.1 | 702.7 | 721.8 | 746.6 | 770.2 | 808.0 | 829.0 | 849.5 | 869.4 |
| TR | 175.8 | 180.9 | 185.9 | 192.5 | 198.7 | 208.6 | 213.7 | 218.7 | 223.6 |
| kW | 618.3 | 636.3 | 653.8 | 676.9 | 698.9 | 733.6 | 751.7 | 769.3 | 786.4 |
| - | Semi-Hermetic Reciprocating, 1750 rpm | | | | | | | | |
| - / # | D40X / 8 | D40X / 6 | D40X / 4 | D40X / 2 | D50X / 8 | D50X / 6 | D50X / 4 | D50X / 2 | D60X / 8 |
| USGal | 1.9 x 8 | 1.9 x 6 | 1.9 x 4 | 1.9 x 2 | 2.0 x 8 | 2.0 x 6 | 2.0 x 4 | 2.0 x 2 | 2.0 x 8 |
| Litre | 7.4 x 8 | 7.4 x 6 | 7.4 x 4 | 7.4 x 2 | 7.7 x 8 | 7.7 x 6 | 7.7 x 4 | 7.7 x 2 | 7.7 x 8 |
| - / # | - | D50X / 2 | D50X / 4 | D50X / 6 | - | D60X / 2 | D60X / 4 | D60X / 6 | - |
| USGal | - | 2.0 x 2 | 2.0 x 4 | 2.0 x 6 | - | 2.0 x 2 | 2.0 x 4 | 2.0 x 6 | - |
| Litre | - | 7.7 x 2 | 7.7 x 4 | 7.7 x 6 | - | 7.7 x 2 | 7.7 x 4 | 7.7 x 6 | - |
| - | Air-cooled 3 or 4 rows, 12 fpi (2.1mm) fin spacing, copper tubes aluminum fins | | | | | | | | |
| ft ² | 284.4 | | 320.0 | | 355.6 | | | | |
| m ² | 26.4 | | 29.7 | | 33.0 | | | | |
| - | Propeller direct drive 1150 rpm | | | | | | | | |
| # | 16 | | | | | | | | |
| cfm | 178960 | | | 182800 | | 185744 | | | |
| l/s | 84460 | | | 86273 | | 87662 | | | |
| - | Totally enclosed air over, Class-F insulation, 6 pole, IP-55 protected | | | | | | | | |
| kW x # | 1.5 x 16 | | | | | | | | |
| - | Direct Expansion shell & tube | | | | | | | | |
| - x # | 2315 x 2 | 2315 x 2 | 2315 x 2 | 2315 x 2 | 2315 x 2 | 2350 x 2 | 2350 x 2 | 2350 x 2 | 2350 x 2 |
| # | 4 | | | | | | | | |
| USGal | 34.21 x 2 | 34.21 x 2 | 34.21 x 2 | 34.21 x 2 | 34.21 x 2 | 29.99 x 2 | 29.99 x 2 | 29.99 x 2 | 29.99 x 2 |
| Litre | 129.5 x 2 | 129.5 x 2 | 129.5 x 2 | 129.5 x 2 | 129.5 x 2 | 113.5 x 2 | 113.5 x 2 | 113.5 x 2 | 113.5 x 2 |
| Lb | 327 | 327 | 327 | 354 | 381 | 387 | 387 | 387 | 387 |
| Kg | 148 | 148 | 148 | 160 | 173 | 175 | 175 | 175 | 175 |
| Lb | 18069 | 18393 | 18716 | 20046 | 21374 | 21546 | 21546 | 21546 | 21546 |
| Kg | 8195 | 8341 | 8488 | 9091 | 9693 | 9771 | 9771 | 9771 | 9771 |

Table 2 ends

- 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.
- 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.



SKM Air Cooled Packaged Chillers APCX Series - R134a

CAPACITY RATINGS - 50 HZ

| Model | LCWT | Condenser Entering Air Temperature °F (°C) | | | | | | | | | | | | | | | | | | | |
|--------------|----------|--|-------|--------------|-------------|------------------|-------|--------------|-------------|------------------|-------|--------------|-------------|------------------|-------|--------------|-------------|------------------|-------|--------------|-------------|
| | | 95 °F (35 °C) | | | | 105 °F (40.6 °C) | | | | 115 °F (46.1 °C) | | | | 120 °F (48.9 °C) | | | | 125 °F (51.7 °C) | | | |
| | | CCap | PI | WFR | WPD | CCap | PI | WFR | WPD | CCap | PI | WFR | WPD | CCap | PI | WFR | WPD | CCap | PI | WFR | WPD |
| APCX EER | °F °C | TR kW | kW | USGpm l/s | ftwg kPa | TR kW | kW | USGpm l/s | ftwg kPa | TR kW | kW | USGpm l/s | ftwg kPa | TR kW | kW | USGpm l/s | ftwg kPa | TR kW | kW | USGpm l/s | ftwg kPa |
| 5035 11.2 | 42 | 33.6 | 32.6 | 80.6 | 5.3 | 31.6 | 34.8 | 75.8 | 4.7 | 29.6 | 37.1 | 71.1 | 4.2 | 28.6 | 38.1 | 68.7 | 3.9 | 27.7 | 39.1 | 66.4 | 3.7 |
| | 5.6 | 118.1 | 32.6 | 5.1 | 15.9 | 111.1 | 34.8 | 4.8 | 14.2 | 104.2 | 37.1 | 4.5 | 12.5 | 100.7 | 38.1 | 4.3 | 11.7 | 97.3 | 39.1 | 4.2 | 11.0 |
| | 44 | 35.0 | 33.2 | 83.9 | 5.7 | 32.9 | 35.6 | 79.0 | 5.1 | 30.9 | 37.9 | 74.2 | 4.5 | 29.9 | 39.0 | 71.8 | 4.3 | 28.9 | 40.1 | 69.4 | 4.0 |
| | 6.7 | 122.9 | 33.2 | 5.3 | 17.2 | 115.8 | 35.6 | 5.0 | 15.3 | 108.7 | 37.9 | 4.7 | 13.6 | 105.2 | 39.0 | 4.5 | 12.7 | 101.7 | 40.1 | 4.4 | 11.9 |
| | 45 | 35.7 | 33.6 | 85.7 | 6.0 | 33.7 | 36.0 | 80.8 | 5.3 | 31.6 | 38.4 | 75.9 | 4.7 | 30.6 | 39.5 | 73.4 | 4.5 | 29.6 | 40.5 | 70.9 | 4.2 |
| 7.2 | 125.6 | 33.6 | 5.4 | 17.9 | 118.4 | 36.0 | 5.1 | 16.0 | 111.2 | 38.4 | 4.8 | 14.2 | 107.6 | 39.5 | 4.6 | 13.3 | 104.0 | 40.5 | 4.5 | 12.5 | |
| 48 | 37.9 | 34.7 | 91.0 | 6.7 | 35.8 | 37.2 | 85.9 | 6.0 | 33.6 | 39.6 | 80.7 | 5.3 | 32.5 | 40.8 | 78.0 | 5.0 | 31.4 | 41.9 | 75.3 | 4.7 | |
| 8.9 | 133.4 | 34.7 | 5.7 | 20.1 | 125.9 | 37.2 | 5.4 | 18.0 | 118.3 | 39.6 | 5.1 | 15.9 | 114.4 | 40.8 | 4.9 | 15.0 | 110.4 | 41.9 | 4.8 | 14.0 | |
| 5040 10.9 | 42 | 38.7 | 39.0 | 92.8 | 3.2 | 36.5 | 41.7 | 87.5 | 3.0 | 34.2 | 44.3 | 82.1 | 2.9 | 33.1 | 45.5 | 79.4 | 2.9 | 31.9 | 46.7 | 76.5 | 2.9 |
| | 5.6 | 136.1 | 39.0 | 5.9 | 9.4 | 128.3 | 41.7 | 5.5 | 8.9 | 120.4 | 44.3 | 5.2 | 8.6 | 116.3 | 45.5 | 5.0 | 8.5 | 112.1 | 46.7 | 4.8 | 8.5 |
| | 44 | 40.3 | 39.9 | 96.7 | 3.3 | 38.0 | 42.7 | 91.2 | 3.1 | 35.7 | 45.4 | 85.6 | 2.9 | 34.5 | 46.7 | 82.7 | 2.9 | 33.3 | 47.9 | 79.8 | 2.9 |
| | 6.7 | 141.7 | 39.9 | 6.1 | 9.9 | 133.7 | 42.7 | 5.8 | 9.3 | 125.5 | 45.4 | 5.4 | 8.8 | 121.3 | 46.7 | 5.2 | 8.6 | 116.9 | 47.9 | 5.0 | 8.5 |
| | 45 | 41.1 | 40.4 | 98.7 | 3.4 | 38.8 | 43.2 | 93.1 | 3.2 | 36.4 | 45.9 | 87.4 | 3.0 | 35.2 | 47.3 | 84.5 | 2.9 | 34.0 | 48.5 | 81.5 | 2.9 |
| 7.2 | 144.6 | 40.4 | 6.2 | 10.2 | 136.4 | 43.2 | 5.9 | 9.5 | 128.1 | 45.9 | 5.5 | 8.9 | 123.8 | 47.3 | 5.3 | 8.7 | 119.4 | 48.5 | 5.1 | 8.6 | |
| 48 | 43.6 | 41.8 | 104.7 | 3.8 | 41.2 | 44.7 | 98.8 | 3.4 | 38.7 | 47.6 | 92.8 | 3.2 | 37.4 | 49.0 | 89.7 | 3.0 | 36.1 | 50.3 | 86.6 | 3.0 | |
| 8.9 | 153.4 | 41.8 | 6.6 | 11.3 | 144.8 | 44.7 | 6.2 | 10.3 | 136.0 | 47.6 | 5.9 | 9.4 | 131.5 | 49.0 | 5.7 | 9.1 | 126.9 | 50.3 | 5.5 | 8.9 | |
| 5045 11.1 | 42 | 44.5 | 44.9 | 106.8 | 3.8 | 41.9 | 47.6 | 100.6 | 3.5 | 39.4 | 50.4 | 94.5 | 3.3 | 38.1 | 51.7 | 91.3 | 3.2 | 36.8 | 52.9 | 88.2 | 3.2 |
| | 5.6 | 156.5 | 44.9 | 6.7 | 11.4 | 147.4 | 47.6 | 6.3 | 10.5 | 138.4 | 50.4 | 6.0 | 9.8 | 133.8 | 51.7 | 5.8 | 9.6 | 129.3 | 52.9 | 5.6 | 9.5 |
| | 44 | 46.4 | 45.9 | 111.4 | 4.1 | 43.8 | 48.7 | 105.0 | 3.7 | 41.1 | 51.5 | 98.6 | 3.4 | 39.8 | 52.9 | 95.4 | 3.3 | 38.4 | 54.2 | 92.1 | 3.2 |
| | 6.7 | 163.2 | 45.9 | 7.0 | 12.2 | 153.9 | 48.7 | 6.6 | 11.1 | 144.6 | 51.5 | 6.2 | 10.3 | 139.8 | 52.9 | 6.0 | 9.9 | 135.0 | 54.2 | 5.8 | 9.7 |
| | 45 | 47.4 | 46.4 | 113.8 | 4.2 | 44.7 | 49.3 | 107.3 | 3.8 | 42.0 | 52.2 | 100.8 | 3.5 | 40.6 | 53.5 | 97.5 | 3.4 | 39.2 | 54.9 | 94.2 | 3.3 |
| 7.2 | 166.8 | 46.4 | 7.2 | 12.7 | 157.3 | 49.3 | 6.8 | 11.5 | 147.7 | 52.2 | 6.4 | 10.5 | 142.9 | 53.5 | 6.2 | 10.1 | 138.0 | 54.9 | 5.9 | 9.8 | |
| 48 | 50.4 | 47.8 | 121.0 | 4.8 | 47.5 | 50.9 | 114.1 | 4.3 | 44.7 | 53.9 | 107.2 | 3.8 | 43.2 | 55.4 | 103.6 | 3.7 | 41.7 | 56.7 | 100.1 | 3.5 | |
| 8.9 | 177.3 | 47.8 | 7.6 | 14.2 | 167.2 | 50.9 | 7.2 | 12.8 | 157.1 | 53.9 | 6.8 | 11.5 | 151.9 | 55.4 | 6.5 | 10.9 | 146.7 | 56.7 | 6.3 | 10.4 | |
| 5050 9.9 | 42 | 49.3 | 56.6 | 118.2 | 4.6 | 46.4 | 59.9 | 111.3 | 4.1 | 43.5 | 63.0 | 104.3 | 3.7 | 42.0 | 64.4 | 100.9 | 3.5 | 40.6 | 65.7 | 97.5 | 3.4 |
| | 5.6 | 173.3 | 56.6 | 7.5 | 13.6 | 163.1 | 59.9 | 7.0 | 12.2 | 152.9 | 63.0 | 6.6 | 11.0 | 147.9 | 64.4 | 6.4 | 10.5 | 142.9 | 65.7 | 6.2 | 10.1 |
| | 44 | 51.4 | 57.9 | 123.3 | 4.9 | 48.4 | 61.3 | 116.1 | 4.4 | 45.4 | 64.5 | 108.9 | 3.9 | 43.9 | 65.9 | 105.3 | 3.7 | 42.4 | 67.2 | 101.9 | 3.6 |
| | 6.7 | 180.7 | 57.9 | 7.8 | 14.8 | 170.2 | 61.3 | 7.3 | 13.2 | 159.6 | 64.5 | 6.9 | 11.8 | 154.4 | 65.9 | 6.6 | 11.2 | 149.3 | 67.2 | 6.4 | 10.7 |
| | 45 | 52.5 | 58.6 | 126.0 | 5.2 | 49.4 | 62.0 | 118.6 | 4.6 | 46.4 | 65.2 | 111.3 | 4.1 | 44.9 | 66.7 | 107.7 | 3.9 | 43.4 | 68.0 | 104.1 | 3.7 |
| 7.2 | 184.7 | 58.6 | 8.0 | 15.4 | 173.9 | 62.0 | 7.5 | 13.7 | 163.1 | 65.2 | 7.0 | 12.2 | 157.8 | 66.7 | 6.8 | 11.6 | 152.6 | 68.0 | 6.6 | 11.0 | |
| 48 | 55.8 | 60.6 | 134.0 | 5.8 | 52.5 | 64.1 | 126.1 | 5.2 | 49.3 | 67.4 | 118.3 | 4.6 | 47.7 | 68.9 | 114.5 | 4.3 | 46.2 | 70.2 | 110.8 | 4.1 | |
| 8.9 | 196.4 | 60.6 | 8.5 | 17.5 | 184.8 | 64.1 | 8.0 | 15.4 | 173.4 | 67.4 | 7.5 | 13.6 | 167.8 | 68.9 | 7.2 | 12.8 | 162.4 | 70.2 | 7.0 | 12.1 | |
| 5055 11.3 | 42 | 54.7 | 53.0 | 131.2 | 9.5 | 51.5 | 56.6 | 123.5 | 8.5 | 48.2 | 60.2 | 115.8 | 7.5 | 46.6 | 61.9 | 111.9 | 7.0 | 45.0 | 63.6 | 108.0 | 6.5 |
| | 5.6 | 192.3 | 53.0 | 8.3 | 28.4 | 181.0 | 56.6 | 7.8 | 25.3 | 169.7 | 60.2 | 7.3 | 22.3 | 164.0 | 61.9 | 7.1 | 20.9 | 158.3 | 63.6 | 6.8 | 19.5 |
| | 44 | 57.0 | 54.1 | 136.8 | 10.3 | 53.7 | 58.0 | 129.0 | 9.2 | 50.4 | 61.7 | 121.0 | 8.1 | 48.7 | 63.5 | 117.0 | 7.6 | 47.1 | 65.2 | 112.9 | 7.1 |
| | 6.7 | 200.5 | 54.1 | 8.6 | 30.8 | 189.0 | 58.0 | 8.1 | 27.5 | 177.3 | 61.7 | 7.6 | 24.3 | 171.5 | 63.5 | 7.4 | 22.8 | 165.5 | 65.2 | 7.1 | 21.2 |
| | 45 | 58.2 | 54.8 | 139.8 | 10.7 | 54.9 | 58.7 | 131.8 | 9.6 | 51.6 | 62.5 | 123.7 | 8.5 | 49.8 | 64.3 | 119.6 | 7.9 | 48.1 | 66.0 | 115.5 | 7.4 |
| 7.2 | 204.8 | 54.8 | 8.8 | 32.1 | 193.2 | 58.7 | 8.3 | 28.7 | 181.3 | 62.5 | 7.8 | 25.4 | 175.3 | 64.3 | 7.5 | 23.8 | 169.2 | 66.0 | 7.3 | 22.2 | |
| 48 | 61.8 | 56.5 | 148.3 | 12.0 | 58.3 | 60.6 | 140.0 | 10.8 | 54.8 | 64.6 | 131.4 | 9.5 | 52.9 | 66.5 | 127.0 | 8.9 | 51.0 | 68.3 | 122.5 | 8.3 | |
| 8.9 | 217.4 | 56.5 | 9.4 | 36.0 | 205.1 | 60.6 | 8.8 | 32.2 | 192.6 | 64.6 | 8.3 | 28.5 | 186.1 | 66.5 | 8.0 | 26.7 | 179.5 | 68.3 | 7.7 | 24.9 | |
| 5060 11.0 | 42 | 58.8 | 59.0 | 141.0 | 10.9 | 55.4 | 63.0 | 133.0 | 9.8 | 52.0 | 66.9 | 124.8 | 8.6 | 50.3 | 68.8 | 120.6 | 8.1 | 48.5 | 70.6 | 116.3 | 7.5 |
| | 5.6 | 206.7 | 59.0 | 8.9 | 32.6 | 194.9 | 63.0 | 8.4 | 29.2 | 182.9 | 66.9 | 7.9 | 25.8 | 176.8 | 68.8 | 7.6 | 24.1 | 170.5 | 70.6 | 7.3 | 22.5 |
| | 44 | 61.2 | 60.3 | 146.9 | 11.8 | 57.8 | 64.5 | 138.7 | 10.6 | 54.3 | 68.6 | 130.2 | 9.4 | 52.5 | 70.6 | 125.9 | 8.8 | 50.6 | 72.5 | 121.5 | 8.2 |
| | 6.7 | 215.3 | 60.3 | 9.3 | 35.3 | 203.2 | 64.5 | 8.7 | 31.6 | 190.9 | 68.6 | 8.2 | 28.0 | 184.5 | 70.6 | 7.9 | 26.2 | 178.0 | 72.5 | 7.7 | 24.5 |
| | 45 | 62.5 | 61.1 | 150.0 | 12.3 | 59.0 | 65.3 | 141.7 | 11.0 | 55.5 | 69.5 | 133.1 | 9.8 | 53.6 | 71.5 | 128.7 | 9.2 | 51.7 | 73.4 | 124.2 | 8.5 |
| 7.2 | 219.9 | 61.1 | 9.5 | 36.8 | 207.6 | 65.3 | 8.9 | 32.9 | 195.0 | 69.5 | 8.4 | 29.2 | 188.6 | 71.5 | 8.1 | 27.4 | 182.0 | 73.4 | 7.8 | 25.5 | |
| 48 | 66.3 | 63.2 | 159.1 | 13.8 | 62.6 | 67.7 | 150.3 | 12.3 | 58.8 | 72.1 | 141.2 | 10.9 | 56.9 | 74.1 | 136.5 | 10.3 | 54.9 | 76.1 | 131.8 | 9.6 | |
| 8.9 | 233.2 | 63.2 | 10.0 | 41.2 | 220.3 | 67.7 | 9.5 | 36.9 | 206.9 | 72.1 | 8.9 | 32.7 | 200.1 | 74.1 | 8.6 | 30.7 | 193.1 | 76.1 | 8.3 | 28.6 | |
| 5065 11.0 | 42 | 63.7 | 64.3 | 152.9 | 12.8 | 60.1 | 68.4 | 144.2 | 11.4 | 56.4 | 72.4 | 135.4 | 10.1 | 54.6 | 74.4 | 130.9 | 9.5 | 52.7 | 76.2 | 126.4 | 8.8 |
| | 5.6 | 224.0 | 64.3 | 9.6 | 38.1 | 211.3 | 68.4 | 9.1 | 34.1 | 198.4 | 72.4 | 8.5 | 30.2 | 191.9 | 74.4 | 8.3 | 28.3 | 185.3 | 76.2 | 8.0 | 26.4 |
| | 44 | 66.4 | 65.7 | 159.4 | 13.8 | 62.7 | 70.0 | 150.5 | 12.4 | 58.9 | 74.2 | 141.4 | 11.0 | 57.0 | 76.2 | 136.8 | 10.3 | 55.1 | 78.2 | 132.2 | 9.6 |
| | 6.7 | 233.6 | 65.7 | 10.1 | 41.3 | 220.6 | 70.0 | 9.5 | 37.0 | 207.3 | 74.2 | 8.9 | 32.8 | 200.5 | 76.2 | 8.6 | 30.8 | 193.7 | 78.2 | 8.3 | 28.8 |
| | 45 | 67.9 | 66.5 | 162.9 | 14.4 | 64.1 | 70.8 | 153.9 | 12.9 | 60.3 | 75.1 | 144.6 | 11.5 | 58.3 | 77.2 | 140.0 | 10.8 | 56.3 | 79.2 | 135.2 | 10.1 |
| 7.2 | 238.7 | 66.5 | 10.3 | 43.1 | 225.5 | 70.8 | 9.7 | 38.6 | 212.0 | 75.1 | 9.1 | 34.3 | 205.1 | 77.2 | 8.8 | | | | | | |

