

COOLEX

ACSC Series Air Cooled Chiller With Screw Compressor

Range 80 TR to 500 TR (282 kW to 1760 kW)



50 Hz

**COMMERCIAL AND INDUSTRIAL
AIR COOLED CHILLER**



For more technical information please visit www.coolex.com.kw



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OTHER COOLEX PRODUCTS

1. **Air Handling Units**
2. **Residential Packaged units**
3. **Commercial Packaged Units**
4. **Ducted Split Units**
5. **Concealed Split Units**
6. **Fan Coil Units**

INTRODUCTION

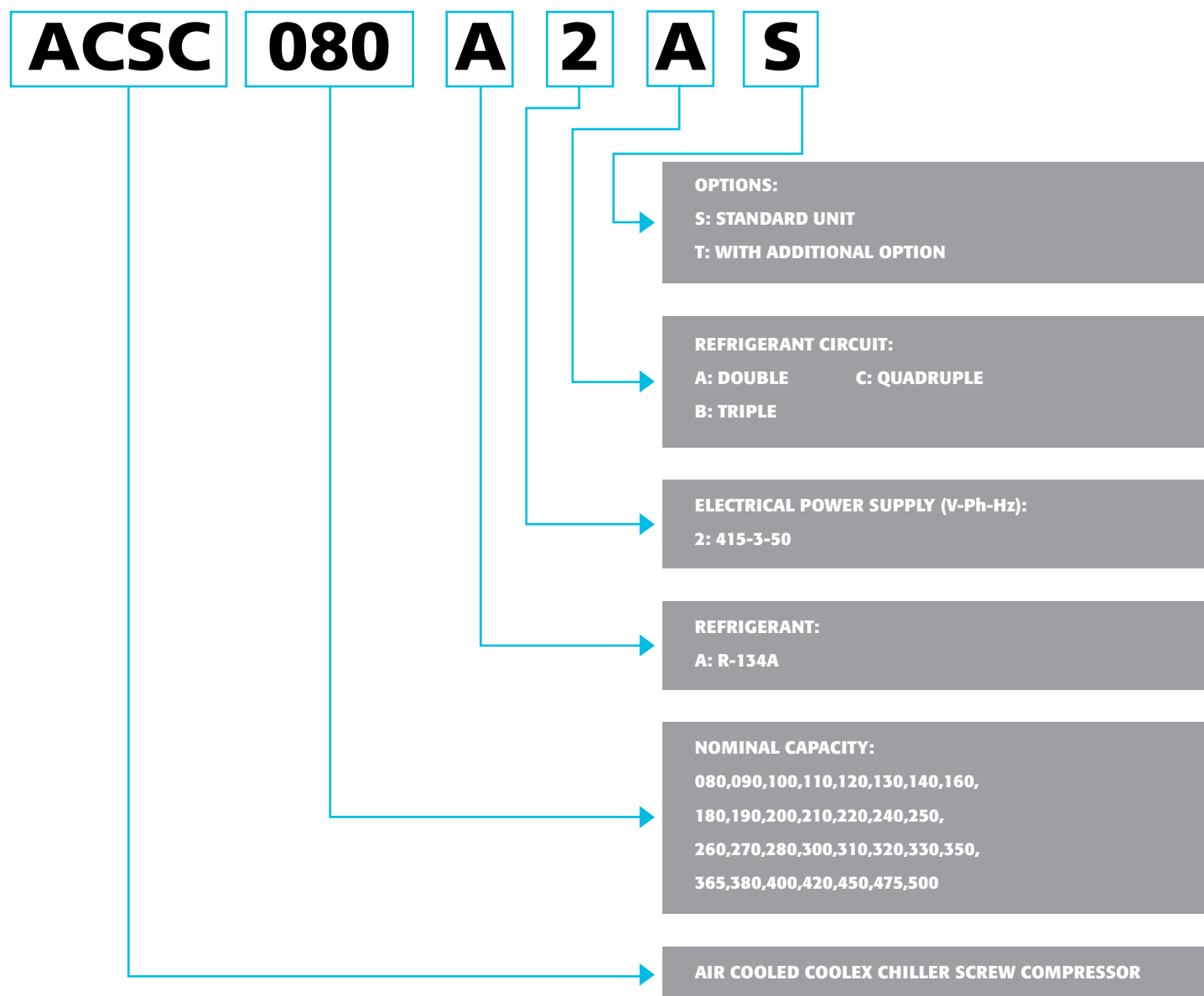
AIR COOLED COOLEX CHILLER SCREW COMPRESSOR (**ACSC**) design to be suitable for gulf's extremely high climatic conditions utilize with R-134A Screw Compressor (two or more), Insulated DX Shell & Tube Heat Exchangers (S&T), Condenser Coils with fan motor (s), control panel and other auxiliaries to meet market and customer's demand.

ACSC series chillers were designed and manufactured to

provide central cooling for commercial and industrial applications with the optimum performance, high efficiency, reliability, easy installation, minimal sound operation and vibration ideal for noise sensitive environment. Each **ACSC** unit is fully charge with R-134A refrigerant, fully factory tested and is ready for installation.

ACSC series are available in capacity range 80 TR - 500 TR (282 kW to 1760 kW) are rated with AHRI Conditions.

NOMENCLATURE



NOTE:
COOLEX reserves the rights to update/change in part or as a whole the specifications of the product for the purpose of product improvement and enhancement. Therefore the above information is subject to changes without prior notice.

OUT STANDING FEATURES

Design and manufacturing engineering excellence in the Air-cooled Chiller marketplace to provide comfort air conditioning. These chillers incorporate a wide range of important design Advances and Features including:

- **High COP, chillers provide reduce operating costs by using high efficiency screw compressor. High COP is made possible due to perfect screw profile and precise machining. The stepless capacity control provides precise capacity as required by the system load, and thus giving higher part load efficiencies.**
- **Designed conform to ASHRAE 15-2016 (Safety standard for Refrigeration Systems).**
- **Performance Data are rated in accordance to AHRI standard 550/590.**
- **Painted panel Salt Spray test in accordance to ASTM B 117 Operating Salt Spray (Fog) Testing.**
- **Steel sheet panels lock forming quality conforming to ASTM A653-CS Type B G90.**
- **Control panel design is equivalent to NEMA 4 (IP55 Weather proof and dust free).**
- **Internal power connection high voltage & control wire cables identification & markers as per NEC standard.**
- **Complete wired control panel with advanced microprocessor controller Matching with Building Management System.**
- **Compressors and fan motors circuit breakers are having thermal protection. Single point power connection.**
- **Compressors are part winding start and Star-Delta Start.**
- **Low noise aerodynamic design condenser fan, direct drive with rolled for venture design to eliminate short circuiting of airflow.**
- **All fans are propeller type with aerodynamic design, top discharge & provided with protective grill.**

- **All fan motors are Totally Enclosed Air over (TEAO) type with class "F" winding insulation , ball bearings & inherent thermal protection of automatic reset.**
- **Economizer operation is a standard feature for selected models to optimize cooling capacity.**
- **Electronic expansion valve as standard accessories.**
- **Liquid injection valve**
- **All major service components are close to the unit edge for safe and easy maintenance.**

MAIN STANDARD FEATURES

SEMI HERMETIC SCREW COMPRESSORS

Semi-hermetic screw compressor is developed especially for applications in air-conditioning and refrigeration. With high operating load design, each compressor is of high efficiency and reliability in all operating conditions. Screw compressors feature simple and robust construction by elimination of some components such as pistons, piston rings, valve plates, oil pumps which are found in reciprocating compressors. Without these components, screw compressors run with low noise level, minimized vibration, high reliability and durability. Each compressor has the latest and advanced 5:6 Patented Screw Rotor Profile designed to ensure high capacity and efficiency in all operating conditions. Each compressor is equipped with separated radial and axial bearings, liquid injection and economizer connection, PTC motor temperature thermistors and discharge temperature thermistors, a motor protector, and oil level switch and oil pressure differential switch connector and other accessories that new designs guarantee the compressor has the best reliability, longest bearing life during heavy duty running and strict operating conditions.



Figure A.

MAIN STANDARD FEATURES

STEPLESS CAPACITY CONTROL

ACSC series chillers are equipped with stepless capacity control system as standard for very accurate response to load requirements and best part load efficiency. Each compressor is equipped with a slider controller that enables to modulate capacity between 25% to 100%, thus giving a broad range to control total chiller capacity between 10% to 100% on an average. This system has following advantages:

- 1 Infinites capacity modulation that allows the compressor capacity to exactly match the cooling load.
- 2 Reduces compressor cycling that leads to better operational reliability.
- 3 Reduces operating cost.

EVAPORATOR

High efficiency DX shell & tube type evaporators are the water chilling in air conditioning package. DX Evaporator optimized for use with R134A. It has been developed for commercial and industrial refrigeration cooling with positive evaporation temperature. The tube bundle, directly welded to the shell, is non-removable. Evaporators can guarantee an elevated thermal performance through a perfect counter-current flow, and the reduction of by-pass flow. The water connections are placed horizontally, right or left side when facing the refrigerant inlet header. Also, the cooler included welded mounting supports with flexible coupling (Victaulic). The coolers are insulated with heavy closed cellular foam insulation as a standard other thickness are available as an option. All chiller barrels are fitted with vent, drain connection. (flange and ASME available as an option)



Figure B.

STANDARD WATER CONNECTION: Victaulic Flexible Couplings.

Evaporator are insulated with 1 inch (25mm) flexible closed cell insulation, K factor 0.28 Btu.In/hr.ft².°F (0.038 W/m².°C).

Coolers are tested and stamped for refrigerant/ water design /test pressure as follows:

COOLER	WATER SIDE	
	DESIGN PRESS.	TEST PRESS.
	BAR/PSIG	BAR/PSIG
STD	10/145	14.3/207
ASME	10/145	11/160

COOLER	REFRIGERANT SIDE	
	DESIGN PRESS.	TEST PRESS.
	BAR/PSIG	BAR/PSIG
STD	18/260	25.7/373
ASME	18/260	19.7/286

ECONOMIZER

BPHE economizer is a type of sub-cooler that uses part of total refrigerant flow from the condenser to cool the rest of the refrigeration flow. The evaporated refrigerant then enters the compressor at an intermediate pressure level. The cold gas from the economizer can also be used to provide extra cooling for the compressor. This improves cycle efficiency and also increases capacity substantially without requiring higher size of compressor. Economizer are insulated with heavy closed cellular foam insulation as a standard other thickness are available as an option.



Figure C.

MAIN STANDARD FEATURES

CONDENSER COILS

The coils are built up seamless copper tubes and mechanically bonded to scientifically designed aluminum fins for maximum heat transfer efficiency. The assembled coils are factory leak tested under water at a pressure of 450 psig for quality and leak free unit. They also undergo dry chemical cleaning after manufacturing for optimum system cleanness.

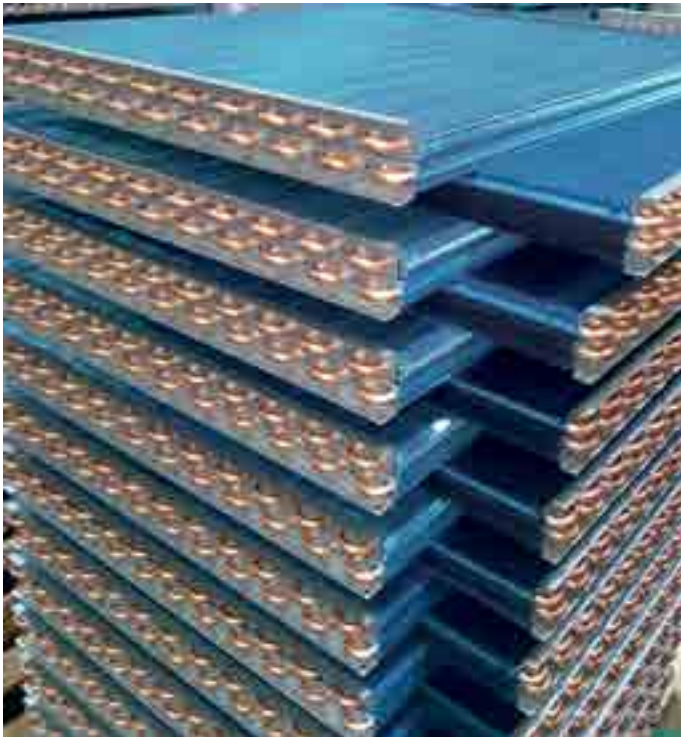


Figure D.

UNIT CASING / STRUCTURE FRAME

The unit casing are perfectly designed to eliminate the corrosion problem usually associated with outdoor equipment. The casing sheet metal is fabricated from hot dipped heavy gauge (G90), zinc coating and zero spangle galvanized steel, oven-baked powder coated.

CONDENSER FAN MOTOR

All condenser fan motors are totally enclosed air over type (TEAO) with class "F" winding insulation and ball bearings for high ambient application. The motors shall be three (3) phase with inherent thermal protection of automatic reset type.



Figure E.

ELECTRONIC EXPANSION VALVE

ACSC series chillers use electronic expansion valve to maintain and control precise flow of refrigerant to evaporator under both full load and part load operation of compressor to improves EER (Energy Efficiency Ratio). EEV maintains precise control of superheat at the outlet of evaporator with faster control irrespective of wide variation capacity. Also it improves temperature control & increases the range of operating conditions.

The EEV is controlled by electronic controller for precise operation over full range of capacity modulation.

MAIN STANDARD FEATURES

CONTROL PANEL

The control panel design is equivalent to NEMA 4 (IP55) with hinged door for easy access ensuring dust and weatherproof construction. Internal power and control wiring is neatly routed, adequately anchored and all wires identified with cable markers as per NEC standards applicable to HVAC industry. The control voltage is 240V-1Ph-50Hz. The electrical controls used in the control panel are UL approved which are reliable in operation at high ambient conditions (Up to 70°C) for a long period.

MICROPROCESSOR CONTROL

The ACSC series chillers have advanced microprocessor controller is designed with the latest technology to give the best performance of the chiller and to ensure its efficiency and reliability.

It is not only monitoring the digital and analogue inputs but also responds very quickly to any problem before and during the operation of the chiller.

The user friendly display is a very effective tool for troubleshooting with multi linked back illuminated 128 x 64 dot pixel LCD Panel with 2.8" diagonal viewing area.

It shows all the required data of the chiller while it is running and keep all the faults in the alarm history.

The push buttons on the display board allows accessing to the operating conditions, control set points & alarm history.

The controller is capable to communicate with the building management system (BMS) open protocols like BACnet, Modbus through optional gateway interfaces.

The microprocessor controller is especially designed to withstand the high ambient temperature; it can withstand more than 70 degree C without any ventilating or cooling.

The microprocessor controller consists of the following hardware:

1 User Interface Display Board:

Provided with simple push buttons (9 Nos) on the display board and menu driven software to access operating conditions, control set points and history that are clearly displayed on the LCD panel with 2.8" diagonal viewing area.

2 Magnum Micro Controller:

Complementing the Magnum micro controller are MCS-RO-BASE/EXT and MCS-SI-BASE/EXT expansion boards. This allows for the system expansion to a maximum of 112 inputs and 108 outputs.

- Temperature control: The user can select the temperature control based on either leaving water temperature or returning water temperature. The software will control system using a Proportional Integral Derivative (PID) for precise control logic.
- Electronic expansion valve control.
- Stepless control.
- Economizer control.
- Compressors hour equalization.
- Software update through PC programming.
- Suction temperature sensor.
- Discharge temperature sensor.
- Suction pressure transducer.
- Discharge pressure transducer.
- Oil pressure transducer.
- Head pressure control by fan cycling.
- Short cycling protection for compressors (time delay).
- Compressor locking option.
- Pump management.
- Liquid injection control.
- Free terminal for general alarm output.

MAIN STANDARD FEATURES

MICROPROCESSOR CONTROL

System Protection / Alarms:

- Low suction pressure.
- High discharge pressure (through pressure switch and transducer).
- Anti freeze protection.
- Flow switches alarm.
- Serial communication alarm.
- Sensor alarm management.
- Pump alarm management.
- Power supply alarm.
- Compressor circuit breaker trip alarm.
- Compressor windings temp/SSPS alarm.
- Compressor no run alarm.
- EEV board communication alarm.
- Programmable auxiliary alarm.
- High discharge temperature alarm.
- High superheat alarm.
- Low superheat alarm.
- EEV winding alarm for troubleshooting.

Data Display

In the normal operating mode the graphic LCD displays the system status, the set point, run time of the chiller, the alarm history. In addition, for each compressor:

- Suction and discharge pressure.
- Suction and discharge temperatures.

- Oil pressure for each compressors.
- Status of each compressor.
- Status of condenser fans.
- Compressor drawn current.
- Compressor load percentage.
- Run time of each compressor.
- Suction/Discharge super heat.
- Electronic expansion valve opening percentage.
- Lockout and alarm status.
- Leaving and Return water temperature.
- Digital input status.
- Output relay status.
- Ambient temperature.
- Status of the chiller.
- Status of water flow switch, voltage monitor and compressor internal motor protector.
- Log of last 100 alarms.
- Date and time.



Figure F.

MAIN STANDARD FEATURES

CONSTRUCTION AND REFRIGERATION

- **INDEPENDENT REFRIGERATION CIRCUIT PER COMPRESSOR**
- **LIQUID LINE ELECTRONIC EXPANSION VALVE**
Used to regulate the refrigerant flow to the water cooler and maintain a constant Superheat and load optimization.
- **LIQUID LINE MOISTURE INDICATOR SIGHT GLASS**
Installed in the liquid line. An easy to read color indicator shows moisture contents and provides a mean for checking the system refrigerant charge.
- **LIQUID LINE REPLACEABLE CORE TYPE FILTER DRIER**
Refrigerant circuits are kept free of harmful moisture, sludge, acids and oil contaminating particles by the filter drier.
- **FULLY CHARGED UNIT WITH R-134A REFRIGERANT**
- **DISCHARGE, SUCTION, LIQUID LINE PIPES**
All hard copper pipes and minimize pipe brazed joints which in turn increases the system reliability.
- **COMPRESSOR/COOLER GUARD**
Protects the compressor & cooler from vandalism.
- **BLUE-COATED ALUMINUM FINS CONDENSER COILS**
For seashore or acid corrosive environments.
- **LIQUID LINE SOLENOID VALVE**
Closes when the compressor is off to prevent any liquid refrigerant from accumulating in the water cooler during the off cycle.
- **LIQUID LINE SHUT OFF VALVE**
- **LIQUID LINE INJECTION KIT**
For cooling the compressor in high ambient temperature.

ELECTRICAL

- **COMPRESSOR PART WINDING START OR STAR-DELTA START**
- **COMPRESSOR IN-BUILT PROTECTION DEVICE**
- **STARTER**
The starter is operated by the control circuit and provides power to the compressor motors. These devices are rated to handle safely both RLA and LRA of motors.
- **CRANKCASE HEATERS**
Each compressor has immersion type crankcase heater. The compressor crankcase heater is always on when the compressors are de-energized. This protects the system against refrigerant Migration, oil dilution and potential compressor failure.
- **HIGH PRESSURE SWITCH**
This switch provides an additional safety protection in case of excessive discharge pressure.
- **UNIT ON-OFF SWITCH**
On Off Switch is provided for manually switching the unit control circuit.
- **ON/OFF SWITCH FOR EACH COMPRESSORS**
- **UNDER VOLTAGE AND PHASE PROTECTION**
This feature protects the chiller against low incoming voltage as well as single phasing , phase reversal and phase imbalance by de-energizing the control circuit.
- **COMPRESSOR CIRCUIT BREAKERS**
Protects compressor against overload and short circuit. When tripped, the breaker opens the power supply to the compressor and control circuit through auxiliary contacts. These circuit breakers are provided with thermal adjustable switch for precise over load setting.

MAIN STANDARD FEATURES

CONSTRUCTION AND REFRIGERATION

- **WATER FLOW SWITCH**
Paddle type field adjustable flow switch for water cooler circuits, Interlock into safety circuits so that the unit will remain off unit water flow is determine. (SUPPLIED LOOSE BY COOLEX, FIELD INSTALLATION)
- **VICTAULIC COUPLING KIT FOR COOLER CONNECTION**
Coupling kit with flexible joints for Evaporator Water Connection.

ELECTRICAL

- **COMPRESSOR CURRENT MONITOR**
- **EXTERNAL OVERLOAD RELAY FOR EACH COMPRESSOR**
- **CONTROL FUSED FOR SHORT CIRCUIT PROTECTION**

OPTIONAL FEATURES

CONSTRUCTION AND REFRIGERATION

- **PRESSURE GAUGES**
Suction & discharge pressure gauges.
- **UNIT MOUNTING SPRING ISOLATORS**
Spring type or rubber-in-shear (neoprene friction pad) vibration isolators are available for field installation under the unit base rails assembly on sound sensitive applications. Vibration isolators are recommended for all mounted installations or wherever vibration transmission is a consideration. (Field Installation).
- **ASME CODE STAMPED**
For shell and tube liquid coolers
- **COMPRESSOR ENCLOSURE BOX (SOUND ATTENUATOR)**
reduces the compressor operating noise and keeps the compressor clean.
- **COPPER FINS/TUBES CONDENSER COILS**
For seashore salty corrosive environments.
- **PRE-COATED ALUMINUM FINS CONDENSER COILS (MHG)**
For seashore or acid corrosive environments.
- **PROTECTIVE COATING FOR COPPER/ALUMINUM FINS CONDENSER COILS**
For seashore or acid corrosive environments

ELECTRICAL

- **NON-FUSED MAIN DISCONNECT SWITCHES**
De-energize power supply during servicing/repair works as well as with door interlock.
- **COOLER HEATER TAPE**
Prevent freezing up of water on low ambient.
- **GROUND CURRENT PROTECTION**
Additional protection for compressor in the case of abnormal current leakage.
- **EXTERNAL OVER LOAD RELAY**
Overload relay can be provided for Condenser fan Motor
- **BUILDING MANAGEMENT SYSTEM (BMS)**
The chiller controller is suitable to interface with building management systems, which are BACnet, Modbus, Lonworks and Johnson N2.
- **TOUCHSCREENS / GRAPHICS**



Figure G.