SKM Air Cooled Packaged Chillers APCX Series - R134a

CAPACITY RATINGS - 50 HZ

| Model | LCWT | Condenser Entering Air Temperature °F (°C) | | | | | | | | | | | | | | | | | | | |
|--------------|----------|--|-------|--------------|-------------|------------------|-------|--------------|-------------|------------------|-------|--------------|-------------|------------------|-------|--------------|-------------|------------------|-------|--------------|-------------|
| | | 95 °F (35 °C) | | | | 105 °F (40.6 °C) | | | | 115 °F (46.1 °C) | | | | 120 °F (48.9 °C) | | | | 125 °F (51.7 °C) | | | |
| | | CCap | PI | WFR | WPD | CCap | PI | WFR | WPD | CCap | PI | WFR | WPD | CCap | PI | WFR | WPD | CCap | PI | WFR | WPD |
| APCX EER | °F °C | TR kW | kW | USgpm l/s | ftwg kPa | TR kW | kW | USgpm l/s | ftwg kPa | TR kW | kW | USgpm l/s | ftwg kPa | TR kW | kW | USgpm l/s | ftwg kPa | TR kW | kW | USgpm l/s | ftwg kPa |
| 5080 11.2 | 42 | 81.5 | 80.4 | 195.5 | 8.6 | 76.8 | 85.8 | 184.3 | 7.7 | 72.0 | 91.2 | 172.7 | 6.8 | 69.5 | 93.8 | 166.8 | 6.3 | 67.0 | 96.2 | 160.8 | 5.9 |
| | 5.6 | 286.5 | 80.4 | 12.3 | 25.6 | 270.0 | 85.8 | 11.6 | 22.9 | 253.2 | 91.2 | 10.9 | 20.2 | 244.5 | 93.8 | 10.5 | 19.0 | 235.7 | 96.2 | 10.1 | 17.7 |
| | 44 | 84.8 | 82.2 | 203.5 | 9.3 | 80.0 | 87.9 | 191.9 | 8.3 | 75.0 | 93.5 | 180.1 | 7.3 | 72.5 | 96.2 | 174.0 | 6.9 | 69.9 | 98.7 | 167.8 | 6.4 |
| | 6.7 | 298.2 | 82.2 | 12.8 | 27.7 | 281.3 | 87.9 | 12.1 | 24.7 | 264.0 | 93.5 | 11.4 | 21.9 | 255.1 | 96.2 | 11.0 | 20.5 | 245.9 | 98.7 | 10.6 | 19.2 |
| | 45 | 86.6 | 83.2 | 207.8 | 9.6 | 81.7 | 89.1 | 196.1 | 8.6 | 76.7 | 94.8 | 184.1 | 7.6 | 74.1 | 97.5 | 177.9 | 7.2 | 71.5 | 100.0 | 171.6 | 6.7 |
| 7.2 | 304.5 | 83.2 | 13.1 | 28.8 | 287.3 | 89.1 | 12.4 | 25.8 | 269.7 | 94.8 | 11.6 | 22.8 | 260.7 | 97.5 | 11.2 | 21.4 | 251.5 | 100.0 | 10.8 | 20.0 | |
| 48 | 93.2 | 86.8 | 223.7 | 11.1 | 88.1 | 93.2 | 211.4 | 10.0 | 82.8 | 99.3 | 198.8 | 8.9 | 80.1 | 102.2 | 192.3 | 8.3 | 77.4 | 104.9 | 185.7 | 7.8 | |
| 8.9 | 327.8 | 86.8 | 14.1 | 33.2 | 309.8 | 93.2 | 13.3 | 29.8 | 291.4 | 99.3 | 12.5 | 26.5 | 281.9 | 102.2 | 12.1 | 24.8 | 272.2 | 104.9 | 11.7 | 23.2 | |
| 5085 11.1 | 42 | 86.3 | 86.5 | 207.1 | 9.6 | 81.3 | 92.0 | 195.1 | 8.5 | 76.2 | 97.5 | 182.9 | 7.5 | 73.6 | 100.1 | 176.7 | 7.1 | 71.0 | 102.5 | 170.4 | 6.6 |
| | 5.6 | 303.4 | 86.5 | 13.1 | 28.6 | 285.9 | 92.0 | 12.3 | 25.5 | 268.0 | 97.5 | 11.5 | 22.5 | 259.0 | 100.1 | 11.1 | 21.1 | 249.8 | 102.5 | 10.8 | 19.7 |
| | 44 | 89.8 | 88.4 | 215.6 | 10.3 | 84.7 | 94.2 | 203.3 | 9.2 | 79.5 | 99.9 | 190.8 | 8.2 | 76.8 | 102.6 | 184.4 | 7.7 | 74.1 | 105.1 | 177.9 | 7.2 |
| | 6.7 | 316.0 | 88.4 | 13.6 | 30.9 | 298.0 | 94.2 | 12.8 | 27.6 | 279.6 | 99.9 | 12.0 | 24.4 | 270.3 | 102.6 | 11.6 | 22.9 | 260.8 | 105.1 | 11.2 | 21.4 |
| | 45 | 91.7 | 89.4 | 220.2 | 10.8 | 86.6 | 95.4 | 207.9 | 9.6 | 81.3 | 101.1 | 195.0 | 8.5 | 78.6 | 103.9 | 188.5 | 8.0 | 75.8 | 106.5 | 182.0 | 7.5 |
| 7.2 | 322.7 | 89.4 | 13.9 | 32.2 | 304.4 | 95.4 | 13.1 | 28.8 | 285.8 | 101.1 | 12.3 | 25.5 | 276.3 | 103.9 | 11.9 | 23.9 | 266.7 | 106.5 | 11.5 | 22.3 | |
| 48 | 98.7 | 93.1 | 237.0 | 12.4 | 93.3 | 99.6 | 224.0 | 11.1 | 87.8 | 105.8 | 210.7 | 9.9 | 85.0 | 108.7 | 203.9 | 9.3 | 82.1 | 111.4 | 197.0 | 8.7 | |
| 8.9 | 347.3 | 93.1 | 15.0 | 37.1 | 328.3 | 99.6 | 14.1 | 33.3 | 308.8 | 105.8 | 13.3 | 29.6 | 298.8 | 108.7 | 12.9 | 27.8 | 288.7 | 111.4 | 12.4 | 26.0 | |
| 5090 11.2 | 42 | 89.2 | 88.9 | 214.1 | 10.2 | 84.1 | 94.5 | 201.8 | 9.1 | 78.9 | 100.0 | 189.3 | 8.1 | 76.2 | 102.6 | 182.9 | 7.5 | 73.6 | 105.1 | 176.5 | 7.1 |
| | 5.6 | 313.8 | 88.9 | 13.5 | 30.5 | 295.7 | 94.5 | 12.7 | 27.2 | 277.4 | 100.0 | 11.9 | 24.1 | 268.1 | 102.6 | 11.5 | 22.6 | 258.7 | 105.1 | 11.1 | 21.1 |
| | 44 | 92.9 | 90.8 | 223.1 | 11.1 | 87.7 | 96.6 | 210.4 | 9.9 | 82.3 | 102.4 | 197.5 | 8.7 | 79.6 | 105.1 | 191.0 | 8.2 | 76.8 | 107.7 | 184.4 | 7.7 |
| | 6.7 | 326.9 | 90.8 | 14.1 | 33.0 | 308.3 | 96.6 | 13.3 | 29.5 | 289.5 | 102.4 | 12.5 | 26.1 | 279.9 | 105.1 | 12.0 | 24.5 | 270.2 | 107.7 | 11.6 | 22.9 |
| | 45 | 94.9 | 91.7 | 227.8 | 11.5 | 89.6 | 97.8 | 215.0 | 10.3 | 84.1 | 103.6 | 201.9 | 9.1 | 81.4 | 106.4 | 195.3 | 8.6 | 78.6 | 109.1 | 188.6 | 8.0 |
| 7.2 | 333.9 | 91.7 | 14.4 | 34.4 | 315.1 | 97.8 | 13.6 | 30.8 | 295.9 | 103.6 | 12.7 | 27.3 | 286.2 | 106.4 | 12.3 | 25.6 | 276.4 | 109.1 | 11.9 | 23.9 | |
| 48 | 102.2 | 95.3 | 245.2 | 13.3 | 96.6 | 101.9 | 231.9 | 11.9 | 90.9 | 108.3 | 218.2 | 10.6 | 88.0 | 111.3 | 211.3 | 10.0 | 85.1 | 114.0 | 204.2 | 9.3 | |
| 8.9 | 359.4 | 95.3 | 15.5 | 39.6 | 339.8 | 101.9 | 14.6 | 35.6 | 319.8 | 108.3 | 13.8 | 31.7 | 309.6 | 111.3 | 13.3 | 29.7 | 299.3 | 114.0 | 12.9 | 27.9 | |
| 5095 11.3 | 42 | 92.0 | 91.4 | 220.9 | 10.8 | 86.8 | 97.0 | 208.2 | 9.7 | 81.4 | 102.6 | 195.3 | 8.6 | 78.7 | 105.2 | 188.9 | 8.0 | 76.0 | 107.8 | 182.3 | 7.5 |
| | 5.6 | 323.7 | 91.4 | 13.9 | 32.4 | 305.1 | 97.0 | 13.1 | 28.9 | 286.3 | 102.6 | 12.3 | 25.6 | 276.8 | 105.2 | 11.9 | 24.0 | 267.2 | 107.8 | 11.5 | 22.4 |
| | 44 | 95.9 | 93.2 | 230.2 | 11.7 | 90.5 | 99.1 | 217.1 | 10.5 | 85.0 | 105.0 | 203.9 | 9.3 | 82.2 | 107.8 | 197.2 | 8.7 | 79.4 | 110.4 | 190.5 | 8.2 |
| | 6.7 | 337.3 | 93.2 | 14.5 | 35.1 | 318.2 | 99.1 | 13.7 | 31.4 | 298.9 | 105.0 | 12.9 | 27.8 | 289.1 | 107.8 | 12.4 | 26.1 | 279.2 | 110.4 | 12.0 | 24.4 |
| | 45 | 98.0 | 94.2 | 235.1 | 12.2 | 92.5 | 100.3 | 221.9 | 10.9 | 86.8 | 106.2 | 208.4 | 9.7 | 84.1 | 109.1 | 201.7 | 9.1 | 81.2 | 111.8 | 194.9 | 8.5 |
| 7.2 | 344.5 | 94.2 | 14.8 | 36.5 | 325.2 | 100.3 | 14.0 | 32.7 | 305.4 | 106.2 | 13.1 | 29.0 | 295.6 | 109.1 | 12.7 | 27.2 | 285.6 | 111.8 | 12.3 | 25.5 | |
| 48 | 105.4 | 97.7 | 253.1 | 14.1 | 99.7 | 104.4 | 239.4 | 12.7 | 93.9 | 110.8 | 225.4 | 11.3 | 90.9 | 113.9 | 218.3 | 10.6 | 88.0 | 116.8 | 211.1 | 9.9 | |
| 8.9 | 370.9 | 97.7 | 16.0 | 42.1 | 350.8 | 104.4 | 15.1 | 37.8 | 330.3 | 110.8 | 14.2 | 33.7 | 319.9 | 113.9 | 13.8 | 31.7 | 309.3 | 116.8 | 13.3 | 29.7 | |
| 5100 10.6 | 42 | 97.2 | 103.3 | 233.2 | 12.0 | 91.5 | 109.5 | 219.6 | 10.7 | 85.8 | 115.4 | 205.9 | 9.5 | 82.9 | 118.2 | 199.0 | 8.9 | 80.1 | 120.8 | 192.2 | 8.3 |
| | 5.6 | 341.8 | 103.3 | 14.7 | 36.0 | 321.8 | 109.5 | 13.9 | 32.0 | 301.7 | 115.4 | 13.0 | 28.3 | 291.7 | 118.2 | 12.6 | 26.5 | 281.7 | 120.8 | 12.1 | 24.8 |
| | 44 | 101.2 | 105.5 | 242.8 | 13.0 | 95.3 | 111.9 | 228.8 | 11.6 | 89.5 | 118.1 | 214.7 | 10.3 | 86.6 | 121.0 | 207.7 | 9.6 | 83.7 | 123.6 | 200.8 | 9.0 |
| | 6.7 | 355.9 | 105.5 | 15.3 | 38.9 | 335.3 | 111.9 | 14.4 | 34.7 | 314.7 | 118.1 | 13.5 | 30.7 | 304.4 | 121.0 | 13.1 | 28.8 | 294.2 | 123.6 | 12.7 | 27.0 |
| | 45 | 103.3 | 106.7 | 248.0 | 13.5 | 97.4 | 113.2 | 233.8 | 12.1 | 91.4 | 119.5 | 219.5 | 10.7 | 88.5 | 122.4 | 212.4 | 10.1 | 85.6 | 125.1 | 205.3 | 9.4 |
| 7.2 | 363.4 | 106.7 | 15.6 | 40.5 | 342.6 | 113.2 | 14.7 | 36.1 | 321.6 | 119.5 | 13.8 | 32.0 | 311.2 | 122.4 | 13.4 | 30.0 | 300.9 | 125.1 | 13.0 | 28.2 | |
| 48 | 111.0 | 110.8 | 266.4 | 15.5 | 104.9 | 117.9 | 251.7 | 13.9 | 98.7 | 124.6 | 236.8 | 12.4 | 95.6 | 127.7 | 229.5 | 11.7 | 92.6 | 130.5 | 222.2 | 11.0 | |
| 8.9 | 390.5 | 110.8 | 16.8 | 46.4 | 368.8 | 117.9 | 15.9 | 41.7 | 347.1 | 124.6 | 14.9 | 37.1 | 336.3 | 127.7 | 14.5 | 34.9 | 325.6 | 130.5 | 14.0 | 32.8 | |
| 5105 10.1 | 42 | 102.0 | 115.3 | 244.9 | 13.2 | 96.0 | 122.0 | 230.4 | 11.8 | 90.0 | 128.3 | 215.9 | 10.4 | 87.0 | 131.2 | 208.8 | 9.7 | 84.1 | 133.7 | 201.8 | 9.1 |
| | 5.6 | 358.9 | 115.3 | 15.5 | 39.5 | 337.7 | 122.0 | 14.5 | 35.2 | 316.5 | 128.3 | 13.6 | 31.0 | 306.0 | 131.2 | 13.2 | 29.1 | 295.7 | 133.7 | 12.7 | 27.2 |
| | 44 | 106.2 | 117.8 | 254.9 | 14.3 | 100.0 | 124.8 | 240.0 | 12.7 | 93.8 | 131.2 | 225.1 | 11.2 | 90.7 | 134.2 | 217.8 | 10.6 | 87.8 | 136.8 | 210.7 | 9.9 |
| | 6.7 | 373.5 | 117.8 | 16.1 | 42.7 | 351.7 | 124.8 | 15.1 | 38.0 | 329.9 | 131.2 | 14.2 | 33.6 | 319.2 | 134.2 | 13.7 | 31.5 | 308.7 | 136.8 | 13.3 | 29.6 |
| | 45 | 108.4 | 119.2 | 260.1 | 14.8 | 102.1 | 126.2 | 245.0 | 13.2 | 95.8 | 132.8 | 230.0 | 11.7 | 92.7 | 135.7 | 222.6 | 11.0 | 89.8 | 138.4 | 215.4 | 10.3 |
| 7.2 | 381.2 | 119.2 | 16.4 | 44.4 | 359.1 | 126.2 | 15.5 | 39.6 | 337.0 | 132.8 | 14.5 | 35.0 | 326.2 | 135.7 | 14.0 | 32.9 | 315.7 | 138.4 | 13.6 | 30.9 | |
| 48 | 116.3 | 123.8 | 279.0 | 17.0 | 109.7 | 131.3 | 263.3 | 15.2 | 103.2 | 138.3 | 247.8 | 13.5 | 100.1 | 141.4 | 240.3 | 12.7 | 97.1 | 144.1 | 233.0 | 12.0 | |
| 8.9 | 408.9 | 123.8 | 17.6 | 50.7 | 385.9 | 131.3 | 16.6 | 45.4 | 363.1 | 138.3 | 15.6 | 40.4 | 352.1 | 141.4 | 15.2 | 38.1 | 341.4 | 144.1 | 14.7 | 35.9 | |
| 5110 11.1 | 42 | 108.7 | 106.8 | 261.0 | 12.7 | 102.5 | 114.2 | 246.0 | 11.5 | 96.2 | 121.5 | 231.0 | 10.3 | 93.1 | 125.0 | 223.4 | 9.7 | 89.9 | 128.2 | 215.8 | 9.1 |
| | 5.6 | 382.5 | 106.8 | 16.5 | 38.1 | 360.6 | 114.2 | 15.5 | 34.3 | 338.5 | 121.5 | 14.6 | 30.7 | 327.4 | 125.0 | 14.1 | 29.0 | 316.2 | 128.2 | 13.6 | 27.3 |
| | 44 | 113.0 | 110.1 | 271.3 | 13.7 | 106.7 | 116.8 | 256.1 | 12.3 | 100.3 | 124.3 | 240.7 | 11.0 | 97.0 | 127.9 | 232.9 | 10.4 | 93.7 | 131.3 | 224.9 | 9.8 |
| | 6.7 | 397.5 | 109.1 | 17.1 | 40.9 | 375.3 | 116.8 | 16.2 | 36.8 | 352.7 | 124.3 | 15.2 | 33.0 | 341.2 | 127.9 | 14.7 | 31.2 | 329.6 | 131.3 | 14.2 | 29.3 |
| | 45 | 115.4 | 110.3 | 277.0 | 14.2 | 109.1 | 118.2 | 261.8 | 12.8 | 102.6 | 126.0 | 246.2 | 11.5 | 99.3 | 129.6 | 238.2 | 10.8 | 95.9 | 133.0 | 230.1 | 10.2 |
| 7.2 | 406.0 | 110.3 | 17.5 | 42.5 | 383.6 | 118.2 | 16.5 | 38.3 | 360.8 | 126.0 | 15.5 | 34.3 | 349.1 | 129.6 | 15.0 | 32.4 | 337.2 | 133.0 | 14.5 | 30.5 | |
| 48 | 125.1 | 115.3 | 300.2 | 16.7 | 118.6 | 124.0 | 284.7 | 15.0 | 111.9 | 132.4 | 268.6 | 13.4 | 108.4 | 136.4 | 260.2 | 12.7 | 104.7 | 140.1 | 251.4 | 11.9 | |
| 8.9 | 440.0 | 115.3 | 18.9 | 50.0 | 417.3 | 124.0 | 18.0 | 44.9 | 393.6 | 132.4 | 16.9 | 40.1 | 381.3 | 136.4 | 16.4 | 37.8 | 368.4 | 140.1 | 15.9 | 35.6 | |
| 5115 11.0 | 42 | 112.8 | 112.7 | 270.7 | 13.6 | 106.4 | 120.5 | 255.4 | 12.2 | 100.0 | 128.1 | 239.9 | 11.0 | 96.7 | 131.8 | 232.0 | 10 | | | | |

SKM Air Cooled Packaged Chillers

APCX Series - R134a

CAPACITY RATINGS - 50 HZ

| Model | LCWT | Condenser Entering Air Temperature °F (°C) | | | | | | | | | | | | | | | | | | | | | |
|--------------|----------|--|----------|--------------|-------------|------------------|----------|--------------|-------------|------------------|----------|--------------|-------------|------------------|----------|--------------|-------------|------------------|----------|--------------|-------------|--|--|
| | | 95 °F (35 °C) | | | | 105 °F (40.6 °C) | | | | 115 °F (46.1 °C) | | | | 120 °F (48.9 °C) | | | | 125 °F (51.7 °C) | | | | | |
| | | CCap | PI | WFR | WPD | CCap | PI | WFR | WPD | CCap | PI | WFR | WPD | CCap | PI | WFR | WPD | CCap | PI | WFR | WPD | | |
| APCX EER | °F °C | TR kW | TR kW | USgpm l/s | ftwg kPa | TR kW | TR kW | USgpm l/s | ftwg kPa | TR kW | TR kW | USgpm l/s | ftwg kPa | TR kW | TR kW | USgpm l/s | ftwg kPa | TR kW | TR kW | USgpm l/s | ftwg kPa | | |
| 5125 10.9 | 42 | 121.7 | 123.8 | 292.1 | 15.8 | 115.0 | 131.9 | 276.0 | 14.1 | 108.1 | 140.0 | 259.4 | 12.6 | 104.6 | 143.9 | 251.0 | 11.9 | 101.0 | 147.7 | 242.4 | 11.2 | | |
| | 5.6 | 428.1 | 423.8 | 18.4 | 47.2 | 404.4 | 431.9 | 17.4 | 42.2 | 380.2 | 440.0 | 16.4 | 37.6 | 367.9 | 443.9 | 15.8 | 35.5 | 355.3 | 447.7 | 15.3 | 33.4 | | |
| | 44 | 126.4 | 126.3 | 303.4 | 17.1 | 119.6 | 134.9 | 286.9 | 15.2 | 112.5 | 143.3 | 270.0 | 13.6 | 108.9 | 147.3 | 261.4 | 12.8 | 105.2 | 151.2 | 252.5 | 12.0 | | |
| | 6.7 | 444.7 | 426.3 | 19.1 | 51.2 | 420.5 | 434.9 | 18.1 | 45.5 | 395.7 | 443.3 | 17.0 | 40.5 | 383.0 | 447.3 | 16.5 | 38.2 | 370.1 | 451.2 | 15.9 | 35.9 | | |
| | 45 | 129.0 | 127.8 | 309.7 | 17.9 | 122.1 | 136.5 | 293.0 | 15.9 | 115.0 | 145.1 | 275.9 | 14.1 | 111.3 | 149.2 | 267.2 | 13.3 | 107.6 | 153.2 | 258.2 | 12.5 | | |
| 7.2 | 453.8 | 427.8 | 19.5 | 53.5 | 429.4 | 436.5 | 18.5 | 47.5 | 404.4 | 445.1 | 17.4 | 42.2 | 391.5 | 449.2 | 16.9 | 39.7 | 378.5 | 453.2 | 16.3 | 37.3 | | | |
| 5135 11.0 | 42 | 127.3 | 128.6 | 305.6 | 10.3 | 120.0 | 136.8 | 288.0 | 9.2 | 112.5 | 144.9 | 270.1 | 8.1 | 108.7 | 148.8 | 261.0 | 7.6 | 104.9 | 152.4 | 251.8 | 7.0 | | |
| | 5.6 | 447.9 | 428.6 | 19.3 | 30.7 | 422.1 | 436.8 | 18.2 | 27.4 | 395.8 | 444.9 | 17.0 | 24.2 | 382.5 | 448.8 | 16.5 | 22.6 | 369.0 | 452.4 | 15.9 | 21.0 | | |
| | 44 | 132.9 | 131.6 | 319.0 | 11.1 | 125.4 | 140.2 | 300.9 | 10.0 | 117.7 | 148.7 | 282.4 | 8.8 | 113.7 | 152.7 | 273.0 | 8.3 | 109.8 | 156.5 | 263.4 | 7.7 | | |
| | 6.7 | 467.4 | 431.6 | 20.1 | 33.2 | 440.9 | 440.2 | 19.0 | 29.8 | 413.8 | 448.7 | 17.8 | 26.4 | 400.1 | 452.7 | 17.2 | 24.7 | 386.1 | 456.5 | 16.6 | 23.0 | | |
| | 45 | 135.8 | 133.2 | 325.9 | 11.5 | 128.1 | 142.0 | 307.5 | 10.4 | 120.3 | 150.6 | 288.7 | 9.2 | 116.3 | 154.7 | 279.2 | 8.6 | 112.3 | 158.5 | 269.5 | 8.1 | | |
| 7.2 | 477.5 | 433.2 | 20.6 | 34.5 | 450.6 | 442.0 | 19.4 | 31.0 | 423.1 | 450.6 | 18.2 | 27.5 | 409.1 | 454.7 | 17.6 | 25.8 | 394.9 | 458.5 | 17.0 | 24.1 | | | |
| 5140 11.1 | 42 | 133.0 | 133.4 | 319.2 | 11.1 | 125.4 | 141.7 | 300.9 | 10.0 | 117.7 | 149.9 | 282.4 | 8.8 | 113.7 | 153.8 | 273.0 | 8.3 | 109.8 | 157.6 | 263.5 | 7.7 | | |
| | 5.6 | 467.8 | 433.4 | 20.1 | 33.2 | 441.0 | 441.7 | 19.0 | 29.8 | 413.8 | 449.9 | 17.8 | 26.4 | 400.1 | 453.8 | 17.2 | 24.7 | 386.2 | 457.6 | 16.6 | 23.1 | | |
| | 44 | 138.9 | 136.4 | 333.3 | 12.0 | 131.1 | 145.1 | 314.5 | 10.8 | 123.1 | 153.6 | 295.4 | 9.6 | 119.0 | 157.8 | 285.7 | 9.0 | 115.0 | 161.7 | 275.9 | 8.4 | | |
| | 6.7 | 488.5 | 436.4 | 21.0 | 36.0 | 460.9 | 445.1 | 19.8 | 32.3 | 432.9 | 453.6 | 18.6 | 28.8 | 418.7 | 457.8 | 18.0 | 27.0 | 404.4 | 461.7 | 17.4 | 25.2 | | |
| | 45 | 141.9 | 137.9 | 340.6 | 12.5 | 134.0 | 146.8 | 321.5 | 11.3 | 125.9 | 155.6 | 302.1 | 10.0 | 121.8 | 159.8 | 292.3 | 9.4 | 117.6 | 163.7 | 282.3 | 8.8 | | |
| 7.2 | 499.2 | 437.9 | 21.5 | 37.4 | 471.2 | 446.8 | 20.3 | 33.7 | 442.8 | 455.6 | 19.1 | 30.0 | 428.3 | 459.8 | 18.4 | 28.2 | 413.7 | 463.7 | 17.8 | 26.4 | | | |
| 5145 11.2 | 42 | 135.7 | 135.9 | 325.7 | 11.5 | 128.0 | 144.2 | 307.1 | 10.3 | 120.1 | 152.5 | 288.2 | 9.2 | 116.1 | 156.5 | 278.7 | 8.6 | 112.1 | 160.3 | 269.1 | 8.0 | | |
| | 5.6 | 477.3 | 435.9 | 20.5 | 34.5 | 450.0 | 444.2 | 19.4 | 30.9 | 422.3 | 452.5 | 18.2 | 27.4 | 408.4 | 456.5 | 17.6 | 25.7 | 394.4 | 460.3 | 17.0 | 24.0 | | |
| | 44 | 141.8 | 138.8 | 340.2 | 12.5 | 133.8 | 147.6 | 321.0 | 11.2 | 125.7 | 156.2 | 301.6 | 10.0 | 121.6 | 160.4 | 291.8 | 9.4 | 117.4 | 164.4 | 281.9 | 8.8 | | |
| | 6.7 | 498.6 | 438.8 | 21.5 | 37.4 | 470.5 | 447.6 | 20.3 | 33.6 | 442.0 | 456.2 | 19.0 | 29.9 | 427.6 | 460.4 | 18.4 | 28.1 | 413.1 | 464.4 | 17.8 | 26.3 | | |
| | 45 | 144.9 | 140.3 | 347.7 | 13.0 | 136.8 | 149.3 | 328.2 | 11.7 | 128.5 | 158.2 | 308.5 | 10.4 | 124.4 | 162.4 | 298.5 | 9.8 | 120.2 | 166.4 | 288.4 | 9.2 | | |
| 7.2 | 509.5 | 440.3 | 21.9 | 38.9 | 481.0 | 449.3 | 20.7 | 35.0 | 452.1 | 458.2 | 19.5 | 31.2 | 437.4 | 462.4 | 18.8 | 29.3 | 422.7 | 466.4 | 18.2 | 27.5 | | | |
| 5150 10.7 | 42 | 140.8 | 147.7 | 337.8 | 12.3 | 132.6 | 156.5 | 318.3 | 11.1 | 124.4 | 165.2 | 298.6 | 9.8 | 120.3 | 169.3 | 288.7 | 9.2 | 116.2 | 173.2 | 278.9 | 8.6 | | |
| | 5.6 | 495.1 | 447.7 | 21.3 | 36.9 | 466.5 | 456.5 | 20.1 | 33.1 | 437.6 | 465.2 | 18.8 | 29.3 | 423.1 | 469.3 | 18.2 | 27.5 | 408.7 | 473.2 | 17.6 | 25.8 | | |
| | 44 | 147.0 | 151.0 | 352.7 | 13.3 | 138.6 | 160.2 | 332.6 | 12.0 | 130.1 | 169.3 | 312.3 | 10.7 | 125.9 | 173.5 | 302.1 | 10.0 | 121.6 | 177.5 | 292.0 | 9.4 | | |
| | 6.7 | 516.9 | 451.0 | 22.3 | 39.9 | 487.4 | 460.2 | 21.0 | 35.8 | 457.6 | 469.3 | 19.7 | 31.9 | 442.7 | 473.5 | 19.1 | 30.0 | 427.9 | 477.5 | 18.4 | 28.1 | | |
| | 45 | 150.2 | 152.7 | 360.4 | 13.9 | 141.7 | 162.1 | 340.0 | 12.5 | 133.1 | 171.4 | 319.3 | 11.1 | 128.8 | 175.7 | 309.0 | 10.5 | 124.5 | 179.7 | 298.7 | 9.8 | | |
| 7.2 | 528.2 | 452.7 | 22.7 | 41.5 | 498.3 | 462.1 | 21.4 | 37.3 | 468.0 | 471.4 | 20.1 | 33.3 | 452.9 | 475.7 | 19.5 | 31.3 | 437.8 | 479.7 | 18.8 | 29.4 | | | |
| 5155 10.3 | 42 | 145.6 | 159.5 | 349.5 | 13.1 | 137.1 | 168.9 | 329.2 | 11.8 | 128.6 | 178.0 | 308.6 | 10.4 | 124.3 | 182.2 | 298.4 | 9.8 | 120.1 | 186.0 | 288.3 | 9.2 | | |
| | 5.6 | 512.2 | 459.5 | 22.1 | 39.2 | 482.4 | 468.9 | 20.8 | 35.2 | 452.3 | 478.0 | 19.5 | 31.2 | 437.4 | 482.2 | 18.8 | 29.3 | 422.5 | 486.0 | 18.2 | 27.5 | | |
| | 44 | 152.0 | 163.1 | 364.8 | 14.2 | 143.2 | 172.9 | 343.8 | 12.7 | 134.4 | 182.3 | 322.7 | 11.3 | 130.1 | 186.6 | 312.2 | 10.7 | 125.8 | 190.6 | 301.8 | 10.0 | | |
| | 6.7 | 534.7 | 463.1 | 23.0 | 42.4 | 503.8 | 472.9 | 21.7 | 38.1 | 472.9 | 482.3 | 20.4 | 33.9 | 457.5 | 486.6 | 19.7 | 31.9 | 442.3 | 490.6 | 19.0 | 29.9 | | |
| | 45 | 155.3 | 165.0 | 372.7 | 14.8 | 146.4 | 175.0 | 351.3 | 13.3 | 137.4 | 184.5 | 329.9 | 11.8 | 133.0 | 188.9 | 319.2 | 11.1 | 128.7 | 192.9 | 308.8 | 10.5 | | |
| 7.2 | 546.2 | 465.0 | 23.5 | 44.1 | 514.9 | 475.0 | 22.2 | 39.6 | 483.4 | 484.5 | 20.8 | 35.3 | 467.9 | 488.9 | 20.1 | 33.2 | 452.5 | 492.9 | 19.5 | 31.2 | | | |
| 5160 10.0 | 42 | 165.4 | 170.6 | 396.9 | 16.5 | 156.0 | 181.2 | 374.4 | 14.9 | 146.6 | 191.1 | 352.0 | 13.3 | 142.0 | 195.7 | 340.9 | 12.5 | 137.5 | 199.9 | 330.0 | 11.8 | | |
| | 5.6 | 581.6 | 470.6 | 25.0 | 49.4 | 548.7 | 481.2 | 23.6 | 44.5 | 515.8 | 491.1 | 22.2 | 39.7 | 499.6 | 495.7 | 21.5 | 37.5 | 483.6 | 499.9 | 20.8 | 35.3 | | |
| | 44 | 156.9 | 175.3 | 376.5 | 15.0 | 147.8 | 185.6 | 354.6 | 13.5 | 138.6 | 195.3 | 332.7 | 12.0 | 134.2 | 199.7 | 322.0 | 11.3 | 129.8 | 203.6 | 311.4 | 10.6 | | |
| | 6.7 | 551.8 | 475.3 | 23.8 | 44.9 | 519.7 | 485.6 | 22.4 | 40.3 | 487.6 | 495.3 | 21.0 | 35.9 | 471.8 | 499.7 | 20.3 | 33.8 | 456.4 | 503.6 | 19.6 | 31.7 | | |
| | 45 | 160.2 | 177.3 | 384.6 | 15.6 | 151.0 | 187.8 | 362.3 | 14.0 | 141.7 | 197.7 | 340.1 | 12.5 | 137.2 | 202.1 | 329.2 | 11.8 | 132.8 | 206.0 | 318.6 | 11.1 | | |
| 7.2 | 563.6 | 477.3 | 24.3 | 46.7 | 531.0 | 487.8 | 22.9 | 41.9 | 498.4 | 497.7 | 21.5 | 37.3 | 482.5 | 502.1 | 20.8 | 35.2 | 466.9 | 506.0 | 20.1 | 33.1 | | | |
| 5165 11.2 | 42 | 170.5 | 183.5 | 409.3 | 17.5 | 160.8 | 194.5 | 385.9 | 15.7 | 151.1 | 204.7 | 362.7 | 14.0 | 146.4 | 209.3 | 351.4 | 13.3 | 141.9 | 213.3 | 340.5 | 12.5 | | |
| | 5.6 | 599.8 | 483.5 | 25.8 | 52.3 | 565.5 | 494.5 | 24.3 | 47.0 | 531.5 | 204.7 | 22.9 | 42.0 | 515.0 | 209.3 | 22.2 | 39.6 | 499.1 | 213.3 | 21.5 | 37.4 | | |
| | 44 | 162.9 | 180.7 | 391.1 | 8.6 | 153.5 | 171.7 | 368.5 | 7.7 | 144.0 | 182.5 | 345.5 | 6.8 | 139.0 | 187.6 | 333.7 | 6.3 | 134.0 | 192.4 | 321.6 | 5.9 | | |
| | 6.7 | 573.1 | 460.7 | 24.7 | 25.6 | 540.1 | 471.7 | 23.2 | 22.9 | 506.3 | 182.5 | 21.8 | 20.2 | 489.0 | 187.6 | 21.1 | 19.0 | 471.4 | 192.4 | 20.3 | 17.7 | | |
| | 45 | 169.6 | 164.5 | 407.0 | 9.3 | 160.0 | 175.9 | 383.9 | 8.3 | 150.1 | 187.1 | 360.2 | 7.3 | 145.0 | 192.4 | 348.1 | 6.9 | 139.9 | 197.4 | 335.7 | 6.4 | | |
| 7.2 | 596.5 | 464.5 | 25.7 | 27.7 | 562.6 | 475.9 | 24.2 | 24.7 | 527.9 | 187.1 | 22.7 | 21.9 | 510.1 | 192.4 | 22.0 | 20.5 | 491.9 | 197.4 | 21.2 | 19.2 | | | |
| 5165 11.2 | 45 | 173.2 | 166.4 | 415.6 | 9.6 | 163.4 | 178.1 | 392.1 | 8.6 | 153.4 | 189.5 | 368.1 | 7.6 | 148.3 | 195.0 | 355.8 | 7.2 | 143.0 | 200.0 | 343.2 | 6.7 | | |
| | 7.2 | 609.0 | 466.4 | 26.2 | 28.8 | 574.7 | 478.1 | 24.7 | 25.8 | 539.5 | 189.5 | 23.2 | 22.8 | 521.4 | 195.0 | 22.4 | 21.4 | 503.0 | 200.0 | 21.7 | 20.0 | | |
| | 48 | 186.4 | 173.6 | 447.3 | 11.1 | 176.2 | 186.3 | 422.8 | 10.0 | 165.7 | 198.6 | 397.6 | 8.9 | 160.3 | 204.4 | 384.7 | 8.3 | 154.8 | 209.7 | 371.5 | 7.8 | | |
| 8.9 | 655.6 | 473.6 | 28.2 | 33.2 | 619.7 | 486.3 | 26.7 | 29.8 | 582.7 | 198.6 | 25.1 | 26.5 | 563.8 | 204.4 | 24.3 | 24.8 | 544.4 | 209.7 | 23.4 | 23.2 | | | |

SKM Air Cooled Packaged Chillers

APCX Series - R134a

CAPACITY RATINGS - 50 HZ

| Model | LCWT | Condenser Entering Air Temperature °F (°C) | | | | | | | | | | | | | | | | | | | |
|--------------|----------|--|----------|---------------------|--------------------|------------------|----------|---------------------|--------------------|------------------|----------|---------------------|--------------------|------------------|----------|---------------------|--------------------|------------------|----------|---------------------|--------------------|
| | | 95 °F (35 °C) | | | | 105 °F (40.6 °C) | | | | 115 °F (46.1 °C) | | | | 120 °F (48.9 °C) | | | | 125 °F (51.7 °C) | | | |
| | | CCap | PI | WFR | WPD | CCap | PI | WFR | WPD | CCap | PI | WFR | WPD | CCap | PI | WFR | WPD | CCap | PI | WFR | WPD |
| APCX EER | °F °C | TR kW | PI kW | WFR USgpm l/s | WPD ftwg kPa | TR kW | PI kW | WFR USgpm l/s | WPD ftwg kPa | TR kW | PI kW | WFR USgpm l/s | WPD ftwg kPa | TR kW | PI kW | WFR USgpm l/s | WPD ftwg kPa | TR kW | PI kW | WFR USgpm l/s | WPD ftwg kPa |
| 5170 11.1 | 42 | 167.8 | 166.9 | 402.7 | 9.1 | 158.1 | 177.9 | 379.5 | 8.1 | 148.2 | 188.7 | 355.7 | 7.2 | 143.2 | 193.9 | 343.6 | 6.7 | 138.1 | 198.7 | 331.3 | 6.3 |
| | 5.6 | 590.2 | 166.9 | 25.4 | 27.1 | 556.1 | 177.9 | 23.9 | 24.2 | 521.3 | 188.7 | 22.4 | 21.4 | 503.6 | 193.9 | 21.7 | 20.0 | 485.6 | 198.7 | 20.9 | 18.7 |
| | 44 | 174.7 | 170.6 | 419.3 | 9.8 | 164.8 | 182.2 | 395.4 | 8.8 | 154.6 | 193.4 | 371.0 | 7.8 | 149.4 | 198.8 | 358.6 | 7.3 | 144.1 | 203.8 | 345.9 | 6.8 |
| | 6.7 | 614.4 | 170.6 | 26.5 | 29.3 | 579.5 | 182.2 | 24.9 | 26.2 | 543.7 | 193.4 | 23.4 | 23.2 | 525.5 | 198.8 | 22.6 | 21.7 | 506.9 | 203.8 | 21.8 | 20.3 |
| | 45 | 178.4 | 172.6 | 428.1 | 10.2 | 168.3 | 184.4 | 403.9 | 9.1 | 158.0 | 195.9 | 379.2 | 8.1 | 152.7 | 201.4 | 366.6 | 7.6 | 147.4 | 206.5 | 353.7 | 7.1 |
| 7.2 | 627.4 | 172.6 | 27.0 | 30.5 | 592.0 | 184.4 | 25.5 | 27.3 | 555.7 | 195.9 | 23.9 | 24.2 | 537.2 | 201.4 | 23.1 | 22.6 | 518.3 | 206.5 | 22.3 | 21.2 | |
| 5175 11.1 | 42 | 172.5 | 173.0 | 414.1 | 9.6 | 162.6 | 184.1 | 390.2 | 8.5 | 152.4 | 194.9 | 365.8 | 7.5 | 147.3 | 200.1 | 353.4 | 7.1 | 142.0 | 205.0 | 340.9 | 6.6 |
| | 5.6 | 606.9 | 173.0 | 26.1 | 28.6 | 571.8 | 184.1 | 24.6 | 25.5 | 536.1 | 194.9 | 23.1 | 22.5 | 517.9 | 200.1 | 22.3 | 21.1 | 499.5 | 205.0 | 21.5 | 19.7 |
| | 44 | 179.7 | 176.8 | 431.2 | 10.3 | 169.4 | 188.4 | 406.6 | 9.2 | 159.0 | 199.7 | 381.6 | 8.2 | 153.7 | 205.1 | 368.8 | 7.7 | 148.3 | 210.2 | 355.9 | 7.2 |
| | 6.7 | 632.0 | 176.8 | 27.2 | 30.9 | 595.9 | 188.4 | 25.7 | 27.6 | 559.2 | 199.7 | 24.1 | 24.4 | 540.5 | 205.1 | 23.3 | 22.9 | 521.5 | 210.2 | 22.5 | 21.4 |
| | 45 | 183.5 | 178.8 | 440.4 | 10.8 | 173.1 | 190.7 | 415.5 | 9.6 | 162.5 | 202.3 | 390.0 | 8.5 | 157.1 | 207.8 | 377.1 | 8.0 | 151.6 | 212.9 | 363.9 | 7.5 |
| 7.2 | 645.3 | 178.8 | 27.8 | 32.2 | 608.9 | 190.7 | 26.2 | 28.8 | 571.6 | 202.3 | 24.6 | 25.5 | 552.6 | 207.8 | 23.8 | 23.9 | 533.4 | 212.9 | 23.0 | 22.3 | |
| 5185 11.2 | 42 | 178.5 | 177.8 | 428.3 | 10.2 | 168.2 | 188.9 | 403.6 | 9.1 | 157.7 | 199.9 | 378.5 | 8.1 | 152.4 | 205.2 | 365.9 | 7.5 | 147.1 | 210.2 | 353.1 | 7.1 |
| | 5.6 | 627.7 | 177.8 | 27.0 | 30.5 | 591.5 | 188.9 | 25.5 | 27.2 | 554.8 | 199.9 | 23.9 | 24.1 | 536.2 | 205.2 | 23.1 | 22.6 | 517.4 | 210.2 | 22.3 | 21.1 |
| | 44 | 185.9 | 181.5 | 446.1 | 11.1 | 175.3 | 193.2 | 420.8 | 9.9 | 164.6 | 204.7 | 395.0 | 8.7 | 159.2 | 210.2 | 382.0 | 8.2 | 153.7 | 215.4 | 368.8 | 7.7 |
| | 6.7 | 653.8 | 181.5 | 28.1 | 33.0 | 616.7 | 193.2 | 26.5 | 29.5 | 578.9 | 204.7 | 24.9 | 26.1 | 559.8 | 210.2 | 24.1 | 24.5 | 540.5 | 215.4 | 23.3 | 22.9 |
| | 45 | 189.8 | 183.5 | 455.6 | 11.5 | 179.2 | 195.5 | 430.0 | 10.3 | 168.3 | 207.3 | 403.9 | 9.1 | 162.8 | 212.9 | 390.6 | 8.6 | 157.2 | 218.1 | 377.2 | 8.0 |
| 7.2 | 667.7 | 183.5 | 28.7 | 34.4 | 630.1 | 195.5 | 27.1 | 30.8 | 591.9 | 207.3 | 25.5 | 27.3 | 572.5 | 212.9 | 24.6 | 25.6 | 552.8 | 218.1 | 23.8 | 23.9 | |
| 5190 11.3 | 42 | 184.1 | 182.8 | 441.8 | 10.8 | 173.5 | 194.0 | 416.4 | 9.7 | 162.8 | 205.1 | 390.7 | 8.6 | 157.4 | 210.5 | 377.7 | 8.0 | 152.0 | 215.6 | 364.7 | 7.5 |
| | 5.6 | 647.5 | 182.8 | 27.9 | 32.4 | 610.2 | 194.0 | 26.3 | 28.9 | 572.5 | 205.1 | 24.6 | 25.6 | 553.6 | 210.5 | 23.8 | 24.0 | 534.5 | 215.6 | 23.0 | 22.4 |
| | 44 | 191.8 | 186.5 | 460.3 | 11.7 | 180.9 | 198.3 | 434.3 | 10.5 | 169.9 | 209.9 | 407.8 | 9.3 | 164.4 | 215.5 | 394.5 | 8.7 | 158.8 | 220.8 | 381.0 | 8.2 |
| | 6.7 | 674.6 | 186.5 | 29.0 | 35.1 | 636.4 | 198.3 | 27.4 | 31.4 | 597.7 | 209.9 | 25.7 | 27.8 | 578.1 | 215.5 | 24.9 | 26.1 | 558.4 | 220.8 | 24.0 | 24.4 |
| | 45 | 195.9 | 188.4 | 470.2 | 12.2 | 184.9 | 200.5 | 443.8 | 10.9 | 173.8 | 212.5 | 417.0 | 9.7 | 168.1 | 218.2 | 403.5 | 9.1 | 162.4 | 223.6 | 389.8 | 8.5 |
| 7.2 | 689.0 | 188.4 | 29.7 | 36.5 | 650.4 | 200.5 | 28.0 | 32.7 | 611.1 | 212.5 | 26.3 | 29.0 | 591.3 | 218.2 | 25.5 | 27.2 | 571.2 | 223.6 | 24.6 | 25.5 | |
| 5195 10.9 | 42 | 189.3 | 194.7 | 454.3 | 11.4 | 178.3 | 206.5 | 427.9 | 10.2 | 167.2 | 218.0 | 401.3 | 9.0 | 161.7 | 223.5 | 388.0 | 8.4 | 156.1 | 228.6 | 374.7 | 7.9 |
| | 5.6 | 665.7 | 194.7 | 28.7 | 34.2 | 627.1 | 206.5 | 27.0 | 30.5 | 588.1 | 218.0 | 25.3 | 26.9 | 568.6 | 223.5 | 24.5 | 25.2 | 549.1 | 228.6 | 23.6 | 23.6 |
| | 44 | 197.2 | 198.7 | 473.2 | 12.4 | 185.9 | 211.1 | 446.1 | 11.1 | 174.5 | 223.1 | 418.8 | 9.8 | 168.8 | 228.8 | 405.1 | 9.2 | 163.1 | 234.1 | 391.4 | 8.6 |
| | 6.7 | 693.4 | 198.7 | 29.9 | 37.0 | 653.8 | 211.1 | 28.1 | 33.0 | 613.7 | 223.1 | 26.4 | 29.2 | 593.6 | 228.8 | 25.6 | 27.4 | 573.6 | 234.1 | 24.7 | 25.7 |
| | 45 | 201.3 | 200.9 | 483.2 | 12.9 | 189.9 | 213.5 | 455.8 | 11.5 | 178.4 | 225.8 | 428.1 | 10.2 | 172.6 | 231.5 | 414.2 | 9.6 | 166.8 | 237.0 | 400.3 | 9.0 |
| 7.2 | 708.2 | 200.9 | 30.5 | 38.5 | 668.0 | 213.5 | 28.8 | 34.4 | 627.4 | 225.8 | 27.0 | 30.5 | 607.0 | 231.5 | 26.1 | 28.6 | 586.7 | 237.0 | 25.3 | 26.8 | |
| 5200 10.6 | 42 | 194.3 | 206.7 | 466.4 | 12.0 | 183.0 | 219.0 | 439.2 | 10.7 | 171.6 | 230.9 | 411.7 | 9.5 | 165.9 | 236.4 | 398.1 | 8.9 | 160.2 | 241.6 | 384.5 | 8.3 |
| | 5.6 | 683.6 | 206.7 | 29.4 | 36.0 | 643.6 | 219.0 | 27.7 | 32.0 | 603.4 | 230.9 | 26.0 | 28.3 | 583.3 | 236.4 | 25.1 | 26.5 | 563.4 | 241.6 | 24.3 | 24.8 |
| | 44 | 202.4 | 211.0 | 485.7 | 13.0 | 190.7 | 223.9 | 457.7 | 11.6 | 178.9 | 236.2 | 429.5 | 10.3 | 173.1 | 242.0 | 415.4 | 9.6 | 167.3 | 247.3 | 401.5 | 9.0 |
| | 6.7 | 711.8 | 211.0 | 30.6 | 38.9 | 670.7 | 223.9 | 28.9 | 34.7 | 629.4 | 236.2 | 27.1 | 30.7 | 608.8 | 242.0 | 26.2 | 28.8 | 588.4 | 247.3 | 25.3 | 27.0 |
| | 45 | 206.6 | 213.4 | 495.9 | 13.5 | 194.8 | 226.5 | 467.5 | 12.1 | 182.9 | 239.1 | 438.9 | 10.7 | 177.0 | 244.9 | 424.7 | 10.1 | 171.1 | 250.3 | 410.6 | 9.4 |
| 7.2 | 726.8 | 213.4 | 31.3 | 40.5 | 685.1 | 226.5 | 29.5 | 36.1 | 643.3 | 239.1 | 27.7 | 32.0 | 622.4 | 244.9 | 26.8 | 30.0 | 601.8 | 250.3 | 25.9 | 28.2 | |
| 5205 10.3 | 42 | 222.0 | 221.6 | 532.9 | 15.5 | 209.7 | 235.7 | 503.3 | 13.9 | 197.4 | 249.2 | 473.7 | 12.4 | 191.2 | 255.4 | 459.0 | 11.7 | 185.2 | 261.1 | 444.4 | 11.0 |
| | 5.6 | 780.9 | 221.6 | 33.6 | 46.4 | 737.6 | 235.7 | 31.8 | 41.7 | 694.2 | 249.2 | 29.9 | 37.1 | 672.6 | 255.4 | 29.0 | 34.9 | 651.2 | 261.1 | 28.0 | 32.8 |
| | 44 | 207.5 | 223.4 | 497.9 | 13.6 | 195.4 | 236.7 | 468.9 | 12.2 | 183.3 | 249.4 | 439.9 | 10.8 | 177.3 | 255.2 | 425.6 | 10.1 | 171.5 | 260.4 | 411.5 | 9.5 |
| | 6.7 | 729.6 | 223.4 | 31.4 | 40.8 | 687.2 | 236.7 | 29.6 | 36.4 | 644.7 | 249.4 | 27.8 | 32.2 | 623.7 | 255.2 | 26.9 | 30.2 | 603.1 | 260.4 | 26.0 | 28.3 |
| | 45 | 211.8 | 225.8 | 508.3 | 14.2 | 199.5 | 239.4 | 478.9 | 12.7 | 187.3 | 252.3 | 449.5 | 11.2 | 181.3 | 258.2 | 435.0 | 10.5 | 175.3 | 263.5 | 420.8 | 9.9 |
| 7.2 | 744.9 | 225.8 | 32.1 | 42.4 | 701.8 | 239.4 | 30.2 | 37.9 | 658.8 | 252.3 | 28.4 | 33.5 | 637.6 | 258.2 | 27.4 | 31.5 | 616.7 | 263.5 | 26.5 | 29.5 | |
| 5210 10.1 | 42 | 204.1 | 230.7 | 489.8 | 13.2 | 192.0 | 244.0 | 460.9 | 11.8 | 179.9 | 256.6 | 431.9 | 10.4 | 174.0 | 262.3 | 417.6 | 9.7 | 168.1 | 267.4 | 403.5 | 9.1 |
| | 5.6 | 717.8 | 230.7 | 30.9 | 39.5 | 675.4 | 244.0 | 29.1 | 35.2 | 632.9 | 256.6 | 27.2 | 31.0 | 612.0 | 262.3 | 26.3 | 29.1 | 591.4 | 267.4 | 25.5 | 27.2 |
| | 44 | 212.4 | 235.7 | 509.8 | 14.3 | 200.0 | 249.5 | 479.9 | 12.7 | 187.6 | 262.5 | 450.2 | 11.2 | 181.5 | 268.3 | 435.6 | 10.6 | 175.6 | 273.5 | 421.3 | 9.9 |
| | 6.7 | 747.0 | 235.7 | 32.2 | 42.7 | 703.3 | 249.5 | 30.3 | 38.0 | 659.7 | 262.5 | 28.4 | 33.6 | 638.3 | 268.3 | 27.5 | 31.5 | 617.5 | 273.5 | 26.6 | 29.6 |
| | 45 | 216.8 | 238.3 | 520.3 | 14.8 | 204.2 | 252.4 | 490.0 | 13.2 | 191.6 | 265.6 | 459.9 | 11.7 | 185.5 | 271.5 | 445.2 | 11.0 | 179.5 | 276.7 | 430.8 | 10.3 |
| 7.2 | 762.5 | 238.3 | 32.8 | 44.4 | 718.1 | 252.4 | 30.9 | 39.6 | 674.0 | 265.6 | 29.0 | 35.0 | 652.4 | 271.5 | 28.1 | 32.9 | 631.4 | 276.7 | 27.2 | 30.9 | |
| 48 | 232.5 | 247.7 | 558.1 | 17.0 | 219.4 | 262.7 | 526.6 | 15.2 | 206.5 | 276.6 | 495.6 | 13.5 | 200.2 | 282.8 | 480.5 | 12.7 | 194.1 | 288.3 | 466.0 | 12.0 | |
| 8.9 | 817.8 | 247.7 | 35.2 | 50.7 | 771.7 | 262.7 | 33.2 | 45.4 | 726.2 | 276.6 | 31.3 | 40.4 | 704.2 | 282.8 | 30.3 | 38.1 | 682.9 | 288.3 | 29.4 | 35.9 | |

Table 3 ends

- For legend, see page 2.
- Capacity ratings are based on 10 °F (5.5 °C) range and 0.0001 ft².h°f/Btu (0.018m².°C/kW) fouling factor.