PHYSICAL DATA

UNIT MODEL (ACSC)		080	090	100	110	120	130	140	160	180	190
NOMINAL COOLING CAPACITY *	TR	81	90	104	111	122	131	140	164	182	194
	KW	285	317	365	391	428	462	491	575	639	683
COOLING CAPACITY **	TR	67	74	91	92	105	113	123	140	158	167
	KW	237	259	319	324	371	397	431	494	555	588
COMPRESSOR		Semi Hermetic Compact Screw									
QUANTITY	(No.)	2	2	2	2	2	2	2	2	2	2
OIL GRADE		BSE170 Or Equivalent									
OIL CHARGE PER COMPRESSOR	(Liter)	14	16	16	16	16	16	16	18	20	23
CAPACITY CONTROL (STEPLESS)	(%)	100-25									
CONDENSER		Enhanced Inner Grooved Copper Tubes, Aluminum Fins									
TUBE DIAMETER-ROW-FIN PER INCH		3/8"-3-14									
TOTAL FACE AREA	(Sq.ft)	150	150	200	200	200	200	250	250	300	300
CONDENSER FAN		Propeller Direct Driven (Axial), 800mm Ø, 920 rpm									
QUANTITY	(No.)	6	6	8	8	8	8	10	10	12	12
AIR FLOW	(CFM)	63000	63000	84000	84000	84000	84000	105000	105000	126000	126000
COOLER		Direct Expansion Shell & Tube									
QUANTITY	(No.)	1	1	1	1	1	1	1	1	1	1
WATER VOLUME PER COOLER	(Liter)	87	87	87	117	117	117	143	143	166	166
WATER CONNECTION SIZE (IN/OUT) DIAMETER	(mm)	125	125	125	150	150	150	150	150	150	150
EXPANSION DEVICE		Electronic									
REFRIGERATION CIRCUITS	(No.)	2	2	2	2	2	2	2	2	2	2
REFRIGERANT CHARGE (Comp 1/comp 2)	(Kg)	34	38	43	47	51	55	60	68	77	80
SOUND PRESSURE LEVEL @ (3m/5m/10m)	(dBA)	72.3/68.8 /63.5	72.3/68.8 /63.5	73.8/70.3 /65	73.8/70.3 /65	73.8/70.3 /65	73.8/70.3 /65	74.9/71.4 /66.1	75.6/72.1 /66.8	75.6/72.1 /66.9	75.6/72.1 /66.9
OPERATING WEIGHT - ALUMINUM COIL	(Kg)	3001	3108	3599	3783	3800	3851	4387	4765	5292	5454

* Capacity Rating 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 Rating are Based on 115°F (46°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

NOTES:-

1- ALL COMPRESSORS OPERATE AT 2900 RPM @ 50Hz

2- SOUND PRESSURE LEVEL ± 2 dBA

PHYSICAL DATA

UNIT MODEL (ACSC)		200	210	220	240	250	260	270	280	300
NOMINAL COOLING CAPACITY *	TR	200	210	222	240	252	261	271	281	301
	KW	704	738	780	843	885	918	952	988	1060
COOLING CAPACITY **	TR	174	182	191	208	217	223	235	243	248
	KW	613	639	672	731	762	785	827	854	872
COMPRESSOR		Semi Hermetic Compact Screw								
QUANTITY	(No.)	2	2	2	2	2	2	2	2	3
OIL GRADE		BSE170 Or Equivalent								
OIL CHARGE PER COMPRESSOR	(Liter)	23	23	23	23/28	28	28/28	28/28	28	23
CAPACITY CONTROL (STEPLESS)	(%)	100-25								
CONDENSER		Enhanced Inner Grooved Copper Tubes, Aluminum Fins								
TUBE DIAMETER-ROW-FIN PER INCH		3/8"-4-14								
TOTAL FACE AREA	(Sq.ft)	300	300	300	350	350	350	400	400	450
CONDENSER FAN		Propeller Direct Driven (Axial), 800mm Ø, 920 rpm								
QUANTITY	(No.)	12	12	12	14	14	14	16	16	18
AIR FLOW	(CFM)	12600	126000	126000	147000	147000	147000	168000	168000	189000
COOLER		Direct Expansion Shell & Tube								
QUANTITY	(No.)	1	1	1	1	1	1	1	1	1
WATER VOLUME PER COOLER	(Liter)	259	259	240	240	240	240	229	229	375
WATER CONNECTION SIZE (IN/OUT) DIAMETER	(mm)	200	200	200	200	200	200	200	200	200
EXPANSION DEVICE		Electronic								
REFRIGERATION CIRCUITS	(No.)	2	2	2	2	2	2	2	2	3
REFRIGERANT CHARGE (Comp 1/comp 2)	(Kg)	85	90	94	98/107	107	107/115	110/120	120	85
SOUND PRESSURE LEVEL @ (3m/5m/10m)	(dBA)	75.9/72.4 /67.1	76.8/73.3 /68.1	76.8/73.3 /68.1	76.8/73.3 /68.1	76.8/73.3 /68.1	76.8/73.3 /68.1	76.9/73.4 /68.2	76.9/73.4 /68.2	77.4/73.9 /68.7
OPERATING WEIGHT - ALUMINUM COIL	(Kg)	5805	5788	5918	6673	6919	7015	7553	7648	8836

* Capacity Rating 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 Rating are Based on 115°F (46°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

NOTES:-

1-ALL COMPRESSORS OPERATE AT 2900 RPM @ 50Hz

2-SOUND PRESSURE LEVEL ± 2 dBA

PHYSICAL DATA

UNIT MODEL (ACSC)		310	320	330	350	365	380	400	420	450	475	500
NOMINAL COOLING CAPACITY *	TR	310	320	330	350	365	382	403	420	456	480	503
	KW	1091	1124	1161	1231	1284	1342	1419	1478	1602	1686	1770
COOLING CAPACITY **	TR	255	261	284	286	298	331	347	361	398	416	433
	KW	895	918	999	1007	1048	1162	1220	1269	1400	1462	1524
COMPRESSOR		Semi Hermetic Compact Screw										
QUANTITY	(No.)	3	3	3	4	4	4	4	4	4	4	4
OIL GRADE		BSE170 Or Equivalent										
OIL CHARGE PER COMPRESSOR	(Liter)	23	23	23	23	20	20/23	23/20	20	23	23/28	28
CAPACITY CONTROL (STEPLESS)	(%)	100-25										
CONDENSER		Enhanced Inner Grooved Copper Tubes, Aluminum Fins										
TUBE DIAMETER-ROW-FIN PER INCH		3/8"-4-14										
TOTAL FACE AREA	(Sq.ft)	450	450	450	500	500	550	550	550	700	700	700
CONDENSER FAN		Propeller Direct Driven (Axial), 800mm Ø, 920 rpm										
QUANTITY	(No.)	18	18	18	20	20	22	22	22	28	28	28
AIR FLOW	(CFM)	189000	189000	189000	210000	210000	231000	231000	231000	294000	294000	294000
COOLER		Direct Expansion Shell & Tube										
QUANTITY	(No.)	1	1	1	1	1	2	2	2	2	2	2
WATER VOLUME PER COOLER	(Liter)	375	375	375	465	465	259	259	240	240	240	240
WATER CONNECTION SIZE (IN/OUT) DIAMETER	(mm)	200	200	200	250	250	200	200	200	200	200	200
EXPANSION DEVICE		Electronic										
REFRIGERATION CIRCUITS	(No.)	3	3	3	4	4	4	4	4	4	4	4
REFRIGERANT CHARGE (Comp 1/comp 2)	(Kg)	85/93	85/93	93	75	78	78/85	83/90	90	96	96/105	105
SOUND PRESSURE LEVEL @ (3m/5m/10m)	(dBA)	77.4/73.9 /68.7	77.6/74.1 /68.8	77.6/74.1 /68.8	78.3/74.8 /69.5	78.3/74.8 /69.5	78.5/75.0 /69.7	78.6/75.1 /69.8	78.6/75.1 /69.8	78.6/75.1 /69.8	78.6/75.1 /69.8	78.6/75.1 /69.8
OPERATING WEIGHT - ALUMINUM COIL	(Kg)	9081	9325	8878	10462	10420	10939	11086	11137	11072	11572	12056

* Capacity Rating 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 Rating are Based on 115°F (46°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

NOTES:-

1- ALL COMPRESSORS OPERATE AT 2900 RPM @ 50Hz

2- SOUND PRESSURE LEVEL ± 2 dBA

ELECTRICAL DATA

Model	Supply Voltage: (415v-3ph-50hz)		Compressor Type -1			Compressor Type -2			Compressor Starting	Condenser fan motor			Crankcase Heater(240v)		MCA	MOCP
	Min.	Max.	RLA (Ea)	LRA (Ea)	Qty	RLA (Ea)	LRA (Ea)	Qty		FLA (Ea)	Qty	Total kW	Total Watts	Total Amps		
ACSC080	374	457	71.6	530.0	2	-	-	-	PWS	3.8	6	9.42	300	1.25	183.9	250
ACSC090	374	457	87.7	765.0	2	-	-	-	PWS	3.8	6	9.42	300	1.25	220.1	300
ACSC100	374	457	90.8	765.0	2	-	-	-	PWS	3.8	8	12.56	300	1.25	234.7	325
ACSC110	374	457	97.6	985.0	2	-	-	-	PWS	3.8	8	12.56	300	1.25	250.0	325
ACSC120	374	457	111.2	985.0	2	-	-	-	PWS	3.8	8	12.56	300	1.25	280.6	375
ACSC130	374	457	124.6	985.0	2	-	-	-	PWS	3.8	8	12.56	300	1.25	310.8	425
ACSC140	374	457	114.5	985.0	2	-	-	-	PWS	3.8	10	15.70	300	1.25	295.6	400
ACSC160	374	457	155.5	1345.0	2	-	-	-	PWS	3.8	10	15.70	300	1.25	387.9	525
ACSC180	374	457	162.8	1465.0	2	-	-	-	PWS	3.8	12	18.84	300	1.25	411.9	550
ACSC190	374	457	179.6	1465.0	2	-	-	-	PWS	3.8	12	18.84	300	1.25	449.7	625
ACSC200	374	457	174.2	1465.0	2	-	-	-	PWS	3.8	12	18.84	300	1.25	437.6	600
ACSC210	374	457	182.5	1465.0	2	-	-	-	PWS	3.8	12	18.84	300	1.25	456.2	625
ACSC220	374	457	204.1	1580.0	2	-	-	-	Y-Δ	3.8	12	18.84	300	1.25	504.8	700
ACSC240	374	457	190.9	1580.0	1	235.6	2080.0	1	Y-Δ	3.8	14	21.98	300	1.25	538.6	750
ACSC250	374	457	235.6	2080.0	2	-	-	-	Y-Δ	3.8	14	21.98	300	1.25	583.3	800
ACSC260	374	457	235.6	2080.0	1	257.2	2330.0	1	Y-Δ	3.8	14	21.98	300	1.25	610.3	850
ACSC270	374	457	223.8	2080.0	1	242.7	2330.0	1	Y-Δ	3.8	16	25.12	300	1.25	588.0	825
ACSC280	374	457	242.7	2330.0	2	-	-	-	Y-Δ	3.8	16	25.12	300	1.25	606.9	825
ACSC300	374	457	176.0	1580.0	3	-	-	-	Y-Δ	3.8	18	28.26	450	1.88	640.4	800
ACSC310	374	457	176.0	1580.0	2	214.3	2080.0	1	Y-Δ	3.8	18	28.26	450	1.88	688.3	900
ACSC320	374	457	176.0	1580.0	1	214.3	2080.0	2	Y-Δ	3.8	18	28.26	450	1.88	726.6	925
ACSC330	374	457	204.1	1580.0	3	-	-	-	Y-Δ	3.8	18	28.26	450	1.88	731.7	925
ACSC350	374	457	162.7	1465.0	4	-	-	-	PWS	3.8	20	31.40	600	2.50	767.5	925
ACSC365	374	457	169.8	1465.0	4	-	-	-	PWS	3.8	20	31.40	600	2.50	797.7	950
ACSC380	374	457	169.6	1465.0	2	174.2	1465.0	2	PWS	3.8	22	34.54	600	2.50	814.8	975
ACSC400	374	457	182.5	1465.0	2	188.7	1465.0	2	PWS	3.8	22	34.54	600	2.50	873.2	1050
ACSC420	374	457	199.7	1465.0	4	-	-	-	PWS	3.8	22	34.54	600	2.50	932.3	1125
ACSC450	374	457	188.3	1580.0	4	-	-	-	Y-Δ	3.8	28	43.96	600	2.50	906.7	1050
ACSC475	374	457	191.0	1580.0	2	246.3	2330.0	2	Y-Δ	3.8	28	43.96	600	2.50	1042.6	1275
ACSC500	374	457	235.6	2080.0	4	-	-	-	Y-Δ	3.8	28	43.96	600	2.50	1107.7	1325

Legend

RLA	Rated Load Amps	LRA	Locked Rotor Amp	FLA	Full Load Amps	PWS	Part Winding Start
Y-Δ	Star-Delta Start	MCA	Minimum Circuit Ampacity as per NEC 430-24	MOCP	Maximum Over Current Protection		

Note:

- Main power must be provided from a single field supply with mounted fused disconnects using dual element time delay fuse or circuit breaker.
- Neutral line is required on 415V-3PH-50HZ(4Wires) power supply.
- The compressor crankcase heaters must be energized for 12 hours before the unit is initially started or after a prolonged power failure.
- Type-1 are the small compressors and type-2 are the Big compressors. Both compressors are with or without economizers.
- The $\pm 10\%$ voltage variation from the nominal is allowed for a short time only, not permanent.
- All field wiring must be in accordance with NEC or local standard.

CORRECTION FACTOR TABLES

Altitude Correction Factor:

The Unit ratings are based on sea level.

This correction factor is to be used for above sea level in order to get the required cooling capacity.

See table (1-a) and table (1-b)

ELEVATION ABOVE SEA LEVEL (FT.)	CAPACITY CORRECTION FACTOR
0	1.00
2000	0.99
4000	0.98
6000	0.97
8000	0.96
10000	0.95

TABLE (1-a)

ELEVATION ABOVE SEA LEVEL (METER)	CAPACITY CORRECTION FACTOR
0	1.00
600	0.99
1200	0.98
1800	0.97
2400	0.96
3000	0.95

TABLE (1-b)

Cooler Fouling Correction Factor:

The chillers are rated at a fouling factor of 0.00010 ft².hr. °F/Btu (0.000018 m².°C/w).

This correction factor is to be used for other fouling factor values in order to get the required cooling capacity and power input.

See table (2-a) and table (2-b)

EVAPORATOR FOULING FACTOR (HR-FT ² -°F/BTU)	CAPACITY CORRECTION FACTOR	POWER INPUT FACTORS	AHRI STANDARDS
0.00010	1.000	1.000	AHRI-550/590
0.00025	0.992	0.997	AHRI-550/590
0.00050	0.978	0.990	AHRI-550/590
0.00075	0.965	0.984	
0.00100	0.951	0.978	

TABLE (2-a)

EVAPORATOR FOULING FACTOR (M ² -°C/W)	CAPACITY CORRECTION FACTOR	POWER INPUT FACTORS	AHRI STANDARDS
0.000010	1.000	1.000	AHRI-550/590
0.000044	0.992	0.997	AHRI-550/590
0.000088	0.978	0.990	AHRI-550/590
0.000138	0.965	0.984	
0.000176	0.951	0.978	

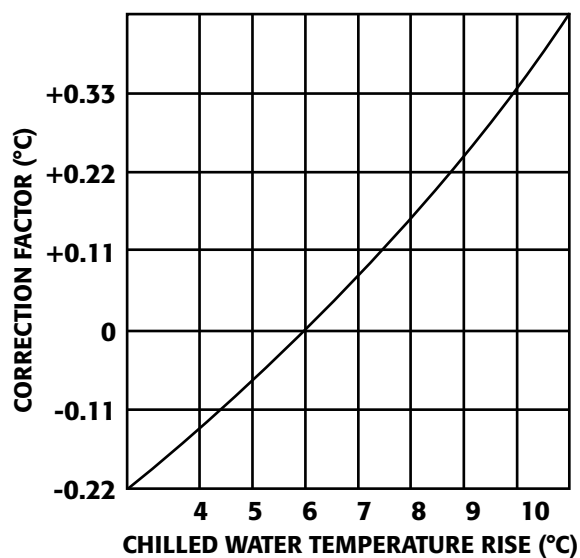
TABLE (2-b)

CORRECTION FACTOR CURVES

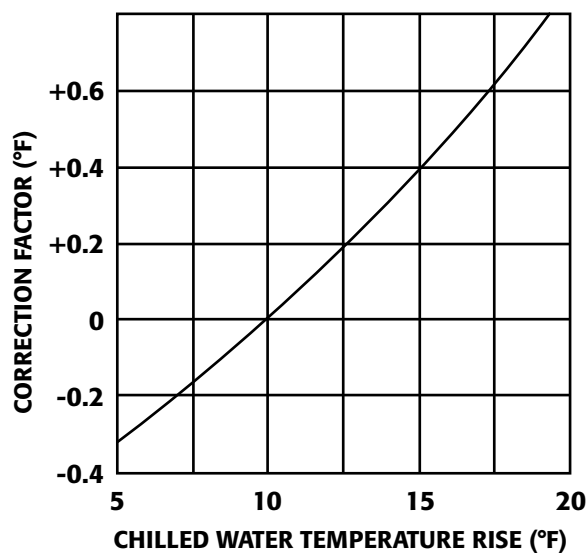
• ΔT Correction Factor :

Cooling Capacity ratings are based on 10 °F (5.5 °C) for Chilled water ΔT .

This correction factor is to be used for other range of ΔT in order to get the required cooling capacity .
See Curve (1-a) and Curve (1-b)



Curve (1-a)



Curve (1-b)

SELECTION PROCEDURE

Coollex ACSC Chiller should be selected with specific Design considerations, requirements and parameters of the intended application. Sample of the selection procedures are shown below:

Example 1 (English system)

- Design requirement

- 1-Cooling Capacity in tons (TR)
- 2- Leaving chilled water temperature in °F (LCWT)
- 3- Chilled water flow rate in GPM
- 4- Chilled water cooling range in °F
- 5- Design ambient temperature in °F
- 6- Altitude
- 7- Electrical power supply

- Selection sample

Select an air cooled chiller giving capacity of 200 TR to cool water from 54°F to 44°F ,altitude is 2000 ft above sea level ,water cooler fouling Factor is 0.00010 ft².hr.°F/Btu , design ambient temperature is 95°F and power supply is 415V/3Ph/50Hz

STEP-1

Entering the capacity performance data at given LCWT and ambient temperature. ACSC200 chiller unit at sea level will produce 200.06 tons and 208.3 kW compressor Power input at 44°F leaving chilled water temperature with 10°F water temperature difference and 95°F ambient temperature.

For the conditions required, apply the correction factors for altitude 0.99 table (1-a) and fouling factor 1 table (2-a) for actual unit capacity and actual power input

Capacity=200.06x0.99x1=198.1 TR, which then exceeds the requirements. So the selection is correct

Power input =208.3x1=208.3 KW

Example 2 (Metric system)

- Design requirement

- 1-Cooling Capacity in kilowatt (KW)
- 2- Leaving chilled water temperature in °C (LCWT)
- 3- Chilled water flow rate in LPS
- 4- Chilled water cooling range in °C
- 5- Design ambient temperature in °C
- 6- Altitude
- 7- Electrical power supply

- Selection sample

Select an air cooled chiller giving capacity of 703.2 kW to cool water from 12.2°C to 6.7°C ,altitude is 600 meter above sea level, water cooler fouling Factor is 0.000018 m².°C/w, design ambient temperature is 35°C and power supply is 415V/3Ph/50Hz

STEP-1

Entering the capacity performance data at given LCWT and ambient temperature. ACSC200 chiller unit at sea level will produce 703.6 kW and 208.3 kW compressors Power input at 6.7°C leaving chilled water temperature with 5.5°C water temperature difference and 35°C ambient temperature.

For the conditions required, apply the correction factors for altitude 0.99 table (1-b) and fouling factor1 table (2-b) for actual unit capacity and actual power input

Capacity=703.6x0.99x1= 696.6 kW, which then exceeds the requirements. So the selection is correct

Power input =208.3x1=208.3 KW

SELECTION PROCEDURE

STEP-2

CHILLED WATER FLOW (GPM):

$$\text{Water GPM} = \frac{\text{Required capacity (Tons)} \times 24}{\text{Cooling Range, } \Delta T}$$

$$= \frac{200 \times 24}{10} = 480.0 \text{ GPM}$$

Referring to pressure drop curve (page # 20),

Pressure drop at 480.0 GPM = 16.0ft.H₂O of water for selected model.

STEP-2

CHILLED WATER FLOW (LPS):

$$\text{Water LPS} = \frac{\text{Required capacity (KW)} \times 0.239}{\text{Cooling Range, } \Delta T}$$

$$= \frac{703.2 \times 0.239}{5.5} = 30.6 \text{ L/S}$$

Referring to pressure drop curve (page # 20),

Pressure drop at 30.6 LPS = 47.8 kPa of water for selected model.

NOTES:

1-: ELECTRICAL

Refer to electrical data at 415V/3Ph/50Hz, the main power wire size for ACSC200 is to be sized for a minimum circuit ampacity (MCA) of 437.6 Amps and maximum over current protection (MOCP) of 600 Amps.

2- CHILLED WATER PUMP SELECTION

For chilled water pump selection, add all pressure drop in the closed chilled water loop piping to the pressure drop calculated step 2.

3- LCWT CORRECTION

Refer to curve (1-a) & (1-b) Add correction factor to design leaving chilled water temperature (LCWT) when chilled water temperature range is above 10°F or 6°C and subtract correction from design leaving chilled water temperature (LCWT) when water temperature range is below 10°F or 5.5°C.

WATER FLOW LIMIT AND COOLER WATER PRESSURE DROP CURVES

CURVE NO.	1			2			3		4		5	
MODELS	ACSC080	ACSC090	ACSC100	ACSC110	ACSC120	ACSC130	ACSC140	ACSC160	ACSC180	ACSC190	ACSC200	ACSC210
MINIMUM GPM	88			138			140		265		227	
MAXIMUM GPM	222			351			357		647		579	

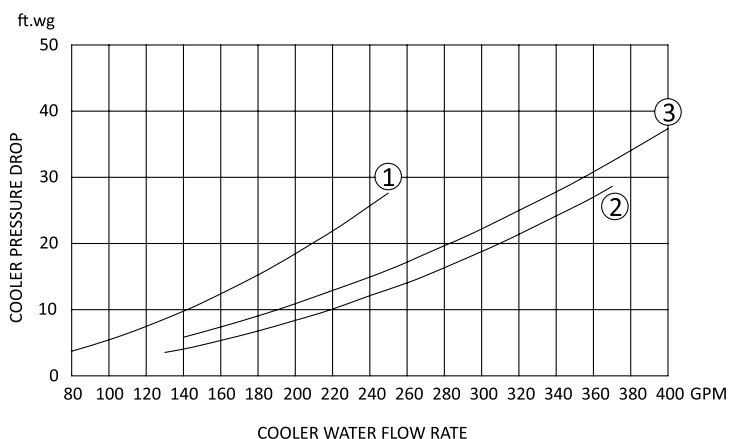
CURVE NO.	6				7		8			
MODELS	ACSC220	ACSC240	ACSC250	ACSC260	ACSC270	ACSC280	ACSC300	ACSC310	ACSC320	ACSC330
MINIMUM GPM	304				458		579			
MAXIMUM GPM	774				1166		1474			

CURVE NO.	9		10		11			
MODELS	ACSC350	ACSC365	ACSC380	ACSC400	ACSC420	ACSC450	ACSC475	ACSC500
MINIMUM GPM	595		454		608			
MAXIMUM GPM	1515		1158		1548			

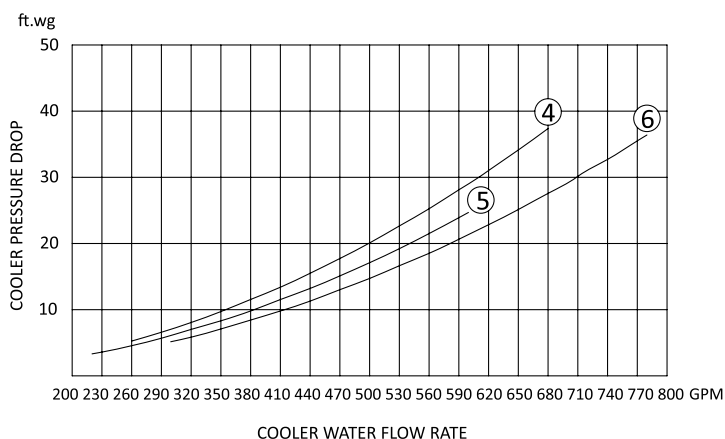
CONVERSION FACTOR : GPM = 0.063 L/S
: ft H₂O = 2.989 kPA

NOTES: 1- If the water flow rate outside these limits, please consult the factory