SKM Air Cooled Packaged Chillers

APCX Series - R134a

CAPACITY RATINGS - 60 HZ

| Model | LCWT | Condenser Entering Air Temperature °F (°C) | | | | | | | | | | | | | | | | | | | | |
|----------|----------|--|----------|--------------|-------------|------------------|----------|--------------|-------------|------------------|----------|--------------|-------------|------------------|----------|--------------|-------------|------------------|----------|--------------|-------------|-----|
| | | 95 °F (35 °C) | | | | 105 °F (40.6 °C) | | | | 115 °F (46.1 °C) | | | | 120 °F (48.9 °C) | | | | 125 °F (51.7 °C) | | | | |
| | | CCap | PI | WFR | WPD | CCap | PI | WFR | WPD | CCap | PI | WFR | WPD | CCap | PI | WFR | WPD | CCap | PI | WFR | WPD | |
| APCX EER | °F °C | TR kW | PI kW | USGpm l/s | ftwg kPa | TR kW | PI kW | USGpm l/s | ftwg kPa | TR kW | PI kW | USGpm l/s | ftwg kPa | TR kW | PI kW | USGpm l/s | ftwg kPa | TR kW | PI kW | USGpm l/s | ftwg kPa | |
| 6040 | 10.4 | 42 | 38.2 | 38.9 | 91.7 | 6.8 | 36.0 | 41.5 | 86.5 | 6.1 | 33.9 | 44.2 | 81.3 | 5.4 | 32.8 | 45.4 | 78.6 | 5.1 | 31.6 | 46.7 | 76.0 | 4.8 |
| | 5.6 | 134.3 | 38.9 | 5.8 | 20.4 | 126.8 | 41.5 | 5.5 | 18.2 | 119.1 | 44.2 | 5.1 | 16.2 | 115.2 | 45.4 | 5.0 | 15.2 | 111.3 | 46.7 | 4.8 | 14.2 | |
| | 44 | 39.7 | 39.7 | 95.4 | 7.4 | 37.5 | 42.5 | 90.1 | 6.6 | 35.3 | 45.2 | 84.7 | 5.9 | 34.2 | 46.5 | 82.0 | 5.5 | 33.0 | 47.8 | 79.2 | 5.1 | |
| | 6.7 | 139.7 | 39.7 | 6.0 | 22.0 | 132.0 | 42.5 | 5.7 | 19.7 | 124.1 | 45.2 | 5.3 | 17.5 | 120.1 | 46.5 | 5.2 | 16.4 | 116.1 | 47.8 | 4.8 | 15.4 | |
| | 45 | 40.6 | 40.2 | 97.4 | 7.7 | 38.3 | 43.0 | 92.0 | 6.9 | 36.1 | 45.8 | 86.6 | 6.1 | 34.9 | 47.1 | 83.8 | 5.7 | 33.7 | 48.4 | 81.0 | 5.4 | |
| 7.2 | 142.7 | 40.2 | 6.1 | 22.9 | 134.9 | 43.0 | 5.8 | 20.5 | 126.9 | 45.8 | 5.5 | 18.2 | 122.8 | 47.1 | 5.3 | 17.1 | 118.7 | 48.4 | 5.1 | 16.0 | | |
| 48 | 43.2 | 41.5 | 103.6 | 8.6 | 40.8 | 44.5 | 97.9 | 7.7 | 38.4 | 47.5 | 92.1 | 6.9 | 37.1 | 48.9 | 89.1 | 6.5 | 35.9 | 50.1 | 86.0 | 6.0 | | |
| 8.9 | 151.8 | 41.5 | 6.5 | 25.8 | 143.5 | 44.5 | 6.2 | 23.1 | 135.0 | 47.5 | 5.8 | 20.5 | 130.6 | 48.9 | 5.6 | 19.3 | 126.1 | 50.1 | 5.4 | 18.0 | | |
| 6045 | 10.1 | 42 | 44.2 | 46.6 | 106.1 | 3.9 | 41.7 | 49.6 | 100.1 | 3.5 | 39.2 | 52.7 | 94.0 | 3.2 | 37.9 | 54.2 | 91.0 | 3.1 | 36.6 | 55.6 | 87.9 | 3.0 |
| | 5.6 | 155.4 | 46.6 | 6.7 | 11.5 | 146.7 | 49.6 | 6.3 | 10.5 | 137.8 | 52.7 | 5.9 | 9.6 | 133.3 | 54.2 | 5.7 | 9.2 | 128.8 | 55.6 | 5.5 | 9.0 | |
| | 44 | 44.1 | 46.5 | 105.8 | 3.8 | 43.4 | 50.8 | 104.3 | 3.7 | 40.8 | 54.0 | 98.0 | 3.4 | 39.5 | 55.6 | 94.8 | 3.2 | 38.2 | 57.0 | 91.6 | 3.1 | |
| | 6.7 | 155.0 | 46.5 | 6.7 | 11.5 | 152.8 | 50.8 | 6.6 | 11.2 | 143.6 | 54.0 | 6.2 | 10.1 | 138.9 | 55.6 | 6.0 | 9.7 | 134.2 | 57.0 | 5.8 | 9.3 | |
| | 45 | 47.0 | 48.2 | 112.7 | 4.3 | 44.4 | 51.5 | 106.4 | 3.9 | 41.7 | 54.7 | 100.0 | 3.5 | 40.3 | 56.3 | 96.8 | 3.3 | 38.9 | 57.8 | 93.5 | 3.2 | |
| 7.2 | 165.2 | 48.2 | 7.1 | 12.9 | 156.0 | 51.5 | 6.7 | 11.6 | 146.6 | 54.7 | 6.3 | 10.5 | 141.8 | 56.3 | 6.1 | 10.0 | 137.0 | 57.8 | 5.9 | 9.5 | | |
| 48 | 49.9 | 49.9 | 119.7 | 4.9 | 47.1 | 53.3 | 113.0 | 4.3 | 44.3 | 56.8 | 106.3 | 3.9 | 42.8 | 58.4 | 102.8 | 3.6 | 41.3 | 59.9 | 99.2 | 3.4 | | |
| 8.9 | 175.4 | 49.9 | 7.5 | 14.5 | 165.7 | 53.3 | 7.1 | 13.0 | 155.7 | 56.8 | 6.7 | 11.6 | 150.6 | 58.4 | 6.5 | 10.9 | 145.4 | 59.9 | 6.3 | 10.3 | | |
| 6055 | 10.6 | 42 | 52.1 | 54.1 | 125.0 | 4.5 | 49.0 | 57.4 | 117.7 | 4.0 | 46.0 | 60.6 | 110.4 | 3.6 | 44.5 | 62.2 | 106.7 | 3.4 | 43.0 | 63.7 | 103.1 | 3.2 |
| | 5.6 | 183.1 | 54.1 | 7.9 | 13.5 | 172.5 | 57.4 | 7.4 | 12.1 | 161.8 | 60.6 | 7.0 | 10.8 | 156.4 | 62.2 | 6.7 | 10.2 | 151.1 | 63.7 | 6.5 | 9.7 | |
| | 44 | 54.3 | 55.3 | 130.3 | 4.9 | 51.2 | 58.7 | 122.9 | 4.4 | 48.1 | 62.1 | 115.5 | 3.9 | 46.5 | 63.7 | 111.7 | 3.7 | 45.0 | 65.3 | 108.0 | 3.5 | |
| | 6.7 | 191.0 | 55.3 | 8.2 | 14.6 | 180.1 | 58.7 | 7.8 | 13.1 | 169.2 | 62.1 | 7.3 | 11.7 | 163.7 | 63.7 | 7.0 | 11.0 | 158.2 | 65.3 | 6.8 | 10.4 | |
| | 45 | 55.5 | 55.8 | 133.2 | 5.1 | 52.4 | 59.4 | 125.7 | 4.6 | 49.2 | 62.9 | 118.1 | 4.1 | 47.6 | 64.5 | 114.3 | 3.8 | 46.0 | 66.1 | 110.5 | 3.6 | |
| 7.2 | 195.2 | 55.8 | 8.4 | 15.2 | 184.2 | 59.4 | 7.9 | 13.6 | 173.1 | 62.9 | 7.5 | 12.2 | 167.5 | 64.5 | 7.2 | 11.5 | 161.9 | 66.1 | 7.0 | 10.8 | | |
| 48 | 59.0 | 57.6 | 141.6 | 5.7 | 55.8 | 61.4 | 133.8 | 5.1 | 52.4 | 65.1 | 125.9 | 4.6 | 50.8 | 66.9 | 121.8 | 4.3 | 49.0 | 68.5 | 117.7 | 4.0 | | |
| 8.9 | 207.6 | 57.6 | 8.9 | 17.1 | 196.1 | 61.4 | 8.4 | 15.3 | 184.4 | 65.1 | 7.9 | 13.6 | 178.5 | 66.9 | 7.7 | 12.9 | 172.5 | 68.5 | 7.4 | 12.1 | | |
| 6060 | 9.5 | 42 | 57.7 | 68.3 | 138.6 | 5.5 | 54.3 | 72.1 | 130.3 | 4.9 | 50.8 | 75.8 | 122.0 | 4.3 | 49.1 | 77.5 | 117.8 | 4.0 | 47.3 | 79.0 | 113.6 | 3.8 |
| | 5.6 | 203.1 | 68.3 | 8.7 | 16.4 | 191.0 | 72.1 | 8.2 | 14.6 | 178.8 | 75.8 | 7.7 | 12.9 | 172.6 | 77.5 | 7.4 | 12.1 | 166.4 | 79.0 | 7.2 | 11.4 | |
| | 44 | 60.2 | 69.8 | 144.4 | 5.9 | 56.6 | 73.8 | 135.9 | 5.3 | 53.1 | 77.7 | 127.4 | 4.7 | 51.3 | 79.4 | 123.1 | 4.4 | 49.5 | 80.9 | 118.7 | 4.1 | |
| | 6.7 | 211.6 | 69.8 | 9.1 | 17.7 | 199.2 | 73.8 | 8.6 | 15.8 | 186.7 | 77.7 | 8.0 | 13.9 | 180.4 | 79.4 | 7.8 | 13.1 | 174.0 | 80.9 | 7.5 | 12.3 | |
| | 45 | 61.4 | 70.6 | 147.5 | 6.2 | 57.9 | 74.7 | 138.9 | 5.5 | 54.3 | 78.6 | 130.2 | 4.9 | 52.4 | 80.3 | 125.8 | 4.6 | 50.6 | 81.9 | 121.4 | 4.3 | |
| 7.2 | 216.1 | 70.6 | 9.3 | 18.5 | 203.6 | 74.7 | 8.8 | 16.4 | 190.8 | 78.6 | 8.2 | 14.5 | 184.4 | 80.3 | 7.9 | 13.6 | 177.9 | 81.9 | 7.7 | 12.8 | | |
| 48 | 65.3 | 73.0 | 156.7 | 7.0 | 61.5 | 77.3 | 147.7 | 6.2 | 57.7 | 81.3 | 138.6 | 5.5 | 55.8 | 83.1 | 134.0 | 5.1 | 53.9 | 84.7 | 129.4 | 4.8 | | |
| 8.9 | 229.6 | 73.0 | 9.9 | 20.8 | 216.5 | 77.3 | 9.3 | 18.5 | 203.1 | 81.3 | 8.7 | 16.4 | 196.4 | 83.1 | 8.5 | 15.3 | 189.6 | 84.7 | 8.2 | 14.4 | | |
| 6065 | 10.5 | 42 | 61.5 | 62.9 | 147.6 | 3.5 | 58.0 | 67.1 | 139.3 | 3.2 | 54.5 | 71.3 | 130.9 | 2.8 | 52.8 | 73.4 | 126.6 | 2.7 | 51.0 | 75.3 | 122.3 | 2.6 |
| | 5.6 | 216.3 | 62.9 | 9.3 | 10.5 | 204.1 | 67.1 | 8.8 | 9.5 | 191.8 | 71.3 | 8.3 | 8.5 | 185.6 | 73.4 | 8.0 | 8.1 | 179.3 | 75.3 | 7.7 | 7.6 | |
| | 44 | 64.0 | 64.2 | 153.7 | 3.8 | 60.5 | 68.7 | 145.2 | 3.4 | 56.8 | 73.1 | 136.4 | 3.1 | 55.0 | 75.2 | 132.0 | 2.9 | 53.1 | 77.2 | 127.5 | 2.7 | |
| | 6.7 | 225.3 | 64.2 | 9.7 | 11.4 | 212.7 | 68.7 | 9.2 | 10.2 | 199.9 | 73.1 | 8.6 | 9.1 | 193.4 | 75.2 | 8.3 | 8.6 | 186.9 | 77.2 | 8.0 | 8.1 | |
| | 45 | 65.3 | 64.9 | 156.8 | 3.9 | 61.7 | 69.5 | 148.1 | 3.5 | 58.0 | 73.9 | 139.2 | 3.2 | 56.1 | 76.1 | 134.7 | 3.0 | 54.2 | 78.1 | 130.1 | 2.8 | |
| 7.2 | 229.7 | 64.9 | 9.9 | 11.8 | 217.0 | 69.5 | 9.3 | 10.6 | 204.0 | 73.9 | 8.8 | 9.5 | 197.4 | 76.1 | 8.5 | 8.9 | 190.6 | 78.1 | 8.2 | 8.4 | | |
| 48 | 69.5 | 67.2 | 166.8 | 4.5 | 65.8 | 72.1 | 157.8 | 4.0 | 61.9 | 76.8 | 148.5 | 3.6 | 59.9 | 79.1 | 143.7 | 3.4 | 57.8 | 81.2 | 138.8 | 3.2 | | |
| 8.9 | 244.5 | 67.2 | 10.5 | 13.3 | 231.3 | 72.1 | 10.0 | 11.9 | 219.7 | 76.8 | 9.4 | 10.7 | 210.6 | 79.1 | 9.1 | 10.0 | 203.4 | 81.2 | 8.8 | 9.4 | | |
| 6070 | 10.3 | 42 | 66.1 | 69.7 | 158.5 | 4.0 | 62.4 | 74.3 | 149.7 | 3.6 | 58.7 | 79.0 | 140.8 | 3.2 | 56.8 | 81.2 | 136.3 | 3.1 | 54.9 | 83.4 | 131.8 | 2.9 |
| | 5.6 | 232.3 | 69.7 | 10.0 | 12.1 | 219.4 | 74.3 | 9.4 | 10.8 | 206.3 | 79.0 | 8.9 | 9.7 | 199.7 | 81.2 | 8.6 | 9.1 | 193.1 | 83.4 | 8.3 | 8.6 | |
| | 44 | 68.8 | 71.3 | 165.0 | 4.4 | 65.0 | 76.1 | 155.9 | 3.9 | 61.1 | 80.9 | 146.7 | 3.5 | 59.2 | 83.3 | 142.0 | 3.3 | 57.2 | 85.5 | 137.2 | 3.1 | |
| | 6.7 | 241.9 | 71.3 | 10.4 | 13.0 | 228.5 | 76.1 | 9.8 | 11.7 | 215.0 | 80.9 | 9.3 | 10.4 | 208.1 | 83.3 | 9.0 | 9.8 | 201.1 | 85.5 | 8.7 | 9.2 | |
| | 45 | 70.1 | 72.1 | 168.3 | 4.5 | 66.3 | 77.0 | 159.0 | 4.1 | 62.3 | 81.9 | 149.6 | 3.6 | 60.3 | 84.3 | 144.8 | 3.4 | 58.3 | 86.5 | 139.9 | 3.2 | |
| 7.2 | 246.6 | 72.1 | 10.6 | 13.5 | 233.1 | 77.0 | 10.0 | 12.1 | 219.3 | 81.9 | 9.4 | 10.8 | 212.2 | 84.3 | 9.1 | 10.2 | 205.1 | 86.5 | 8.8 | 9.6 | | |
| 48 | 74.5 | 74.6 | 178.9 | 5.1 | 70.5 | 79.9 | 169.3 | 4.6 | 66.4 | 85.1 | 159.4 | 4.1 | 64.3 | 87.6 | 154.3 | 3.8 | 62.1 | 90.0 | 149.0 | 3.6 | | |
| 8.9 | 262.1 | 74.6 | 11.3 | 15.2 | 248.0 | 79.9 | 10.7 | 13.7 | 233.6 | 85.1 | 10.1 | 12.2 | 226.1 | 87.6 | 9.7 | 11.4 | 218.4 | 90.0 | 9.4 | 10.7 | | |
| 6080 | 10.3 | 42 | 71.4 | 75.9 | 171.3 | 4.7 | 67.4 | 80.6 | 161.8 | 4.2 | 63.4 | 85.3 | 152.2 | 3.7 | 61.4 | 87.6 | 147.4 | 3.5 | 59.4 | 89.9 | 142.6 | 3.3 |
| | 5.6 | 251.1 | 75.9 | 10.8 | 14.0 | 237.1 | 80.6 | 10.2 | 12.5 | 223.0 | 85.3 | 9.6 | 11.1 | 215.9 | 87.6 | 9.3 | 10.5 | 208.9 | 89.9 | 9.0 | 9.9 | |
| | 44 | 74.4 | 77.5 | 178.5 | 5.1 | 70.3 | 82.4 | 168.7 | 4.5 | 66.2 | 87.4 | 158.8 | 4.0 | 64.1 | 89.8 | 153.8 | 3.8 | 62.0 | 92.1 | 148.8 | 3.6 | |
| | 6.7 | 261.7 | 77.5 | 11.3 | 15.2 | 247.3 | 82.4 | 10.6 | 13.6 | 232.7 | 87.4 | 10.0 | 12.1 | 225.4 | 89.8 | 9.7 | 11.4 | 218.1 | 92.1 | 9.4 | 10.7 | |
| | 45 | 75.9 | 78.3 | 182.2 | 5.3 | 71.8 | 83.4 | 172.2 | 4.7 | 67.5 | 88.4 | 162.1 | 4.2 | 65.4 | 90.8 | 157.0 | 4.0 | 63.3 | 93.2 | 151.9 | 3.7 | |
| 7.2 | 267.0 | 78.3 | 11.5 | 15.8 | 252.4 | 83.4 | 10.9 | 14.2 | 237.6 | 8 | | | | | | | | | | | | |

SKM Air Cooled Packaged Chillers APCX Series - R134a

CAPACITY RATINGS - 60 HZ

| Model | LCWT | Condenser Entering Air Temperature °F (°C) | | | | | | | | | | | | | | | | | | | |
|--------------|----------|--|----------|--------------|-------------|------------------|----------|--------------|-------------|------------------|----------|--------------|-------------|------------------|----------|--------------|-------------|------------------|----------|--------------|-------------|
| | | 95 °F (35 °C) | | | | 105 °F (40.6 °C) | | | | 115 °F (46.1 °C) | | | | 120 °F (48.9 °C) | | | | 125 °F (51.7 °C) | | | |
| | | CCap | PI | WFR | WPD | CCap | PI | WFR | WPD | CCap | PI | WFR | WPD | CCap | PI | WFR | WPD | CCap | PI | WFR | WPD |
| APCX EER | °F °C | TR kW | TR kW | USGpm l/s | ftwg kPa | TR kW | TR kW | USGpm l/s | ftwg kPa | TR kW | TR kW | USGpm l/s | ftwg kPa | TR kW | TR kW | USGpm l/s | ftwg kPa | TR kW | TR kW | USGpm l/s | ftwg kPa |
| 6095 10.6 | 42 | 93.4 | 96.0 | 224.1 | 11.1 | 88.0 | 102.5 | 211.3 | 10.0 | 82.6 | 108.8 | 198.3 | 8.8 | 79.9 | 111.9 | 191.7 | 8.3 | 77.1 | 114.8 | 185.0 | 7.7 |
| | 5.6 | 328.4 | 96.0 | 14.1 | 33.3 | 309.6 | 102.5 | 13.3 | 29.8 | 290.6 | 108.8 | 12.5 | 26.3 | 280.9 | 111.9 | 12.1 | 24.7 | 271.2 | 114.8 | 11.7 | 23.1 |
| | 44 | 97.1 | 98.2 | 233.0 | 12.0 | 91.6 | 104.9 | 219.9 | 10.8 | 86.1 | 111.6 | 206.6 | 9.5 | 83.2 | 114.7 | 199.7 | 8.9 | 80.3 | 117.7 | 192.7 | 8.3 |
| | 6.7 | 341.5 | 98.2 | 14.7 | 35.9 | 322.3 | 104.9 | 13.9 | 32.1 | 302.7 | 111.6 | 13.0 | 28.5 | 292.7 | 114.7 | 12.6 | 26.7 | 282.4 | 117.7 | 12.2 | 24.9 |
| | 45 | 99.1 | 99.3 | 237.8 | 12.5 | 93.6 | 106.3 | 224.6 | 11.2 | 87.9 | 113.0 | 211.0 | 9.9 | 85.0 | 116.2 | 204.0 | 9.3 | 82.0 | 119.3 | 196.8 | 8.7 |
| 7.2 | 348.5 | 99.3 | 15.0 | 37.4 | 329.1 | 106.3 | 14.2 | 33.5 | 309.2 | 113.0 | 13.3 | 29.7 | 298.9 | 116.2 | 12.9 | 27.8 | 288.5 | 119.3 | 12.4 | 26.0 | |
| 6100 10.5 | 42 | 98.7 | 103.3 | 236.8 | 12.4 | 93.0 | 109.8 | 223.2 | 11.1 | 87.3 | 116.3 | 209.5 | 9.8 | 84.4 | 119.3 | 202.6 | 9.2 | 81.5 | 122.3 | 195.7 | 8.6 |
| | 5.6 | 347.0 | 103.3 | 14.9 | 37.1 | 327.1 | 109.8 | 14.1 | 33.1 | 307.0 | 116.3 | 13.2 | 29.3 | 296.9 | 119.3 | 12.8 | 27.4 | 286.8 | 122.3 | 12.3 | 25.7 |
| | 44 | 102.6 | 105.5 | 246.3 | 13.4 | 96.8 | 112.4 | 232.4 | 12.0 | 91.0 | 119.1 | 218.3 | 10.6 | 88.0 | 122.3 | 211.2 | 9.9 | 85.0 | 125.3 | 204.0 | 9.3 |
| | 6.7 | 360.9 | 105.5 | 15.5 | 40.0 | 340.6 | 112.4 | 14.7 | 35.8 | 320.0 | 119.1 | 13.8 | 31.7 | 309.5 | 122.3 | 13.3 | 29.7 | 298.9 | 125.3 | 12.9 | 27.8 |
| | 45 | 104.7 | 106.7 | 251.3 | 13.9 | 98.9 | 113.7 | 237.3 | 12.5 | 92.9 | 120.6 | 223.1 | 11.0 | 89.9 | 123.9 | 215.8 | 10.4 | 86.8 | 126.9 | 208.4 | 9.7 |
| 7.2 | 368.3 | 106.7 | 15.9 | 41.5 | 347.8 | 113.7 | 15.0 | 37.2 | 326.9 | 120.6 | 14.1 | 33.0 | 316.2 | 123.9 | 13.6 | 31.0 | 305.4 | 126.9 | 13.1 | 29.0 | |
| 6105 10.6 | 42 | 102.0 | 106.0 | 244.9 | 13.2 | 96.2 | 112.6 | 230.9 | 11.8 | 90.3 | 119.1 | 216.8 | 10.5 | 87.4 | 122.3 | 209.7 | 9.8 | 84.0 | 125.3 | 202.6 | 9.2 |
| | 5.6 | 358.9 | 106.0 | 15.5 | 39.5 | 338.4 | 112.6 | 14.6 | 35.3 | 317.7 | 119.1 | 13.7 | 31.3 | 307.3 | 122.3 | 13.2 | 29.3 | 297.0 | 125.3 | 12.8 | 27.4 |
| | 44 | 106.1 | 108.1 | 254.7 | 14.3 | 100.2 | 115.1 | 240.5 | 12.8 | 94.2 | 121.9 | 226.0 | 11.3 | 91.1 | 125.2 | 218.8 | 10.6 | 88.0 | 128.3 | 211.3 | 10.0 |
| | 6.7 | 373.3 | 108.1 | 16.1 | 42.6 | 352.4 | 115.1 | 15.2 | 38.2 | 331.3 | 121.9 | 14.3 | 33.9 | 320.6 | 125.2 | 13.8 | 31.8 | 309.7 | 128.3 | 13.3 | 29.8 |
| | 45 | 108.3 | 109.3 | 260.0 | 14.8 | 102.3 | 116.4 | 245.6 | 13.3 | 96.2 | 123.4 | 231.0 | 11.8 | 93.1 | 126.8 | 223.6 | 11.1 | 90.0 | 130.0 | 216.1 | 10.4 |
| 7.2 | 381.0 | 109.3 | 16.4 | 44.3 | 359.9 | 116.4 | 15.5 | 39.7 | 338.5 | 123.4 | 14.6 | 35.3 | 327.6 | 126.8 | 14.1 | 33.2 | 316.6 | 130.0 | 13.6 | 31.1 | |
| 6110 10.7 | 42 | 105.3 | 108.8 | 252.6 | 14.0 | 99.2 | 115.5 | 238.2 | 12.5 | 93.2 | 122.1 | 223.7 | 11.1 | 90.2 | 125.3 | 216.5 | 10.4 | 87.2 | 128.4 | 209.2 | 9.8 |
| | 5.6 | 370.2 | 108.8 | 15.9 | 42.0 | 349.1 | 115.5 | 15.0 | 37.5 | 327.8 | 122.1 | 14.1 | 33.2 | 317.2 | 125.3 | 13.7 | 31.2 | 306.6 | 128.4 | 13.2 | 29.2 |
| | 44 | 109.5 | 111.0 | 262.8 | 15.1 | 103.4 | 118.0 | 248.1 | 13.6 | 97.2 | 124.9 | 233.3 | 12.1 | 94.1 | 128.3 | 225.9 | 11.3 | 91.0 | 131.4 | 218.4 | 10.6 |
| | 6.7 | 385.1 | 111.0 | 16.6 | 45.2 | 363.6 | 118.0 | 15.7 | 40.3 | 341.9 | 124.9 | 14.7 | 36.0 | 331.0 | 128.3 | 14.3 | 33.8 | 320.1 | 131.4 | 13.8 | 31.7 |
| | 45 | 111.7 | 112.1 | 268.2 | 15.7 | 105.6 | 119.3 | 253.4 | 14.1 | 99.3 | 126.4 | 238.4 | 12.6 | 96.2 | 129.8 | 230.9 | 11.8 | 93.0 | 133.1 | 223.3 | 11.1 |
| 7.2 | 393.0 | 112.1 | 16.9 | 47.0 | 371.3 | 119.3 | 16.0 | 42.2 | 349.4 | 126.4 | 15.0 | 37.6 | 338.4 | 129.8 | 14.6 | 35.3 | 327.2 | 133.1 | 14.1 | 33.1 | |
| 6120 10.2 | 42 | 113.3 | 124.3 | 271.9 | 13.7 | 106.8 | 131.7 | 256.3 | 12.3 | 100.2 | 138.9 | 240.5 | 11.0 | 96.9 | 142.3 | 232.5 | 10.4 | 93.6 | 145.4 | 224.6 | 9.8 |
| | 5.6 | 398.4 | 124.3 | 17.2 | 41.0 | 375.5 | 131.7 | 16.2 | 36.8 | 352.4 | 138.9 | 15.2 | 32.9 | 340.8 | 142.3 | 14.7 | 31.1 | 329.1 | 145.4 | 14.2 | 29.3 |
| | 44 | 117.9 | 126.9 | 282.8 | 14.8 | 111.2 | 134.6 | 266.9 | 13.3 | 104.5 | 142.1 | 250.7 | 11.9 | 101.1 | 145.6 | 242.5 | 11.2 | 97.6 | 148.8 | 234.3 | 10.5 |
| | 6.7 | 414.5 | 126.9 | 17.8 | 44.3 | 391.1 | 134.6 | 16.8 | 39.6 | 367.4 | 142.1 | 15.8 | 35.4 | 355.4 | 145.6 | 15.3 | 33.4 | 343.4 | 148.8 | 14.8 | 31.5 |
| | 45 | 120.4 | 128.3 | 288.9 | 15.5 | 113.7 | 136.3 | 272.8 | 13.8 | 106.9 | 143.9 | 256.5 | 12.3 | 103.4 | 147.5 | 248.2 | 11.6 | 100.0 | 150.8 | 239.9 | 11.0 |
| 7.2 | 423.4 | 128.3 | 18.2 | 46.2 | 399.8 | 136.3 | 17.2 | 41.3 | 375.9 | 143.9 | 16.2 | 36.9 | 363.8 | 147.5 | 15.7 | 34.8 | 351.5 | 150.8 | 15.1 | 32.8 | |
| 6125 9.6 | 42 | 118.9 | 138.7 | 285.3 | 15.1 | 112.0 | 146.7 | 268.7 | 13.4 | 105.0 | 154.3 | 251.9 | 12.0 | 101.4 | 157.8 | 243.4 | 11.3 | 97.8 | 160.9 | 234.8 | 10.6 |
| | 5.6 | 418.1 | 138.7 | 18.0 | 45.0 | 393.8 | 146.7 | 17.0 | 40.1 | 369.1 | 154.3 | 15.9 | 35.7 | 356.7 | 157.8 | 15.4 | 33.6 | 344.1 | 160.9 | 14.8 | 31.6 |
| | 44 | 123.6 | 141.7 | 296.6 | 16.3 | 116.5 | 150.0 | 279.7 | 14.5 | 109.3 | 157.8 | 262.4 | 12.9 | 105.7 | 161.4 | 253.7 | 12.1 | 102.0 | 164.6 | 244.9 | 11.4 |
| | 6.7 | 434.7 | 141.7 | 18.7 | 48.8 | 409.8 | 150.0 | 17.6 | 43.3 | 384.5 | 157.8 | 16.6 | 38.4 | 371.8 | 161.4 | 16.0 | 36.2 | 358.9 | 164.6 | 15.5 | 34.0 |
| | 45 | 126.2 | 143.3 | 302.9 | 17.0 | 119.1 | 151.8 | 285.7 | 15.1 | 111.8 | 159.8 | 268.3 | 13.4 | 108.1 | 163.4 | 259.5 | 12.6 | 104.4 | 166.6 | 250.7 | 11.8 |
| 7.2 | 443.8 | 143.3 | 19.1 | 51.0 | 418.7 | 151.8 | 18.0 | 45.2 | 393.2 | 159.8 | 16.9 | 40.0 | 380.3 | 163.4 | 16.4 | 37.7 | 367.3 | 166.6 | 15.8 | 35.4 | |
| 6135 10.6 | 42 | 127.0 | 129.6 | 304.9 | 10.2 | 119.7 | 138.3 | 287.3 | 9.1 | 112.3 | 146.8 | 269.4 | 8.1 | 108.5 | 150.9 | 260.4 | 7.5 | 104.7 | 154.7 | 251.2 | 7.0 |
| | 5.6 | 446.8 | 129.6 | 19.2 | 30.5 | 421.0 | 138.3 | 18.1 | 27.3 | 394.9 | 146.8 | 17.0 | 24.1 | 381.6 | 150.9 | 16.4 | 22.5 | 368.1 | 154.7 | 15.8 | 20.9 |
| | 44 | 132.5 | 132.7 | 318.0 | 11.0 | 125.0 | 141.9 | 300.0 | 9.9 | 117.3 | 150.8 | 281.5 | 8.8 | 113.4 | 155.0 | 272.1 | 8.2 | 109.4 | 158.9 | 262.4 | 7.7 |
| | 6.7 | 466.1 | 132.7 | 20.1 | 33.0 | 439.6 | 141.9 | 18.9 | 29.6 | 412.6 | 150.8 | 17.8 | 26.2 | 398.7 | 155.0 | 17.2 | 24.6 | 384.6 | 158.9 | 16.6 | 22.9 |
| | 45 | 135.3 | 134.3 | 324.8 | 11.5 | 127.7 | 143.7 | 306.5 | 10.3 | 119.9 | 152.8 | 287.8 | 9.2 | 115.9 | 157.0 | 278.1 | 8.6 | 111.8 | 161.0 | 268.2 | 8.0 |
| 7.2 | 476.1 | 134.3 | 20.5 | 34.3 | 449.2 | 143.7 | 19.3 | 30.8 | 421.7 | 152.8 | 18.2 | 27.4 | 407.6 | 157.0 | 17.5 | 25.6 | 393.1 | 161.0 | 16.9 | 23.9 | |
| 6140 10.5 | 42 | 132.0 | 136.7 | 316.8 | 11.0 | 124.4 | 145.8 | 298.6 | 9.8 | 116.7 | 154.8 | 280.2 | 8.7 | 112.8 | 159.0 | 270.8 | 8.1 | 108.9 | 163.1 | 261.3 | 7.6 |
| | 5.6 | 464.3 | 136.7 | 20.0 | 32.8 | 437.6 | 145.8 | 18.8 | 29.4 | 410.6 | 154.8 | 17.7 | 26.0 | 396.9 | 159.0 | 17.1 | 24.3 | 383.0 | 163.1 | 16.5 | 22.7 |
| | 44 | 137.6 | 140.0 | 330.3 | 11.8 | 129.9 | 149.6 | 311.6 | 10.6 | 121.9 | 158.9 | 292.6 | 9.4 | 117.8 | 163.3 | 282.8 | 8.9 | 113.7 | 167.5 | 272.9 | 8.3 |
| | 6.7 | 484.1 | 140.0 | 20.8 | 35.4 | 456.7 | 149.6 | 19.7 | 31.8 | 428.8 | 158.9 | 18.5 | 28.2 | 414.5 | 163.3 | 17.8 | 26.5 | 399.9 | 167.5 | 17.2 | 24.7 |
| | 45 | 140.6 | 141.7 | 337.3 | 12.3 | 132.7 | 151.5 | 318.4 | 11.1 | 124.6 | 161.0 | 299.0 | 9.8 | 120.4 | 165.5 | 289.0 | 9.2 | 116.2 | 169.7 | 278.8 | 8.6 |
| 7.2 | 494.3 | 141.7 | 21.3 | 36.8 | 466.6 | 151.5 | 20.1 | 33.1 | 438.1 | 161.0 | 18.9 | 29.4 | 423.5 | 165.5 | 18.2 | 27.6 | 408.6 | 169.7 | 17.6 | 25.8 | |
| 6145 10.5 | 42 | 137.8 | 142.7 | 330.6 | 11.9 | 129.9 | 152.3 | 311.8 | 10.6 | 122.0 | 161.7 | 292.8 | 9.5 | 118.0 | 166.2 | 283.1 | 8.9 | 113.9 | 170.5 | 273.4 | 8.3 |
| | 5.6 | 484.5 | 142.7 | 20.9 | 35.4 | 457.0 | 152.3 | 19.7 | 31.8 | 429.0 | 161.7 | 18.5 | 28.3 | 414.9 | 166.2 | 17.9 | 26.5 | 400.6 | 170.5 | 17.2 | 24.8 |
| | 44 | 143.6 | 146.1 | 344.6 | 12.8 | 135.6 | 156.1 | 325.3 | 11.5 | 127.4 | 166.0 | 305.7 | 10.3 | 123.2 | 170.7 | 295.6 | 9.6 | 1 | | | |