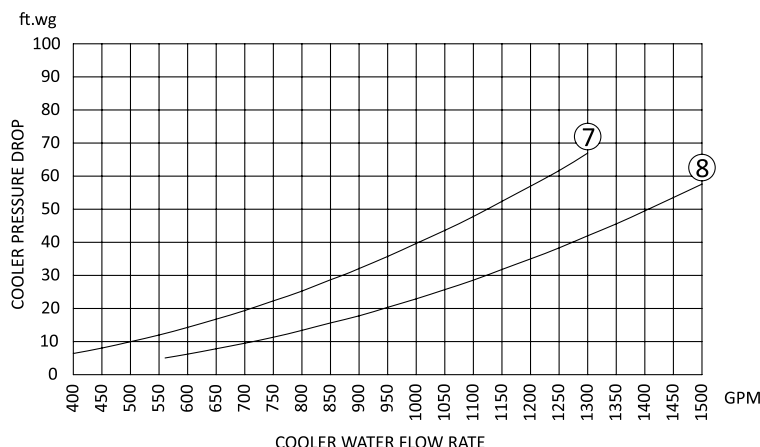
MODELS - ACSC080 TO ACSC160



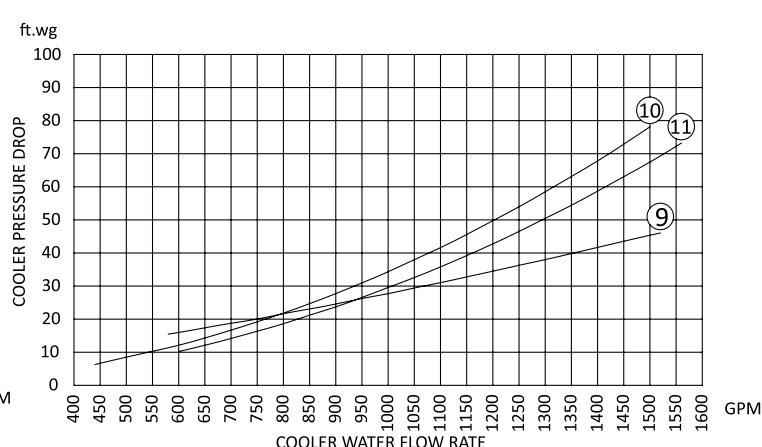
MODELS - ACSC180 TO ACSC260



MODELS - ACSC270 TO ACSC330



MODELS - ACSC350 TO ACSC500



PERFORMANCE DATA TABLES-ENGLISH SYSTEM

LEAVING CHILLED WATER TEMP. (LCWT)	UNIT SIZE	95°F AMBIENT TEMPERATURE					105°F AMBIENT TEMPERATURE					115°F AMBIENT TEMPERATURE					118.4°F AMBIENT TEMPERATURE					125°F AMBIENT TEMPERATURE				
		CAP. (Tons)	COMP. POWER (kW)	EER	WFR (GPM)	WPD (ft.wg)	CAP. (Tons)	COMP. POWER (kW)	EER	WFR (GPM)	WPD (ft.wg)	CAP. (Tons)	COMP. POWER (kW)	EER	WFR (GPM)	WPD (ft.wg)	CAP. (Tons)	COMP. POWER (kW)	EER	WFR (GPM)	WPD (ft.wg)	CAP. (Tons)	COMP. POWER (kW)	EER	WFR (GPM)	WPD (ft.wg)
40°F	ACSC080	75.1	81.8	9.9	180.4	14.1	69.0	91.7	8.2	165.6	12.0	62.3	102.7	6.7	149.5	9.7	59.8	106.7	6.2	143.5	9.2	55.1	114.8	5.3	132.2	7.9
	ACSC090	83.8	99.8	9.2	201.2	17.6	76.4	111.8	7.6	183.4	15.0	68.4	125.1	6.1	164.1	11.8	65.5	129.9	5.6	157.1	10.9	59.9	139.6	4.8	143.8	9.2
	ACSC100	96.9	105.3	9.9	232.6	23.3	91.1	122.6	8.1	218.7	20.8	84.4	141.5	6.6	202.7	17.8	81.9	148.2	6.1	196.6	16.6	76.8	160.9	5.3	184.3	14.8
	ACSC110	103.3	111.6	10.0	247.9	12.5	94.6	125.0	8.3	227.2	10.6	85.2	140.0	6.7	204.4	8.5	81.8	145.5	6.2	196.3	7.9	75.2	156.4	5.3	180.4	6.9
	ACSC120	113.6	128.9	9.6	272.6	15.0	106.5	149.9	7.9	255.7	13.2	98.2	172.6	6.4	235.7	11.1	95.0	180.5	5.9	228.0	10.4	88.7	195.6	5.1	213.0	9.2
	ACSC130	122.7	144.4	9.4	294.6	17.3	114.6	167.5	7.6	275.1	15.0	105.0	192.4	6.2	252.0	12.7	101.5	201.2	5.7	243.7	12.2	94.3	217.9	4.9	226.4	10.6
	ACSC140	130.4	133.0	10.5	312.9	22.6	122.9	155.0	8.6	295.0	20.3	114.2	179.4	7.0	274.0	17.3	110.8	93.2	10.5	266.0	16.6	104.1	205.0	5.7	249.9	14.6
	ACSC160	152.9	182.2	9.3	366.9	30.7	142.7	211.4	7.5	342.4	27.0	130.9	242.7	6.1	314.1	22.9	126.4	253.6	5.6	303.3	21.3	117.5	274.3	4.9	281.9	18.5
	ACSC180	169.6	189.2	9.8	407.0	12.7	159.2	220.2	8.0	382.1	11.1	146.9	253.8	6.5	352.7	9.7	142.4	265.6	6.0	341.7	9.0	132.9	288.1	5.2	319.0	7.9
	ACSC190	181.5	210.6	9.5	435.7	14.3	169.7	244.3	7.7	407.2	12.7	155.9	280.8	6.2	374.1	10.6	150.6	293.5	5.8	361.5	10.2	140.2	317.9	5.0	336.4	8.8
	ACSC200	186.9	203.7	10.1	448.6	13.2	175.6	236.8	8.2	421.4	11.6	162.2	272.9	6.7	389.3	10.2	157.0	285.5	6.2	376.8	9.5	146.9	310.1	5.4	352.5	8.5
	ACSC210	196.2	214.3	10.1	470.9	14.6	183.8	248.8	8.2	441.2	12.7	169.4	286.9	6.7	406.7	11.1	164.1	300.4	6.2	393.8	10.4	153.0	326.4	5.3	367.2	9.0
	ACSC220	207.5	239.4	9.6	498.1	14.3	194.0	277.7	7.9	465.7	12.5	178.2	319.1	6.3	427.6	10.4	172.3	333.6	5.9	413.5	9.9	160.2	361.3	5.1	384.5	8.5
	ACSC240	224.0	248.1	10.0	537.6	16.5	210.0	288.2	8.1	504.1	14.7	193.6	332.0	6.6	464.7	12.5	187.7	347.5	6.1	450.4	11.7	175.2	377.2	5.3	420.5	10.5
	ACSC250	235.1	272.3	9.6	564.2	18.2	220.0	316.1	7.8	528.0	15.9	202.0	363.3	6.3	484.8	13.6	195.5	390.6	5.7	469.1	12.7	181.3	411.1	5.0	435.1	10.9
	ACSC260	244.0	290.1	9.4	585.6	19.5	227.6	336.2	7.6	546.3	17.1	208.4	385.8	6.1	500.2	14.6	201.1	403.0	5.7	482.6	13.5	186.7	436.2	4.9	448.1	11.6
	ACSC270	252.8	274.6	10.1	606.7	14.3	237.3	319.1	8.3	569.6	12.7	219.0	367.9	6.7	525.6	10.7	212.1	385.2	6.2	509.1	10.0	198.1	418.5	5.4	475.5	8.9
	ACSC280	262.8	291.0	10.0	630.7	15.5	246.0	337.8	8.1	590.5	13.9	226.3	389.0	6.6	543.2	11.3	219.1	407.1	6.1	525.7	10.6	204.1	441.9	5.2	489.9	9.5
	ACSC300	280.2	305.8	10.1	672.4	11.6	256.1	341.8	8.3	614.5	9.7	230.1	382.1	6.7	552.2	8.1	220.7	396.6	6.2	529.6	7.4	202.4	425.5	5.4	485.8	6.2
	ACSC310	289.0	325.1	9.8	693.7	12.4	263.5	363.1	8.1	632.3	10.2	236.4	405.8	6.5	567.4	8.4	226.5	421.1	6.1	543.6	7.7	207.5	451.7	5.2	497.9	6.5
	ACSC320	297.9	344.4	9.6	714.9	12.9	271.1	384.6	7.9	650.6	10.6	242.7	429.5	6.4	582.5	8.7	232.3	445.6	5.9	557.6	8.0	212.4	477.7	5.0	509.8	6.9
	ACSC330	308.9	358.1	9.6	741.3	13.6	288.6	415.3	7.8	692.8	12.2	265.0	477.0	6.3	635.9	10.4	256.1	498.7	5.8	614.7	9.7	238.3	540.1	5.0	571.9	8.3
	ACSC350	325.7	372.4	9.7	781.8	12.2	297.1	416.1	8.0	712.9	10.2	265.8	464.6	6.4	638.0	8.3	254.9	482.2	6.0	611.7	7.6	233.2	517.1	5.1	559.6	6.7
	ACSC365	340.1	390.1	9.7	816.3	13.4	309.8	435.6	8.0	743.6	11.1	276.7	485.8	6.4	664.1	9.0	265.0	504.1	5.9	636.1	8.3	242.3	540.2	5.1	581.5	7.2
	ACSC380	356.7	401.8	9.8	856.0	24.3	334.4	466.8	8.0	802.6	21.3	308.0	537.0	6.5	739.1	18.2	298.2	561.7	6.0	715.7	17.3	278.2	608.8	5.2	667.6	15.2
	ACSC400	377.0	435.4	9.6	904.9	26.8	352.6	504.9	7.8	846.2	23.6	323.7	580.1	6.3	776.8	20.1	312.6	606.3	5.9	750.3	19.2	290.9	656.9	5.1	698.2	16.2
	ACSC420	393.4	451.3	9.7	944.2	25.9	367.4	523.3	7.9	881.7	22.9	336.8	601.3	6.4	808.4	19.2	325.3	628.7	5.9	780.8	17.8	302.3	681.3	5.1	725.4	15.9
	ACSC450	425.6	447.8	10.4	1021.4	29.6	400.2	520.9	8.5	960.5	26.8	370.5	601.5	6.9	889.3	22.6	359.6	630.2	6.4	863.1	21.3	336.7	685.4	5.5	808.1	19.4
	ACSC475	447.8	496.2	10.0	1074.7	33.0	419.9	576.4	8.1	1007.8	29.3	387.2	664.0	6.6	929.3	24.9	375.1	694.9	6.1	900.2	23.3	350.1	754.2	5.3	840.2	20.6
	ACSC500	470.3	544.6	9.6	1128.7	36.5	439.6	632.0	7.8	1055.2	31.9	403.9	726.5	6.3	969.3	27.3	390.6	759.6	5.8	937.5	25.4	363.6	823.0	5.0	872.6	22.6

NOTES:

- 1- The ACSC chillers are rated with AHRI - 550/590 standard.
- 2- (CAP.) Capacity ratings (Tons) are based on (10°F) water range, (0.0001 h·ft²·°F/Btu) fouling factor in evaporator and zero altitude.
- 3- Direct interpolation is permissible between (95°F) to (125°F) ambient temperatures only. Do not extrapolate.
- 4- Power input (kW) is for compressor (COMP.) only.
- 5- (EER) Energy efficiency ratio is the overall unit, refer to page pg.15 Electrical Data for fan power input.
- 6- (WFR) Water flow rate in Gallons Per Minute (GPM).
- 7- (WPD) Water pressure drop (ft.wg).

PERFORMANCE DATA TABLES-ENGLISH SYSTEM

LEAVING CHILLED WATER TEMP. (LCWT)	UNIT SIZE	95°F AMBIENT TEMPERATURE					105°F AMBIENT TEMPERATURE					115°F AMBIENT TEMPERATURE					118.4°F AMBIENT TEMPERATURE					125°F AMBIENT TEMPERATURE				
		CAP. (Tons)	COMP. POWER (kW)	EER	WFR (GPM)	WPD (ft.wg)	CAP. (Tons)	COMP. POWER (kW)	EER	WFR (GPM)	WPD (ft.wg)	CAP. (Tons)	COMP. POWER (kW)	EER	WFR (GPM)	WPD (ft.wg)	CAP. (Tons)	COMP. POWER (kW)	EER	WFR (GPM)	WPD (ft.wg)	CAP. (Tons)	COMP. POWER (kW)	EER	WFR (GPM)	WPD (ft.wg)
42°F	ACSC080	78.1	82.9	10.1	1874	15.2	71.7	92.9	8.4	172.1	12.9	64.8	104.1	6.9	155.5	10.6	62.3	108.1	6.4	149.5	9.9	57.4	116.3	5.5	1378	8.5
	ACSC090	87.0	101.3	9.4	2089	18.9	79.3	113.4	7.8	190.4	15.9	71.1	126.8	6.3	170.5	12.7	68.1	131.7	5.8	163.4	11.8	62.3	141.4	5.0	149.6	9.9
	ACSC100	100.3	106.3	10.1	2408	24.9	94.5	123.8	8.3	226.7	22.2	87.6	143.1	6.8	210.3	19.2	85.0	149.9	6.3	204.1	18.0	79.8	162.9	5.5	191.5	15.9
	ACSC110	107.3	113.2	10.2	2575	13.4	98.3	126.7	8.5	236.0	11.3	88.6	141.9	6.9	212.6	9.2	85.1	147.4	6.4	204.3	8.5	78.3	158.4	5.5	187.9	7.4
	ACSC120	117.6	130.3	9.9	282.2	15.9	110.3	151.7	8.1	264.8	14.1	101.8	174.8	6.5	244.4	12.0	98.6	182.9	6.1	236.6	11.3	92.1	198.3	5.2	221.1	9.9
	ACSC130	127.0	146.2	9.6	304.8	18.5	118.7	169.7	7.8	284.8	16.2	108.9	195.1	6.3	261.3	13.6	105.3	204.0	5.8	252.7	12.9	97.9	221.0	5.0	235.0	11.3
	ACSC140	135.0	134.3	10.8	324.1	24.3	127.4	156.6	8.9	305.8	21.7	118.4	181.4	7.2	284.2	18.7	115.0	142.8	8.7	276.0	17.8	108.1	207.4	5.8	259.4	15.7
	ACSC160	158.3	184.5	9.5	379.8	32.8	147.8	214.2	7.7	354.7	28.9	135.7	246.1	6.2	325.6	24.5	131.1	257.2	5.8	314.6	22.9	122.0	278.4	5.0	292.7	19.9
	ACSC180	175.6	191.3	10.0	421.5	13.6	165.0	222.8	8.2	395.9	12.0	152.4	257.0	6.6	365.7	10.4	147.6	269.0	6.2	354.3	9.7	138.0	292.0	5.3	331.3	8.5
	ACSC190	187.8	213.1	9.7	450.8	15.5	175.7	247.5	7.9	421.7	13.6	161.5	284.6	6.4	387.7	11.6	156.2	297.6	5.9	374.8	10.9	145.5	322.5	5.1	349.2	9.5
	ACSC200	193.5	206.0	10.3	464.4	14.1	181.9	239.6	8.4	436.6	12.5	168.2	276.4	6.8	403.6	10.9	163.0	289.3	6.3	391.2	10.2	152.5	314.3	5.5	366.1	9.0
	ACSC210	203.0	216.9	10.3	487.3	15.5	190.4	252.0	8.4	456.9	13.6	175.6	290.6	6.8	421.4	11.8	170.1	304.3	6.3	408.2	11.1	158.8	330.8	5.5	381.2	9.7
	ACSC220	214.7	242.5	9.9	515.3	15.2	200.8	281.5	8.0	482.0	13.4	184.6	323.6	6.5	443.0	11.3	178.5	338.4	6.0	428.5	10.6	166.3	366.7	5.2	399.0	9.2
	ACSC240	231.8	251.1	10.2	556.4	17.7	217.5	291.8	8.3	522.0	15.7	200.7	336.4	6.7	481.7	13.4	194.5	352.1	6.2	466.8	12.6	181.8	382.4	5.4	436.3	11.2
	ACSC250	243.4	275.8	9.8	584.2	19.4	227.7	320.3	8.0	546.5	17.1	209.3	368.3	6.4	502.3	14.6	202.5	390.6	5.9	486.1	13.6	188.6	417.5	5.2	452.7	11.8
	ACSC260	252.5	294.1	9.6	606.0	20.8	235.6	340.9	7.8	565.4	18.2	215.9	391.4	6.3	518.1	15.5	208.5	409.0	5.8	500.3	14.4	193.8	442.8	5.0	465.0	12.5
	ACSC270	261.7	277.7	10.4	628.1	15.2	245.8	323.0	8.5	589.9	13.5	227.0	372.6	6.8	544.8	11.6	220.0	390.3	6.4	528.0	10.9	205.8	424.2	5.5	493.8	9.6
	ACSC280	271.8	294.5	10.2	652.3	16.4	254.7	342.1	8.3	611.3	14.6	234.6	394.1	6.7	563.1	12.2	227.2	412.6	6.2	545.3	11.6	212.0	448.1	5.4	508.9	10.2
	ACSC300	290.7	310.4	10.3	697.8	12.2	265.8	346.8	8.5	637.9	10.4	239.1	387.4	6.9	573.7	8.5	229.4	402.1	6.4	550.5	7.9	210.7	431.2	5.5	505.6	6.7
	ACSC310	299.6	330.1	10.0	719.1	13.0	273.5	368.6	8.3	656.3	10.9	245.5	411.6	6.7	589.1	8.9	235.4	427.0	6.2	564.9	8.2	215.8	457.8	5.3	518.0	7.0
	ACSC320	308.7	349.8	9.8	740.8	13.8	281.2	390.5	8.1	675.0	11.5	251.9	435.7	6.5	604.6	9.3	241.4	452.0	6.0	579.2	8.6	220.9	484.3	5.2	530.2	7.3
	ACSC330	319.5	362.7	9.8	766.8	14.6	298.8	420.9	8.0	717.1	12.9	274.5	483.8	6.4	658.8	11.1	265.5	505.8	6.0	637.2	10.4	247.3	548.1	5.1	593.4	9.0
	ACSC350	337.8	378.3	9.9	810.8	13.2	308.2	422.4	8.1	739.6	11.1	276.1	471.3	6.6	662.7	9.0	264.8	489.1	6.1	635.6	8.3	242.5	524.2	5.2	582.1	7.2
	ACSC365	352.5	396.4	9.9	846.1	14.3	321.3	442.4	8.1	771.1	12.0	287.3	493.1	6.6	689.5	9.7	275.3	511.5	6.1	660.8	9.0	251.9	547.7	5.2	604.6	7.6
	ACSC380	369.1	406.6	10.0	885.8	25.9	346.2	472.6	8.2	830.9	22.9	319.2	544.2	6.6	766.1	19.6	309.2	569.4	6.1	742.1	18.5	288.8	617.5	5.3	693.2	16.2
	ACSC400	390.2	441.2	9.8	936.5	28.6	364.9	511.8	8.0	875.8	25.2	335.3	588.2	6.5	804.7	21.5	324.1	615.0	6.0	777.9	20.3	301.9	666.5	5.2	724.5	17.6
	ACSC420	406.9	457.5	9.9	976.5	27.5	380.1	530.6	8.1	912.3	24.3	348.8	609.9	6.5	837.2	20.6	337.2	637.7	6.0	809.2	19.2	313.7	691.3	5.2	752.8	16.9
	ACSC450	440.5	452.7	10.6	1057.3	31.9	414.6	526.8	8.7	995.1	28.6	384.2	608.8	7.1	922.2	24.5	372.9	638.0	6.6	895.0	23.1	349.5	694.2	5.7	838.9	20.8
	ACSC475	463.6	502.2	10.2	1112.7	35.3	435.0	583.7	8.3	1044.0	31.4	401.4	672.7	6.7	963.4	26.8	388.9	704.1	6.2	933.4	25.2	363.4	764.6	5.4	872.1	22.2
	ACSC500	486.8	551.7	9.8	1168.3	38.8	455.4	640.5	8.0	1092.9	34.2	418.6	736.6	6.4	1004.6	29.1	404.9	770.4	6.0	971.9	27.3	377.3	835.0	5.2	905.5	24.0

NOTES:

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- 2- (CAP.) Capacity ratings (Tons) are based on (10°F) water range, (0.0001 h-ft²·°F/Btu) fouling factor in evaporator and zero altitude.
- 3- Direct interpolation is permissible between (95°F) to (125°F) ambient temperatures only. Do not extrapolate.
- 4- Power input (kW) is for compressor (COMP.) only.
- 5- (EER) Energy efficiency ratio is the overall unit, refer to page pg.15 Electrical Data for fan power input.
- 6- (WFR) Water flow rate in Gallons Per Minute (GPM).
- 7- (WPD) Water pressure drop (ft.wg).

PERFORMANCE DATA TABLES-ENGLISH SYSTEM

LEAVING CHILLED WATER TEMP. (LCWT)	UNIT SIZE	95°F AMBIENT TEMPERATURE					105°F AMBIENT TEMPERATURE					115°F AMBIENT TEMPERATURE					118.4°F AMBIENT TEMPERATURE					125°F AMBIENT TEMPERATURE				
		CAP. (Tons)	COMP. POWER (kW)	EER	WFR (GPM)	WPD (ft.wg)	CAP. (Tons)	COMP. POWER (kW)	EER	WFR (GPM)	WPD (ft.wg)	CAP. (Tons)	COMP. POWER (kW)	EER	WFR (GPM)	WPD (ft.wg)	CAP. (Tons)	COMP. POWER (kW)	EER	WFR (GPM)	WPD (ft.wg)	CAP. (Tons)	COMP. POWER (kW)	EER	WFR (GPM)	WPD (ft.wg)
44°F	ACSC080	81.0	84.1	10.4	194.4	16.4	74.4	94.1	8.6	178.6	13.9	67.3	105.4	7.0	161.5	11.6	64.8	109.5	6.5	155.5	10.6	59.7	117.7	5.6	143.4	9.2
	ACSC090	90.2	102.8	9.6	216.5	20.3	82.3	115.0	7.9	197.4	16.9	73.7	128.5	6.4	177.0	13.6	70.7	133.5	5.9	169.8	12.7	64.8	143.2	5.1	155.4	10.6
	ACSC100	103.7	107.2	10.4	248.9	26.6	97.8	125.0	8.5	234.6	23.6	90.8	144.7	6.9	217.9	20.6	88.2	151.6	6.4	211.6	19.4	82.8	164.9	5.6	198.7	17.1
	ACSC110	111.3	114.8	10.5	267.0	14.3	102.0	128.4	8.7	244.8	12.0	92.0	143.7	7.1	220.8	9.9	88.4	149.3	6.6	212.2	9.2	81.4	160.3	5.7	195.4	7.9
	ACSC120	121.6	131.8	10.1	291.8	16.9	114.2	153.5	8.3	274.0	15.0	105.4	177.0	6.7	253.0	12.9	102.2	185.3	6.2	245.3	12.2	95.5	201.0	5.4	229.2	10.6
	ACSC130	131.3	148.0	9.8	315.0	19.6	122.7	171.9	8.0	294.6	17.3	112.8	197.8	6.4	270.6	14.6	109.0	206.9	6.0	261.6	13.6	101.5	224.2	5.1	243.6	12.0
	ACSC140	139.7	135.7	11.1	335.3	25.9	131.9	158.2	9.1	316.5	23.1	122.6	183.3	7.4	294.3	20.1	119.2	192.3	6.9	286.0	18.9	112.1	209.8	6.0	269.0	16.9
	ACSC160	163.6	186.7	9.7	392.7	34.9	152.9	217.0	7.9	367.0	30.7	140.4	249.5	6.4	337.0	26.1	135.8	260.9	5.9	325.9	24.5	126.4	282.5	5.1	303.4	21.3
	ACSC180	181.6	193.4	10.3	435.9	14.6	170.7	225.4	8.4	409.7	12.9	157.8	260.2	6.8	378.7	11.1	152.9	272.4	6.3	367.0	10.4	143.2	295.9	5.5	343.6	9.2
	ACSC190	194.1	215.7	9.9	465.9	16.6	181.7	250.6	8.1	436.2	14.6	167.2	288.3	6.5	401.3	12.5	161.8	301.6	6.1	388.2	11.6	150.9	327.0	5.2	362.0	10.2
	ACSC200	200.1	208.3	10.6	480.1	15.0	188.2	242.4	8.6	451.7	13.4	174.1	279.8	7.0	418.0	11.6	169.0	293.1	6.5	405.5	10.9	158.2	318.5	5.6	379.7	9.5
	ACSC210	209.9	219.5	10.6	503.7	16.4	196.9	255.1	8.6	472.6	14.6	181.8	294.4	7.0	436.2	12.5	176.1	308.3	6.5	422.6	11.8	164.6	335.2	5.6	395.1	10.4
	ACSC220	221.9	245.7	10.1	532.4	16.2	207.6	285.2	8.2	498.3	14.3	191.0	328.1	6.6	458.4	12.2	184.8	343.2	6.1	443.5	11.3	172.3	372.0	5.3	413.5	9.9
	ACSC240	239.7	254.1	10.4	575.3	18.8	225.0	295.4	8.5	540.0	16.7	207.8	340.7	6.9	498.7	14.3	201.3	356.7	6.4	483.2	13.5	188.4	387.5	5.5	452.1	11.9
	ACSC250	251.7	279.4	10.0	604.1	20.6	235.5	324.4	8.2	565.1	18.2	216.6	373.4	6.6	519.8	15.5	209.6	390.6	6.1	503.1	14.6	195.9	423.9	5.3	470.3	12.7
	ACSC260	261.0	298.0	9.8	626.4	22.1	243.5	345.6	8.0	584.5	19.4	223.3	396.9	6.4	536.0	16.4	215.9	415.0	5.9	518.1	15.4	200.8	449.4	5.1	482.0	13.4
	ACSC270	270.6	280.9	10.6	649.5	16.2	254.2	326.8	8.7	610.2	14.3	235.0	377.3	7.0	564.0	12.4	227.9	395.3	6.5	546.9	11.7	213.4	429.9	5.6	512.2	10.3
	ACSC280	280.8	298.0	10.4	674.0	17.3	263.4	346.4	8.5	632.2	15.2	242.9	399.3	6.9	582.9	13.2	235.3	418.1	6.4	564.8	12.5	219.9	454.3	5.5	527.8	10.9
	ACSC300	301.3	315.1	10.5	723.1	12.9	275.5	351.8	8.7	661.3	11.1	248.0	392.8	7.1	595.2	9.0	238.1	407.6	6.6	571.4	8.3	219.0	436.9	5.6	525.5	7.2
	ACSC310	310.3	335.1	10.2	744.6	13.6	283.5	374.1	8.5	680.3	11.7	254.5	417.3	6.9	610.8	9.5	244.2	433.0	6.4	586.2	8.8	224.2	463.9	5.5	538.1	7.5
	ACSC320	319.5	355.2	10.0	766.7	14.6	291.4	396.4	8.2	699.4	12.3	261.1	442.0	6.7	626.6	9.9	250.4	458.4	6.2	600.9	9.2	229.4	490.9	5.3	550.6	7.8
	ACSC330	330.1	367.3	10.0	792.4	15.5	309.0	426.5	8.2	741.5	13.6	284.1	490.5	6.6	681.8	11.8	274.9	513.0	6.1	659.7	11.1	256.2	556.0	5.3	614.9	9.7
	ACSC350	349.9	384.1	10.1	839.7	14.1	319.3	428.7	8.3	766.3	12.0	286.4	478.1	6.7	687.3	9.7	274.8	496.0	6.3	659.4	9.0	251.9	531.2	5.4	604.6	7.6
	ACSC365	365.0	402.7	10.1	875.9	15.2	332.7	449.1	8.3	798.5	12.9	297.9	500.3	6.7	714.9	10.4	285.6	518.9	6.2	685.5	9.7	261.5	555.2	5.3	627.6	8.1
	ACSC380	381.5	411.4	10.3	915.6	27.5	358.0	478.5	8.4	859.2	24.5	330.5	551.4	6.8	793.2	21.0	320.2	577.1	6.3	768.6	19.6	299.5	626.1	5.4	718.8	17.1
	ACSC400	403.4	447.0	10.1	968.2	30.5	377.3	518.6	8.2	905.4	26.8	346.9	596.4	6.6	832.6	22.9	335.6	623.7	6.1	805.5	21.5	312.9	676.0	5.3	750.9	18.9
	ACSC420	420.3	463.7	10.1	1008.8	29.1	392.9	537.9	8.2	942.9	25.6	360.8	618.5	6.6	866.0	21.9	349.0	646.8	6.1	837.5	20.6	325.1	701.4	5.3	780.2	17.8
	ACSC450	455.5	457.6	10.9	1093.1	34.2	429.1	532.8	8.9	1029.8	30.5	397.9	616.1	7.2	955.0	26.3	386.2	645.7	6.7	927.0	24.9	362.4	703.0	5.8	869.8	22.2
	ACSC475	479.5	508.2	10.4	1150.7	37.7	450.1	590.9	8.5	1080.2	33.5	415.6	681.5	6.9	997.5	28.6	402.7	713.4	6.4	966.6	27.0	376.7	774.9	5.5	904.0	23.8
	ACSC500	503.3	558.7	10.0	1208.0	41.1	471.1	649.0	8.2	1130.6	36.5	433.3	746.8	6.6	1039.9	31.0	419.3	781.1	6.1	1006.2	29.1	391.0	846.9	5.3	938.4	25.4

NOTES:

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- 3- Direct interpolation is permissible between (95°F) to (125°F) ambient temperatures only. Do not extrapolate.
- 4- Power input (kW) is for compressor (COMP.) only.
- 5- (EER) Energy efficiency ratio is the overall unit, refer to page pg.15 Electrical Data for fan power input.
- 6- (WFR) Water flow rate in Gallons Per Minute (GPM).
- 7- (WPD) Water pressure drop (ft.wg).

PERFORMANCE DATA TABLES-ENGLISH SYSTEM

LEAVING CHILLED WATER TEMP. (LCWT)	UNIT SIZE	95°F AMBIENT TEMPERATURE					105°F AMBIENT TEMPERATURE					115°F AMBIENT TEMPERATURE					118.4°F AMBIENT TEMPERATURE					125°F AMBIENT TEMPERATURE				
		CAP. (Tons)	COMP. POWER (kW)	EER	WFR (GPM)	WPD (ft.wg)	CAP. (Tons)	COMP. POWER (kW)	EER	WFR (GPM)	WPD (ft.wg)	CAP. (Tons)	COMP. POWER (kW)	EER	WFR (GPM)	WPD (ft.wg)	CAP. (Tons)	COMP. POWER (kW)	EER	WFR (GPM)	WPD (ft.wg)	CAP. (Tons)	COMP. POWER (kW)	EER	WFR (GPM)	WPD (ft.wg)
46°F	ACSC080	83.9	85.2	10.6	201.4	17.6	77.1	95.4	8.8	185.1	14.8	69.8	106.8	7.2	167.5	12.5	67.3	110.9	6.7	161.4	11.3	62.1	119.1	5.8	149.0	9.9
	ACSC090	93.4	104.4	9.9	224.2	21.7	85.2	116.6	8.1	204.4	17.8	76.4	130.3	6.6	183.4	14.6	73.4	135.3	6.1	176.1	13.6	67.2	145.0	5.2	161.3	11.3
	ACSC100	107.1	108.2	10.7	257.1	28.2	101.1	126.3	8.7	242.6	24.9	94.0	146.2	7.1	225.5	21.9	91.3	153.3	6.6	219.1	20.8	85.8	166.9	5.7	205.9	18.2
	ACSC110	115.2	116.3	10.7	276.6	15.2	105.7	130.1	8.9	253.6	12.7	95.4	145.5	7.2	228.9	10.6	91.7	151.1	6.7	220.2	9.9	84.5	162.2	5.8	202.9	8.3
	ACSC120	125.5	133.2	10.3	301.3	17.8	118.0	155.2	8.4	283.2	15.9	109.0	179.2	6.8	261.7	13.9	105.8	187.7	6.3	253.9	13.2	98.9	203.7	5.5	237.2	11.3
	ACSC130	135.5	149.8	10.0	325.2	20.8	126.8	174.1	8.2	304.3	18.5	116.6	200.5	6.6	279.9	15.5	112.8	209.7	6.1	270.6	14.3	105.1	227.3	5.3	252.2	12.7
	ACSC140	144.4	137.0	11.4	346.5	27.5	136.4	159.8	9.3	327.3	24.5	126.9	185.3	7.6	304.5	21.5	123.3	241.9	5.0	295.9	20.1	116.1	212.2	6.1	278.5	18.0
	ACSC160	169.0	189.0	9.9	405.5	37.0	158.0	219.8	8.1	379.3	32.6	145.2	252.9	6.5	348.5	27.7	140.5	264.5	6.0	337.2	26.1	130.9	286.5	5.2	314.2	22.6
	ACSC180	187.7	195.5	10.5	450.4	15.5	176.4	228.0	8.6	423.4	13.9	163.2	263.4	6.9	391.7	11.8	158.2	275.8	6.4	379.7	11.1	148.3	299.8	5.6	355.9	9.9
	ACSC190	200.4	218.2	10.1	481.0	17.8	187.8	253.7	8.3	450.6	15.5	172.8	292.1	6.7	414.8	13.4	167.3	305.7	6.2	401.6	12.2	156.2	331.5	5.4	374.9	10.9
	ACSC200	206.6	210.7	10.8	495.9	15.9	194.5	245.3	8.8	466.8	14.3	180.1	283.3	7.2	432.3	12.2	174.9	296.9	6.7	419.8	11.6	163.9	322.7	5.8	393.3	9.9
	ACSC210	216.7	222.1	10.8	520.2	17.3	203.5	258.3	8.8	488.4	15.5	187.9	298.1	7.1	451.0	13.2	182.1	312.2	6.6	437.0	12.5	170.4	339.6	5.7	409.1	11.1
	ACSC220	229.0	248.8	10.3	549.6	17.1	214.4	289.0	8.4	514.6	15.2	197.4	332.7	6.7	473.8	13.2	191.0	347.9	6.3	458.5	12.0	178.3	377.3	5.4	428.0	10.6
	ACSC240	247.5	257.1	10.7	594.1	20.0	232.5	299.0	8.7	558.0	17.8	214.9	345.1	7.0	515.7	15.2	208.2	361.3	6.5	499.7	14.4	195.0	392.7	5.6	468.0	12.6
	ACSC250	260.0	282.9	10.2	624.1	21.7	243.2	328.6	8.3	583.7	19.4	223.9	378.4	6.7	537.3	16.4	216.7	390.6	6.3	520.1	15.5	203.3	430.2	5.4	487.9	13.6
	ACSC260	269.5	302.0	10.0	646.7	23.3	251.5	350.2	8.1	603.6	20.6	230.8	402.5	6.5	553.9	17.3	223.3	420.9	6.1	535.9	16.3	207.9	456.1	5.2	499.0	14.3
	ACSC270	279.5	284.1	10.9	670.8	17.1	262.7	330.7	8.9	630.4	15.1	243.0	382.0	7.2	583.2	13.2	235.8	400.3	6.7	565.8	12.5	221.1	435.6	5.8	530.5	11.0
	ACSC280	289.8	301.5	10.7	695.6	18.2	272.1	350.6	8.7	653.0	15.9	251.2	404.5	7.0	602.8	14.1	243.5	423.7	6.5	584.3	13.4	227.8	460.5	5.6	546.7	11.6
	ACSC300	311.8	319.7	10.8	748.4	13.6	285.3	356.8	8.9	684.6	11.8	257.0	398.2	7.2	616.7	9.5	246.8	413.0	6.7	592.4	8.8	227.2	442.6	5.8	545.4	7.6
	ACSC310	320.9	340.1	10.5	770.1	14.2	293.5	379.6	8.6	704.4	12.5	263.5	423.1	7.0	632.4	10.0	253.1	438.9	6.5	607.4	9.3	232.6	470.1	5.6	558.2	7.9
	ACSC320	330.3	360.6	10.2	792.7	15.5	301.6	402.4	8.4	723.8	13.2	270.3	448.2	6.8	648.7	10.5	259.4	464.8	6.3	622.5	9.9	237.9	497.5	5.4	571.1	8.2
	ACSC330	340.8	372.0	10.2	817.9	16.4	319.1	432.1	8.3	765.8	14.3	293.6	497.3	6.7	704.7	12.5	284.3	520.2	6.2	682.2	11.8	265.2	564.0	5.4	636.5	10.4
	ACSC350	362.0	390.0	10.3	868.7	15.0	330.4	435.0	8.5	793.0	12.9	296.6	484.8	6.9	711.9	10.4	284.7	502.8	6.4	683.3	9.7	261.3	538.3	5.5	627.1	8.1
	ACSC365	377.4	409.0	10.3	905.7	16.2	344.1	455.9	8.5	825.9	13.9	308.5	507.6	6.9	740.3	11.1	295.9	526.3	6.4	710.3	10.4	271.1	562.8	5.5	650.7	8.5
	ACSC380	393.9	416.3	10.5	945.3	29.1	369.8	484.3	8.6	887.6	26.1	341.7	558.6	6.9	820.2	22.4	331.3	584.7	6.4	795.0	20.8	310.1	634.8	5.6	744.4	18.0
	ACSC400	416.6	452.8	10.3	999.9	32.3	389.6	525.4	8.4	935.0	28.4	358.6	604.5	6.7	860.6	24.3	347.1	632.4	6.2	833.1	22.6	323.8	685.6	5.4	777.2	20.3
	ACSC420	433.8	469.9	10.3	1041.0	30.7	405.6	545.2	8.4	973.5	27.0	372.9	627.1	6.8	894.9	23.3	360.8	655.9	6.3	865.8	21.9	336.5	711.4	5.4	807.5	18.7
	ACSC450	470.4	462.5	11.2	1129.0	36.5	443.5	538.8	9.1	1064.5	32.3	411.6	623.4	7.4	987.9	28.2	399.6	653.5	6.9	958.9	26.8	375.3	711.8	6.0	900.6	23.6
	ACSC475	495.3	514.2	10.7	1188.7	40.0	465.2	598.1	8.7	1116.4	35.6	429.8	690.2	7.0	1031.6	30.5	416.6	722.7	6.5	999.8	28.9	390.0	785.3	5.6	935.9	25.4
	ACSC500	519.9	565.8	10.2	1247.7	43.4	486.8	657.5	8.3	1168.3	38.8	448.0	757.0	6.7	1075.3	32.8	433.6	791.8	6.2	1040.6	31.0	404.7	858.9	5.4	971.2	26.8

NOTES:

- 1- The ACSC chillers are rated with AHRI - 550/590 standard.
- 2- (CAP.) Capacity ratings (Tons) are based on (10°F) water range, (0.0001 h-ft²·°F/Btu) fouling factor in evaporator and zero altitude.
- 3- Direct interpolation is permissible between (95°F) to (125°F) ambient temperatures only. Do not extrapolate.
- 4- Power input (kW) is for compressor (COMP.) only.
- 5- (EER) Energy efficiency ratio is the overall unit, refer to page pg.15 Electrical Data for fan power input.
- 6- (WFR) Water flow rate in Gallons Per Minute (GPM).
- 7- (WPD) Water pressure drop (ft.wg).

PERFORMANCE DATA TABLES-ENGLISH SYSTEM

LEAVING CHILLED WATER TEMP. (LCWT)	UNIT SIZE	95°F AMBIENT TEMPERATURE					105°F AMBIENT TEMPERATURE					115°F AMBIENT TEMPERATURE					118.4°F AMBIENT TEMPERATURE					125°F AMBIENT TEMPERATURE				
		CAP. (Tons)	COMP. POWER (kW)	EER	WFR (GPM)	WPD (ft.wg)	CAP. (Tons)	COMP. POWER (kW)	EER	WFR (GPM)	WPD (ft.wg)	CAP. (Tons)	COMP. POWER (kW)	EER	WFR (GPM)	WPD (ft.wg)	CAP. (Tons)	COMP. POWER (kW)	EER	WFR (GPM)	WPD (ft.wg)	CAP. (Tons)	COMP. POWER (kW)	EER	WFR (GPM)	WPD (ft.wg)
48°F	ACSC080	86.8	86.3	10.9	208.4	18.7	79.8	96.6	9.0	191.6	15.7	72.3	108.1	7.4	173.6	13.4	69.7	112.3	6.9	167.4	12.0	64.4	120.6	6.0	154.6	10.6
	ACSC090	96.6	105.9	10.1	231.9	23.1	88.1	118.2	8.3	211.4	18.7	79.1	132.0	6.7	189.8	15.5	76.0	137.1	6.2	182.4	14.6	69.6	146.8	5.4	167.1	12.0
	ACSC100	110.5	109.1	10.9	265.3	29.8	104.4	127.5	9.0	250.6	26.3	97.1	147.8	7.3	233.2	23.3	94.4	155.0	6.8	226.6	22.2	88.8	168.8	5.9	213.1	19.4
	ACSC110	119.2	117.9	11.0	286.1	16.2	109.4	131.8	9.1	262.5	13.4	98.8	147.4	7.4	237.1	11.3	95.1	153.0	6.9	228.2	10.6	87.7	164.2	6.0	210.4	8.8
	ACSC120	129.5	134.6	10.6	310.9	18.7	121.8	157.0	8.6	292.3	16.9	112.7	181.4	7.0	270.4	14.8	109.4	190.1	6.5	262.5	14.1	102.2	206.3	5.6	245.3	12.0
	ACSC130	139.8	151.6	10.2	335.5	21.9	130.8	176.3	8.3	314.0	19.6	120.5	203.2	6.7	289.2	16.4	116.5	212.5	6.2	279.6	15.0	108.7	230.5	5.4	260.8	13.4
	ACSC140	149.0	138.3	11.6	357.7	29.1	140.8	161.4	9.6	338.0	25.9	131.1	187.3	7.8	314.7	22.9	127.5	291.5	3.2	305.9	21.3	120.0	214.6	6.3	288.1	19.2
	ACSC160	174.3	191.3	10.1	418.4	39.0	163.2	222.6	8.2	391.6	34.4	150.0	256.3	6.6	359.9	29.3	145.2	268.2	6.1	348.5	27.7	135.4	290.6	5.3	324.9	24.0
	ACSC180	193.7	197.6	10.8	464.9	16.4	182.2	230.5	8.8	437.2	14.8	168.6	266.6	7.1	404.7	12.5	163.5	279.3	6.6	392.3	11.8	153.4	303.8	5.7	368.1	10.6
	ACSC190	206.7	220.8	10.4	496.1	18.9	193.8	256.9	8.4	465.1	16.4	178.5	295.9	6.8	428.4	14.3	172.9	309.8	6.3	415.0	12.9	161.5	336.1	5.5	387.7	11.6
	ACSC200	213.2	213.0	11.1	511.7	16.9	200.8	248.1	9.0	482.0	15.2	186.1	286.7	7.3	446.6	12.9	180.9	300.6	6.8	434.2	12.2	169.6	326.9	5.9	406.9	10.4
	ACSC210	223.6	224.8	11.0	536.6	18.2	210.0	261.4	9.0	504.1	16.4	194.1	301.8	7.3	465.8	13.9	188.1	316.1	6.7	451.4	13.2	176.3	344.0	5.8	423.0	11.8
	ACSC220	236.2	251.9	10.5	566.8	18.0	221.2	292.7	8.5	531.0	16.2	203.8	337.2	6.9	489.2	14.1	197.3	352.7	6.4	473.4	12.7	184.4	382.7	5.5	442.5	11.3
	ACSC240	255.4	260.0	10.9	613.0	21.1	240.0	302.6	8.9	575.9	18.8	222.0	349.4	7.2	532.7	16.2	215.0	365.8	6.7	516.1	15.4	201.6	397.8	5.8	483.8	13.3
	ACSC250	268.3	286.5	10.5	644.0	22.9	250.9	332.8	8.5	602.2	20.6	231.1	383.4	6.9	554.7	17.3	223.8	390.6	6.5	537.1	16.4	210.6	436.6	5.5	505.5	14.6
	ACSC260	277.9	305.9	10.2	667.1	24.6	259.5	354.9	8.3	622.7	21.7	238.2	408.1	6.7	571.8	18.2	230.7	426.9	6.2	553.6	17.2	215.0	462.7	5.3	515.9	15.2
	ACSC270	288.4	287.3	11.1	692.2	18.0	271.1	334.6	9.1	650.7	15.9	251.0	386.7	7.3	602.5	14.0	243.6	405.3	6.8	584.8	13.3	228.7	441.3	5.9	548.9	11.7
	ACSC280	298.8	305.1	10.9	717.2	19.2	280.7	354.9	8.9	673.8	16.6	259.4	409.7	7.2	622.6	15.0	251.6	429.2	6.7	603.8	14.3	235.7	466.8	5.8	565.6	12.2
	ACSC300	322.4	324.4	11.0	773.7	14.3	295.0	361.9	9.1	708.0	12.5	265.9	403.5	7.4	638.2	9.9	255.5	418.5	6.9	613.3	9.2	235.5	448.3	5.9	565.3	8.1
	ACSC310	331.5	345.1	10.7	795.6	14.9	303.5	385.1	8.8	728.4	13.2	272.5	428.9	7.2	654.1	10.5	262.0	444.9	6.7	628.7	9.9	240.9	476.2	5.7	578.3	8.4
	ACSC320	341.1	366.0	10.4	818.6	16.3	311.8	408.3	8.6	748.2	14.0	279.5	454.4	7.0	670.8	11.2	268.4	471.2	6.5	644.1	10.5	246.4	504.1	5.6	591.5	8.7
	ACSC330	351.4	376.6	10.4	843.4	17.3	329.3	437.7	8.5	790.2	15.0	303.2	504.0	6.8	727.6	13.2	293.6	527.4	6.4	704.7	12.5	274.2	571.9	5.5	658.0	11.1
	ACSC350	374.0	395.8	10.5	897.7	15.9	341.6	441.3	8.7	819.7	13.9	306.9	491.6	7.1	736.6	11.1	294.6	509.7	6.5	707.1	10.4	270.7	545.4	5.6	649.6	8.5
	ACSC365	389.8	415.3	10.5	935.5	17.1	355.6	462.6	8.7	853.4	14.8	319.1	514.8	7.0	765.7	11.8	306.2	533.7	6.5	735.0	11.1	280.7	570.3	5.6	673.8	9.0
	ACSC380	406.3	421.1	10.7	975.1	30.7	381.6	490.2	8.7	915.9	27.7	353.0	565.9	7.1	847.2	23.8	342.3	592.4	6.6	821.4	21.9	320.8	643.5	5.7	769.9	18.9
	ACSC400	429.8	458.6	10.5	1031.6	34.2	401.9	532.2	8.5	964.6	30.0	370.2	612.7	6.9	888.5	25.6	358.6	641.0	6.4	860.7	23.8	334.8	695.2	5.5	803.5	21.7
	ACSC420	447.2	476.1	10.5	1073.3	32.3	418.4	552.5	8.6	1004.2	28.4	384.9	635.7	6.9	923.7	24.7	372.6	665.0	6.4	894.1	23.3	347.9	721.5	5.5	834.9	19.6
	ACSC450	485.4	467.4	11.4	1164.9	38.8	458.0	544.8	9.3	1099.2	34.2	425.3	630.8	7.6	1020.8	30.0	412.9	661.2	7.0	990.9	28.6	388.1	720.6	6.1	931.5	24.9
	ACSC475	511.1	520.2	10.9	1226.7	42.3	480.3	605.4	8.9	1152.6	37.7	444.0	699.0	7.2	1065.7	32.3	430.4	731.9	6.7	1033.0	30.7	403.3	795.7	5.8	967.8	27.0
	ACSC500	536.4	572.8	10.5	1287.4	45.7	502.5	666.0	8.5	1206.1	41.1	462.7	767.2	6.9	1110.6	34.7	447.9	802.6	6.4	1074.9	32.8	418.4	870.8	5.5	1004.1	28.2

NOTES:

- 1- The ACSC chillers are rated with AHRI - 550/590 standard.
- 2- (CAP.) Capacity ratings (Tons) are based on (10°F) water range, (0.0001 h·ft²·°F/Btu) fouling factor in evaporator and zero altitude.
- 3- Direct interpolation is permissible between (95°F) to (125°F) ambient temperatures only. Do not extrapolate.
- 4- Power input (kW) is for compressor (COMP.) only.
- 5- (EER) Energy efficiency ratio is the overall unit, refer to page pg.15 Electrical Data for fan power input.
- 6- (WFR) Water flow rate in Gallons Per Minute (GPM).
- 7- (WPD) Water pressure drop (ft.wg).

PERFORMANCE DATA TABLES-ENGLISH SYSTEM

LEAVING CHILLED WATER TEMP. (LCWT)	UNIT SIZE	95°F AMBIENT TEMPERATURE					105°F AMBIENT TEMPERATURE					115°F AMBIENT TEMPERATURE					118.4°F AMBIENT TEMPERATURE					125°F AMBIENT TEMPERATURE				
		CAP. (Tons)	COMP. POWER (kW)	EER	WFR (GPM)	WPD (ft.wg)	CAP. (Tons)	COMP. POWER (kW)	EER	WFR (GPM)	WPD (ft.wg)	CAP. (Tons)	COMP. POWER (kW)	EER	WFR (GPM)	WPD (ft.wg)	CAP. (Tons)	COMP. POWER (kW)	EER	WFR (GPM)	WPD (ft.wg)	CAP. (Tons)	COMP. POWER (kW)	EER	WFR (GPM)	WPD (ft.wg)
50°F	ACSC080	89.8	87.5	11.2	215.4	19.9	82.5	97.9	9.3	198.1	16.6	74.8	109.4	7.6	179.6	14.3	72.2	113.7	7.1	173.4	12.7	66.7	122.0	6.1	160.2	11.3
	ACSC090	99.8	107.4	10.3	239.5	24.5	91.0	119.8	8.5	218.4	19.6	81.8	133.7	6.9	196.2	16.4	78.6	138.9	6.4	188.7	15.5	72.1	148.7	5.5	173.0	12.7
	ACSC100	113.9	110.1	11.2	273.4	31.4	107.7	128.7	9.2	258.5	27.7	100.3	149.4	7.5	240.8	24.7	97.6	156.7	6.9	234.2	23.6	91.8	170.8	6.0	220.3	20.6
	ACSC110	123.2	119.4	11.2	295.6	17.1	113.0	133.5	9.3	271.3	14.1	102.2	149.2	7.6	245.3	12.0	98.4	154.9	7.1	236.1	11.3	90.8	166.1	6.1	217.9	9.2
	ACSC120	133.5	136.0	10.8	320.4	19.6	125.6	158.8	8.8	301.5	17.8	116.3	183.6	7.1	279.0	15.7	113.0	192.5	6.6	271.1	15.0	105.6	209.0	5.7	253.4	12.7
	ACSC130	144.0	153.4	10.4	345.7	23.1	134.9	178.5	8.5	323.7	20.8	124.4	205.9	6.9	298.5	17.3	120.3	215.4	6.4	288.6	15.7	112.2	233.7	5.5	269.4	14.1
	ACSC140	153.7	139.6	11.9	368.9	30.7	145.3	163.0	9.8	348.8	27.3	135.3	189.2	7.9	324.8	24.3	131.6	341.0	1.4	315.9	22.4	124.0	217.0	6.4	297.6	20.3
	ACSC160	179.7	193.6	10.3	431.3	41.1	168.3	225.4	8.4	403.9	36.3	154.7	259.6	6.8	371.4	31.0	149.9	271.8	6.3	359.8	29.3	139.9	294.7	5.4	335.7	25.4
	ACSC180	199.7	199.7	11.0	479.4	17.3	187.9	233.1	9.0	450.9	15.7	174.0	269.8	7.3	417.7	13.2	168.7	282.7	6.7	405.0	12.5	158.5	307.7	5.8	380.4	11.3
	ACSC190	213.0	223.3	10.6	511.2	20.1	199.8	260.0	8.6	479.5	17.3	184.1	299.7	7.0	441.9	15.2	178.5	313.8	6.5	428.4	13.6	166.9	340.6	5.6	400.5	12.2
	ACSC200	219.8	215.3	11.3	527.5	17.8	207.1	250.9	9.2	497.1	16.2	192.1	290.2	7.5	460.9	13.6	186.9	304.4	7.0	448.5	12.9	175.2	331.1	6.0	420.5	10.9
	ACSC210	230.4	227.4	11.3	553.0	19.2	216.6	264.6	9.2	519.9	17.3	200.2	305.6	7.4	480.6	14.6	194.1	320.1	6.9	465.8	13.9	182.1	348.4	6.0	437.0	12.5
	ACSC220	243.3	255.0	10.7	584.0	18.9	228.0	296.5	8.7	547.3	17.1	210.3	341.7	7.0	504.7	15.0	203.5	357.4	6.5	488.4	13.4	190.4	388.0	5.6	456.9	12.0
	ACSC240	263.3	263.0	11.1	631.8	22.3	247.4	306.2	9.1	593.9	19.9	229.0	353.8	7.3	549.7	17.1	221.9	370.4	6.8	532.5	16.3	208.2	402.9	5.9	499.6	14.0
	ACSC250	276.7	290.0	10.7	664.0	24.0	258.7	337.0	8.7	620.8	21.7	238.4	388.5	7.0	572.2	18.2	230.9	390.6	6.7	554.1	17.3	217.9	443.0	5.6	523.1	15.5
	ACSC260	286.4	309.9	10.4	687.4	25.9	267.4	359.6	8.4	641.8	22.9	245.7	413.7	6.8	589.7	19.2	238.1	432.9	6.3	571.4	18.1	222.0	469.3	5.4	532.9	16.2
	ACSC270	297.3	290.4	11.3	713.6	18.9	279.6	338.4	9.3	671.0	16.7	259.0	391.4	7.5	621.7	14.8	251.5	410.4	7.0	603.7	14.1	236.3	447.0	6.0	567.2	12.4
	ACSC280	307.9	308.6	11.1	738.8	20.1	289.4	359.2	9.1	694.6	17.3	267.7	414.9	7.3	642.5	15.9	259.7	434.7	6.8	623.4	15.2	243.6	473.0	5.9	584.5	12.9
	ACSC300	332.9	329.0	11.2	799.0	15.0	304.7	366.9	9.3	731.4	13.2	274.9	408.9	7.6	659.7	10.4	264.3	424.0	7.0	634.2	9.7	243.8	454.0	6.1	585.1	8.5
	ACSC310	342.1	350.1	10.9	821.1	15.5	313.5	390.6	9.0	752.4	14.0	281.6	434.6	7.3	675.8	11.1	270.8	450.8	6.8	650.0	10.4	249.3	482.3	5.9	598.3	8.9
	ACSC320	351.9	371.4	10.6	844.5	17.2	321.9	414.2	8.8	772.7	14.9	288.7	460.7	7.1	692.9	11.8	277.4	477.6	6.6	665.8	11.1	254.9	510.7	5.7	611.9	9.2
	ACSC330	362.0	381.2	10.6	868.9	18.2	339.4	443.3	8.7	814.6	15.7	312.7	510.7	7.0	750.5	13.9	303.0	534.5	6.5	727.3	13.2	283.1	579.9	5.6	679.5	11.8
	ACSC350	386.1	401.7	10.7	926.6	16.9	352.7	447.6	8.9	846.5	14.8	317.2	498.3	7.2	761.2	11.8	304.6	516.5	6.7	730.9	11.1	280.0	552.5	5.8	672.1	9.0
	ACSC365	402.2	421.6	10.7	965.3	18.0	367.0	469.4	8.8	880.8	15.7	329.6	522.1	7.2	791.2	12.5	316.5	541.1	6.7	759.7	11.8	290.3	577.9	5.7	696.8	9.5
	ACSC380	418.7	425.9	10.9	1004.9	32.3	393.4	496.1	8.9	944.3	29.3	364.3	573.1	7.2	874.2	25.2	353.3	600.1	6.7	847.9	23.1	331.5	652.2	5.8	795.5	19.9
	ACSC400	443.0	464.4	10.7	1063.2	36.0	414.3	539.0	8.7	994.3	31.6	381.8	620.8	7.0	916.4	27.0	370.1	649.7	6.5	888.3	24.9	345.8	704.8	5.6	829.8	23.1
	ACSC420	460.7	482.3	10.7	1105.6	34.0	431.2	559.8	8.7	1034.8	29.8	396.9	644.3	7.0	952.5	26.1	384.4	674.1	6.5	922.5	24.7	359.3	731.6	5.6	862.2	20.6
	ACSC450	500.3	472.2	11.7	1200.8	41.1	472.4	550.8	9.6	1133.9	36.0	439.0	638.1	7.7	1053.6	31.9	426.2	669.0	7.2	1022.8	30.5	401.0	729.4	6.2	962.4	26.3
	ACSC475	527.0	526.2	11.1	1264.7	44.6	495.3	612.6	9.1	1188.8	39.7	458.2	707.7	7.3	1099.8	34.2	444.2	741.2	6.8	1066.2	32.6	416.6	806.1	5.9	999.7	28.6
	ACSC500	553.0	579.8	10.7	1327.1	48.0	518.2	674.4	8.7	1243.8	43.4	477.5	777.3	7.0	1145.9	36.5	462.2	813.3	6.5	1109.3	34.7	432.1	882.7	5.6	1036.9	29.6

NOTES:

- 1- The ACSC chillers are rated with AHRI - 550/590 standard.
- 2- (CAP.) Capacity ratings (Tons) are based on (10°F) water range, (0.0001 h-ft²·°F/Btu) fouling factor in evaporator and zero altitude.
- 3- Direct interpolation is permissible between (95°F) to (125°F) ambient temperatures only. Do not extrapolate.
- 4- Power input (kW) is for compressor (COMP.) only.
- 5- (EER) Energy efficiency ratio is the overall unit, refer to page pg.15 Electrical Data for fan power input.
- 6- (WFR) Water flow rate in Gallons Per Minute (GPM).
- 7- (WPD) Water pressure drop (ft.wg).