SKM Air Cooled Packaged Chillers APCX Series - R134a

CAPACITY RATINGS - 60 HZ

| Model | LCWT | Condenser Entering Air Temperature °F (°C) | | | | | | | | | | | | | | | | | | | | |
|-------|-------|--|----------------|---------------------|--------------------|------------------|----------------|---------------------|--------------------|------------------|----------------|---------------------|--------------------|------------------|----------------|---------------------|--------------------|------------------|----------------|---------------------|--------------------|------|
| | | 95 °F (35 °C) | | | | 105 °F (40.6 °C) | | | | 115 °F (46.1 °C) | | | | 120 °F (48.9 °C) | | | | 125 °F (51.7 °C) | | | | |
| | | TR °F °C | PI kW kW | WFR USgpm l/s | WPD ftwg kPa | TR kW kW | PI kW kW | WFR USgpm l/s | WPD ftwg kPa | TR kW kW | PI kW kW | WFR USgpm l/s | WPD ftwg kPa | TR kW kW | PI kW kW | WFR USgpm l/s | WPD ftwg kPa | TR kW kW | PI kW kW | WFR USgpm l/s | WPD ftwg kPa | |
| 6150 | 10.4 | 42 | 142.9 | 149.9 | 343.1 | 12.7 | 134.8 | 159.5 | 323.5 | 11.4 | 126.5 | 169.0 | 303.7 | 10.1 | 122.4 | 173.6 | 293.8 | 9.5 | 118.2 | 178.0 | 283.7 | 8.9 |
| | | 5.6 | 502.7 | 149.9 | 21.6 | 37.9 | 474.1 | 159.5 | 20.4 | 34.1 | 445.1 | 169.0 | 19.2 | 30.3 | 430.5 | 173.6 | 18.5 | 28.5 | 415.8 | 178.0 | 17.9 | 26.6 |
| | | 44 | 149.0 | 153.4 | 357.7 | 13.7 | 140.7 | 163.5 | 337.6 | 12.3 | 132.2 | 173.4 | 317.2 | 11.0 | 127.9 | 178.2 | 306.9 | 10.3 | 123.5 | 182.7 | 296.4 | 9.7 |
| | | 6.7 | 524.1 | 153.4 | 22.6 | 40.9 | 494.8 | 163.5 | 21.3 | 36.8 | 464.9 | 173.4 | 20.0 | 32.9 | 449.7 | 178.2 | 19.4 | 30.9 | 434.4 | 182.7 | 18.7 | 28.9 |
| | | 45 | 152.2 | 155.1 | 365.2 | 14.2 | 143.7 | 165.5 | 344.9 | 12.8 | 135.1 | 175.7 | 324.2 | 11.4 | 130.7 | 180.5 | 313.7 | 10.8 | 126.2 | 185.1 | 302.9 | 10.1 |
| 7.2 | 535.2 | 155.1 | 23.0 | 42.5 | 505.4 | 165.5 | 21.8 | 38.3 | 475.1 | 175.7 | 20.5 | 34.2 | 459.7 | 180.5 | 19.8 | 32.2 | 443.9 | 185.1 | 19.1 | 30.2 | | |
| 48 | 161.8 | 160.6 | 388.4 | 15.9 | 153.0 | 171.7 | 367.2 | 14.4 | 143.9 | 182.4 | 345.4 | 12.8 | 139.2 | 187.5 | 334.2 | 12.1 | 134.4 | 192.3 | 322.6 | 11.3 | | |
| 8.9 | 569.2 | 160.6 | 24.5 | 47.5 | 538.2 | 171.7 | 23.2 | 42.9 | 506.2 | 182.4 | 21.8 | 38.4 | 489.8 | 187.5 | 21.1 | 36.2 | 472.8 | 192.3 | 20.4 | 33.9 | | |
| 6155 | 10.4 | 42 | 145.5 | 153.5 | 349.1 | 13.1 | 137.2 | 163.2 | 329.2 | 11.8 | 128.8 | 172.7 | 309.1 | 10.5 | 124.6 | 177.3 | 299.0 | 9.8 | 120.3 | 181.7 | 288.8 | 9.2 |
| | | 5.6 | 511.6 | 153.5 | 22.0 | 39.2 | 482.4 | 163.2 | 20.8 | 35.2 | 452.9 | 172.7 | 19.5 | 31.3 | 438.1 | 177.3 | 18.9 | 29.4 | 423.3 | 181.7 | 18.2 | 27.6 |
| | | 44 | 151.7 | 157.0 | 364.0 | 14.1 | 143.2 | 167.2 | 343.6 | 12.7 | 134.5 | 177.2 | 322.9 | 11.4 | 130.2 | 181.9 | 312.4 | 10.7 | 125.7 | 186.5 | 301.8 | 10.0 |
| | | 6.7 | 533.4 | 157.0 | 23.0 | 42.2 | 503.5 | 167.2 | 21.7 | 38.0 | 473.2 | 177.2 | 20.4 | 33.9 | 457.8 | 181.9 | 19.7 | 31.9 | 442.3 | 186.5 | 19.0 | 29.9 |
| | | 45 | 154.9 | 158.8 | 371.7 | 14.7 | 146.3 | 169.2 | 351.0 | 13.2 | 137.5 | 179.4 | 330.0 | 11.8 | 133.1 | 184.3 | 319.3 | 11.1 | 128.5 | 188.9 | 308.5 | 10.4 |
| 7.2 | 544.7 | 158.8 | 23.4 | 43.9 | 514.4 | 169.2 | 22.1 | 39.5 | 483.6 | 179.4 | 20.8 | 35.3 | 468.0 | 184.3 | 20.1 | 33.3 | 452.1 | 188.9 | 19.5 | 31.2 | | |
| 48 | 164.7 | 164.3 | 395.3 | 16.4 | 155.8 | 175.4 | 373.8 | 14.8 | 146.6 | 186.3 | 351.7 | 13.3 | 141.8 | 191.4 | 340.4 | 12.5 | 137.0 | 196.2 | 328.7 | 11.7 | | |
| 8.9 | 579.4 | 164.3 | 24.9 | 49.1 | 547.8 | 175.4 | 23.6 | 44.3 | 515.5 | 186.3 | 22.2 | 39.7 | 498.8 | 191.4 | 21.5 | 37.4 | 481.7 | 196.2 | 20.7 | 35.1 | | |
| 6160 | 10.5 | 42 | 151.9 | 158.9 | 364.7 | 14.2 | 143.3 | 168.7 | 343.9 | 12.7 | 134.6 | 178.4 | 323.0 | 11.4 | 130.2 | 183.1 | 312.6 | 10.7 | 125.9 | 187.6 | 302.1 | 10.0 |
| | | 5.6 | 534.4 | 158.9 | 23.0 | 42.4 | 504.0 | 168.7 | 21.7 | 38.1 | 473.4 | 178.4 | 20.4 | 34.0 | 458.1 | 183.1 | 19.7 | 32.0 | 442.8 | 187.6 | 19.1 | 30.0 |
| | | 44 | 158.5 | 162.3 | 380.3 | 15.3 | 149.6 | 172.6 | 359.1 | 13.8 | 140.7 | 182.9 | 337.7 | 12.3 | 136.2 | 187.8 | 326.9 | 11.6 | 131.7 | 192.4 | 316.1 | 10.9 |
| | | 6.7 | 557.4 | 162.3 | 24.0 | 45.8 | 526.3 | 172.6 | 22.7 | 41.2 | 494.9 | 182.9 | 21.3 | 36.9 | 479.1 | 187.8 | 20.6 | 34.7 | 463.2 | 192.4 | 19.9 | 32.6 |
| | | 45 | 161.8 | 164.1 | 388.4 | 15.9 | 152.9 | 174.7 | 367.0 | 14.3 | 143.9 | 185.1 | 345.3 | 12.8 | 139.3 | 190.1 | 334.3 | 12.1 | 134.7 | 194.9 | 323.2 | 11.4 |
| 7.2 | 569.2 | 164.1 | 24.5 | 47.5 | 537.8 | 174.7 | 23.2 | 42.9 | 506.0 | 185.1 | 21.8 | 38.4 | 489.9 | 190.1 | 21.1 | 36.2 | 473.7 | 194.9 | 20.4 | 34.0 | | |
| 48 | 172.2 | 169.4 | 413.3 | 17.8 | 162.9 | 180.8 | 391.1 | 16.1 | 153.5 | 191.9 | 368.4 | 14.4 | 148.7 | 197.3 | 356.8 | 13.6 | 143.7 | 202.3 | 345.0 | 12.8 | | |
| 8.9 | 605.7 | 169.4 | 26.1 | 53.2 | 573.1 | 180.8 | 24.7 | 48.1 | 539.9 | 191.9 | 23.2 | 43.2 | 522.9 | 197.3 | 22.5 | 40.7 | 505.6 | 202.3 | 21.8 | 38.3 | | |
| 6165 | 10.8 | 42 | 160.8 | 164.7 | 386.0 | 11.1 | 151.7 | 174.9 | 364.1 | 10.0 | 142.5 | 185.0 | 342.0 | 8.9 | 137.9 | 189.9 | 330.9 | 8.3 | 133.3 | 194.5 | 319.8 | 7.8 |
| | | 5.6 | 565.7 | 164.7 | 24.4 | 33.2 | 533.5 | 174.9 | 23.0 | 29.8 | 501.1 | 185.0 | 21.6 | 26.5 | 484.9 | 189.9 | 20.9 | 24.9 | 468.7 | 194.5 | 20.2 | 23.4 |
| | | 44 | 167.4 | 168.0 | 401.8 | 12.0 | 158.1 | 178.8 | 379.5 | 10.8 | 148.7 | 189.4 | 356.9 | 9.6 | 144.0 | 194.5 | 345.5 | 9.0 | 139.2 | 199.3 | 334.1 | 8.5 |
| | | 6.7 | 588.9 | 168.0 | 25.4 | 35.8 | 556.2 | 178.8 | 23.9 | 32.2 | 523.1 | 189.4 | 22.5 | 28.7 | 506.4 | 194.5 | 21.8 | 27.0 | 489.6 | 199.3 | 21.1 | 25.4 |
| | | 45 | 171.0 | 169.8 | 410.4 | 12.5 | 161.6 | 180.8 | 387.9 | 11.2 | 152.1 | 191.7 | 365.1 | 10.0 | 147.3 | 196.9 | 353.5 | 9.4 | 142.4 | 201.9 | 341.8 | 8.9 |
| 7.2 | 601.4 | 169.8 | 25.9 | 37.3 | 568.4 | 180.8 | 24.5 | 33.5 | 535.0 | 191.7 | 23.0 | 29.9 | 518.1 | 196.9 | 22.3 | 28.2 | 500.9 | 201.9 | 21.6 | 26.5 | | |
| 48 | 183.4 | 175.9 | 440.3 | 14.2 | 173.9 | 188.0 | 417.3 | 12.9 | 164.0 | 199.9 | 393.7 | 11.5 | 159.0 | 205.5 | 381.5 | 10.9 | 153.8 | 210.8 | 369.1 | 10.2 | | |
| 8.9 | 645.2 | 175.9 | 27.8 | 42.5 | 611.5 | 188.0 | 26.3 | 38.4 | 576.9 | 199.9 | 24.8 | 34.5 | 559.2 | 205.5 | 24.1 | 32.5 | 541.0 | 210.8 | 23.3 | 30.5 | | |
| 6175 | 10.4 | 42 | 166.8 | 179.1 | 400.3 | 11.9 | 157.2 | 189.9 | 377.3 | 10.6 | 147.6 | 200.5 | 354.1 | 9.5 | 142.7 | 205.5 | 342.5 | 8.9 | 137.9 | 210.2 | 330.9 | 8.3 |
| | | 5.6 | 586.6 | 179.1 | 25.3 | 35.6 | 553.0 | 189.9 | 23.8 | 31.8 | 519.0 | 200.5 | 22.3 | 28.3 | 501.9 | 205.5 | 21.6 | 26.6 | 484.9 | 210.2 | 20.9 | 24.9 |
| | | 44 | 173.6 | 182.8 | 416.5 | 12.8 | 163.8 | 194.1 | 393.1 | 11.5 | 153.9 | 205.1 | 369.4 | 10.2 | 148.9 | 210.3 | 357.5 | 9.6 | 143.9 | 215.2 | 345.4 | 9.0 |
| | | 6.7 | 610.4 | 182.8 | 26.3 | 38.3 | 576.1 | 194.1 | 24.8 | 34.4 | 541.4 | 205.1 | 23.3 | 30.6 | 523.9 | 210.3 | 22.6 | 28.8 | 506.2 | 215.2 | 21.8 | 27.0 |
| | | 45 | 177.2 | 184.8 | 425.3 | 13.3 | 167.3 | 196.4 | 401.6 | 12.0 | 157.4 | 207.6 | 377.7 | 10.7 | 152.3 | 212.9 | 365.6 | 10.0 | 147.2 | 217.9 | 353.4 | 9.4 |
| 7.2 | 623.2 | 184.8 | 26.8 | 39.8 | 588.6 | 196.4 | 25.3 | 35.8 | 553.5 | 207.6 | 23.8 | 31.9 | 535.8 | 212.9 | 23.1 | 30.0 | 517.8 | 217.9 | 22.3 | 28.2 | | |
| 48 | 189.8 | 191.6 | 455.6 | 15.2 | 179.8 | 204.2 | 431.5 | 13.7 | 169.5 | 216.3 | 406.7 | 12.3 | 164.2 | 221.9 | 394.1 | 11.6 | 158.9 | 227.2 | 381.3 | 10.9 | | |
| 8.9 | 667.7 | 191.6 | 28.7 | 45.4 | 632.3 | 204.2 | 27.2 | 41.0 | 596.1 | 216.3 | 25.7 | 36.6 | 577.6 | 221.9 | 24.9 | 34.5 | 558.8 | 227.2 | 24.1 | 32.5 | | |
| 6180 | 10.0 | 42 | 172.5 | 193.5 | 414.1 | 12.7 | 162.6 | 204.9 | 390.1 | 11.3 | 152.5 | 215.9 | 365.9 | 10.1 | 147.4 | 221.0 | 353.7 | 9.4 | 142.3 | 225.7 | 341.4 | 8.8 |
| | | 5.6 | 606.8 | 193.5 | 26.1 | 37.9 | 571.7 | 204.9 | 24.6 | 33.9 | 536.2 | 215.9 | 23.1 | 30.0 | 518.3 | 221.0 | 22.3 | 28.2 | 500.4 | 225.7 | 21.5 | 26.4 |
| | | 44 | 179.5 | 197.6 | 430.7 | 13.7 | 169.3 | 209.5 | 406.2 | 12.2 | 158.9 | 220.9 | 381.4 | 10.9 | 153.7 | 226.1 | 368.9 | 10.2 | 148.5 | 231.0 | 356.3 | 9.6 |
| | | 6.7 | 631.2 | 197.6 | 27.2 | 40.8 | 595.3 | 209.5 | 25.6 | 36.6 | 559.0 | 220.9 | 24.1 | 32.5 | 540.7 | 226.1 | 23.3 | 30.5 | 522.2 | 231.0 | 22.5 | 28.6 |
| | | 45 | 183.2 | 199.8 | 439.6 | 14.2 | 172.9 | 211.9 | 414.9 | 12.7 | 162.4 | 223.5 | 389.8 | 11.3 | 157.2 | 228.9 | 377.2 | 10.6 | 151.9 | 233.8 | 364.4 | 10.0 |
| 7.2 | 644.2 | 199.8 | 27.7 | 42.4 | 608.0 | 211.9 | 26.2 | 38.0 | 571.3 | 223.5 | 24.6 | 33.8 | 552.8 | 228.9 | 23.8 | 31.8 | 534.1 | 233.8 | 23.0 | 29.8 | | |
| 48 | 196.0 | 207.2 | 470.4 | 16.1 | 185.5 | 220.3 | 445.1 | 14.5 | 174.7 | 232.6 | 419.3 | 13.0 | 169.3 | 238.3 | 406.2 | 12.2 | 163.8 | 243.4 | 393.0 | 11.5 | | |
| 8.9 | 689.3 | 207.2 | 29.7 | 48.2 | 652.3 | 220.3 | 28.1 | 43.4 | 614.5 | 232.6 | 26.5 | 38.8 | 595.3 | 238.3 | 25.6 | 36.6 | 576.0 | 243.4 | 24.8 | 34.4 | | |
| 6185 | 9.6 | 42 | 178.1 | 207.9 | 427.4 | 13.5 | 167.7 | 219.9 | 402.5 | 12.0 | 157.2 | 231.3 | 377.2 | 10.6 | 151.9 | 236.5 | 364.5 | 10.0 | 146.5 | 241.2 | 351.6 | 9.3 |
| | | 5.6 | 626.4 | 207.9 | 27.0 | 40.2 | 589.9 | 219.9 | 25.4 | 35.9 | 552.8 | 231.3 | 23.8 | 31.8 | 534.1 | 236.5 | 23.0 | 29.8 | 515.3 | 241.2 | 22.2 | 27.9 |
| | | 44 | 185.1 | 212.4 | 444.3 | 14.5 | 174.5 | 224.9 | 418.9 | 13.0 | 163.8 | 236.6 | 393.0 | 11.5 | 158.3 | 241.9 | 380.0 | 10.8 | 152.8 | 246.6 | 366.8 | 10.1 |
| | | 6.7 | 651.2 | 212.4 | 28.0 | 43.3 | 613.9 | 224.9 | 26.4 | 38.7 | 576.0 | 236.6 | 24.8 | 34.4 | 556.8 | 241.9 | 24.0 | 32.2 | 537.6 | 246.6 | 23.1 | 30.2 |
| | | 45 | 188.9 | 214.7 | 453.4 | 15.0 | 178.2 | 227.5 | 427.7 | 13.5 | 167.3 | 239.4 | 401.6 | 12.0 | 161.8 | 244.7 | 388.4 | 11.2 | 156.3 | 249.6 | 375.1 | 10.5 |
| 7.2 | 664.4 | 214.7 | 28.6 | 45.0 | 626.8 | 227.5 | 27.0 | 40.3 | 588.5 | 239.4 | 25.3 | 35.8 | 569.2 | 244.7 | 24.5 | 33.6 | 549.7 | 249.6 | 23.7 | 31.5 | | |
| 48 | 201.9 | 222.8 | 484.5 | 17.1 | 190.9 | 236.4 | 458.2 | 15.4 | 179.8 | 248.9 | 431.4 | 13.7 | 174.1 | 254.5 | 417.9 | 12.9 | 168.5 | 259.5 | 404.3 | 12.1 | | |
| 8.9 | 710.1 | 222.8 | 30.6 | 51.0 | 671.5 | 236.4 | 28.9 | 45.9 | 632.2 | 248.9 | 27.2 | 40.9 | 612.4 | 254.5 | 26.4 | 38.6 | 592 | | | | | |

SKM Air Cooled Packaged Chillers

APCX Series - R134a

CAPACITY RATINGS - 60 HZ

| Model | LCWT | Condenser Entering Air Temperature °F (°C) | | | | | | | | | | | | | | | | | | | |
|-------|------|--|----|-------|------|------------------|----|-------|------|------------------|----|-------|------|------------------|----|-------|------|------------------|----|-------|------|
| | | 95 °F (35 °C) | | | | 105 °F (40.6 °C) | | | | 115 °F (46.1 °C) | | | | 120 °F (48.9 °C) | | | | 125 °F (51.7 °C) | | | |
| | | CCap | PI | WFR | WPD | CCap | PI | WFR | WPD | CCap | PI | WFR | WPD | CCap | PI | WFR | WPD | CCap | PI | WFR | WPD |
| APCX | °F | TR | kW | USgpm | ftwg | TR | kW | USgpm | ftwg | TR | kW | USgpm | ftwg | TR | kW | USgpm | ftwg | TR | kW | USgpm | ftwg |
| EER | °C | kW | kW | l/s | kPa | kW | kW | l/s | kPa | kW | kW | l/s | kPa | kW | kW | l/s | kPa | kW | kW | l/s | kPa |

Table 4 ends

- For legend, see page 2.
- Capacity ratings are based on 10 °F (5.5 °C) range and 0.0001 ft².h°F/Btu (0.018m².°C/kW) fouling factor.



SKM Air Cooled Packaged Chillers APCX Series - R134a

Compressor Starting

All chillers with standard DOL start compressors are shown, do not, generally require part winding start due to the use of multiple compressors allowing smaller electrical load increments. ICF as shown on electrical specifications, page 26-30, must be used in determining the need of such part winding start.

Cases where two values of ICF (DOL & PWS) are shown in electrical specifications, the unit will be supplied with DOL as standard and PWS as optional. For cases where only one value is shown the unit will be supplied, as standard, either DOL or PWS.

| MODELS USING COMPRESSORS | POWER SUPPLY | STANDARD COMPRESSOR STARTING |
|---------------------------|--------------------------|------------------------------|
| | V / Ph / Hz | |
| D35X, D40X D40X + D50X | 380-415/3/50 380/3/60 | DOL |
| D50X, D60X | 440/3/50 460/3/60 | PWS |
| D35X, D40X, D50X, D60X | 220/3/60 | PWS |

Table 5

Capacity Control Steps

| APCX Model | | Standard Capacity Steps % | Optional Capacity Steps | |
|------------|------|--|--|--|
| | | | CRS 1 | CRS 2 |
| 5035 | 6040 | 100 - 50 - 0 | 100 - 83 - 50 - 33 - 0 | 100 - 83 - 67 - 50 - 33 - 17 - 0 |
| 5040 | 6045 | 100 - 50 - 0 | 100 - 83 - 50 - 33 - 0 | 100 - 83 - 67 - 50 - 33 - 17 - 0 |
| 5045 | 6055 | 100 - 50 - 0 | 100 - 88 - 50 - 38 - 0 | 100 - 88 - 75 - 50 - 38 - 25 - 0 |
| 5050 | 6060 | 100 - 50 - 0 | 100 - 88 - 50 - 38 - 0 | 100 - 88 - 75 - 50 - 38 - 25 - 0 |
| 5055 | 6065 | 100 - 68 - 36 - 0 | 100 - 68 - 36 - 24 - 0 | 100 - 89 - 68 - 57 - 36 - 24 - 0 |
| 5060 | 6070 | 100 - 67 - 33 - 0 | 100 - 67 - 33 - 22 - 0 | 100 - 89 - 67 - 56 - 33 - 22 - 0 |
| 5065 | 6080 | 100 - 69 - 35 - 0 | 100 - 69 - 35 - 26 - 0 | 100 - 90 - 69 - 61 - 35 - 26 - 0 |
| 5070 | 6085 | 100 - 67 - 33 - 0 | 100 - 67 - 33 - 25 - 0 | 100 - 92 - 67 - 58 - 33 - 25 - 0 |
| 5075 | 6090 | 100 - 69 - 34 - 0 | 100 - 69 - 34 - 26 - 0 | 100 - 92 - 69 - 60 - 34 - 26 - 0 |
| 5080 | 6095 | 100 - 75 - 50 - 25 - 0 | 100 - 75 - 50 - 42 - 25 - 17 - 0 | 100 - 92 - 75 - 67 - 50 - 42 - 25 - 17 - 0 |
| 5085 | 6100 | 100 - 77 - 53 - 27 - 0 | 100 - 77 - 53 - 46 - 27 - 20 - 0 | 100 - 92 - 77 - 69 - 53 - 46 - 27 - 20 - 0 |
| 5090 | 6105 | 100 - 77 - 51 - 26 - 0 | 100 - 77 - 51 - 45 - 26 - 19 - 0 | 100 - 92 - 77 - 71 - 51 - 45 - 26 - 19 - 0 |
| 5095 | 6110 | 100 - 75 - 50 - 25 - 0 | 100 - 75 - 50 - 44 - 25 - 19 - 0 | 100 - 94 - 75 - 69 - 50 - 44 - 25 - 19 - 0 |
| 5100 | 6120 | 100 - 76 - 53 - 26 - 0 | 100 - 76 - 53 - 46 - 26 - 20 - 0 | 100 - 94 - 76 - 70 - 53 - 46 - 26 - 20 - 0 |
| 5105 | 6125 | 100 - 75 - 50 - 25 - 0 | 100 - 75 - 50 - 44 - 25 - 19 - 0 | 100 - 94 - 75 - 69 - 50 - 44 - 25 - 19 - 0 |
| 5110 | 6135 | 100 - 84 - 68 - 52 - 36 - 18 - 0 | 100 - 84 - 68 - 52 - 36 - 30 - 18 - 12 - 0 | Nil |
| 5115 | 6140 | 100 - 85 - 69 - 52 - 35 - 17 - 0 | 100 - 85 - 69 - 52 - 35 - 29 - 17 - 12 - 0 | Nil |
| 5120 | 6145 | 100 - 83 - 67 - 50 - 33 - 17 - 0 | 100 - 83 - 67 - 50 - 33 - 28 - 17 - 11 - 0 | Nil |
| 5125 | 6150 | 100 - 84 - 68 - 52 - 36 - 18 - 0 | 100 - 84 - 68 - 52 - 36 - 32 - 18 - 14 - 0 | Nil |
| 5135 | 6155 | 100 - 84 - 69 - 53 - 35 - 18 - 0 | 100 - 84 - 69 - 53 - 35 - 31 - 18 - 13 - 0 | Nil |
| 5140 | 6160 | 100 - 85 - 68 - 51 - 34 - 17 - 0 | 100 - 85 - 68 - 51 - 34 - 30 - 17 - 13 - 0 | Nil |
| 5145 | 6165 | 100 - 83 - 67 - 50 - 33 - 17 - 0 | 100 - 83 - 67 - 50 - 33 - 29 - 17 - 13 - 0 | Nil |
| 5150 | 6175 | 100 - 84 - 68 - 52 - 36 - 18 - 0 | 100 - 84 - 68 - 52 - 36 - 31 - 18 - 13 - 0 | Nil |
| 5155 | 6180 | 100 - 84 - 69 - 52 - 34 - 17 - 0 | 100 - 84 - 69 - 52 - 34 - 30 - 17 - 13 - 0 | Nil |
| 5160 | 6185 | 100 - 83 - 67 - 50 - 33 - 17 - 0 | 100 - 83 - 67 - 50 - 33 - 29 - 17 - 13 - 0 | Nil |
| 5165 | 6190 | 100 - 88 - 75 - 63 - 50 - 38 - 25 - 13 - 0 | Nil | Nil |
| 5170 | 6195 | 100 - 88 - 76 - 64 - 52 - 39 - 26 - 14 - 0 | Nil | Nil |
| 5175 | 6200 | 100 - 88 - 77 - 65 - 53 - 40 - 27 - 13 - 0 | Nil | Nil |
| 5185 | 6210 | 100 - 89 - 76 - 64 - 51 - 39 - 26 - 13 - 0 | Nil | Nil |
| 5190 | 6215 | 100 - 88 - 75 - 63 - 50 - 38 - 25 - 13 - 0 | Nil | Nil |
| 5195 | 6230 | 100 - 88 - 76 - 63 - 51 - 39 - 26 - 13 - 0 | Nil | Nil |
| 5200 | 6235 | 100 - 88 - 76 - 64 - 53 - 39 - 26 - 13 - 0 | Nil | Nil |
| 5205 | 6240 | 100 - 88 - 76 - 64 - 51 - 38 - 26 - 13 - 0 | Nil | Nil |
| 5210 | 6245 | 100 - 88 - 75 - 63 - 50 - 38 - 25 - 13 - 0 | Nil | Nil |

Table 6

SKM Air Cooled Packaged Chillers APCX Series - R134a

Capacity Correction & Limits

Evaporator Chiller Limits of Operation

Maximum LCWT : 60°F (15.6°C)
 Maximum ECWT : 76°F (24.4°C)*
 Minimum LCWT : 40°F (4.5°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 23.

Working & Test Pressures

| Evaporator Pressure | | Refrigerant | Water |
|--------------------------|------|-------------|-------|
| Maximum Working Pressure | psig | 232.8 | 232 |
| | kPa | 1605 | 1600 |
| Test Pressure | psig | 334.3 | 333.6 |
| | kPa | 2305 | 2300 |

Table 7

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

Table 8

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 9

*Standard fouling factor, as per ARI 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 10

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 11

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 12

SKM Air Cooled Packaged Chillers APCX Series - R134a

Selection Procedure

APCX 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 102.0 TR to cool water from 56 °F to 44 °F at 2000 ft. altitude, 0.00075 fouling factor, power supply 415V/3Ph/50Hz and 115 °F 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 |
|----------------|---------------------|------------------|
| Range (12 °F) | 1.005 | 1.002 |
| Altitude | 0.99 | 1.01 |
| Fouling Factor | 0.965 | 0.985 |

$$\begin{aligned} \text{Tabulated rated capacity} &= \frac{102}{1.005 \times 0.99 \times 0.965} \\ &= 106.2 \text{ TR} \end{aligned}$$

Refer to capacity rating 50Hz under 115 °F condenser entering air temperature and select a chiller giving a capacity nearest larger to 106.2 at 44 °F LCWT. Select model APCX 5120 giving a capacity of 108.5 TR and PI = 137.2 kW.

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

$$\begin{aligned} \text{Capacity} &= 108.5 \times 1.005 \times 0.99 \times 0.965 \\ &= 104.2 \text{ TR} \\ \text{P I} &= 137.2 \times 1.002 \times 1.01 \times 0.985 \\ &= 136.8 \text{ kW} \end{aligned}$$

Calculation of Water Flow Rate (WFR)

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

$$\begin{aligned} \text{WFR (US gpm)} &= \frac{\text{C.CAP (TR)} \times 24}{\text{Range (°F)}} \\ &= \frac{104.2 \times 24}{12} = 208.4 \text{ US gpm} \end{aligned}$$

Determine the pressure drop from chart on Page 23, using 208.4 gpm, pressure drop reading is 8.5 ft wg.