PERFORMANCE DATA TABLES-METRIC SYSTEM

LEAVING CHILLED WATER TEMP. (LCWT)	UNIT SIZE	35°C AMBIENT TEMPERATURE					40°C AMBIENT TEMPERATURE					46°C AMBIENT TEMPERATURE					48°C AMBIENT TEMPERATURE					52°C AMBIENT TEMPERATURE				
		CAP. (kW)	COMP. (kW)	COP	WFR (L/S)	WPD (kPa)	CAP. (kW)	COMP. (kW)	COP	WFR (L/S)	WPD (kPa)	CAP. (kW)	COMP. (kW)	COP	WFR (L/S)	WPD (kPa)	CAP. (kW)	COMP. (kW)	COP	WFR (L/S)	WPD (kPa)	CAP. (kW)	COMP. (kW)	COP	WFR (L/S)	WPD (kPa)
4.5°C	ACSC080	264.3	81.8	2.9	11.4	42.1	242.6	91.7	2.4	10.4	35.9	219.1	102.7	2.0	9.4	29.0	210.4	106.7	1.8	9.1	27.6	193.7	114.8	1.6	8.3	23.5
	ACSC090	294.9	99.8	2.7	12.7	52.5	268.8	111.8	2.2	11.6	44.9	240.5	125.1	1.8	10.4	35.2	230.2	129.9	1.7	9.9	32.5	210.7	139.6	1.4	9.1	27.6
	ACSC100	340.8	105.3	2.9	14.7	69.7	320.5	122.6	2.4	13.8	62.1	297.0	141.5	1.9	12.8	53.2	288.1	148.2	1.8	12.4	49.7	270.1	160.9	1.6	11.6	44.2
	ACSC110	363.3	111.6	2.9	15.6	37.3	332.9	125.0	2.4	14.3	31.8	299.5	140.0	2.0	12.9	25.5	287.7	145.5	1.8	12.4	23.5	264.4	156.4	1.6	11.4	20.7
	ACSC120	399.5	128.9	2.8	17.2	44.9	374.7	149.9	2.3	16.1	39.4	345.4	172.6	1.9	14.9	33.1	334.1	180.5	1.7	14.4	31.1	312.1	195.6	1.5	13.4	27.6
	ACSC130	431.7	144.4	2.8	18.6	51.8	403.2	167.5	2.2	17.4	44.9	369.3	192.4	1.8	15.9	38.0	357.1	201.2	1.7	15.4	36.6	331.8	217.9	1.4	14.3	31.8
	ACSC140	458.5	133.0	3.1	19.7	67.7	432.3	155.0	2.5	18.6	60.8	401.5	179.4	2.1	17.3	51.8	389.8	93.2	3.6	16.8	49.7	366.2	205.0	1.7	15.8	43.5
	ACSC160	537.7	182.2	2.7	23.2	91.8	501.8	211.4	2.2	21.6	80.8	460.3	242.7	1.8	19.8	68.4	444.5	253.6	1.7	19.1	63.5	413.2	274.3	1.4	17.8	55.2
	ACSC180	596.4	189.2	2.9	25.7	38.0	560.0	220.2	2.3	24.1	33.1	516.8	253.8	1.9	22.3	29.0	500.7	265.6	1.8	21.6	26.9	467.5	288.1	1.5	20.1	23.5
	ACSC190	638.4	210.6	2.8	27.5	42.8	596.8	244.3	2.3	25.7	38.0	548.3	280.8	1.8	23.6	31.8	529.7	293.5	1.7	22.8	30.4	493.0	317.9	1.5	21.2	26.2
	ACSC200	657.4	203.7	3.0	28.3	39.4	617.5	236.8	2.4	26.6	34.5	570.5	272.9	2.0	24.6	30.4	552.2	285.5	1.8	23.8	28.3	516.5	310.1	1.6	22.2	25.5
	ACSC210	690.0	214.3	3.0	29.7	43.5	646.5	248.8	2.4	27.8	38.0	595.9	286.9	1.9	25.7	33.1	577.1	300.4	1.8	24.9	31.1	538.1	326.4	1.6	23.2	26.9
	ACSC220	729.9	239.4	2.8	31.4	42.8	682.5	277.7	2.3	29.4	37.3	626.6	319.1	1.9	27.0	31.1	606.0	333.6	1.7	26.1	29.7	563.5	361.3	1.5	24.3	25.5
	ACSC240	787.7	248.1	2.9	33.9	49.4	738.7	288.2	2.4	31.8	43.8	681.0	332.0	1.9	29.3	37.3	660.0	347.5	1.8	28.4	34.9	616.2	377.2	1.5	26.5	31.4
	ACSC250	826.8	272.3	2.8	35.6	54.5	773.7	316.1	2.3	33.3	47.6	710.5	363.3	1.8	30.6	40.7	687.5	390.6	1.7	29.6	38.0	637.5	411.1	1.5	27.5	32.5
	ACSC260	858.2	290.1	2.7	37.0	58.3	800.6	336.2	2.2	34.5	51.1	733.0	385.8	1.8	31.6	43.5	707.2	403.0	1.7	30.5	40.4	656.6	436.2	1.4	28.3	34.5
	ACSC270	889.0	274.6	3.0	38.3	42.8	834.7	319.1	2.4	35.9	38.0	770.2	367.9	2.0	33.2	32.1	746.0	385.2	1.8	32.1	30.0	696.8	418.5	1.6	30.0	26.6
	ACSC280	924.3	291.0	2.9	39.8	46.3	865.3	337.8	2.4	37.3	41.4	796.1	389.0	1.9	34.3	33.8	770.4	407.1	1.8	33.2	31.8	718.0	441.9	1.5	30.9	28.3
	ACSC300	985.4	305.8	2.9	42.4	34.5	900.5	341.8	2.4	38.8	29.0	809.3	382.1	2.0	34.8	24.2	776.1	396.6	1.8	33.4	22.1	711.8	425.5	1.6	30.7	18.6
	ACSC310	1016.5	325.1	2.9	43.8	37.1	926.6	363.1	2.4	39.9	30.4	831.5	405.8	1.9	35.8	25.1	796.6	421.1	1.8	34.3	23.0	729.6	451.7	1.5	31.4	19.6
	ACSC320	1047.6	344.4	2.8	45.1	38.7	953.4	384.6	2.3	41.1	31.8	853.6	429.5	1.9	36.8	26.0	817.1	445.6	1.7	35.2	23.9	747.1	477.7	1.5	32.2	20.5
	ACSC330	1086.4	358.1	2.8	46.8	40.7	1015.2	415.3	2.3	43.7	36.6	931.9	477.0	1.8	40.1	31.1	900.8	498.7	1.7	38.8	29.0	838.1	540.1	1.5	36.1	24.9
	ACSC350	1145.6	372.4	2.8	49.3	36.6	1044.7	416.1	2.3	45.0	30.4	935.0	464.6	1.9	40.3	24.9	896.4	482.2	1.7	38.6	22.8	820.1	517.1	1.5	35.3	20.0
	ACSC365	1196.2	390.1	2.8	51.5	40.0	1089.7	435.6	2.3	46.9	33.1	973.1	485.8	1.9	41.9	26.9	932.1	504.1	1.7	40.1	24.9	852.1	540.2	1.5	36.7	21.4
	ACSC380	1254.5	401.8	2.9	54.0	72.5	1176.1	466.8	2.3	50.6	63.5	1083.1	537.0	1.9	46.6	54.5	1048.8	561.7	1.8	45.2	51.8	978.3	608.8	1.5	42.1	45.6
	ACSC400	1326.0	435.4	2.8	57.1	80.1	1240.0	504.9	2.3	53.4	70.4	1138.3	580.1	1.9	49.0	60.1	1099.5	606.3	1.7	47.3	57.3	1023.2	656.9	1.5	44.1	48.3
	ACSC420	1383.6	451.3	2.8	59.6	77.3	1292.0	523.3	2.3	55.6	68.4	1184.6	601.3	1.9	51.0	57.3	1144.3	628.7	1.7	49.3	53.2	1063.1	681.3	1.5	45.8	47.6
	ACSC450	1496.7	447.8	3.0	64.4	88.4	1407.5	520.9	2.5	60.6	80.1	1303.2	601.5	2.0	56.1	67.7	1264.8	630.2	1.9	54.5	63.5	1184.1	685.4	1.6	51.0	58.0
	ACSC475	1574.9	496.2	2.9	67.8	98.7	1476.9	576.4	2.4	63.6	87.7	1361.8	664.0	1.9	58.6	74.6	1319.1	694.9	1.8	56.8	69.7	1231.3	754.2	1.5	53.0	61.5
	ACSC500	1654.0	544.6	2.8	71.2	109.1	1546.2	632.0	2.3	66.6	95.3	1420.4	726.5	1.8	61.2	81.5	1373.8	759.6	1.7	59.2	76.0	1278.8	823.0	1.5	55.1	67.7

NOTES:

- 1- The ACSC chillers are rated with AHRI - 550/590 standard.
- 2- (CAP.) Capacity ratings (kW) are based on (5.5°C) water range, (0.000018 m².°C/W) fouling factor in evaporator and zero altitude.
- 3- Direct interpolation is permissible between (35°C) to (52°C) ambient temperatures only. Do not extrapolate.
- 4- Power input (kW) is for compressor (COMP.) only.
- 5- (COP) Coefficient of performance is the overall unit, refer to page pg.15 Electrical Data for fan power input.
- 6- (WFR) Water flow rate in liters Per second (L/S).
- 7- (WPD) Water pressure drop (kPa).

PERFORMANCE DATA TABLES-METRIC SYSTEM

LEAVING CHILLED WATER TEMP. (LCWT)	UNIT SIZE	35°C AMBIENT TEMPERATURE					40°C AMBIENT TEMPERATURE					46°C AMBIENT TEMPERATURE					48°C AMBIENT TEMPERATURE					52°C AMBIENT TEMPERATURE				
		CAP. (kW)	COMP. (kW)	COP	WFR (L/S)	WPD (kPa)	CAP. (kW)	COMP. (kW)	COP	WFR (L/S)	WPD (kPa)	CAP. (kW)	COMP. (kW)	COP	WFR (L/S)	WPD (kPa)	CAP. (kW)	COMP. (kW)	COP	WFR (L/S)	WPD (kPa)	CAP. (kW)	COMP. (kW)	COP	WFR (L/S)	WPD (kPa)
5.6°C	ACSC080	274.6	82.9	3.0	11.8	45.6	252.2	92.9	2.5	10.9	38.7	227.9	104.1	2.0	9.8	31.8	219.1	108.1	1.9	9.4	29.7	201.9	116.3	1.6	8.7	25.5
	ACSC090	306.1	101.3	2.8	13.2	56.6	279.0	113.4	2.3	12.0	47.6	249.9	126.8	1.8	10.8	38.0	239.5	131.7	1.7	10.3	35.2	219.2	141.4	1.5	9.4	29.7
	ACSC100	352.8	106.3	3.0	15.2	74.6	332.2	123.8	2.4	14.3	66.3	308.1	143.1	2.0	13.3	57.3	299.1	149.9	1.8	12.9	53.9	280.6	162.9	1.6	12.1	47.6
	ACSC110	377.3	113.2	3.0	16.2	40.0	345.8	126.7	2.5	14.9	33.8	311.5	141.9	2.0	13.4	27.6	299.3	147.4	1.9	12.9	25.5	275.4	158.4	1.6	11.9	22.1
	ACSC120	413.5	130.3	2.9	17.8	47.6	388.1	151.7	2.4	16.7	42.1	358.1	174.8	1.9	15.4	35.9	346.8	182.9	1.8	14.9	33.8	324.0	198.3	1.5	13.9	29.7
	ACSC130	446.6	146.2	2.8	19.2	55.2	417.4	169.7	2.3	18.0	48.3	383.0	195.1	1.8	16.5	40.7	370.2	204.0	1.7	15.9	38.7	344.4	221.0	1.5	14.8	33.8
	ACSC140	474.9	134.3	3.2	20.4	72.5	448.1	156.6	2.6	19.3	64.9	416.4	181.4	2.1	17.9	55.9	404.5	142.8	2.6	17.4	53.2	380.2	207.4	1.7	16.4	47.0
	ACSC160	556.6	184.5	2.8	24.0	98.0	519.8	214.2	2.3	22.4	86.3	477.1	246.1	1.8	20.5	73.2	461.1	257.2	1.7	19.9	68.4	428.9	278.4	1.5	18.5	59.4
	ACSC180	617.6	191.3	2.9	26.6	40.7	580.2	222.8	2.4	25.0	35.9	535.8	257.0	1.9	23.1	31.1	519.2	269.0	1.8	22.4	29.0	485.5	292.0	1.6	20.9	25.5
	ACSC190	660.6	213.1	2.8	28.4	46.3	618.0	247.5	2.3	26.6	40.7	568.1	284.6	1.9	24.5	34.5	549.3	297.6	1.7	23.7	32.5	511.8	322.5	1.5	22.0	28.3
	ACSC200	680.5	206.0	3.0	29.3	42.1	639.7	239.6	2.5	27.5	37.3	591.5	276.4	2.0	25.5	32.5	573.2	289.3	1.9	24.7	30.4	536.5	314.3	1.6	23.1	26.9
	ACSC210	714.1	216.9	3.0	30.7	46.3	669.6	252.0	2.5	28.8	40.7	617.6	290.6	2.0	26.6	35.2	598.2	304.3	1.9	25.8	33.1	558.6	330.8	1.6	24.1	29.0
	ACSC220	755.1	242.5	2.9	32.5	45.6	706.4	281.5	2.4	30.4	40.0	649.2	323.6	1.9	28.0	33.8	627.9	338.4	1.8	27.0	31.8	584.7	366.7	1.5	25.2	27.6
	ACSC240	815.4	251.1	3.0	35.1	52.8	765.0	291.8	2.4	32.9	47.0	705.9	336.4	2.0	30.4	40.0	684.1	352.1	1.8	29.5	37.6	639.4	382.4	1.6	27.5	33.5
	ACSC250	856.1	275.8	2.9	36.9	58.0	800.9	320.3	2.3	34.5	51.1	736.1	368.3	1.9	31.7	43.5	712.4	390.6	1.7	30.7	40.7	663.3	417.5	1.5	28.6	35.2
	ACSC260	888.0	294.1	2.8	38.2	62.1	828.6	340.9	2.3	35.7	54.5	759.2	391.4	1.8	32.7	46.3	733.2	409.0	1.7	31.6	43.2	681.5	442.8	1.5	29.3	37.3
	ACSC270	920.4	277.7	3.0	39.6	45.6	864.4	323.0	2.5	37.2	40.4	798.3	372.6	2.0	34.4	34.5	773.7	390.3	1.9	33.3	32.5	723.7	424.2	1.6	31.2	28.7
	ACSC280	955.9	294.5	3.0	41.2	49.0	895.9	342.1	2.4	38.6	43.5	825.2	394.1	2.0	35.5	36.6	799.0	412.6	1.8	34.4	34.5	745.7	448.1	1.6	32.1	30.4
	ACSC300	1022.5	310.4	3.0	44.0	36.6	934.8	346.8	2.5	40.3	31.1	840.8	387.4	2.0	36.2	25.5	806.7	402.1	1.9	34.7	23.5	741.0	431.2	1.6	31.9	20.0
	ACSC310	1053.8	330.1	2.9	45.4	38.9	961.8	368.6	2.4	41.4	32.7	863.3	411.6	2.0	37.2	26.7	827.8	427.0	1.8	35.6	24.6	759.1	457.8	1.6	32.7	20.9
	ACSC320	1085.6	349.8	2.9	46.7	41.2	989.2	390.5	2.4	42.6	34.3	885.9	435.7	1.9	38.1	27.8	848.8	452.0	1.8	36.6	25.8	777.0	484.3	1.5	33.5	21.9
	ACSC330	1123.7	362.7	2.9	48.4	43.5	1050.9	420.9	2.3	45.3	38.7	965.5	483.8	1.9	41.6	33.1	933.8	505.8	1.7	40.2	31.1	869.6	548.1	1.5	37.4	26.9
	ACSC350	1188.1	378.3	2.9	51.2	39.4	1083.9	422.4	2.4	46.7	33.1	971.1	471.3	1.9	41.8	26.9	931.4	489.1	1.8	40.1	24.9	853.0	524.2	1.5	36.7	21.4
	ACSC365	1239.9	396.4	2.9	53.4	42.8	1129.9	442.4	2.4	48.7	35.9	1010.4	493.1	1.9	43.5	29.0	968.4	511.5	1.8	41.7	26.9	885.9	547.7	1.5	38.1	22.8
	ACSC380	1298.1	406.6	2.9	55.9	77.3	1217.6	472.6	2.4	52.4	68.4	1122.7	544.2	1.9	48.3	58.7	1087.5	569.4	1.8	46.8	55.2	1015.8	617.5	1.6	43.7	48.3
	ACSC400	1372.4	441.2	2.9	59.1	85.6	1283.4	511.8	2.3	55.3	75.3	1179.2	588.2	1.9	50.8	64.2	1140.0	615.0	1.8	49.1	60.8	1061.8	666.5	1.5	45.7	52.5
	ACSC420	1430.9	457.5	2.9	61.6	82.2	1336.9	530.6	2.4	57.6	72.5	1226.8	609.9	1.9	52.8	61.5	1185.8	637.7	1.8	51.1	57.3	1103.2	691.3	1.5	47.5	50.4
	ACSC450	1549.3	452.7	3.1	66.7	95.3	1458.3	526.8	2.6	62.8	85.6	1351.4	608.8	2.1	58.2	73.2	1311.6	638.0	1.9	56.5	69.0	1229.4	694.2	1.7	52.9	62.1
	ACSC475	1630.6	502.2	3.0	70.2	105.6	1529.9	583.7	2.4	65.9	93.9	1411.8	672.7	2.0	60.8	80.1	1367.8	704.1	1.8	58.9	75.3	1278.0	764.6	1.6	55.0	66.3
	ACSC500	1712.1	551.7	2.9	73.7	116.0	1601.5	640.5	2.3	69.0	102.2	1472.2	736.6	1.9	63.4	87.0	1424.2	770.4	1.7	61.3	81.5	1326.9	835.0	1.5	57.1	71.8

NOTES:

- 1- The ACSC chillers are rated with AHRI - 550/590 standard.
- 2- (CAP.) Capacity ratings (kW) are based on (5.5°C) water range, (0.000018 m².°C/W) fouling factor in evaporator and zero altitude.
- 3- Direct interpolation is permissible between (35°C) to (52°C) ambient temperatures only. Do not extrapolate.
- 4- Power input (kW) is for compressor (COMP.) only.
- 5- (COP) Coefficient of performance is the overall unit, refer to page pg.15 Electrical Data for fan power input.
- 6- (WFR) Water flow rate in liters Per second (L/S).
- 7- (WPD) Water pressure drop (kPa).