Example 2: (SI System)

Select an Air Cooled Package Chiller giving a capacity of 390 kW of refrigeration to cool water from 14.5 °C to 6.7 °C at 610M altitude, 0.132 fouling factor, power supply 380V/3Ph/60Hz and 40 °C 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 |
|----------------|---------------------|------------------|
| Range (7.8 °C) | 1.010 | 1.004 |
| Altitude | 0.99 | 1.01 |
| Fouling Factor | 0.965 | 0.985 |

$$\begin{aligned} \text{Tabulated rated capacity} &= \frac{390}{1.01 \times 0.99 \times 0.965} \\ &= 404.2 \text{ kW} \end{aligned}$$

Refer to capacity rating 60Hz under 40 °C condenser entering air temperature and select a chiller giving a capacity nearest larger to 404.2 at 6.7 °C LCWT. Select model APCX 6125 giving a capacity of 409.8 kW and PI = 150.0 kW.

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

$$\begin{aligned} \text{Capacity} &= 409.8 \times 1.01 \times 0.99 \times 0.965 \\ &= 395.4 \text{ kW} \\ \text{P I} &= 150.0 \times 1.004 \times 1.01 \times 0.985 \\ &= 149.8 \text{ kW} \end{aligned}$$

Calculation of Water Flow Rate (WFR)

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

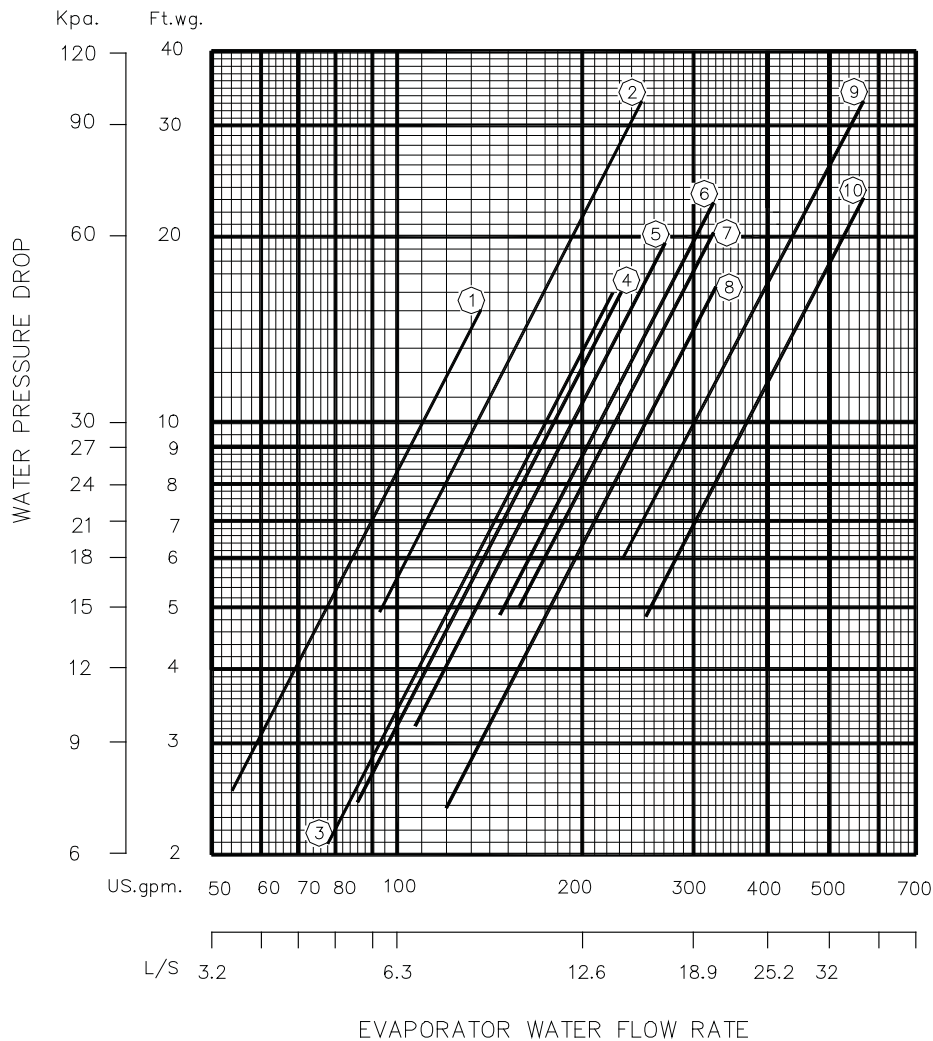
$$\begin{aligned} \text{WFR (US gpm)} &= \frac{\text{C.CAP (kW)} \times 0.239}{\text{Range (°C)}} \\ &= \frac{395.4 \times 0.239}{7.8} = 12.1 \text{ L/s.} \end{aligned}$$

Determine the pressure drop from chart on Page 23, using 12.1 L/s, pressure drop reading is 22.5 KPa.

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

SKM Air Cooled Packaged Chillers APCX Series - R134a

Water Pressure Drop



EVAPORATOR WATER FLOW RATE

| Curve # | Evaporator | APCX | Water Flow Rate (US gpm, / L/s) | |
|---------|------------|--|---------------------------------|---------------|
| | | | Minimum | Maximum |
| 1 | 1160R | 5035, 6040 | 54.6 / 3.44 | 136.4 / 8.61 |
| 2 | 3175 | 5055, 5060, 5065, 5070, 5075 | 94.7 / 5.97 | 246.6 / 15.56 |
| 3 | 1210R | 5040, 6045 | 78.0 / 4.92 | 224.4 / 14.16 |
| 4 | 1235R | 5045, 5050 | 87.5 / 5.52 | 231.4 / 14.6 |
| 5 | 1275R | 6055, 6060 | 107.4 / 6.78 | 271 / 17.1 |
| 6 | 2315 | 5080, 5085, 5090, 5095, 5100, 5105 | 147.9 / 9.33 | 321 / 20.25 |
| | | 6095, 6100, 6105, 6110 | | |
| | | 5165, 5170, 5175, 5185, 5190, 5195, 5200, 5205, 5210 | | |
| | | 6190, 6195, 6200, 6210, 6215 | | |
| | 3315 | 6085, 6090 | | |
| 7 | 3350 | 5110, 5115, 5120, 5125 | 159.4 / 10.06 | 321 / 20.25 |
| | | 6120, 6125 | | |
| | | 6230, 6235, 6240, 6245 | | |
| 8 | 3390R | 6065, 6070, 6080 | 120.5 / 7.6 | 330 / 20.82 |
| 9 | 3440 | 5135, 5140, 5145, 5150, 5155, 5160 | 234.7 / 14.81 | 562.2 / 35.47 |
| | | 6135, 6140, 6145, 6150, 6155, 6160 | | |
| 10 | 3535 | 6165, 6175, 6180, 6185 | 253.6 / 16 | 562.2 / 35.47 |

Table 13

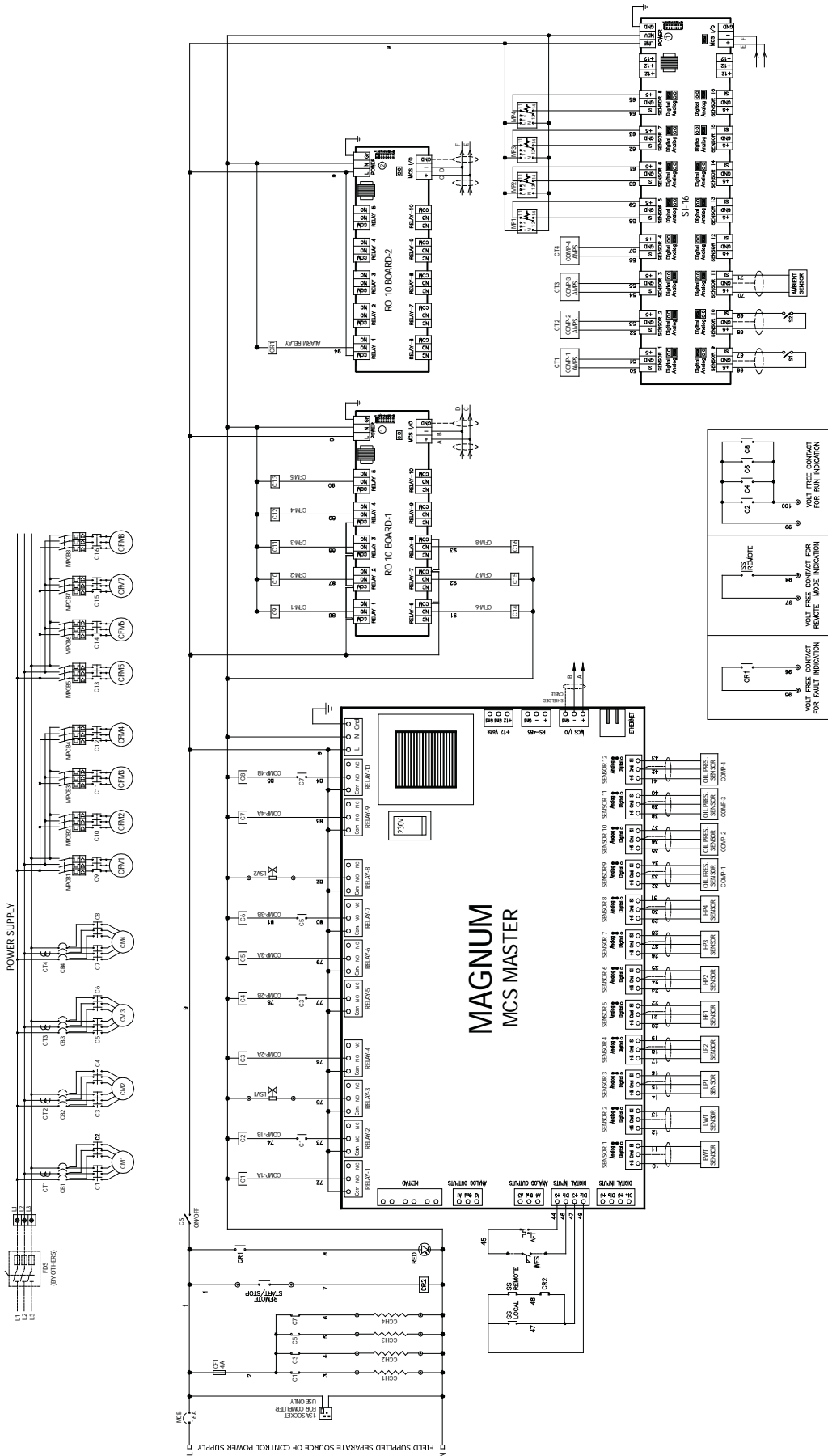
Note: To calculate the water pressure drop for shaded models, use the indicated graphs and halve the WFR as the evaporators are connected in parallel.



SKM Air Cooled Packaged Chillers APCX Series - R134a

Typical Wiring Diagram

| LEGEND | |
|--------|---------------------------------|
| SS | SELECTOR SWITCH |
| CT | CURRENT TRANSFORMER |
| CS | CONTROL SWITCH |
| CR | CONTROL RELAY |
| CM | COMPRESSOR MOTOR |
| CFM | CONDENSER FAN MOTOR |
| CF | CONTROL FUSE |
| MPCB | MANUAL PUMPDOWN SWITCH |
| MP | MOTOR PROTECTOR CIRCUIT BREAKER |
| CB | CIRCUIT BREAKER |
| C | CONTACTOR |
| AFT | ANTI FREEZE THERMOSTAT |
| LSV | LIQUID LINE SOLENOID VALVE |
| --- | FIELD WIRING |
| LWT | LEAVING WATER TEMPERATURE |
| EWT | ENTERING WATER TEMPERATURE |
| FDS | FUSED DISCONNECT SWITCH |
| WFS | WATER FLOW SWITCH |
| S | MANUAL PUMPDOWN SWITCH |
| MP | MOTOR PROTECTOR CIRCUIT BREAKER |
| MCB | MINIATUR CIRCUIT BREAKER |
| LP | LOW PRESSURE |
| HP | HIGH PRESSURE |



SKM Air Cooled Packaged Chillers APCX Series - R134a

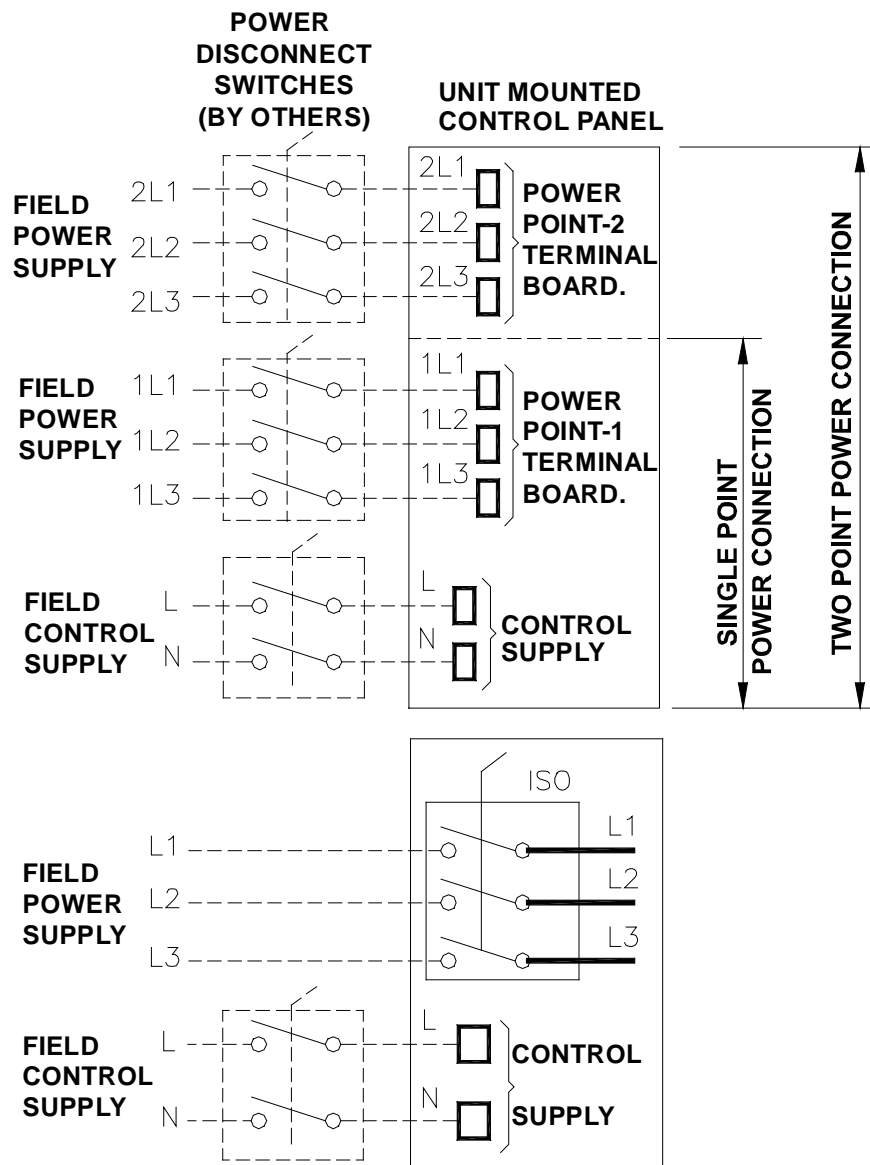
Power Entry Connections

| NUMBER OF POWER ENTRY CONNECTIONS | | |
|-----------------------------------|-------------|-----------------------|
| POWER SUPPLY | MODEL APCX | NUMBER OF POWER ENTRY |
| 380 - 440V / 3Ph / 50 Hz | 5035 - 5210 | SINGLE |
| 380 - 460V / 3Ph / 60 Hz | 6040 - 6245 | |
| 220V / 3Ph / 60 Hz | 6040 - 6210 | SINGLE |
| | 6215 - 6245 | TWO |

Table 14

Note :

All cable terminations are from the external isolator. Isolator is field supplied and installed (by others) within close proximity of the chiller in accordance with local codes and regulations.



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

SKM Air Cooled Packaged Chillers APCX Series - R134a

ELECTRICAL DATA

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

| Model APCX | Unit Characteristic | | | | Compressor | | | Condenser Fan Motor | | |
|---------------|---------------------|-----|-----|------|------------|---------|-----------|---------------------|-----|------|
| | MFA | MCA | ICF | | | | | | | |
| | | | DOL | PWS | QTY | RLA | LRA | QTY | FLA | LRA |
| 5035 | 160 | 118 | 372 | 296 | 2 | 46 | 304 | 4 | 3.5 | 11.2 |
| 5040 | 200 | 140 | 382 | 306 | 2 | 56 | 304 | 4 | 3.5 | 11.2 |
| 5045 | 250 | 174 | - | 482 | 2 | 71 | 458 | 4 | 3.5 | 11.2 |
| 5050 | 315 | 194 | - | 506 | 2 | 80 | 476 | 4 | 3.5 | 11.2 |
| 5060 | 315 | 203 | 445 | 369 | 3 | 56 | 304 | 6 | 3.5 | 11.2 |
| 5065 | 315 | 237 | 614 | 545 | 2 + 1 | 71 + 56 | 458 + 304 | 6 | 3.5 | 11.2 |
| 5070 | 400 | 252 | - | 560 | 3 | 71 | 458 | 6 | 3.5 | 11.2 |
| 5075 | 400 | 272 | - | 584 | 2 + 1 | 80 + 71 | 476 + 458 | 6 | 3.5 | 11.2 |
| 5080 | 400 | 266 | 508 | 432 | 4 | 56 | 304 | 8 | 3.5 | 11.2 |
| 5085 | 400 | 300 | 677 | 608 | 2 + 2 | 71 + 56 | 458 + 304 | 8 | 3.5 | 11.2 |
| 5090 | 400 | 315 | 692 | 623 | 3 + 1 | 71 + 56 | 458 + 304 | 8 | 3.5 | 11.2 |
| 5095 | 400 | 330 | - | 638 | 4 | 71 | 458 | 8 | 3.5 | 11.2 |
| 5100 | 500 | 350 | - | 662 | 2 + 2 | 80 + 71 | 476 + 458 | 8 | 3.5 | 11.2 |
| 5105 | 500 | 368 | - | 680 | 4 | 80 | 476 | 8 | 3.5 | 11.2 |
| 6115 | 500 | 372 | 614 | 538 | 4 + 2 | 56 + 46 | 304 + 304 | 12 | 3.5 | 11.2 |
| 5120 | 500 | 392 | 634 | 558 | 6 | 56 | 304 | 12 | 3.5 | 11.2 |
| 5125 | 500 | 426 | 803 | 734 | 2 + 4 | 71 + 56 | 458 + 304 | 12 | 3.5 | 11.2 |
| 5135 | 630 | 441 | 818 | 749 | 3 + 3 | 71 + 56 | 458 + 304 | 12 | 3.5 | 11.2 |
| 5140 | 630 | 471 | 848 | 779 | 5 + 1 | 71 + 56 | 458 + 304 | 12 | 3.5 | 11.2 |
| 5145 | 630 | 486 | - | 794 | 6 | 71 | 458 | 12 | 3.5 | 11.2 |
| 5150 | 630 | 506 | - | 818 | 2 + 4 | 80 + 71 | 476 + 458 | 12 | 3.5 | 11.2 |
| 5155 | 630 | 524 | - | 836 | 4 + 2 | 80 + 71 | 476 + 458 | 12 | 3.5 | 11.2 |
| 5160 | 630 | 542 | - | 854 | 6 | 80 | 476 | 12 | 3.5 | 11.2 |
| 5170 | 630 | 552 | 929 | 860 | 2 + 6 | 71 + 56 | 458 + 304 | 16 | 3.5 | 11.2 |
| 5175 | 800 | 582 | 959 | 890 | 4 + 4 | 71 + 56 | 458 + 304 | 16 | 3.5 | 11.2 |
| 5185 | 800 | 612 | 989 | 920 | 6 + 2 | 71 + 56 | 458 + 304 | 16 | 3.5 | 11.2 |
| 5190 | 800 | 642 | - | 950 | 8 | 71 | 458 | 16 | 3.5 | 11.2 |
| 5195 | 800 | 662 | - | 974 | 2 + 6 | 80 + 71 | 476 + 458 | 16 | 3.5 | 11.2 |
| 5200 | 800 | 680 | - | 992 | 4 + 4 | 80 + 71 | 476 + 458 | 16 | 3.5 | 11.2 |
| 5205 | 800 | 698 | - | 1010 | 6 + 2 | 80 + 71 | 476 + 458 | 16 | 3.5 | 11.2 |
| 5210 | 800 | 716 | - | 1028 | 8 | 80 | 476 | 16 | 3.5 | 11.2 |

Table 15

NOTES:

- 220V/1PH/50Hz control power must be supplied from a separate source, through field supplied and installed disconnect switch.
- For the deleted models (5055, 5110, 5165) contact SKM

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

PWS Part Winding Start
RLA Rated Load Amps. (at worst operating condition)
LRA Locked Rotor Amps
FLA Full Load Amps

Note :

Voltage imbalance not to exceed $\pm 2\%$ of the rated voltage

SKM Air Cooled Packaged Chillers APCX Series - R134a

ELECTRICAL DATA

Rated Power Supply: 440V/3PH/50Hz

| Model APCX | Unit Characteristic | | | | Compressor | | | Condenser Fan Motor | | |
|---------------|---------------------|-----|-----|------|------------|---------|-----------|---------------------|-----|------|
| | MFA | MCA | ICF | | QTY | RLA | LRA | QTY | FLA | LRA |
| | | | DOL | PWS | | | | | | |
| 5035 | 160 | 114 | 371 | 295 | 2 | 46 | 304 | 4 | 2.6 | 13.1 |
| 5040 | 200 | 136 | 381 | 305 | 2 | 56 | 304 | 4 | 2.6 | 13.1 |
| 5045 | 250 | 170 | - | 481 | 2 | 71 | 458 | 4 | 2.6 | 13.1 |
| 5050 | 315 | 190 | - | 506 | 2 | 80 | 476 | 4 | 2.6 | 13.1 |
| 5060 | 250 | 198 | 442 | 366 | 3 | 56 | 304 | 6 | 2.6 | 13.1 |
| 5065 | 315 | 231 | 611 | 542 | 2 + 1 | 71 + 56 | 458 + 304 | 6 | 2.6 | 13.1 |
| 5070 | 315 | 246 | - | 557 | 3 | 71 | 458 | 6 | 2.6 | 13.1 |
| 5075 | 400 | 267 | - | 582 | 2 + 1 | 80 + 71 | 476 + 458 | 6 | 2.6 | 13.1 |
| 5080 | 315 | 259 | 503 | 427 | 4 | 56 | 304 | 8 | 2.6 | 13.1 |
| 5085 | 400 | 293 | 672 | 604 | 2 + 2 | 71 + 56 | 458 + 304 | 8 | 2.6 | 13.1 |
| 5090 | 400 | 308 | 687 | 619 | 3 + 1 | 71 + 56 | 458 + 304 | 8 | 2.6 | 13.1 |
| 5095 | 400 | 323 | - | 634 | 4 | 71 | 458 | 8 | 2.6 | 13.1 |
| 5100 | 500 | 343 | - | 658 | 2 + 2 | 80 + 71 | 476 + 458 | 8 | 2.6 | 13.1 |
| 5105 | 500 | 361 | - | 676 | 4 | 80 | 476 | 8 | 2.6 | 13.1 |
| 6115 | 500 | 361 | 606 | 530 | 4 + 2 | 56 + 46 | 304 + 304 | 12 | 2.6 | 13.1 |
| 5120 | 500 | 381 | 626 | 550 | 6 | 56 | 304 | 12 | 2.6 | 13.1 |
| 5125 | 500 | 415 | 795 | 726 | 2 + 4 | 71 + 56 | 458 + 304 | 12 | 2.6 | 13.1 |
| 5135 | 500 | 430 | 810 | 741 | 3 + 3 | 71 + 56 | 458 + 304 | 12 | 2.6 | 13.1 |
| 5140 | 630 | 460 | 840 | 771 | 5 + 1 | 71 + 56 | 458 + 304 | 12 | 2.6 | 13.1 |
| 5145 | 630 | 475 | - | 786 | 6 | 71 | 458 | 12 | 2.6 | 13.1 |
| 5150 | 630 | 495 | - | 810 | 2 + 4 | 80 + 71 | 476 + 458 | 12 | 2.6 | 13.1 |
| 5155 | 630 | 513 | - | 828 | 4 + 2 | 80 + 71 | 476 + 458 | 12 | 2.6 | 13.1 |
| 5160 | 630 | 531 | - | 846 | 6 | 80 | 476 | 12 | 2.6 | 13.1 |
| 5170 | 630 | 537 | 917 | 848 | 2 + 6 | 71 + 56 | 458 + 304 | 16 | 2.6 | 13.1 |
| 5175 | 800 | 567 | 947 | 878 | 4 + 4 | 71 + 56 | 458 + 304 | 16 | 2.6 | 13.1 |
| 5185 | 800 | 597 | 977 | 908 | 6 + 2 | 71 + 56 | 458 + 304 | 16 | 2.6 | 13.1 |
| 5190 | 800 | 627 | - | 938 | 8 | 71 | 458 | 16 | 2.6 | 13.1 |
| 5195 | 800 | 648 | - | 963 | 2 + 6 | 80 + 71 | 476 + 458 | 16 | 2.6 | 13.1 |
| 5200 | 800 | 666 | - | 981 | 4 + 4 | 80 + 71 | 476 + 458 | 16 | 2.6 | 13.1 |
| 5205 | 800 | 684 | - | 999 | 6 + 2 | 80 + 71 | 476 + 458 | 16 | 2.6 | 13.1 |
| 5210 | 800 | 702 | - | 1017 | 8 | 80 | 476 | 16 | 2.6 | 13.1 |

Table 16

NOTE:

- 240V/1PH/50Hz control power must be supplied from a separate source, through field supplied and installed disconnect switch.
- For the deleted models (5055, 5110, 5165) contact SKM

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

PWS Part Winding Start
RLA Rated Load Amps. (at worst operating condition)
LRA Locked Rotor Amps
FLA Full Load Amps

Note :

Voltage imbalance not to exceed $\pm 2\%$ of the rated voltage



SKM Air Cooled Packaged Chillers APCX Series - R134a

ELECTRICAL DATA

Power Supply: 460V/3PH/60Hz

| Model APCX | Unit Characteristic | | | | Compressor | | | Condenser Fan Motor | | |
|---------------|---------------------|-----|-----|------|------------|---------|-----------|---------------------|-----|------|
| | MFA | MCA | ICF | | | | | | | |
| | | | DOL | PWS | QTY | RLA | LRA | QTY | FLA | LRA |
| 6040 | 160 | 118 | 365 | 292 | 2 | 46 | 292 | 4 | 3.5 | 16.5 |
| 6045 | 200 | 140 | 375 | 302 | 2 | 56 | 292 | 4 | 3.5 | 16.5 |
| 6055 | 250 | 174 | - | 487 | 2 | 71 | 458 | 4 | 3.5 | 16.5 |
| 6060 | 315 | 194 | - | 513 | 2 | 80 | 478 | 4 | 3.5 | 16.5 |
| 6070 | 315 | 203 | 438 | 365 | 3 | 56 | 292 | 6 | 3.5 | 16.5 |
| 6080 | 315 | 237 | 619 | 550 | 2 + 1 | 71 + 56 | 458 + 292 | 6 | 3.5 | 16.5 |
| 6085 | 400 | 252 | - | 565 | 3 | 71 | 458 | 6 | 3.5 | 16.5 |
| 6090 | 400 | 272 | - | 591 | 2 + 1 | 80 + 71 | 478 + 458 | 6 | 3.5 | 16.5 |
| 6095 | 400 | 266 | 501 | 428 | 4 | 56 | 292 | 8 | 3.5 | 16.5 |
| 6100 | 400 | 300 | 682 | 613 | 2 + 2 | 71 + 56 | 458 + 292 | 8 | 3.5 | 16.5 |
| 6105 | 400 | 315 | 697 | 628 | 3 + 1 | 71 + 56 | 458 + 292 | 8 | 3.5 | 16.5 |
| 6110 | 400 | 330 | - | 643 | 4 | 71 | 458 | 8 | 3.5 | 16.5 |
| 6120 | 500 | 350 | - | 669 | 2 + 2 | 80 + 71 | 478 + 458 | 8 | 3.5 | 16.5 |
| 6125 | 500 | 368 | - | 687 | 4 | 80 | 478 | 8 | 3.5 | 16.5 |
| 6140 | 500 | 372 | 607 | 534 | 4 + 2 | 56 + 46 | 292 + 292 | 12 | 3.5 | 16.5 |
| 6145 | 500 | 392 | 627 | 554 | 6 | 56 | 292 | 12 | 3.5 | 16.5 |
| 6150 | 500 | 426 | 808 | 739 | 2 + 4 | 71 + 56 | 458 + 292 | 12 | 3.5 | 16.5 |
| 6155 | 630 | 441 | 823 | 754 | 3 + 3 | 71 + 56 | 458 + 292 | 12 | 3.5 | 16.5 |
| 6160 | 630 | 471 | 853 | 784 | 5 + 1 | 71 + 56 | 458 + 292 | 12 | 3.5 | 16.5 |
| 6165 | 630 | 486 | - | 799 | 6 | 71 | 458 | 12 | 3.5 | 16.5 |
| 6175 | 630 | 506 | - | 825 | 2 + 4 | 80 + 71 | 478 + 458 | 12 | 3.5 | 16.5 |
| 6180 | 630 | 524 | - | 843 | 4 + 2 | 80 + 71 | 478 + 458 | 12 | 3.5 | 16.5 |
| 6185 | 630 | 542 | - | 861 | 6 | 80 | 478 | 12 | 3.5 | 16.5 |
| 6195 | 630 | 552 | 934 | 865 | 2 + 6 | 71 + 56 | 458 + 292 | 16 | 3.5 | 16.5 |
| 6200 | 800 | 582 | 964 | 895 | 4 + 4 | 71 + 56 | 458 + 292 | 16 | 3.5 | 16.5 |
| 6210 | 800 | 612 | 994 | 925 | 6 + 2 | 71 + 56 | 458 + 292 | 16 | 3.5 | 16.5 |
| 6215 | 800 | 642 | - | 955 | 8 | 71 | 458 | 16 | 3.5 | 16.5 |
| 6230 | 800 | 662 | - | 981 | 2 + 6 | 80 + 71 | 478 + 458 | 16 | 3.5 | 16.5 |
| 6235 | 800 | 680 | - | 999 | 4 + 4 | 80 + 71 | 478 + 458 | 16 | 3.5 | 16.5 |
| 6240 | 800 | 698 | - | 1017 | 6 + 2 | 80 + 71 | 478 + 458 | 16 | 3.5 | 16.5 |
| 6245 | 800 | 716 | - | 1035 | 8 | 80 | 478 | 16 | 3.5 | 16.5 |

Table 17

NOTE:

- 220V/1PH/50Hz control power must be supplied from a separate source, through field supplied and installed disconnect switch.
- For the deleted models (6065, 6130, 6190) contact SKM.