PERFORMANCE DATA TABLES-METRIC SYSTEM

LEAVING CHILLED WATER TEMP. (LCWT)	UNIT SIZE	35°C AMBIENT TEMPERATURE					40°C AMBIENT TEMPERATURE					46°C AMBIENT TEMPERATURE					48°C AMBIENT TEMPERATURE					52°C AMBIENT TEMPERATURE				
		CAP. (kW)	COMP. (kW)	COP	WFR (L/S)	WPD (kPa)	CAP. (kW)	COMP. (kW)	COP	WFR (L/S)	WPD (kPa)	CAP. (kW)	COMP. (kW)	COP	WFR (L/S)	WPD (kPa)	CAP. (kW)	COMP. (kW)	COP	WFR (L/S)	WPD (kPa)	CAP. (kW)	COMP. (kW)	COP	WFR (L/S)	WPD (kPa)
6.7°C	ACSC080	284.8	84.1	3.0	12.3	49.0	261.7	94.1	2.5	11.3	41.4	236.7	105.4	2.1	10.2	34.5	227.8	109.5	1.9	9.8	31.8	210.1	117.7	1.7	9.0	27.6
	ACSC090	317.3	102.8	2.8	13.7	60.8	289.3	115.0	2.3	12.5	50.4	259.3	128.5	1.9	11.2	40.7	248.8	133.5	1.7	10.7	38.0	227.8	143.2	1.5	9.8	31.8
	ACSC100	364.8	107.2	3.0	15.7	79.4	343.9	125.0	2.5	14.8	70.4	319.3	144.7	2.0	13.7	61.5	310.1	151.6	1.9	13.4	58.0	291.2	164.9	1.6	12.5	51.1
	ACSC110	391.3	114.8	3.1	16.8	42.8	358.7	128.4	2.5	15.4	35.9	323.5	143.7	2.1	13.9	29.7	311.0	149.3	1.9	13.4	27.6	286.3	160.3	1.7	12.3	23.5
	ACSC120	427.5	131.8	3.0	18.4	50.4	401.5	153.5	2.4	17.3	44.9	370.8	177.0	2.0	16.0	38.7	359.4	185.3	1.8	15.5	36.6	335.8	201.0	1.6	14.5	31.8
	ACSC130	461.6	148.0	2.9	19.9	58.7	431.6	171.9	2.3	18.6	51.8	396.6	197.8	1.9	17.1	43.5	383.4	206.9	1.7	16.5	40.7	357.0	224.2	1.5	15.4	35.9
	ACSC140	491.3	135.7	3.2	21.2	77.3	463.8	158.2	2.7	20.0	69.0	431.3	183.3	2.2	18.6	60.1	419.1	192.3	2.0	18.0	56.6	394.2	209.8	1.7	17.0	50.4
	ACSC160	575.4	186.7	2.8	24.8	104.3	537.8	217.0	2.3	23.2	91.8	493.9	249.5	1.9	21.3	78.0	477.6	260.9	1.7	20.6	73.2	444.7	282.5	1.5	19.1	63.5
	ACSC180	638.8	193.4	3.0	27.5	43.5	600.3	225.4	2.5	25.8	38.7	554.9	260.2	2.0	23.9	33.1	537.8	272.4	1.8	23.2	31.1	503.5	295.9	1.6	21.7	27.6
	ACSC190	682.7	215.7	2.9	29.4	49.7	639.2	250.6	2.4	27.5	43.5	588.0	288.3	1.9	25.3	37.3	568.9	301.6	1.8	24.5	34.5	530.6	327.0	1.5	22.8	30.4
	ACSC200	703.6	208.3	3.1	30.3	44.9	661.9	242.4	2.5	28.5	40.0	612.5	279.8	2.1	26.4	34.5	594.2	293.1	1.9	25.6	32.5	556.4	318.5	1.6	24.0	28.3
	ACSC210	738.2	219.5	3.1	31.8	49.0	692.6	255.1	2.5	29.8	43.5	639.3	294.4	2.0	27.5	37.3	619.3	308.3	1.9	26.7	35.2	579.0	335.2	1.6	24.9	31.1
	ACSC220	780.3	245.7	2.9	33.6	48.3	730.3	285.2	2.4	31.4	42.8	671.8	328.1	1.9	28.9	36.6	649.9	343.2	1.8	28.0	33.8	606.0	372.0	1.6	26.1	29.7
	ACSC240	843.0	254.1	3.1	36.3	56.3	791.3	295.4	2.5	34.1	50.1	730.8	340.7	2.0	31.5	42.8	708.1	356.7	1.9	30.5	40.4	662.6	387.5	1.6	28.5	35.6
	ACSC250	885.3	279.4	2.9	38.1	61.5	828.1	324.4	2.4	35.7	54.5	761.7	373.4	1.9	32.8	46.3	737.3	390.6	1.8	31.7	43.5	689.1	423.9	1.5	29.7	38.0
	ACSC260	917.9	298.0	2.9	39.5	65.9	856.6	345.6	2.3	36.9	58.0	785.4	396.9	1.9	33.8	49.0	759.2	415.0	1.7	32.7	45.9	706.3	449.4	1.5	30.4	40.0
	ACSC270	951.7	280.9	3.1	41.0	48.3	894.2	326.8	2.5	38.5	42.8	826.5	377.3	2.1	35.6	36.9	801.5	395.3	1.9	34.5	34.9	750.6	429.9	1.6	32.3	30.7
	ACSC280	987.6	298.0	3.1	42.5	51.8	926.4	346.4	2.5	39.9	45.6	854.2	399.3	2.0	36.8	39.4	827.6	418.1	1.9	35.6	37.3	773.4	454.3	1.6	33.3	32.5
	ACSC300	1059.6	315.1	3.1	45.6	38.7	969.0	351.8	2.5	41.7	33.1	872.3	392.8	2.1	37.6	26.9	837.4	407.6	1.9	36.1	24.9	770.1	436.9	1.7	33.2	21.4
	ACSC310	1091.2	335.1	3.0	47.0	40.7	997.0	374.1	2.5	42.9	35.0	895.0	417.3	2.0	38.5	28.3	859.0	433.0	1.9	37.0	26.2	788.5	463.9	1.6	34.0	22.3
	ACSC320	1123.6	355.2	2.9	48.4	43.7	1024.9	396.4	2.4	44.1	36.8	918.3	442.0	2.0	39.5	29.7	880.5	458.4	1.8	37.9	27.6	806.9	490.9	1.6	34.7	23.2
	ACSC330	1161.1	367.3	2.9	50.0	46.3	1086.6	426.5	2.4	46.8	40.7	999.1	490.5	1.9	43.0	35.2	966.8	513.0	1.8	41.6	33.1	901.1	556.0	1.5	38.8	29.0
	ACSC350	1230.5	384.1	3.0	53.0	42.1	1123.0	428.7	2.4	48.4	35.9	1007.2	478.1	2.0	43.4	29.0	966.3	496.0	1.8	41.6	26.9	886.0	531.2	1.6	38.2	22.8
	ACSC365	1283.5	402.7	3.0	55.3	45.6	1170.1	449.1	2.4	50.4	38.7	1047.6	500.3	2.0	45.1	31.1	1004.6	518.9	1.8	43.3	29.0	919.7	555.2	1.6	39.6	24.2
	ACSC380	1341.7	411.4	3.0	57.8	82.2	1259.1	478.5	2.5	54.2	73.2	1162.3	551.4	2.0	50.0	62.8	1126.3	577.1	1.8	48.5	58.7	1053.3	626.1	1.6	45.4	51.1
	ACSC400	1418.8	447.0	2.9	61.1	91.1	1326.8	518.6	2.4	57.1	80.1	1220.2	596.4	1.9	52.5	68.4	1180.4	623.7	1.8	50.8	64.2	1100.3	676.0	1.5	47.4	56.6
	ACSC420	1478.2	463.7	3.0	63.7	87.0	1381.8	537.9	2.4	59.5	76.6	1269.1	618.5	1.9	54.6	65.6	1227.3	646.8	1.8	52.8	61.5	1143.3	701.4	1.6	49.2	53.2
	ACSC450	1601.9	457.6	3.2	69.0	102.2	1509.1	532.8	2.6	65.0	91.1	1399.5	616.1	2.1	60.3	78.7	1358.4	645.7	2.0	58.5	74.6	1274.6	703.0	1.7	54.9	66.3
	ACSC475	1686.2	508.2	3.1	72.6	112.5	1583.0	590.9	2.5	68.2	100.1	1461.7	681.5	2.0	62.9	85.6	1416.4	713.4	1.9	61.0	80.8	1324.8	774.9	1.6	57.0	71.1
	ACSC500	1770.3	558.7	2.9	76.2	122.9	1656.8	649.0	2.4	71.3	109.1	1523.9	746.8	1.9	65.6	92.5	1474.5	781.1	1.8	63.5	87.0	1375.1	846.9	1.5	59.2	76.0

NOTES:

- 1- The ACSC chillers are rated with AHRI - 550/590 standard.
- 2- (CAP.) Capacity ratings (kW) are based on (5.5°C) water range, (0.000018 m².°C/W) fouling factor in evaporator and zero altitude.
- 3- Direct interpolation is permissible between (35°C) to (52°C) ambient temperatures only. Do not extrapolate.
- 4- Power input (kW) is for compressor (COMP.) only.
- 5- (COP) Coefficient of performance is the overall unit, refer to page pg.15 Electrical Data for fan power input.
- 6- (WFR) Water flow rate in liters Per second (L/S).
- 7- (WPD) Water pressure drop (kPa).

PERFORMANCE DATA TABLES-METRIC SYSTEM

LEAVING CHILLED WATER TEMP. (LCWT)	UNIT SIZE	35°C AMBIENT TEMPERATURE					40°C AMBIENT TEMPERATURE					46°C AMBIENT TEMPERATURE					48°C AMBIENT TEMPERATURE					52°C AMBIENT TEMPERATURE				
		CAP. (kW)	COMP. (kW)	COP	WFR (L/S)	WPD (kPa)	CAP. (kW)	COMP. (kW)	COP	WFR (L/S)	WPD (kPa)	CAP. (kW)	COMP. (kW)	COP	WFR (L/S)	WPD (kPa)	CAP. (kW)	COMP. (kW)	COP	WFR (L/S)	WPD (kPa)	CAP. (kW)	COMP. (kW)	COP	WFR (L/S)	WPD (kPa)
7.8°C	ACSC080	295.1	85.2	3.1	12.7	52.5	271.2	95.4	2.6	11.7	44.2	245.5	106.8	2.1	10.6	37.3	236.6	110.9	2.0	10.2	33.8	218.3	119.1	1.7	9.4	29.7
	ACSC090	328.6	104.4	2.9	14.1	64.9	299.5	116.6	2.4	12.9	53.2	268.8	130.3	1.9	11.6	43.5	258.0	135.3	1.8	11.1	40.7	236.3	145.0	1.5	10.2	33.8
	ACSC100	376.7	108.2	3.1	16.2	84.2	355.5	126.3	2.6	15.3	74.6	330.5	146.2	2.1	14.2	65.6	321.1	153.3	1.9	13.8	62.1	301.7	166.9	1.7	13.0	54.5
	ACSC110	405.3	116.3	3.1	17.5	45.6	371.7	130.1	2.6	16.0	38.0	335.5	145.5	2.1	14.4	31.8	322.7	151.1	2.0	13.9	29.7	297.3	162.2	1.7	12.8	24.9
	ACSC120	441.5	133.2	3.0	19.0	53.2	415.0	155.2	2.5	17.9	47.6	383.5	179.2	2.0	16.5	41.4	372.0	187.7	1.9	16.0	39.4	347.7	203.7	1.6	15.0	33.8
	ACSC130	476.6	149.8	2.9	20.5	62.1	445.9	174.1	2.4	19.2	55.2	410.2	200.5	1.9	17.7	46.3	396.6	209.7	1.8	17.1	42.8	369.6	227.3	1.5	15.9	38.0
	ACSC140	507.7	137.0	3.3	21.9	82.2	479.6	159.8	2.7	20.7	73.2	446.2	185.3	2.2	19.2	64.2	433.7	241.9	1.7	18.7	60.1	408.2	212.2	1.8	17.6	53.9
	ACSC160	594.3	189.0	2.9	25.6	110.5	555.8	219.8	2.4	23.9	97.4	510.7	252.9	1.9	22.0	82.9	494.2	264.5	1.8	21.3	78.0	460.4	286.5	1.5	19.8	67.7
	ACSC180	660.0	195.5	3.1	28.4	46.3	620.5	228.0	2.5	26.7	41.4	574.0	263.4	2.0	24.7	35.2	556.4	275.8	1.9	24.0	33.1	521.5	299.8	1.6	22.5	29.7
	ACSC190	704.9	218.2	3.0	30.4	53.2	660.3	253.7	2.4	28.4	46.3	607.9	292.1	2.0	26.2	40.0	588.6	305.7	1.8	25.3	36.6	549.3	331.5	1.6	23.7	32.5
	ACSC200	726.7	210.7	3.2	31.3	47.6	684.1	245.3	2.6	29.5	42.8	633.5	283.3	2.1	27.3	36.6	615.2	296.9	1.9	26.5	34.5	576.4	322.7	1.7	24.8	29.7
	ACSC210	762.2	222.1	3.2	32.8	51.8	715.7	258.3	2.6	30.8	46.3	660.9	298.1	2.1	28.5	39.4	640.4	312.2	1.9	27.6	37.3	599.4	339.6	1.7	25.8	33.1
	ACSC220	805.4	248.8	3.0	34.7	51.1	754.2	289.0	2.4	32.5	45.6	694.3	332.7	2.0	29.9	39.4	671.8	347.9	1.8	28.9	35.9	627.2	377.3	1.6	27.0	31.8
	ACSC240	870.6	257.1	3.1	37.5	59.7	817.6	299.0	2.5	35.2	53.2	755.7	345.1	2.1	32.5	45.6	732.2	361.3	1.9	31.5	43.2	685.8	392.7	1.7	29.5	37.6
	ACSC250	914.5	282.9	3.0	39.4	64.9	855.3	328.6	2.4	36.8	58.0	787.3	378.4	2.0	33.9	49.0	762.2	390.6	1.8	32.8	46.3	714.9	430.2	1.6	30.8	40.7
	ACSC260	947.7	302.0	2.9	40.8	69.7	884.6	350.2	2.4	38.1	61.5	811.7	402.5	1.9	34.9	51.8	785.3	420.9	1.8	33.8	48.7	731.2	456.1	1.5	31.5	42.8
	ACSC270	983.1	284.1	3.2	42.3	51.1	923.9	330.7	2.6	39.8	45.2	854.7	382.0	2.1	36.8	39.4	829.2	400.3	1.9	35.7	37.3	777.5	435.6	1.7	33.5	32.8
	ACSC280	1019.3	301.5	3.1	43.9	54.5	956.9	350.6	2.5	41.2	47.6	883.3	404.5	2.1	38.0	42.1	856.3	423.7	1.9	36.9	40.0	801.1	460.5	1.6	34.5	34.5
	ACSC300	1096.7	319.7	3.2	47.2	40.7	1003.3	356.8	2.6	43.2	35.2	903.8	398.2	2.1	38.9	28.3	868.1	413.0	2.0	37.4	26.2	799.2	442.6	1.7	34.4	22.8
	ACSC310	1128.5	340.1	3.1	48.6	42.6	1032.2	379.6	2.5	44.4	37.3	926.8	423.1	2.1	39.9	29.9	890.1	438.9	1.9	38.3	27.8	817.9	470.1	1.6	35.2	23.7
	ACSC320	1161.6	360.6	3.0	50.0	46.3	1060.7	402.4	2.5	45.7	39.4	950.6	448.2	2.0	40.9	31.5	912.2	464.8	1.9	39.3	29.5	836.8	497.5	1.6	36.0	24.6
	ACSC330	1198.5	372.0	3.0	51.6	49.0	1122.3	432.1	2.4	48.3	42.8	1032.6	497.3	2.0	44.5	37.3	999.8	520.2	1.8	43.0	35.2	932.7	564.0	1.6	40.2	31.1
	ACSC350	1273.0	390.0	3.0	54.8	44.9	1162.1	435.0	2.5	50.0	38.7	1043.3	484.8	2.0	44.9	31.1	1001.3	502.8	1.9	43.1	29.0	919.0	538.3	1.6	39.6	24.2
	ACSC365	1327.2	409.0	3.0	57.1	48.3	1210.4	455.9	2.5	52.1	41.4	1084.9	507.6	2.0	46.7	33.1	1040.8	526.3	1.9	44.8	31.1	953.5	562.8	1.6	41.1	25.5
	ACSC380	1385.3	416.3	3.1	59.7	87.0	1300.7	484.3	2.5	56.0	78.0	1201.9	558.6	2.0	51.8	67.0	1165.0	584.7	1.9	50.2	62.1	1090.8	634.8	1.6	47.0	53.9
	ACSC400	1465.2	452.8	3.0	63.1	96.7	1370.2	525.4	2.4	59.0	84.9	1261.1	604.5	2.0	54.3	72.5	1220.9	632.4	1.8	52.6	67.7	1138.9	685.6	1.6	49.0	60.8
	ACSC420	1525.6	469.9	3.0	65.7	91.8	1426.6	545.2	2.5	61.4	80.8	1311.4	627.1	2.0	56.5	69.7	1268.8	655.9	1.8	54.6	65.6	1183.3	711.4	1.6	51.0	55.9
	ACSC450	1654.5	462.5	3.3	71.2	109.1	1559.9	538.8	2.7	67.2	96.7	1447.7	623.4	2.2	62.3	84.2	1405.3	653.5	2.0	60.5	80.1	1319.8	711.8	1.7	56.8	70.4
	ACSC475	1741.9	514.2	3.1	75.0	119.4	1636.0	598.1	2.5	70.4	106.3	1511.7	690.2	2.1	65.1	91.1	1465.1	722.7	1.9	63.1	86.3	1371.5	785.3	1.7	59.1	76.0
	ACSC500	1828.4	565.8	3.0	78.7	129.8	1712.1	657.5	2.4	73.7	116.0	1575.7	757.0	2.0	67.8	98.0	1524.8	791.8	1.8	65.7	92.5	1423.2	858.9	1.6	61.3	80.1

NOTES:

- 1- The ACSC chillers are rated with AHRI - 550/590 standard.
- 2- (CAP.) Capacity ratings (kW) are based on (5.5°C) water range, (0.000018 m².°C/W) fouling factor in evaporator and zero altitude.
- 3- Direct interpolation is permissible between (35°C) to (52°C) ambient temperatures only. Do not extrapolate.
- 4- Power input (kW) is for compressor (COMP.) only.
- 5- (COP) Coefficient of performance is the overall unit, refer to page pg.15 Electrical Data for fan power input.
- 6- (WFR) Water flow rate in liters Per second (L/S).
- 7- (WPD) Water pressure drop (kPa).

PERFORMANCE DATA TABLES-METRIC SYSTEM

LEAVING CHILLED WATER TEMP. (LCWT)	UNIT SIZE	35°C AMBIENT TEMPERATURE					40°C AMBIENT TEMPERATURE					46°C AMBIENT TEMPERATURE					48°C AMBIENT TEMPERATURE					52°C AMBIENT TEMPERATURE				
		CAP. (kW)	COMP. (kW)	COP	WFR (L/S)	WPD (kPa)	CAP. (kW)	COMP. (kW)	COP	WFR (L/S)	WPD (kPa)	CAP. (kW)	COMP. (kW)	COP	WFR (L/S)	WPD (kPa)	CAP. (kW)	COMP. (kW)	COP	WFR (L/S)	WPD (kPa)	CAP. (kW)	COMP. (kW)	COP	WFR (L/S)	WPD (kPa)
8.8°C	ACSC080	305.4	86.3	3.2	13.2	55.9	280.8	96.6	2.6	12.1	47.0	254.3	108.1	2.2	11.0	40.0	245.3	112.3	2.0	10.6	35.9	226.5	120.6	1.7	9.8	31.8
	ACSC090	339.8	105.9	2.9	14.6	69.0	309.8	118.2	2.4	13.3	55.9	278.2	132.0	2.0	12.0	46.3	267.3	137.1	1.8	11.5	43.5	244.9	146.8	1.6	10.5	35.9
	ACSC100	388.7	109.1	3.2	16.7	89.1	367.2	127.5	2.6	15.8	78.7	341.7	147.8	2.1	14.7	69.7	332.1	155.0	2.0	14.3	66.3	312.3	168.8	1.7	13.4	58.0
	ACSC110	419.3	117.9	3.2	18.1	48.3	384.6	131.8	2.7	16.6	40.0	347.5	147.4	2.2	15.0	33.8	334.4	153.0	2.0	14.4	31.8	308.3	164.2	1.7	13.3	26.2
	ACSC120	455.5	134.6	3.1	19.6	55.9	428.4	157.0	2.5	18.4	50.4	396.2	181.4	2.0	17.1	44.2	384.7	190.1	1.9	16.6	42.1	359.5	206.3	1.6	15.5	35.9
	ACSC130	491.6	151.6	3.0	21.2	65.6	460.1	176.3	2.4	19.8	58.7	423.9	203.2	2.0	18.3	49.0	409.8	212.5	1.8	17.6	44.9	382.2	230.5	1.6	16.5	40.0
	ACSC140	524.2	138.3	3.4	22.6	87.0	495.3	161.4	2.8	21.3	77.3	461.1	187.3	2.3	19.9	68.4	448.3	291.5	1.5	19.3	63.5	422.2	214.6	1.8	18.2	57.3
	ACSC160	613.2	191.3	3.0	26.4	116.7	573.8	222.6	2.4	24.7	102.9	527.4	256.3	1.9	22.7	87.7	510.7	268.2	1.8	22.0	82.9	476.2	290.6	1.6	20.5	71.8
	ACSC180	681.3	197.6	3.1	29.3	49.0	640.6	230.5	2.6	27.6	44.2	593.1	266.6	2.1	25.5	37.3	574.9	279.3	1.9	24.8	35.2	539.5	303.8	1.7	23.2	31.8
	ACSC190	727.0	220.8	3.0	31.3	56.6	681.5	256.9	2.5	29.3	49.0	627.7	295.9	2.0	27.0	42.8	608.2	309.8	1.9	26.2	38.7	568.1	336.1	1.6	24.5	34.5
	ACSC200	749.8	213.0	3.2	32.3	50.4	706.3	248.1	2.6	30.4	45.6	654.5	286.7	2.1	28.2	38.7	636.2	300.6	2.0	27.4	36.6	596.3	326.9	1.7	25.7	31.1
	ACSC210	786.3	224.8	3.2	33.9	54.5	738.7	261.4	2.6	31.8	49.0	682.6	301.8	2.1	29.4	41.4	661.5	316.1	2.0	28.5	39.4	619.9	344.0	1.7	26.7	35.2
	ACSC220	830.6	251.9	3.1	35.8	53.9	778.1	292.7	2.5	33.5	48.3	716.9	337.2	2.0	30.9	42.1	693.8	352.7	1.9	29.9	38.0	648.4	382.7	1.6	27.9	33.8
	ACSC240	898.2	260.0	3.2	38.7	63.2	844.0	302.6	2.6	36.3	56.3	780.6	349.4	2.1	33.6	48.3	756.3	365.8	1.9	32.6	45.9	708.9	397.8	1.7	30.5	39.7
	ACSC250	943.8	286.5	3.1	40.6	68.4	882.5	332.8	2.5	38.0	61.5	812.9	383.4	2.0	35.0	51.8	787.1	390.6	1.9	33.9	49.0	740.7	436.6	1.6	31.9	43.5
	ACSC260	977.5	305.9	3.0	42.1	73.5	912.6	354.9	2.4	39.3	64.9	837.9	408.1	1.9	36.1	54.5	811.3	426.9	1.8	34.9	51.4	756.0	462.7	1.6	32.6	45.6
	ACSC270	1014.4	287.3	3.2	43.7	53.9	953.6	334.6	2.7	41.1	47.6	882.8	386.7	2.1	38.0	41.8	856.9	405.3	2.0	36.9	39.7	804.3	441.3	1.7	34.6	34.9
	ACSC280	1051.0	305.1	3.2	45.3	57.3	987.4	354.9	2.6	42.5	49.7	912.4	409.7	2.1	39.3	44.9	884.9	429.2	1.9	38.1	42.8	828.8	466.8	1.7	35.7	36.6
	ACSC300	1133.8	324.4	3.2	48.8	42.8	1037.5	361.9	2.7	44.7	37.3	935.3	403.5	2.2	40.3	29.7	898.7	418.5	2.0	38.7	27.6	828.3	448.3	1.7	35.7	24.2
	ACSC310	1165.9	345.1	3.1	50.2	44.4	1067.4	385.1	2.6	46.0	39.6	958.5	428.9	2.1	41.3	31.5	921.3	444.9	1.9	39.7	29.5	847.4	476.2	1.7	36.5	25.1
	ACSC320	1199.6	366.0	3.0	51.7	48.8	1096.5	408.3	2.5	47.2	41.9	983.0	454.4	2.0	42.3	33.4	943.9	471.2	1.9	40.6	31.3	866.7	504.1	1.6	37.3	26.0
	ACSC330	1235.9	376.6	3.1	53.2	51.8	1158.0	437.7	2.5	49.9	44.9	1066.2	504.0	2.0	45.9	39.4	1032.7	527.4	1.9	44.5	37.3	964.2	571.9	1.6	41.5	33.1
	ACSC350	1315.4	395.8	3.1	56.6	47.6	1201.3	441.3	2.5	51.7	41.4	1079.4	491.6	2.1	46.5	33.1	1036.2	509.7	1.9	44.6	31.1	952.0	545.4	1.7	41.0	25.5
	ACSC365	1370.9	415.3	3.1	59.0	51.1	1250.6	462.6	2.5	53.8	44.2	1122.1	514.8	2.1	48.3	35.2	1077.0	533.7	1.9	46.4	33.1	987.3	570.3	1.6	42.5	26.9
	ACSC380	1428.9	421.1	3.1	61.5	91.8	1342.2	490.2	2.6	57.8	82.9	1241.5	565.9	2.1	53.5	71.1	1203.7	592.4	1.9	51.8	65.6	1128.3	643.5	1.7	48.6	56.6
	ACSC400	1511.7	458.6	3.1	65.1	102.2	1413.6	532.2	2.5	60.9	89.8	1302.0	612.7	2.0	56.1	76.6	1261.3	641.0	1.9	54.3	71.1	1177.5	695.2	1.6	50.7	64.9
	ACSC420	1572.9	476.1	3.1	67.7	96.7	1471.5	552.5	2.5	63.4	84.9	1353.6	635.7	2.0	58.3	73.9	1310.3	665.0	1.9	56.4	69.7	1223.4	721.5	1.6	52.7	58.7
	ACSC450	1707.1	467.4	3.3	73.5	116.0	1610.7	544.8	2.7	69.4	102.2	1495.8	630.8	2.2	64.4	89.8	1452.1	661.2	2.1	62.5	85.6	1365.0	720.6	1.8	58.8	74.6
	ACSC475	1797.6	520.2	3.2	77.4	126.4	1689.1	605.4	2.6	72.7	112.5	1561.7	699.0	2.1	67.2	96.7	1513.7	731.9	2.0	65.2	91.8	1418.3	795.7	1.7	61.1	80.8
	ACSC500	1886.6	572.8	3.1	81.2	136.7	1767.4	666.0	2.5	76.1	122.9	1627.5	767.2	2.0	70.1	103.6	1575.2	802.6	1.9	67.8	98.0	1471.4	870.8	1.6	63.4	84.2

NOTES:

- 1- The ACSC chillers are rated with AHRI - 550/590 standard.
- 2- (CAP.) Capacity ratings (kW) are based on (5.5°C) water range, (0.000018 m².°C/W) fouling factor in evaporator and zero altitude.
- 3- Direct interpolation is permissible between (35°C) to (52°C) ambient temperatures only. Do not extrapolate.
- 4- Power input (kW) is for compressor (COMP.) only.
- 5- (COP) Coefficient of performance is the overall unit, refer to page pg.15 Electrical Data for fan power input.
- 6- (WFR) Water flow rate in liters Per second (L/S).
- 7- (WPD) Water pressure drop (kPa).