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

PWS Part Winding Start
RLA Rated Load Amps. (at worst operating condition)
LRA Locked Rotor Amps
FLA Full Load Amps

Note :

Voltage imbalance not to exceed $\pm 2\%$ of the rated voltage

SKM Air Cooled Packaged Chillers APCX Series - R134a

ELECTRICAL DATA

Power Supply: 380V/3PH/60Hz

| Model APCX | Unit Characteristic | | | | Compressor | | | Condenser Fan Motor | | |
|---------------|---------------------|-----|------|------|------------|----------|-----------|---------------------|-----|------|
| | MFA | MCA | ICF | | QTY | RLA | LRA | QTY | FLA | LRA |
| | | | DOL | PWS | | | | | | |
| 6040 | 200 | 145 | 415 | 332 | 2 | 58 | 332 | 4 | 3.7 | 13.7 |
| 6045 | 250 | 175 | 428 | 345 | 2 | 71 | 332 | 4 | 3.7 | 13.7 |
| 6055 | 315 | 215 | - | 543 | 2 | 89 | 505 | 4 | 3.7 | 13.7 |
| 6060 | 400 | 242 | - | 618 | 2 | 101 | 579 | 4 | 3.7 | 13.7 |
| 6070 | 400 | 253 | 506 | 423 | 3 | 71 | 332 | 6 | 3.7 | 13.7 |
| 6080 | 400 | 293 | 697 | 621 | 2 + 1 | 89 + 71 | 505 + 332 | 6 | 3.7 | 13.7 |
| 6085 | 400 | 311 | - | 639 | 3 | 89 | 505 | 6 | 3.7 | 13.7 |
| 6090 | 500 | 338 | - | 714 | 2 + 1 | 101 + 89 | 579 + 505 | 6 | 3.7 | 13.7 |
| 6095 | 400 | 331 | 585 | 502 | 4 | 71 | 332 | 8 | 3.7 | 13.7 |
| 6100 | 500 | 372 | 776 | 700 | 2 + 2 | 89 + 71 | 505 + 332 | 8 | 3.7 | 13.7 |
| 6105 | 500 | 390 | 794 | 718 | 3 + 1 | 89 + 71 | 505 + 332 | 8 | 3.7 | 13.7 |
| 6110 | 500 | 408 | - | 736 | 4 | 89 | 505 | 8 | 3.7 | 13.7 |
| 6120 | 630 | 435 | - | 811 | 2 + 2 | 101 + 89 | 579 + 505 | 8 | 3.7 | 13.7 |
| 6125 | 630 | 459 | - | 835 | 4 | 101 | 579 | 8 | 3.7 | 13.7 |
| 6140 | 630 | 462 | 715 | 632 | 4 + 2 | 71 + 58 | 332 + 332 | 12 | 3.7 | 13.7 |
| 6145 | 630 | 488 | 741 | 658 | 6 | 71 | 332 | 12 | 3.7 | 13.7 |
| 6150 | 630 | 529 | 932 | 857 | 2 + 4 | 89 + 71 | 505 + 332 | 12 | 3.7 | 13.7 |
| 6155 | 800 | 547 | 950 | 875 | 3 + 3 | 89 + 71 | 505 + 332 | 12 | 3.7 | 13.7 |
| 6160 | 800 | 583 | 986 | 911 | 5 + 1 | 89 + 71 | 505 + 332 | 12 | 3.7 | 13.7 |
| 6165 | 800 | 601 | - | 929 | 6 | 89 | 505 | 12 | 3.7 | 13.7 |
| 6175 | 800 | 628 | - | 1004 | 2 + 4 | 101 + 89 | 579 + 505 | 12 | 3.7 | 13.7 |
| 6180 | 800 | 652 | - | 1028 | 4 + 2 | 101 + 89 | 579 + 505 | 12 | 3.7 | 13.7 |
| 6185 | 800 | 676 | - | 1052 | 6 | 101 | 579 | 12 | 3.7 | 13.7 |
| 6195 | 800 | 685 | 1089 | 1013 | 2 + 6 | 89 + 71 | 505 + 332 | 16 | 3.7 | 13.7 |
| 6200 | 800 | 721 | 1125 | 1049 | 4 + 4 | 89 + 71 | 505 + 332 | 16 | 3.7 | 13.7 |
| 6210 | 1000 | 757 | 1161 | 1085 | 6 + 2 | 89 + 71 | 505 + 332 | 16 | 3.7 | 13.7 |
| 6215 | 1000 | 793 | - | 1121 | 8 | 89 | 505 | 16 | 3.7 | 13.7 |
| 6230 | 1000 | 820 | - | 1196 | 2 + 6 | 101 + 89 | 579 + 505 | 16 | 3.7 | 13.7 |
| 6235 | 1000 | 844 | - | 1220 | 4 + 4 | 101 + 89 | 579 + 505 | 16 | 3.7 | 13.7 |
| 6240 | 1000 | 868 | - | 1244 | 6 + 2 | 101 + 89 | 579 + 505 | 16 | 3.7 | 13.7 |
| 6245 | 1000 | 892 | - | 1268 | 8 | 101 | 579 | 16 | 3.7 | 13.7 |

Table 18

NOTE:

- 220V/1PH/60Hz control power must be supplied from a separate source, through field supplied and installed disconnect switch.
- For the deleted models (6065, 6130, 6190) contact SKM.

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

PWS Part Winding Start
RLA Rated Load Amps. (at worst operating condition)
LRA Locked Rotor Amps
FLA Full Load Amps

Note :

Voltage imbalance not to exceed $\pm 2\%$ of the rated voltage



SKM Air Cooled Packaged Chillers APCX Series - R134a

ELECTRICAL DATA

Power Supply: 220V/3PH/60Hz

| Model APCX | Unit Characteristic | | | | Compressor | | | Condenser Fan Motor | | |
|---------------|---------------------|---------|-----|-----------|------------|-----------|------------|---------------------|-----|------|
| | MFA | MCA | ICF | | | | | | | |
| | | | DOL | PWS | QTY | RLA | LRA | QTY | FLA | LRA |
| 6040 | 400 | 253 | - | 602 | 2 | 101 | 611 | 4 | 6.4 | 23.7 |
| 6045 | 500 | 302 | - | 818 | 2 | 123 | 870 | 4 | 6.4 | 23.7 |
| 6055 | 630 | 377 | - | 1015 | 2 | 156 | 960 | 4 | 6.4 | 23.7 |
| 6060 | 630 | 415 | - | 1068 | 2 | 173 | 1002 | 4 | 6.4 | 23.7 |
| 6070 | 630 | 438 | - | 954 | 3 | 123 | 870 | 6 | 6.4 | 23.7 |
| 6080 | 800 | 512 | - | 1151 | 2 + 1 | 156 + 123 | 960 + 870 | 6 | 6.4 | 23.7 |
| 6085 | 800 | 545 | - | 1184 | 3 | 156 | 960 | 6 | 6.4 | 23.7 |
| 6090 | 800 | 584 | - | 1236 | 2 + 1 | 173 + 156 | 1002 + 960 | 6 | 6.4 | 23.7 |
| 6095 | 800 | 574 | - | 1090 | 4 | 123 | 870 | 8 | 6.4 | 23.7 |
| 6100 | 800 | 648 | - | 1287 | 2 + 2 | 156 + 123 | 960 + 870 | 8 | 6.4 | 23.7 |
| 6105 | 1000 | 681 | - | 1320 | 3 + 1 | 156 + 123 | 960 + 870 | 8 | 6.4 | 23.7 |
| 6110 | 1000 | 714 | - | 1353 | 4 | 156 | 960 | 8 | 6.4 | 23.7 |
| 6120 | 1000 | 752 | - | 1405 | 2 + 2 | 173 + 156 | 1002 + 960 | 8 | 6.4 | 23.7 |
| 6125 | 1000 | 786 | - | 1439 | 4 | 173 | 1002 | 8 | 6.4 | 23.7 |
| 6140 | 1000 | 802 | - | 1318 | 4 + 2 | 123 + 101 | 870 + 611 | 12 | 6.4 | 23.7 |
| 6145 | 1000 | 846 | - | 1362 | 6 | 123 | 870 | 12 | 6.4 | 23.7 |
| 6150 | 1250 | 920 | - | 1558 | 2 + 4 | 156 + 123 | 960 + 870 | 12 | 6.4 | 23.7 |
| 6155 | 1250 | 953 | - | 1591 | 3 + 3 | 156 + 123 | 960 + 870 | 12 | 6.4 | 23.7 |
| 6160 | 1250 | 1019 | - | 1657 | 5 + 1 | 156 + 123 | 960 + 870 | 12 | 6.4 | 23.7 |
| 6165 | 1250 | 1052 | - | 1690 | 6 | 156 | 960 | 12 | 6.4 | 23.7 |
| 6175 | 1500 | 1090 | - | 1743 | 2 + 4 | 173 + 156 | 1002 + 960 | 12 | 6.4 | 23.7 |
| 6180 | 800+800 | 601+567 | - | 1253+1184 | 4 + 2 | 173 + 156 | 1002 + 960 | 12 | 6.4 | 23.7 |
| 6185 | 800+800 | 601+601 | - | 1253+1253 | 6 | 173 | 1002 | 12 | 6.4 | 23.7 |
| 6195 | 800+800 | 648+574 | - | 1287+1090 | 2 + 6 | 156 + 123 | 960 + 870 | 16 | 6.4 | 23.7 |
| 6200 | 800+800 | 714+574 | - | 1353+1090 | 4 + 4 | 156 + 123 | 960 + 870 | 16 | 6.4 | 23.7 |
| 6210 | 1000+800 | 714+648 | - | 1353+1287 | 6 + 2 | 156 + 123 | 960 + 870 | 16 | 6.4 | 23.7 |
| 6215 | 1000+1000 | 714+714 | - | 1353+1353 | 8 | 156 | 960 | 16 | 6.4 | 23.7 |
| 6230 | 1000+1000 | 752+714 | - | 1405+1353 | 2 + 6 | 173 + 156 | 1002 + 960 | 16 | 6.4 | 23.7 |
| 6235 | 1000+1000 | 786+714 | - | 1439+1353 | 4 + 4 | 173 + 156 | 1002 + 960 | 16 | 6.4 | 23.7 |
| 6240 | 1000+1000 | 786+752 | - | 1439+1405 | 6 + 2 | 173 + 156 | 1002 + 960 | 16 | 6.4 | 23.7 |
| 6245 | 1000+1000 | 786+786 | - | 1439+1439 | 8 | 173 | 1002 | 16 | 6.4 | 23.7 |

Table 19

NOTE:

- 220V/1PH/60Hz control power must be supplied from a separate source, through field supplied and installed disconnect switch.
- For the deleted models (**6065, 6130, 6190**) contact SKM.

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.

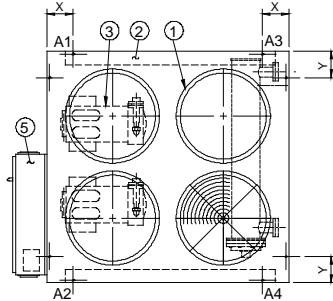
ICF Maximum Instantaneous Current Flow

PWS Part Winding Start
RLA Rated Load Amps. (at worst operating condition)
LRA Locked Rotor Amps
FLA Full Load Amps

SKM Air Cooled Packaged Chillers APCX Series - R134a

Dimensional Data

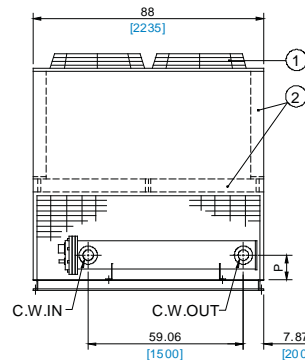
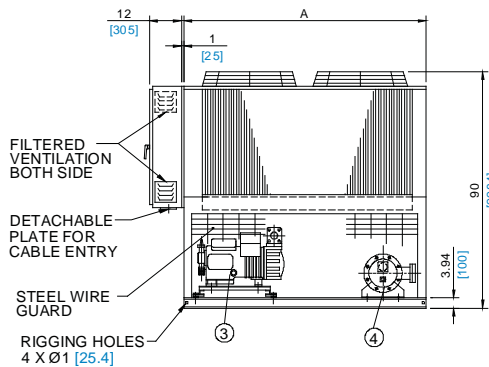
APCX Models - 5035-5050,6040-6060



| MODEL APCX- | DIMENSIONS | | | | | LOAD AT EACH POINT Lb/Kg | | | | OPT.WT. |
|----------------|------------|-------|---|-------|-------------|--------------------------|------|------|------|---------|
| | A | P | X | Y | C.W. IN/OUT | A1 | A2 | A3 | A4 | Lb/Kg |
| 5035 | | 7.46 | | | MPT 3" | 1088 | 1263 | 850 | 834 | 4035 |
| 6040 | 78 | [189] | | 10 | [75] | 493 | 573 | 386 | 378 | 1830 |
| 5040 | [1981] | | | [254] | | 1157 | 1332 | 973 | 950 | 4412 |
| 6045 | | | | | | 525 | 604 | 441 | 431 | 2001 |
| 5045 | | 9.31 | | | 4" | 1402 | 1540 | 1066 | 1044 | 5052 |
| 5050 | 92 | [236] | | 10 | [DN 100] | 636 | 698 | 484 | 473 | 2291 |
| 6055 | [2337] | | | [254] | | 1412 | 1549 | 1069 | 1046 | 5076 |
| 6060 | | | | | | 640 | 703 | 485 | 474 | 2302 |

Table 20

A1-A4 ARE LOADING POINTS Ø3/4" [19]

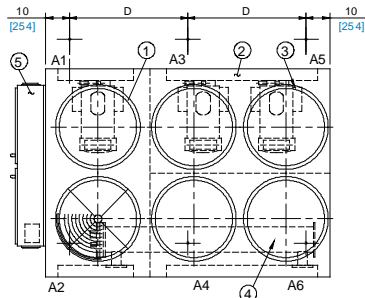


LEGEND

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

ALL DIMENSIONS ARE IN INCHES [MM]

APCX Models - 5055-5075,6085&6090



| MODEL APCX- | DIMENSIONS | | | | | LOAD AT EACH POINT Lb/Kg | | | | | | OPT.WT. |
|----------------|------------|--------|--------|-------|-------------|--------------------------|------|------|------|------|------|---------|
| | A | B | D | P | C.W. IN/OUT | A1 | A2 | A3 | A4 | A5 | A6 | Lb/Kg |
| 5055 | 120 | | 50 | | 4" | 1240 | 1040 | 1272 | 877 | 995 | 959 | 6383 |
| 5060 | [3048] | | [1270] | | [DN 100] | 562 | 472 | 577 | 398 | 451 | 435 | 2895 |
| 5065 | 136 | 78.74 | 58 | 7.28 | | 1240 | 1040 | 1329 | 915 | 1042 | 993 | 6559 |
| 5070 | [3454] | [2000] | [1473] | [185] | | 562 | 472 | 603 | 415 | 473 | 450 | 2975 |
| 5075 | [3658] | | 62 | | | 1272 | 1012 | 1628 | 1162 | 1100 | 1041 | 7215 |
| | | | [1575] | | | 577 | 459 | 738 | 527 | 499 | 472 | 3272 |
| 5075 | | | | | | 1378 | 1043 | 1673 | 1226 | 1201 | 1107 | 7628 |
| | | | | | | 625 | 473 | 759 | 556 | 545 | 502 | 3460 |
| *6065 | 120 | | 50 | | 4" | 1208 | 885 | 1336 | 1175 | 991 | 937 | 6532 |
| | [3048] | | [1270] | | [DN 100] | 548 | 401 | 606 | 533 | 449 | 425 | 2962 |
| 6070 | | 68.11 | 58 | 10.31 | 6" | 1208 | 886 | 1391 | 1215 | 1038 | 970 | 6708 |
| | | [1730] | [1473] | [262] | [DN 150] | 548 | 402 | 631 | 551 | 470 | 440 | 3042 |
| 6080 | 136 | | 58 | | | 1242 | 871 | 1686 | 1437 | 1098 | 1030 | 7364 |
| | [3454] | | [1473] | | | 563 | 395 | 765 | 652 | 498 | 467 | 3340 |
| 6085 | 144 | 88.58 | 62 | 8.27 | 5" | 1428 | 1159 | 1690 | 1210 | 1269 | 1208 | 7964 |
| 6090 | [3658] | [2250] | [1575] | [210] | [DN 125] | 648 | 526 | 766 | 549 | 575 | 548 | 3612 |

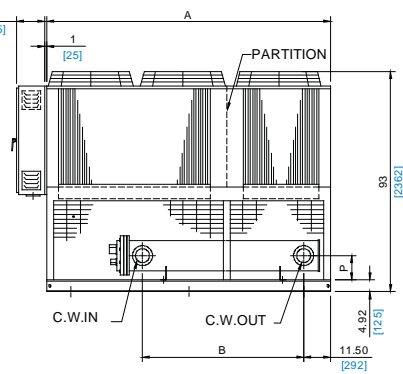
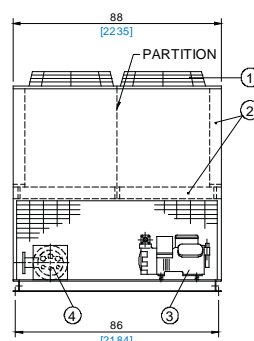
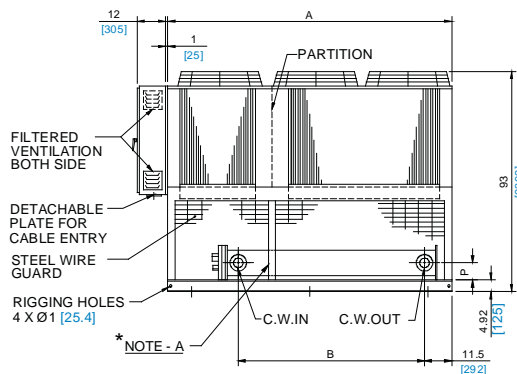
Table 21

A1-A6 ARE LOADING POINTS Ø3/4" [19]

APCX- 5055 & 5060
APCX- 6065

* NOTE - A
SPECIAL SUPPORT FOR APCX 6065
CERTIFIED DRGS. ARE AVAILABLE ON REQUEST.

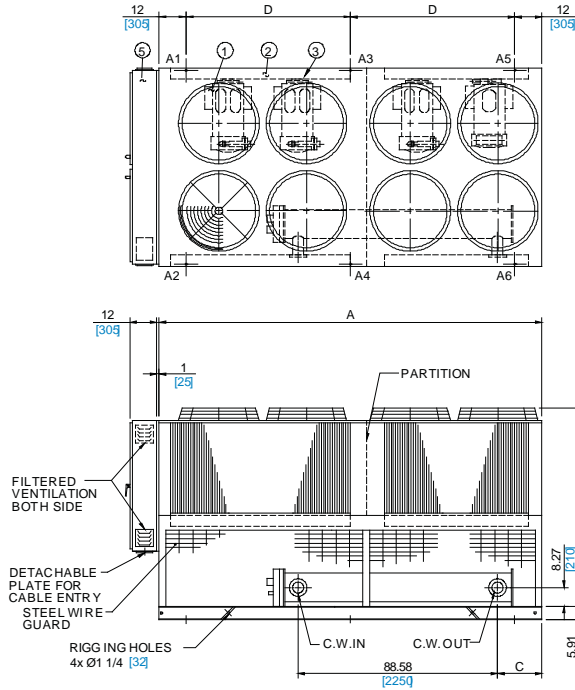
APCX- 5065,5070 & 5075
APCX- 6070,6080, 6085 & 6090



SKM Air Cooled Packaged Chillers APCX Series - R134a

Dimensional Data

APCX Models - 5080-5105,6095-6125

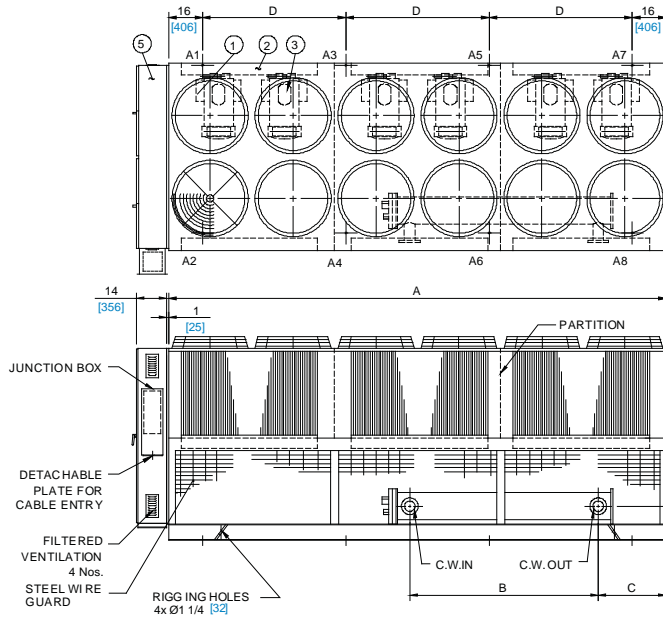


| MODEL APCX- | DIMENSIONS | | | | LOAD AT EACH POINT Lb/Kg | | | | | | OPT.WT Lb/Kg |
|----------------|---------------|---------------|--------------|----------------|--------------------------|-------------|-------------|-------------|-------------|-------------|-----------------|
| | A | C | D | C.W. IN/OUT | A1 | A2 | A3 | A4 | A5 | A6 | |
| 5080 | 156 [3962] | 66 [1676] | 66 [1676] | 5" [DN 125] | 1767 801 | 1540 699 | 1679 761 | 1287 584 | 1427 647 | 1362 618 | 9062 4110 |
| 5085 | 184 [4674] | 31.5 [800] | 80 [2032] | 5" [DN 125] | 1842 835 | 1561 708 | 1782 808 | 1316 597 | 1501 681 | 1383 627 | 9385 4256 |
| 5090 | 170 [4318] | 31.5 [800] | 80 [2032] | 5" [DN 125] | 1876 850 | 1540 698 | 1955 887 | 1484 673 | 1600 726 | 1453 659 | 9908 4493 |
| 5095 | 184 [4674] | 31.5 [800] | 80 [2032] | 5" [DN 125] | 1989 902 | 1625 737 | 2104 954 | 1629 739 | 1646 746 | 1439 653 | 10432 4731 |
| 5100 | 184 [4674] | 31.5 [800] | 80 [2032] | 5" [DN 125] | 1779 807 | 1528 693 | 1696 769 | 1270 576 | 1439 653 | 1350 612 | 9062 4110 |
| 5105 | 184 [4674] | 31.5 [800] | 80 [2032] | 5" [DN 125] | 1842 835 | 1561 708 | 1782 808 | 1316 597 | 1501 681 | 1383 627 | 9385 4256 |
| 6095 | 156 [3962] | 66 [1676] | 66 [1676] | 5" [DN 125] | 1767 801 | 1540 699 | 1679 761 | 1287 584 | 1427 647 | 1362 618 | 9062 4110 |
| 6100 | 184 [4674] | 31.5 [800] | 80 [2032] | 5" [DN 125] | 1842 835 | 1561 708 | 1782 808 | 1316 597 | 1501 681 | 1383 627 | 9385 4256 |
| 6105 | 170 [4318] | 31.5 [800] | 80 [2032] | 5" [DN 125] | 1876 850 | 1540 698 | 1955 887 | 1484 673 | 1600 726 | 1453 659 | 9908 4493 |
| 6110 | 184 [4674] | 31.5 [800] | 80 [2032] | 5" [DN 125] | 1989 902 | 1625 737 | 2104 954 | 1629 739 | 1646 746 | 1439 653 | 10432 4731 |
| 6120 | 184 [4674] | 31.5 [800] | 80 [2032] | 5" [DN 125] | 1993 904 | 1640 744 | 2111 957 | 1654 750 | 1653 750 | 1467 665 | 10518 4770 |
| 6125 | 184 [4674] | 31.5 [800] | 80 [2032] | 5" [DN 125] | 1993 904 | 1640 744 | 2111 957 | 1654 750 | 1653 750 | 1467 665 | 10518 4770 |

A1-A6 ARE LOADING POINTS Ø3/4 [19]

Table 22

APCX Models - 5110-5160,6135-6185



LEGEND

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

ALL DIMENSIONS ARE IN INCHES [MM]

| MODEL APCX- | C.W. CONNECTIONS | |
|----------------|------------------|----------------|
| | C.W. IN | C.W. OUT |
| 5110-5125 | 5" [DN 125] | 5" [DN 125] |
| 5135-5160 | 6" [DN 150] | 6" [DN 150] |
| 6135-6185 | 6" [DN 150] | 6" [DN 150] |

Table 23

| MODEL APCX- | DIMENSIONS | | | | LOAD AT EACH POINT Lb/Kg | | | | | | | | OPT.WT Lb/Kg |
|----------------|---------------|-----------------|-----------------|-----------------|--------------------------|------|------|------|------|------|------|------|-----------------|
| | A | B | C | D | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | |
| 5110 | | | | | 2009 | 1526 | 1773 | 1434 | 1758 | 1362 | 1531 | 1387 | 12780 |
| 5115 | | | | 8.27 [210] | 2064 | 1572 | 1801 | 1456 | 1766 | 1363 | 1544 | 1390 | 12956 |
| 5120 | 234 [5944] | 88.58 [2250] | 32.04 [814] | 67.33 [1710] | 936 | 713 | 835 | 675 | 833 | 645 | 725 | 651 | 6013 |
| 5125 | | | | | 2149 | 1594 | 1949 | 1517 | 1901 | 1439 | 1599 | 1434 | 13582 |
| 5135 | | | | | 975 | 723 | 884 | 688 | 862 | 653 | 725 | 650 | 6160 |
| 5140 | 262 [6655] | 86.61 [2200] | 32.83 [834] | 76.67 [1947] | 2221 | 1680 | 2071 | 1617 | 2230 | 1818 | 1839 | 1713 | 15189 |
| 5145 | | | | 10.04 [255] | 1007 | 762 | 939 | 734 | 1011 | 825 | 834 | 777 | 6889 |
| 5150 | 276 [7010] | | 46.83 [1189] | 81.33 [2066] | 2305 | 1745 | 2255 | 1783 | 2309 | 1925 | 1866 | 1658 | 15846 |
| 5160 | | | | | 1045 | 791 | 1023 | 809 | 1047 | 873 | 846 | 752 | 7186 |

| MODEL APCX- | DIMENSIONS | | | | LOAD AT EACH POINT Lb/Kg | | | | | | | | OPT.WT Lb/Kg |
|----------------|---------------|-----------------|-----------------|-----------------|--------------------------|------|------|------|------|------|------|------|-----------------|
| | A | B | C | D | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | |
| 6135 | | | | | 2009 | 1526 | 1819 | 1554 | 1788 | 1438 | 1586 | 1534 | 13254 |
| 6140 | | | | | 911 | 692 | 825 | 705 | 811 | 652 | 719 | 696 | 6011 |
| 6145 | 234 [5944] | 88.58 [2250] | 32.83 [834] | 67.33 [1710] | 2064 | 1572 | 1846 | 1576 | 1795 | 1440 | 1600 | 1538 | 13431 |
| 6150 | | | | 10.04 [255] | 936 | 713 | 837 | 715 | 814 | 653 | 726 | 697 | 6091 |
| 6155 | | | | | 2148 | 1594 | 1995 | 1638 | 1931 | 1515 | 1653 | 1582 | 14056 |
| 6160 | 262 [6655] | 86.61 [2200] | 32.83 [834] | 76.67 [1947] | 974 | 723 | 905 | 743 | 876 | 687 | 750 | 717 | 6228 |
| 6165 | | | | | 2133 | 1609 | 1975 | 1657 | 1955 | 1547 | 1723 | 1619 | 14218 |
| 6175 | | | | | 967 | 730 | 896 | 752 | 887 | 701 | 781 | 734 | 6448 |
| 6180 | 276 [7010] | | 46.83 [1189] | 81.33 [2066] | 2221 | 1680 | 2071 | 1617 | 2230 | 1818 | 1839 | 1713 | 15189 |
| 6185 | | | | | 1007 | 762 | 940 | 734 | 1011 | 825 | 834 | 777 | 6889 |

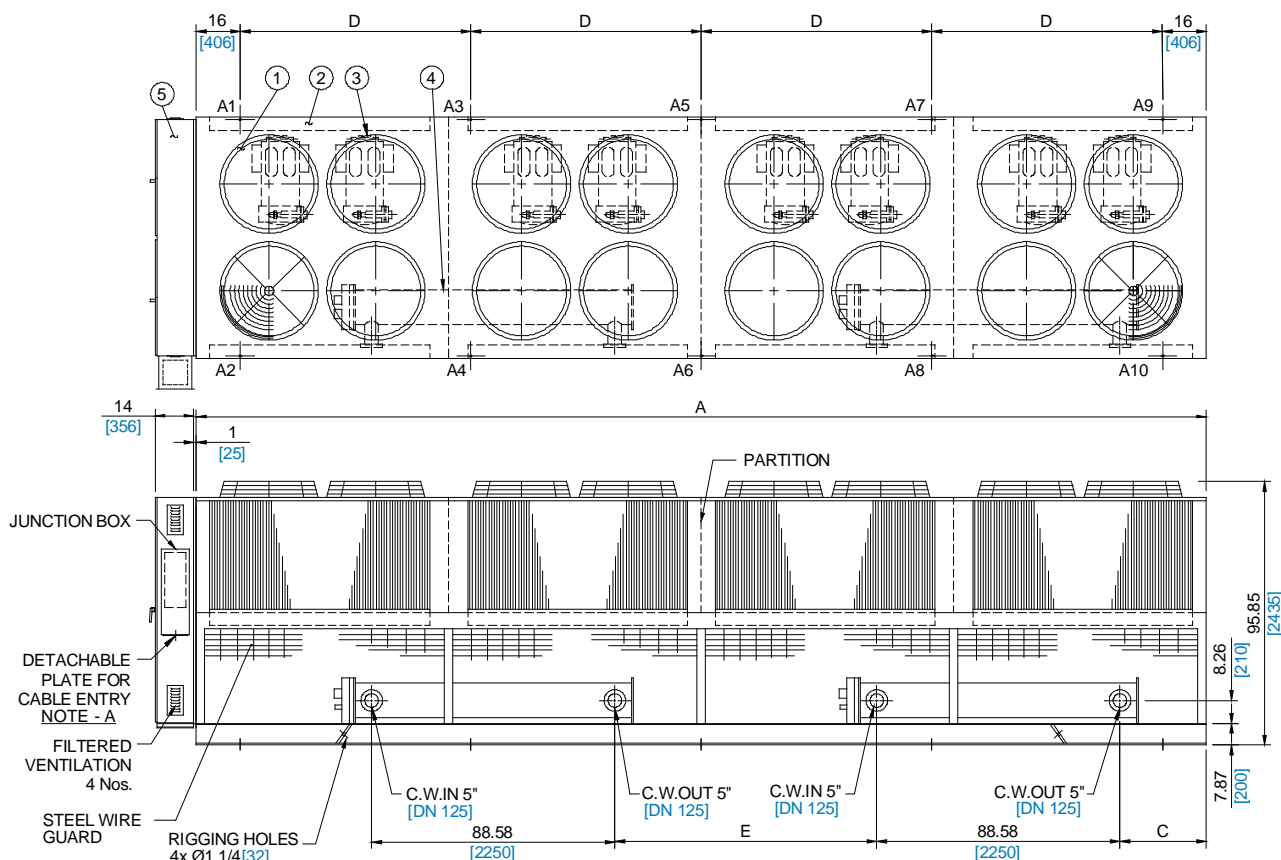
A1-A8 ARE LOADING POINTS Ø3/4 [19]

Table 24

SKM Air Cooled Packaged Chillers APCX Series - R134a

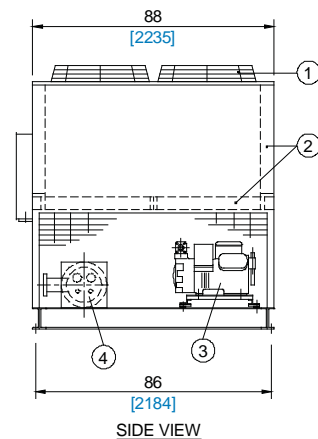
Dimensional Data

APCX Models - 5165-5210,6190-6245



NOTE - A
2 POINT CABLE ENTRY FOR MODEL # 6215,6230,6235, 6240 & 6245 WITH POWER SUPPLY 220V / 3Ph / 60 Hz CERTIFIED DRGS. ARE AVAILABLE ON REQUEST.

| MODEL APCX- | DIMENSIONS | | | | LOAD AT EACH POINT Lb/ Kg | | | | | | | | | | OPT.WT Lb/Kg |
|----------------|---------------|----------------|--------------|-----------------|---------------------------|------|------|------|------|------|------|------|------|-------|-----------------|
| | A | C | D | E | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | A10 | |
| 5165 | 312 [7925] | 19.69 [500] | 70 [1778] | 67.42 [1712] | 2214 | 1959 | 1880 | 1484 | 1977 | 1806 | 1885 | 1501 | 1638 | 1535 | 17879 |
| 5170 | | | | | 1004 | 888 | 852 | 673 | 896 | 819 | 855 | 681 | 743 | 697 | 8108 |
| 5175 | | | | | 2298 | 1983 | 1921 | 1496 | 2033 | 1822 | 1955 | 1521 | 1638 | 1535 | 18202 |
| 5185 | 340 [8636] | 31.50 [800] | 84 [2134] | 95.42 [2424] | 2282 | 1999 | 1971 | 1537 | 2068 | 1859 | 1975 | 1554 | 1707 | 1575 | 18527 |
| 5190 | 1035 | | | | 907 | 894 | 697 | 938 | 843 | 895 | 705 | 774 | 714 | 8402 | |
| 5195 | 2359 | | | | 2018 | 2149 | 1720 | 2219 | 1932 | 2193 | 1758 | 1825 | 1672 | 19845 | |
| 5200 | 340 [8636] | 31.50 [800] | 84 [2134] | 95.42 [2424] | 1070 | 915 | 975 | 780 | 1006 | 876 | 995 | 797 | 828 | 758 | 9000 |
| 5205 | 2489 | | | | 2128 | 2346 | 1905 | 2390 | 2023 | 2346 | 1905 | 1917 | 1715 | 21164 | |
| 5210 | 1129 | | | | 965 | 1064 | 864 | 1084 | 917 | 1064 | 864 | 869 | 778 | 9598 | |
| 6190 | 312 [7925] | 19.69 [500] | 70 [1778] | 67.42 [1712] | 2214 | 1959 | 1880 | 1484 | 1977 | 1806 | 1885 | 1501 | 1638 | 1535 | 17879 |
| 6195 | | | | | 1004 | 888 | 852 | 673 | 896 | 819 | 855 | 681 | 743 | 697 | 8108 |
| 6200 | | | | | 2298 | 1983 | 1921 | 1496 | 2033 | 1822 | 1955 | 1521 | 1638 | 1535 | 18202 |
| 6210 | 340 [8636] | 31.50 [800] | 84 [2134] | 95.42 [2424] | 2282 | 1999 | 1971 | 1537 | 2068 | 1859 | 1975 | 1554 | 1707 | 1575 | 18527 |
| 6215 | 1035 | | | | 907 | 894 | 697 | 938 | 843 | 895 | 705 | 774 | 714 | 8402 | |
| 6230 | 2359 | | | | 2018 | 2149 | 1720 | 2219 | 1932 | 2193 | 1758 | 1825 | 1672 | 19845 | |
| 6235 | 340 [8636] | 31.50 [800] | 84 [2134] | 95.42 [2424] | 1070 | 915 | 975 | 780 | 1006 | 876 | 995 | 797 | 828 | 758 | 9000 |
| 6240 | 2489 | | | | 2128 | 2346 | 1905 | 2390 | 2023 | 2346 | 1905 | 1917 | 1715 | 21164 | |
| 6245 | 1129 | | | | 965 | 1064 | 864 | 1088 | 933 | 1067 | 876 | 873 | 792 | 21336 | |
| | | | | | 2494 | 2145 | 2353 | 1932 | 2399 | 2058 | 2353 | 1932 | 1925 | 1745 | 21336 |
| | | | | | 1131 | 973 | 1067 | 876 | 1088 | 933 | 1067 | 876 | 873 | 792 | 9676 |



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

ALL DIMENSIONS ARE IN INCHES [MM]

A1-A10 ARE LOADING POINTS Ø3/4 [19] Table 25



SKM Air Cooled Packaged Chillers APCX Series - R134a

Installation & Application Data

Location/Space Requirements

Due to the vertical air flow discharge condenser design, it is recommended that certain precautions are to be taken before installation. There should be no obstruction on the air flow. Orient the unit so that prevailing winds blow parallel to the unit length thus minimizing the effects on condensing pressure. If it is not practical to orient the unit in this manner, a wind deflecting shield should be considered.

Refer to figure for recommended clearance around chillers to avoid warm air recirculation or coil starvation.

It is also necessary to provide adequate clearance on all sides of the unit for service access and satisfactory performance. This will prevent excessive condensing temperatures and enhance system performance and operating economy.

Foundation

A flat concrete foundation or floor which can support the weight of the equipment must be provided as the unit must be level for proper operation and functioning of controls.

Vibration Isolation

Under certain critical conditions it is recommended that vibration isolators of rubber-in-shear or spring type be installed under the base.

The isolators must be designed for the operating weight of the unit. For operating load points refer to the Dimensional Data. Correct selection of types of isolators depends upon application and structure. To further reduce the transmission of vibration, it is recommended that flexible water connections suitable for the system pressure be installed on the water inlet connections of the chiller.

For critical applications or locations, services of a noise and vibration expert are recommended.

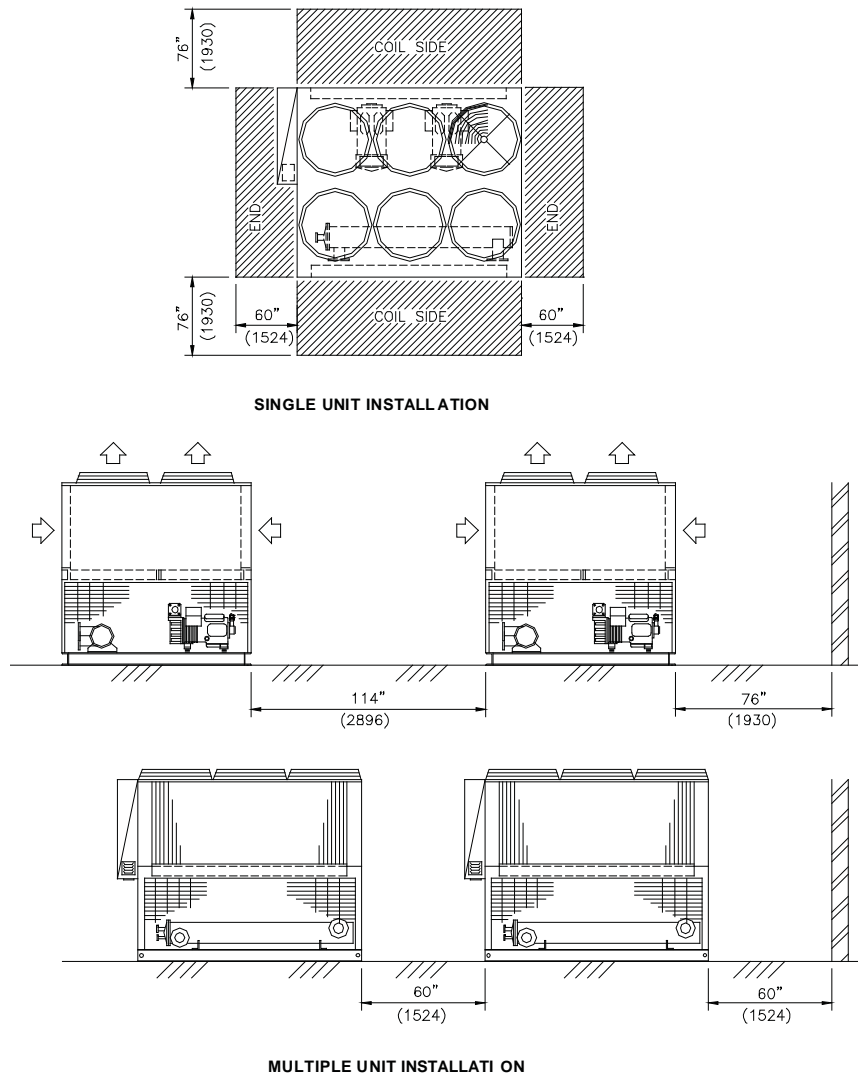


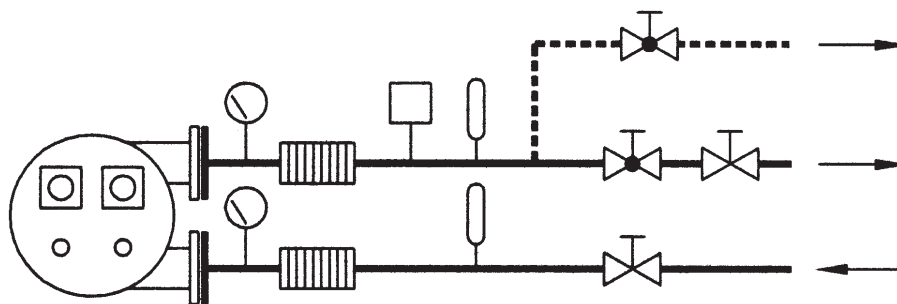
Figure A

SKM Air Cooled Packaged Chillers APCX Series - R134a

Water Piping Practices

Due to the variety of piping practices, it is advisable to follow the recommendations of local authorities. They can supply the installer with the proper building and safety codes required for a safe and proper installation. Basically the piping should be designed with a minimum number of bends and changes in elevation to keep the system cost down and performance up. It should contain:

1. Vibration eliminators to reduce vibration and noise transmission to the building.
2. Shut-off valves to isolate the unit from the piping system during unit servicing.
3. Manual or automatic air vent valves at the high points of the system so that the air can be vented.
4. An expansion tank to control system pressure allowing water to expand on increase of water temperature.
5. Make necessary arrangements to install a water flow switch on the leaving water connection to ensure adequate water flow and wire it with the terminals provided in the unit control panel. This will safeguard against slugging the compressor on start-up and shut down the unit should the water flow be interrupted. Refer to the Installation instruction sheet furnished with the water flow switch.
6. Temperature and pressure indicators located at the unit to aid in unit servicing.
7. A strainer or some means of removing foreign matter from the water before it enters the pump. It should be placed far enough upstream to prevent cavitation at the pump inlet (consult pump manufacturer for recommendations). The use of a strainer will prolong pump life and thus keep system performance up. All building water piping must be flushed prior to making final connection to the chiller.
8. Prior to insulating the piping and filling the system a preliminary leak check should be made.
9. Piping insulation should include a vapor barrier to prevent moisture condensation and possible damage to the building structure. It is important to have the vapor barrier on the outside of the insulation to prevent condensation within the insulation on the cold surface of the pipe.



TYPICAL CHILLED WATER PIPING

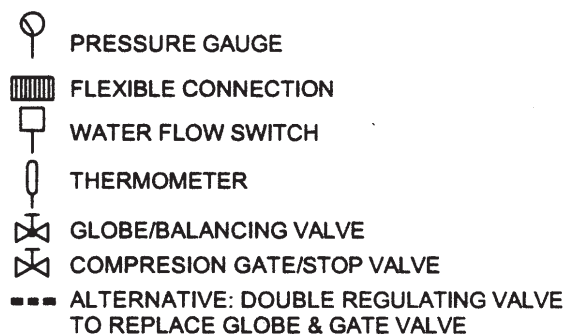


Figure B

SKM Air Cooled Packaged Chillers APCX Series - R134a

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 the 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).

Low Ambient Operation

For efficient operation of packaged chiller during intermediate seasons, when temperatures may drop to 50°F (10°C), proper operation is controlled by the following :

Based on the high pressure, MCS cycles the required fans ON & OFF.

If unit operation is envisaged at ambients down to 25°F (-4°C), optional Low Ambient Operation kit should be used (option LAO).

This factory installed arrangement requires control valves, receiver and additional refrigerant charge to build up condensing pressure in condenser coil by flooding refrigerant at low ambient seasons operation. See optional features Page 7.

Specify option LAO when desired.

Corrosive Atmosphere

To protect condenser from corrosion in corrosive, saline, dusty and high humid atmosphere, it is recommended to use Pre-Coated Aluminum Fins as the coating offers a high resistance to corrosion and is designed to give maximum performance in severe and highly corrosive environments.

During laboratory testing, pre-coated aluminum passed a 1000 hour, 5% salt spray test at 95°F (35°C) temperature and 95% relative humidity, according to ASTM B - 117.

These pre-coated aluminum fins are recommended for use in off shore (saline and high humidity) environments, for installations in the desert, refineries, sewage treatment plants and other industrial applications.

Chilled Water Piping for Multiple Chiller Installation (With MCS)

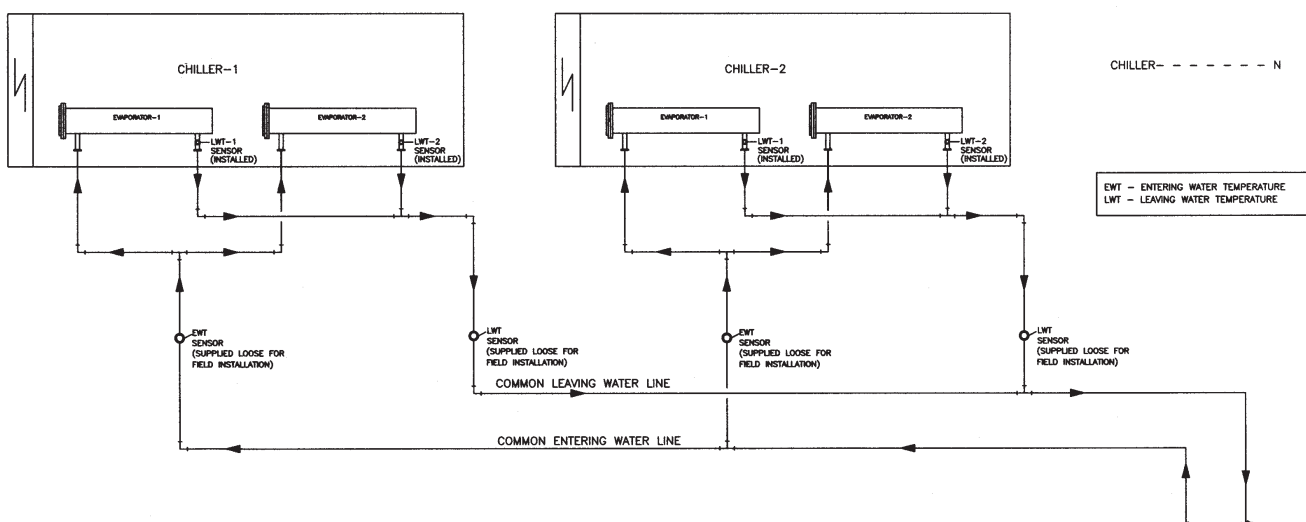


Figure C

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.

SKM Air Cooled Packaged Chillers APCX Series - R134a

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 reciprocating high efficiency 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 40°F (4°C) to 140°F (60 °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 in the field.

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

COMPRESSOR(S)

Compressors used in air cooled packaged chillers shall be of high efficiency and fully accessible semi-hermetic reciprocating type with discus valve design. The compressor shall be equipped with crankcase heater, reversible oil pump, refrigerant gas cooled electric motor, preset internal relief valve, inherent thermistor motor protection, suction and discharge service valves, oil sight glass. Compressors shall be mounted on anti-vibration mounts to minimize vibration transmission. All compressors shall be provided with an individual 3 pole MCCB for short circuit protection & Isolation in case it is required. Individual 3 pole contactors for switching of the compressors shall be rated for AC3 duty.

EVAPORATOR

All the evaporators shall be shell and tube, direct expansion, removable head and having 1, 2, and 3 refrigerant circuits. Evaporator shell, header, tubesheet, refrigerant and water connections shall be made of carbon steel. Baffles shall be provided in the waterflow to increase the heat transfer efficiency. High efficiency tubes in copper. Evaporators shall be provided with drain and vent plugs. Shell and tube evaporator design and material specifications, the assembly process shall be in compliance with the following codes: CE, GOST, UDT and ASME Standards.

Maximum working pressure of waterside shall be 145 psig (1000 kPa) and for refrigerant side shall be 363 psig (2500 kPa).

All evaporators shall be insulated with 1" (25mm) thick flexible closed cell insulation, having K factor of 0.26 Btu.in/ft².hr.°F (0.038 W/m.°K).

CONDENSER COIL

Condenser coil shall be air cooled and shall be constructed of seamless copper tubes, maximum 4 rows deep, 3/8" (9.52 mm) O.D. and mechanically bonded to the wavy type aluminum fins.

Fins spacing shall be maximum 12 fpi (2.1mm). Slit fins shall not be accepted. Precoated fins or Aeris coil coating (based on application) shall be used for saline and corrosive environment.

Integral sub cooling circuit in each coil shall be provided to increase the chiller cooling capacity, without additional operating cost.

The coils shall be tested against leakage by air pressure of 450 psig (3100 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 contactor rated for AC3 duty operation and motor protector circuit breakers provided for overload, short circuit protection and isolation.

REFRIGERATION CIRCUITS

Refrigeration circuits piping shall be fabricated from ACR grade copper pipes and each refrigeration circuit shall include a removable core filter drier, liquid line solenoid valve, thermostatic expansion valve, shut of valve, sight glass and hot gas muffler. For single compressor circuits, vibration absorbers on suction and discharge lines shall be provided.

Suction line shall be insulated with ½" (13mm) wall thickness closed cell pipe insulation with maximum k factor 0.26 Btu.in/ft².hr.°F (0.04 W/m .°K).



SKM Air Cooled Packaged Chillers APCX Series - R134a

GUIDE SPECIFICATIONS

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 anticorrosive protection, fabricated steel shall be thoroughly degreased 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 (ASTM B 117).

Machine casing shall be provided with access doors for easy service and maintenance and painted steel wire guard for compressors section.

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

The unit mounted control panel enclosure is fabricated out of heavy gauge sheet steel in phosphatized powder coated baked finish. The enclosure conforms to IP-54 as per guidelines in IEC 529. A Hinged access door and key fastener is provided for easy access and security. The control panel shall be ventilated through louvers and filters. The panel is factory wired in accordance with NEC 430 & 440, labeled, tagged and features 220/240V controls and the following as standard:

- Individual compressor and condenser fan motor contactors.
- Circuit breakers for compressors
- Condenser fan motor protector circuit breaker.
- MCB for control circuit.
- Microprocessor control boards.
- Manual pump down switch for each circuit.
- Remote and Local Source Outlet.
- Common trip indication light.
- 13A Power Source Outlet.
- Volt free contacts for remote Run and Trip indication.
- Power bus bar / terminal and control terminal blocks.

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 commissioning. 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 Master Micro Controller board shall have sensor inputs, digital inputs, relay outputs 0-10 Vdc analog outputs, keypad, graphics LCD with 2.8" diagonal viewing area, real time clock, RS-232, RS-485 and ethernet communication ports.

The main features of the Controller shall be as follows :

- A large graphical display with backlit that can be seen in bright or dim lighting..
- A user friendly nine button generic keypad.
- Battery backed up built-in real time clock to program two start/step daily and provide the information of running hours of the compressors.
- A multiple level passwords for security.
- 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.
- Remote Start/Stop facility through Volt Free Contact.
- Volt Free Contacts for common Run, Fault and Remote mode operation status.

Easy Accessible Measurements shall include the following :

- Current Capacity Status.
- Each Circuit Status.
- Leaving and Entering chilled water temperature.
- Evaporator and Condenser pressure of each refrigerant circuit.
- Compressor elapsed run time.
- Number of Compressor Starts.
- Ambient Temperature.
- Lockout and alarm status with time stamped.
- Water flow switch status.
- Compressor Amperage monitoring.
- Condenser Fan ON/OFF status.
- Logging of last 60 alarms.

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GUIDE SPECIFICATIONS

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

- Low suction pressure limiting.
- High discharge pressure limiting.
- High motor temperature/overcurrent.
- Freeze protection.
- Power loss.
- Chilled water flow loss.
- Sensor errors.
- Pump down.
- Anti-recycle.
- Time delay between stages.
- Four levels of password to restrict the international mishandling.

(Please refer to page5 for detailed information of microprocessor).