PERFORMANCE DATA TABLES-METRIC SYSTEM

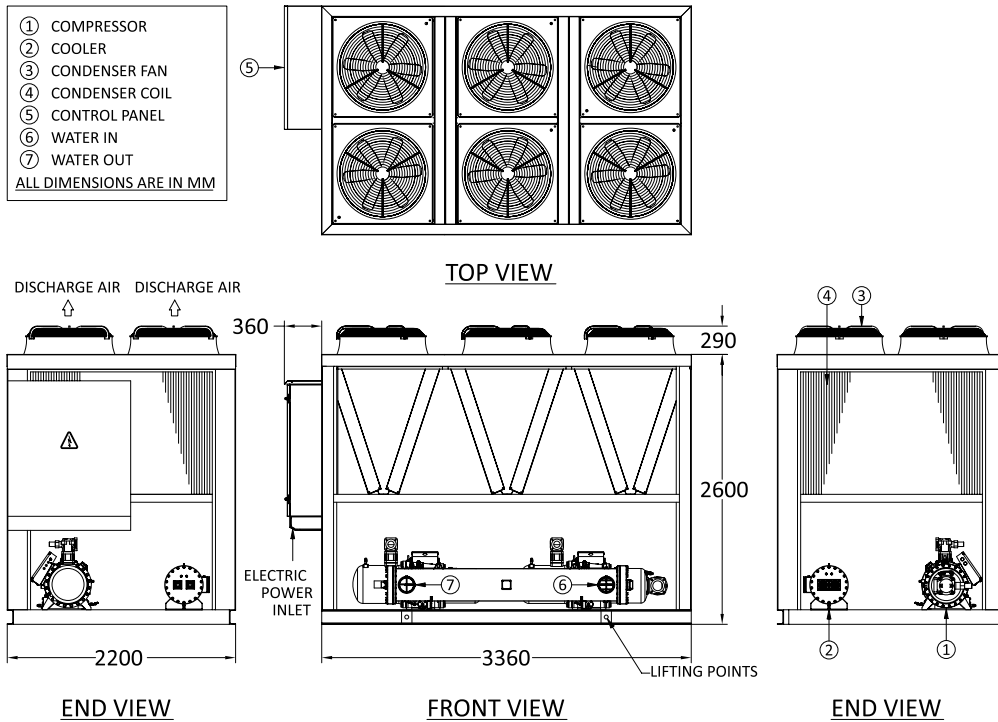
LEAVING CHILLED WATER TEMP. (LCWT)	UNIT SIZE	35°C AMBIENT TEMPERATURE					40°C AMBIENT TEMPERATURE					46°C AMBIENT TEMPERATURE					48°C AMBIENT TEMPERATURE					52°C AMBIENT TEMPERATURE				
		CAP. (kW)	COMP. (kW)	COP	WFR (L/S)	WPD (kPa)	CAP. (kW)	COMP. (kW)	COP	WFR (L/S)	WPD (kPa)	CAP. (kW)	COMP. (kW)	COP	WFR (L/S)	WPD (kPa)	CAP. (kW)	COMP. (kW)	COP	WFR (L/S)	WPD (kPa)	CAP. (kW)	COMP. (kW)	COP	WFR (L/S)	WPD (kPa)
10°C	ACSC080	315.7	87.5	3.3	13.6	59.4	290.3	97.9	2.7	12.5	49.7	263.2	109.4	2.2	11.3	42.8	254.0	113.7	2.1	10.9	38.0	234.7	122.0	1.8	10.1	33.8
	ACSC090	351.0	107.4	3.0	15.1	73.2	320.0	119.8	3.2	13.8	58.7	287.6	133.7	2.0	12.4	49.0	276.5	138.9	3.0	11.9	46.3	253.4	148.7	1.6	10.9	38.0
	ACSC100	400.7	110.1	3.3	17.3	93.9	378.9	128.7	3.2	16.3	82.9	352.8	149.4	2.2	15.2	73.9	343.2	156.7	3.0	14.8	70.4	322.8	170.8	1.8	13.9	61.5
	ACSC110	433.2	119.4	3.3	18.7	51.1	397.6	133.5	3.2	17.1	42.1	359.5	149.2	2.2	15.5	35.9	346.0	154.9	3.0	14.9	33.8	319.3	166.1	1.8	13.7	27.6
	ACSC120	469.5	136.0	3.2	20.2	58.7	441.8	158.8	3.2	19.0	53.2	408.9	183.6	2.1	17.6	47.0	397.3	192.5	3.0	17.1	44.9	371.3	209.0	1.7	16.0	38.0
	ACSC130	506.6	153.4	3.1	21.8	69.0	474.4	178.5	3.2	20.4	62.1	437.5	205.9	2.0	18.8	51.8	422.9	215.4	3.0	18.2	47.0	394.8	233.7	1.6	17.0	42.1
	ACSC140	540.6	139.6	3.5	23.3	91.8	511.1	163.0	3.2	22.0	81.5	476.0	189.2	2.3	20.5	72.5	462.9	341.0	3.0	19.9	67.0	436.2	217.0	1.9	18.8	60.8
	ACSC160	632.0	193.6	3.0	27.2	122.9	591.9	225.4	3.2	25.5	108.4	544.2	259.6	2.0	23.4	92.5	527.3	271.8	3.0	22.7	87.7	491.9	294.7	1.6	21.2	76.0
	ACSC180	702.5	199.7	3.2	30.2	51.8	660.8	233.1	3.2	28.5	47.0	612.1	269.8	2.1	26.4	39.4	593.5	282.7	3.0	25.6	37.3	557.5	307.7	1.7	24.0	33.8
	ACSC190	749.1	223.3	3.1	32.3	60.1	702.7	260.0	3.2	30.3	51.8	647.6	299.7	2.0	27.9	45.6	627.8	313.8	3.0	27.0	40.7	586.9	340.6	1.6	25.3	36.6
	ACSC200	773.0	215.3	3.3	33.3	53.2	728.5	250.9	3.2	31.4	48.3	675.5	290.2	2.2	29.1	40.7	657.2	304.4	3.0	28.3	38.7	616.3	331.1	1.8	26.5	32.5
	ACSC210	810.4	227.4	3.3	34.9	57.3	761.8	264.6	3.2	32.8	51.8	704.2	305.6	2.2	30.3	43.5	682.5	320.1	3.0	29.4	41.4	640.3	348.4	1.7	27.6	37.3
	ACSC220	855.7	255.0	3.1	36.8	56.6	802.0	296.5	3.2	34.5	51.1	739.5	341.7	2.1	31.8	44.9	715.8	357.4	3.0	30.8	40.0	669.6	388.0	1.6	28.8	35.9
	ACSC240	925.9	263.0	3.2	39.9	66.6	870.3	306.2	3.2	37.5	59.4	805.5	353.8	2.1	34.7	51.1	780.3	370.4	3.0	33.6	48.7	732.1	402.9	1.7	31.5	41.8
	ACSC250	973.0	290.0	3.1	41.9	71.8	909.7	337.0	3.2	39.2	64.9	838.5	388.5	2.0	36.1	54.5	812.0	390.6	3.0	35.0	51.8	766.5	443.0	1.6	33.0	46.3
	ACSC260	1007.4	309.9	3.0	43.4	77.3	940.6	359.6	3.2	40.5	68.4	864.1	413.7	2.0	37.2	57.3	837.3	432.9	3.0	36.1	54.2	780.9	469.3	1.6	33.6	48.3
	ACSC270	1045.8	290.4	3.3	45.0	56.6	983.3	338.4	3.2	42.3	50.1	911.0	391.4	2.2	39.2	44.2	884.6	410.4	3.0	38.1	42.1	831.2	447.0	1.8	35.8	36.9
	ACSC280	1082.7	308.6	3.2	46.6	60.1	1017.9	359.2	3.2	43.8	51.8	941.5	414.9	2.1	40.5	47.6	913.5	434.7	3.0	39.3	45.6	856.6	473.0	1.7	36.9	38.7
	ACSC300	1170.9	329.0	3.3	50.4	44.9	1071.8	366.9	3.2	46.2	39.4	966.8	408.9	2.2	41.6	31.1	929.4	424.0	3.0	40.0	29.0	857.5	454.0	1.8	36.9	25.5
	ACSC310	1203.2	350.1	3.2	51.8	46.3	1102.6	390.6	3.2	47.5	41.9	990.3	434.6	2.1	42.6	33.1	952.5	450.8	3.0	41.0	31.1	876.8	482.3	1.7	37.8	26.5
	ACSC320	1237.6	371.4	3.1	53.3	51.3	1132.3	414.2	3.2	48.8	44.4	1015.4	460.7	2.1	43.7	35.2	975.6	477.6	3.0	42.0	33.1	896.7	510.7	1.7	38.6	27.4
	ACSC330	1273.3	381.2	3.1	54.8	54.5	1193.7	443.3	3.2	51.4	47.0	1099.8	510.7	2.0	47.4	41.4	1065.7	534.5	3.0	45.9	39.4	995.8	579.9	1.6	42.9	35.2
	ACSC350	1357.9	401.7	3.1	58.5	50.4	1240.4	447.6	3.2	53.4	44.2	1115.5	498.3	2.1	48.0	35.2	1071.1	516.5	3.0	46.1	33.1	984.9	552.5	1.7	42.4	26.9
	ACSC365	1414.5	421.6	3.1	60.9	53.9	1290.8	469.4	3.2	55.6	47.0	1159.4	522.1	2.1	49.9	37.3	1113.3	541.1	3.0	47.9	35.2	1021.1	577.9	1.7	44.0	28.3
	ACSC380	1472.6	425.9	3.2	63.4	96.7	1383.7	496.1	3.2	59.6	87.7	1281.1	573.1	2.1	55.2	75.3	1242.5	600.1	3.0	53.5	69.0	1165.8	652.2	1.7	50.2	59.4
	ACSC400	1558.1	464.4	3.1	67.1	107.7	1457.0	539.0	3.2	62.7	94.6	1342.9	620.8	2.0	57.8	80.8	1301.7	649.7	3.0	56.1	74.6	1216.1	704.8	1.6	52.4	69.0
	ACSC420	1620.2	482.3	3.1	69.8	101.5	1516.4	559.8	3.2	65.3	89.1	1395.9	644.3	2.1	60.1	78.0	1351.8	674.1	3.0	58.2	73.9	1263.5	731.6	1.6	54.4	61.5
	ACSC450	1759.7	472.2	3.4	75.8	122.9	1661.6	550.8	3.2	71.5	107.7	1544.0	638.1	2.3	66.5	95.3	1498.9	669.0	3.0	64.5	91.1	1410.3	729.4	1.8	60.7	78.7
	ACSC475	1853.3	526.2	3.3	79.8	133.3	1742.1	612.6	3.2	75.0	118.8	1611.6	707.7	2.1	69.4	102.2	1562.4	741.2	3.0	67.3	97.4	1465.0	806.1	1.7	63.1	85.6
	ACSC500	1944.7	579.8	3.1	83.7	143.6	1822.7	674.4	3.2	78.5	129.8	1679.3	777.3	2.0	72.3	109.1	1625.5	813.3	3.0	70.0	103.6	1519.5	882.7	1.6	65.4	88.4

NOTES:

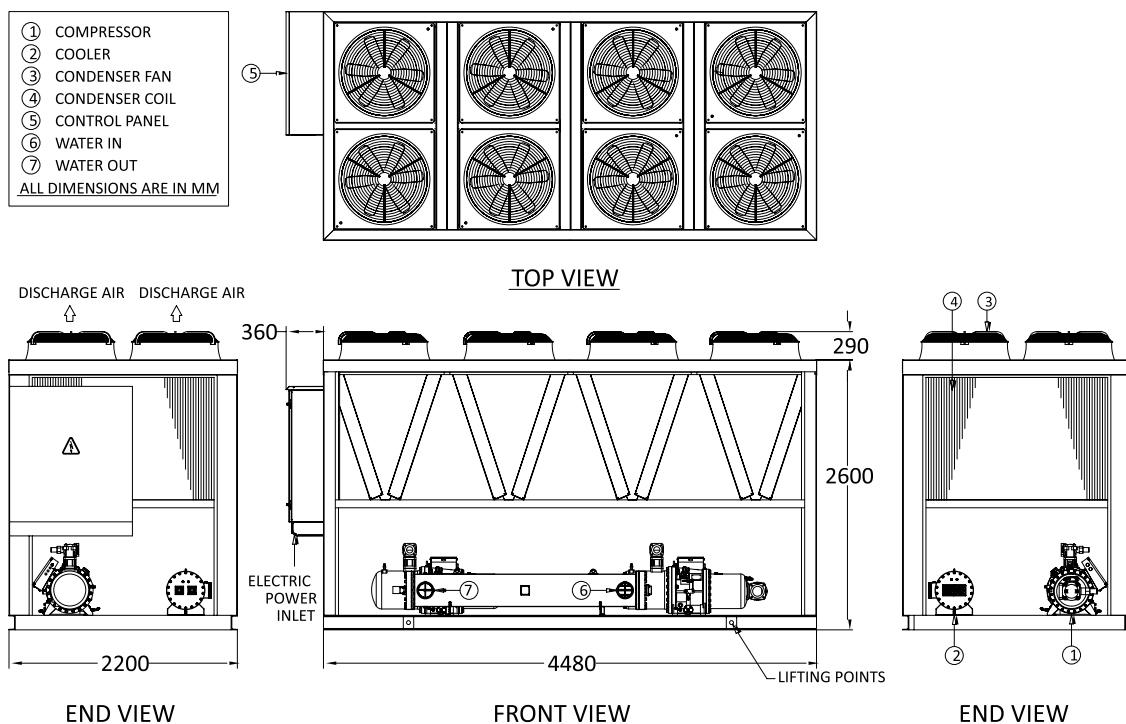
- 1- The ACSC chillers are rated with AHRI - 550/590 standard.
- 2- (CAP.) Capacity ratings (kW) are based on (5.5°C) water range, (0.000018 m².°C/W) fouling factor in evaporator and zero altitude.
- 3- Direct interpolation is permissible between (35°C) to (52°C) ambient temperatures only. Do not extrapolate.
- 4- Power input (kW) is for compressor (COMP.) only.
- 5- (COP) Coefficient of performance is the overall unit, refer to page pg.15 Electrical Data for fan power input.
- 6- (WFR) Water flow rate in liters Per second (L/S).
- 7- (WPD) Water pressure drop (kPa).

UNIT DIMENSIONS

MODELS - ACSC080, ACSC090

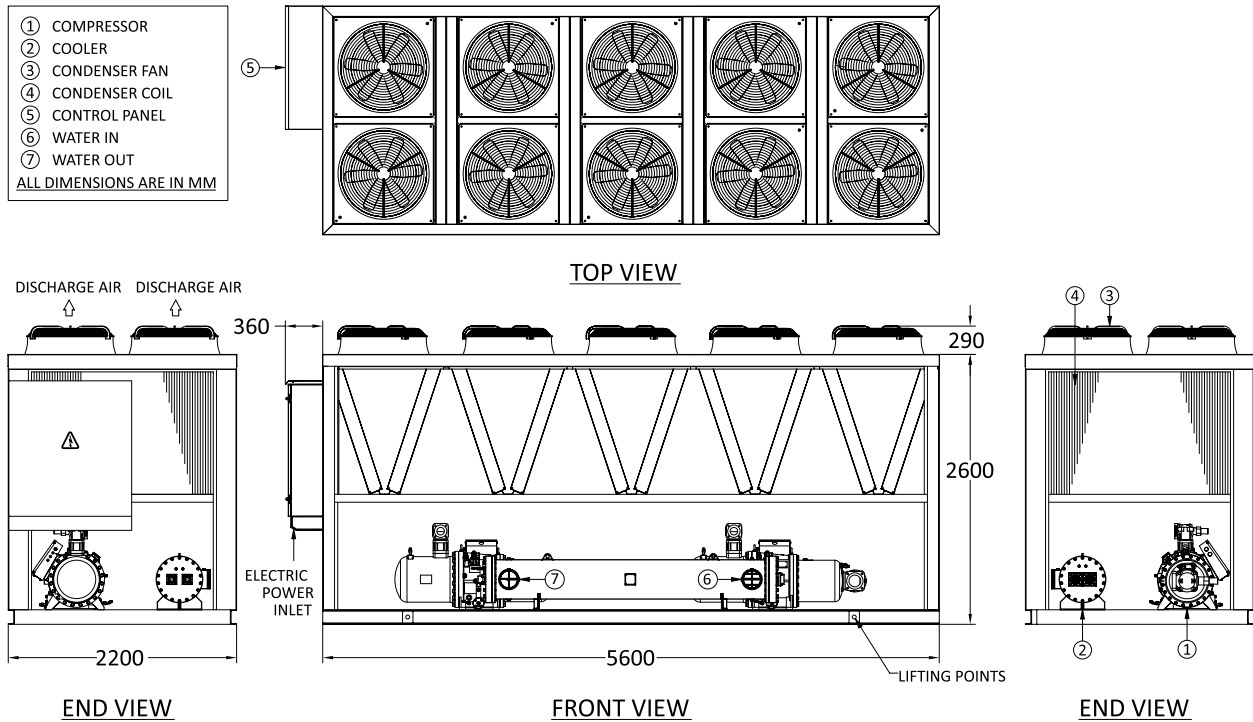


MODELS - ACSC100, ACSC110, ACSC120, ACSC130

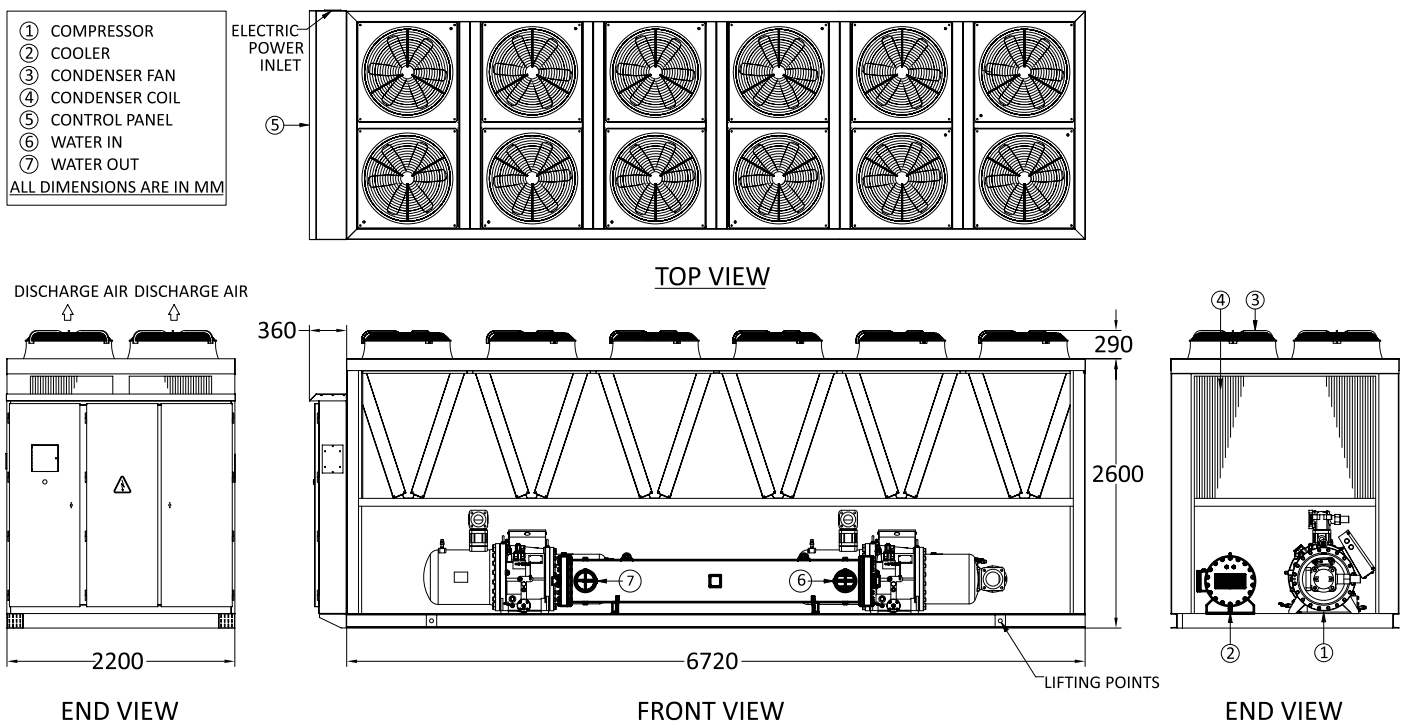


UNIT DIMENSIONS

MODELS - ACSC140, ACSC160

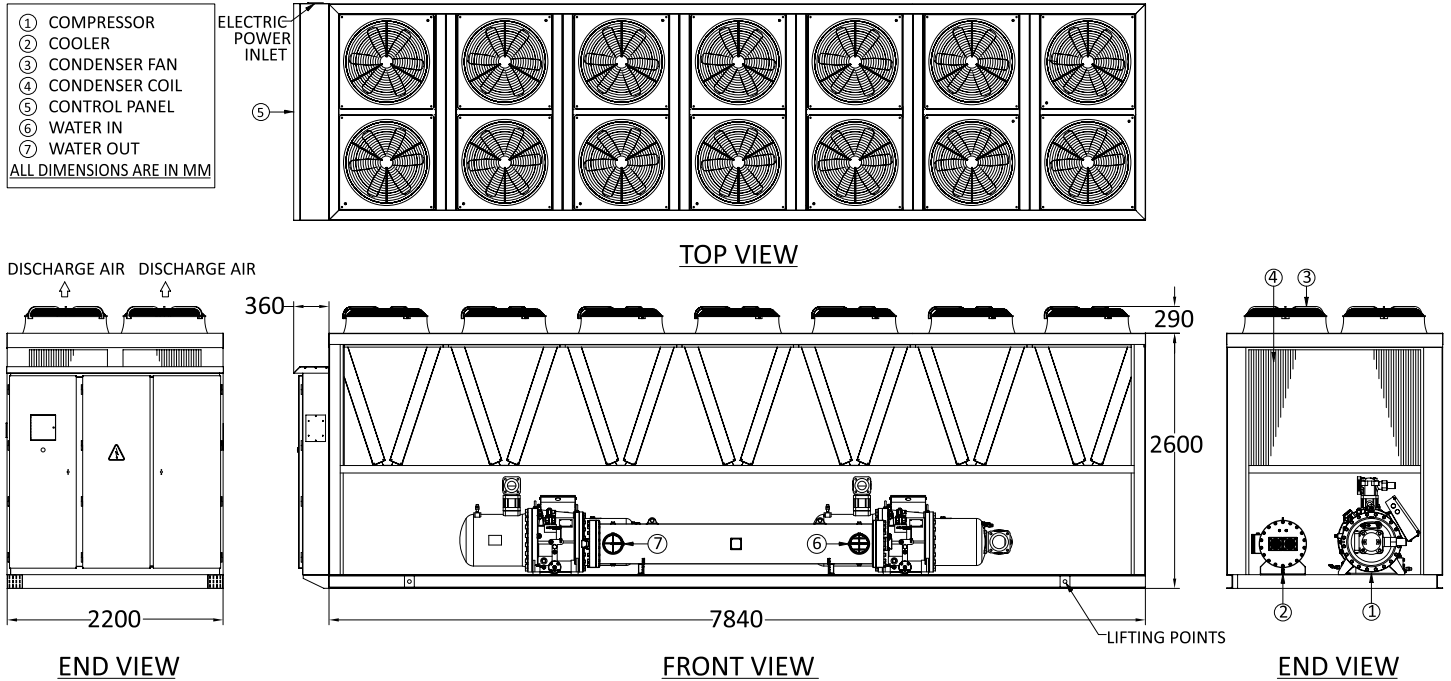


MODELS - ACSC180, ACSC190, ACSC200, ACSC210, ACSC220

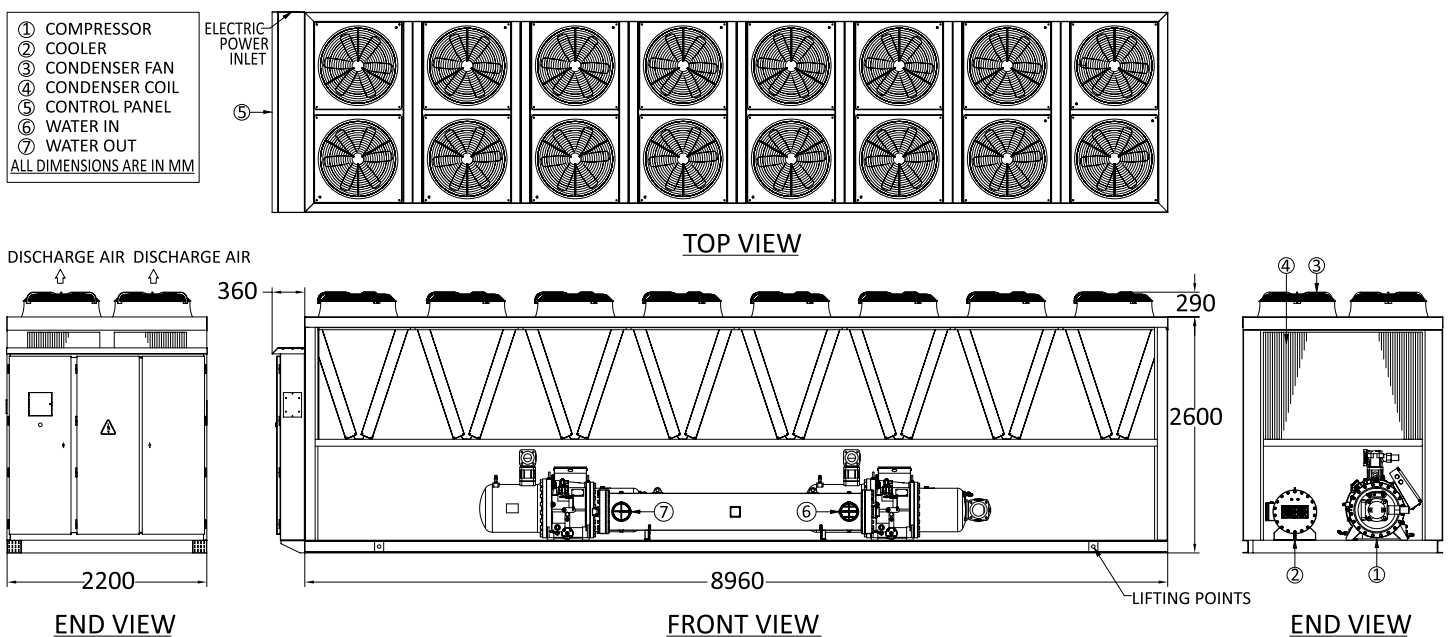


UNIT DIMENSIONS

MODELS - ACSC240, ACSC250, ACSC260

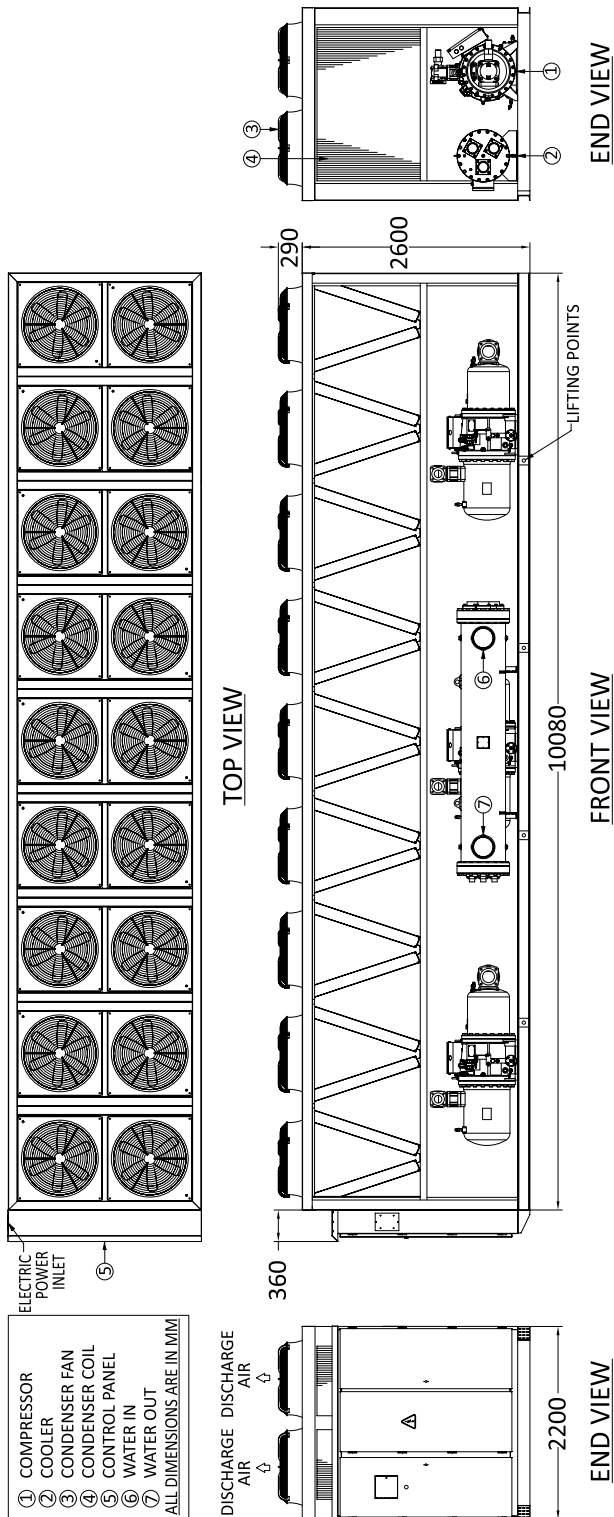


MODELS - ACSC270, ACSC280

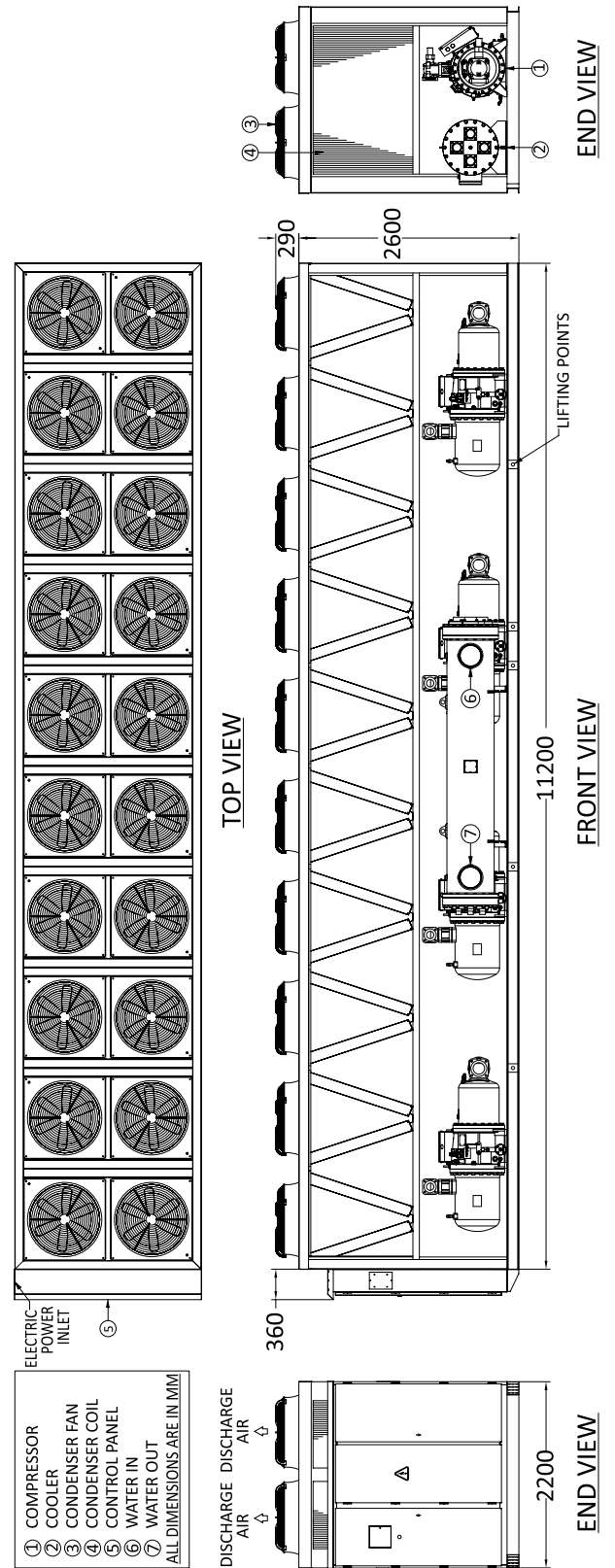


UNIT DIMENSIONS

[MODELS - ACSC300, ACSC310, ACSC320, ACSC330](#)

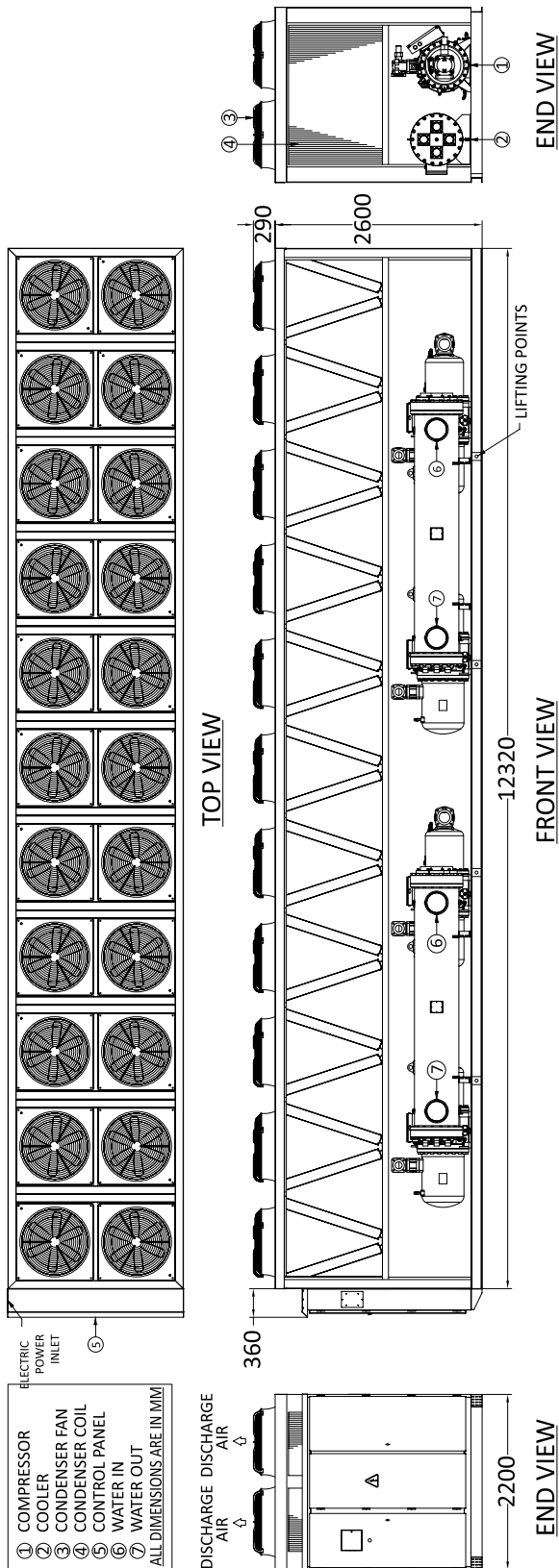


[MODELS - ACSC350, ACSC365](#)

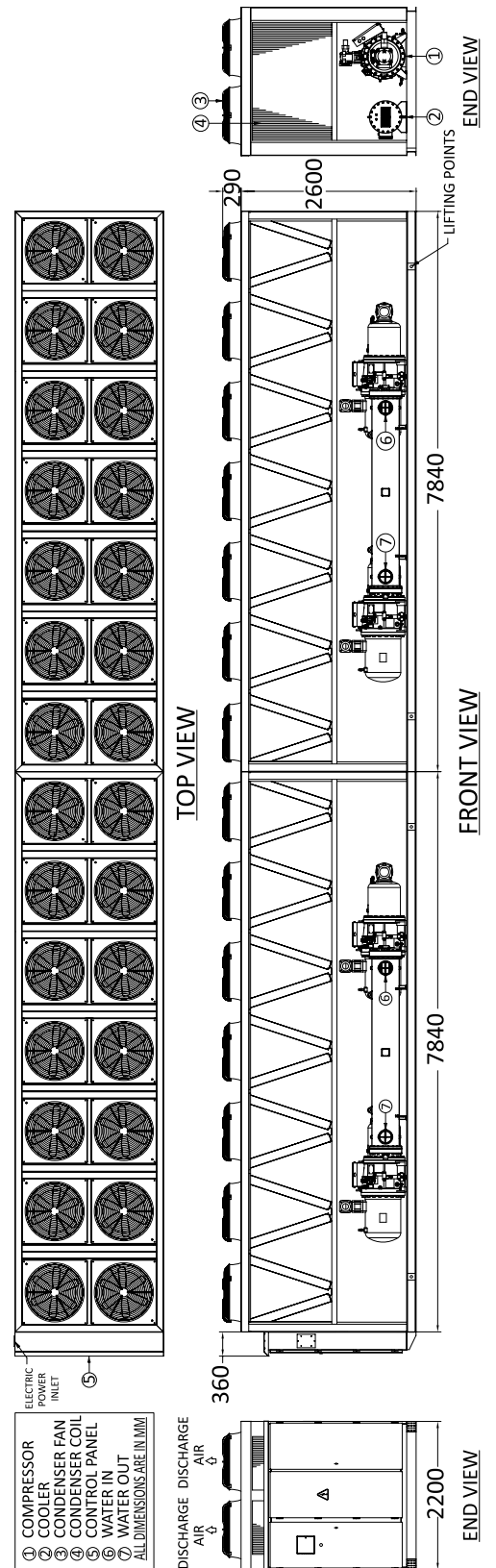


UNIT DIMENSIONS

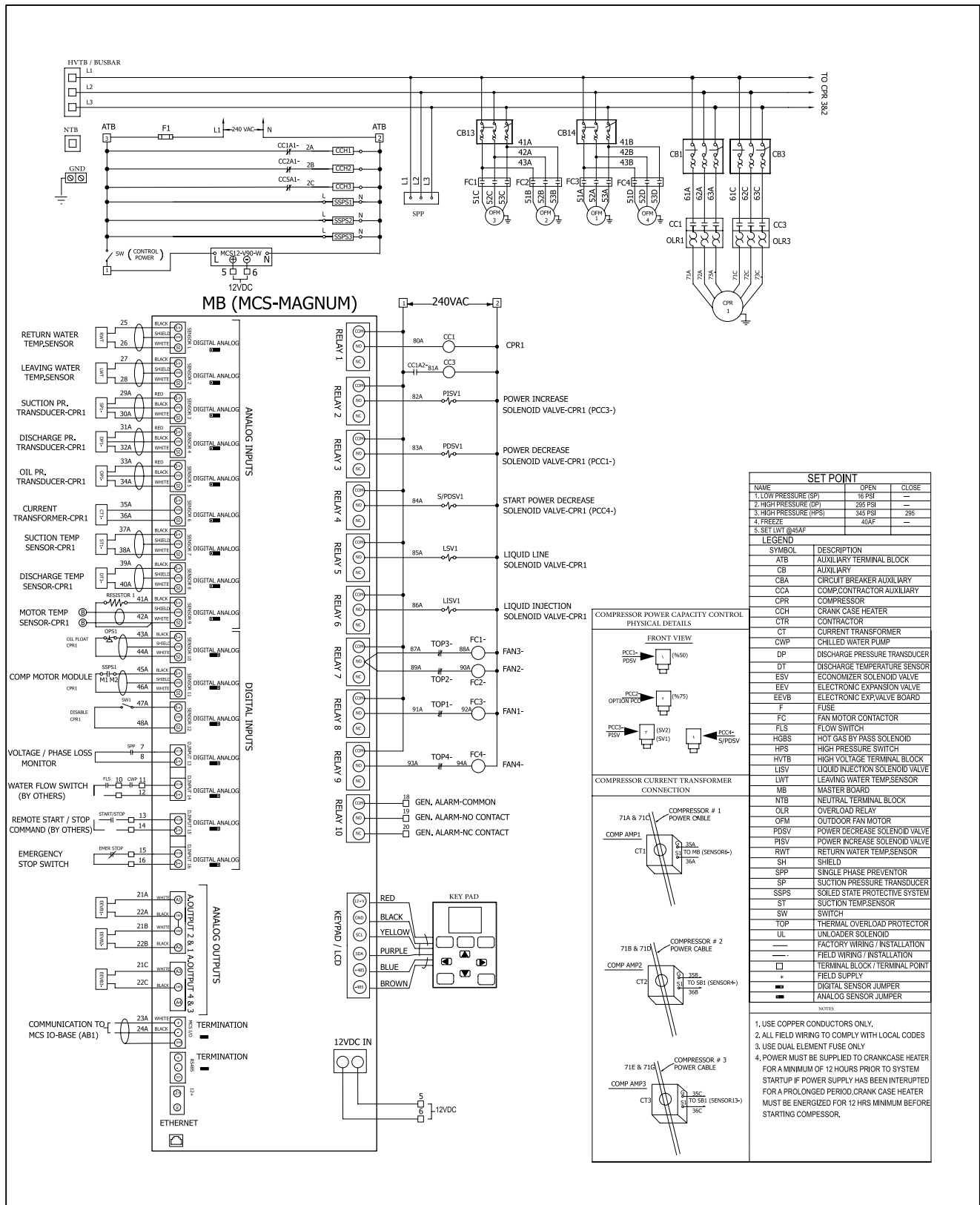
[MODELS - ACSC380, ACSC400, ACSC420](#)



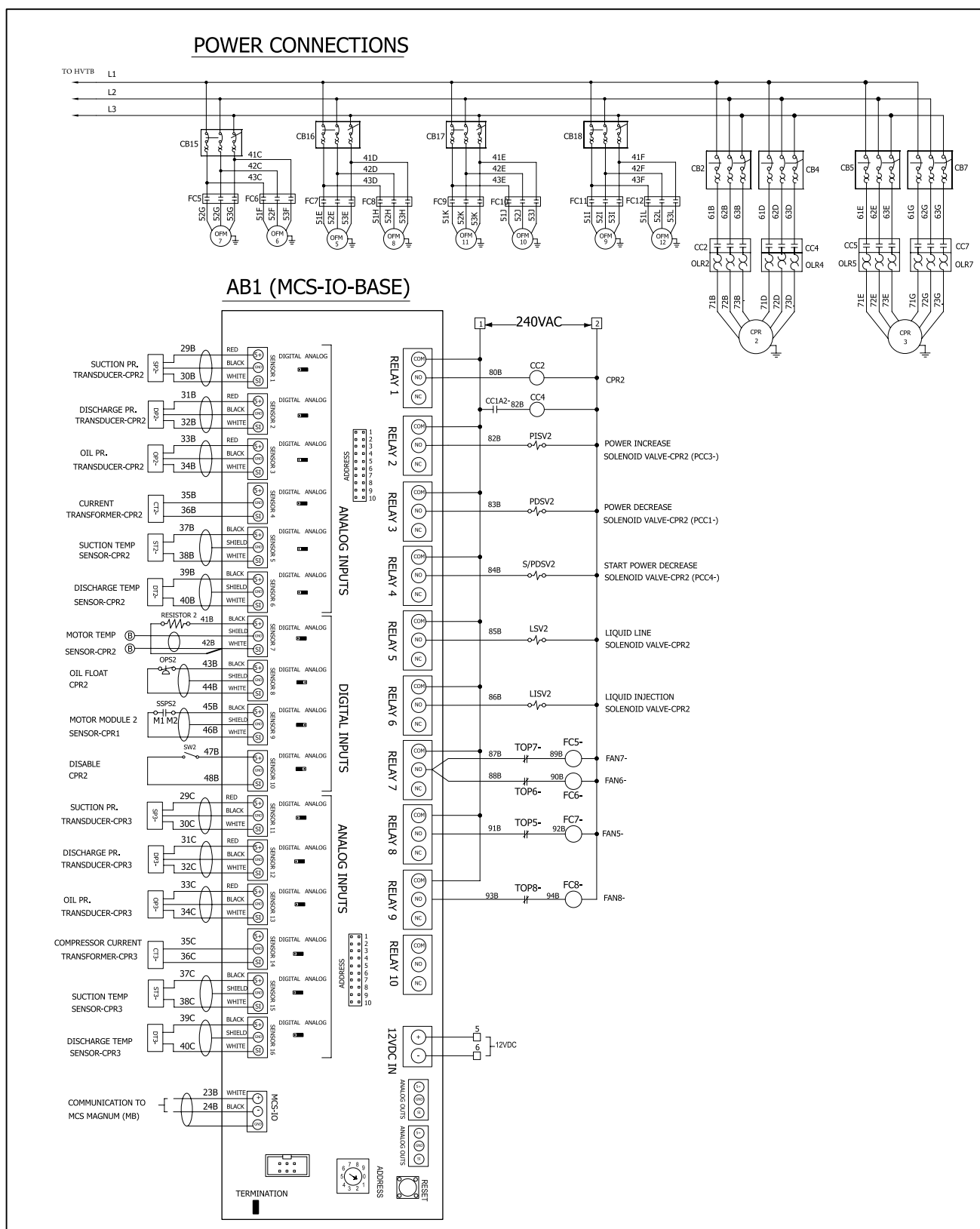
[MODELS - ACSC450, ACSC475, ACSC500](#)



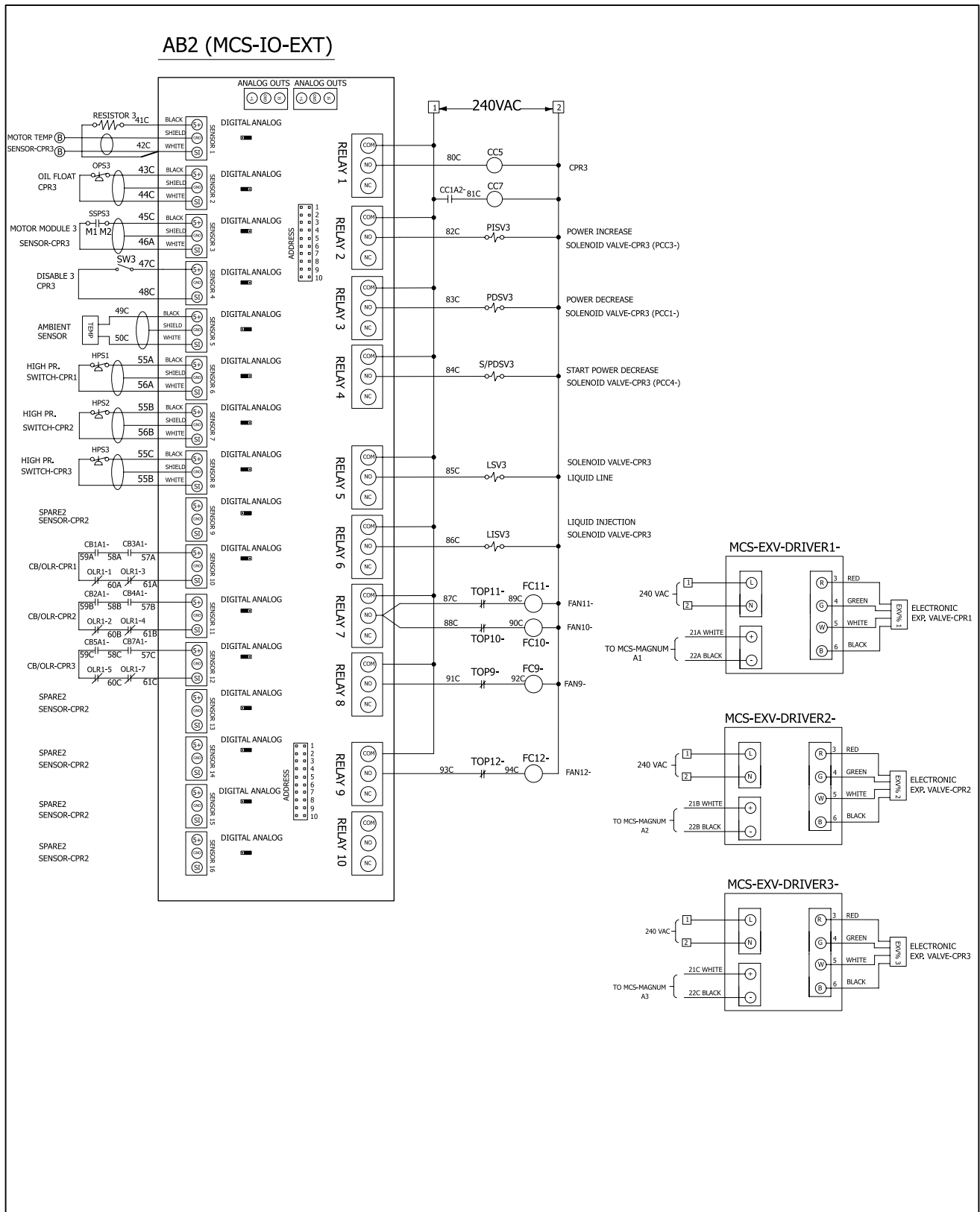
TYPICAL WIRING DIAGRAM



TYPICAL WIRING DIAGRAM



TYPICAL WIRING DIAGRAM



CHILLED WATER PIPING SYSTEM

WATER PIPING CONNECTIONS

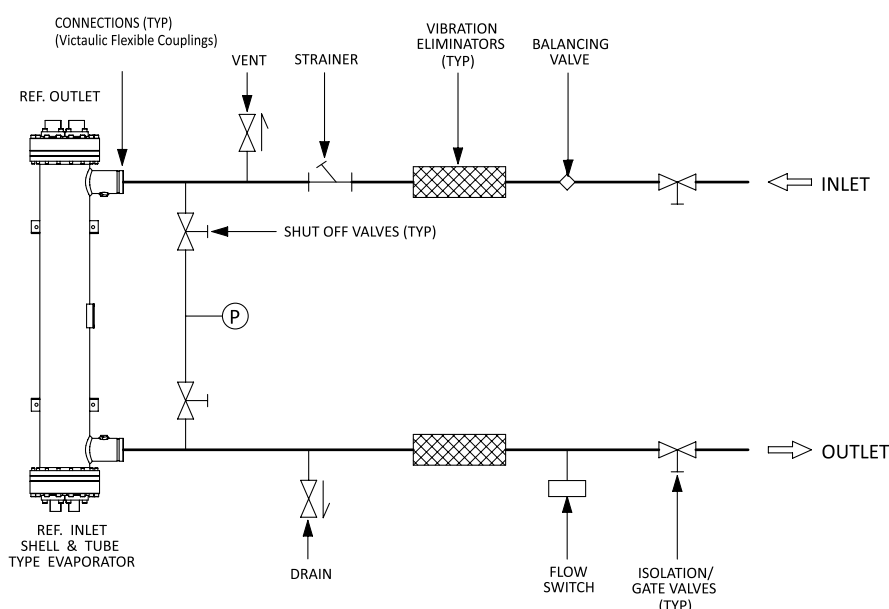
The chilled water piping system should be laid out with the following components it should have. It is recommended that the field installed water piping to the chiller must include. Failure to follow these recommendations may cause improper operation and loss of performance, damage to the unit and difficulty in servicing and maintenance. The inlet and outlet cooler water connection are given in PHYSICAL DATA on page 12-14.

Start-up procedures should confirm that the chilled water piping system had been properly flushed out before being connected to the chiller unit.

- Water pressure gauge connection taps and gauges at the inlet and outlet connections of the cooler for measuring water pressure drop. Pressure gauges must be installed on the same level.
- Hand stop valves are recommended for use in all pipe lines to facilitate servicing or during maintenance.
- Purge air from the water system before unit start-up to provide adequate flow through the evaporator with an air vent located at the piping system high point.

- Drain connection should be provided at all low points to permit complete drainage of the cooler and system piping.
- The cooler must be protected by a cleanable strainer installed at the water inlet to protect from water debris and impurities before they reach the evaporator, causing damage.
- The vibration eliminators in inlet and outlet chilled water piping connections to reduce vibration transmitted to the building.
- The flow switch must be installed in the outlet chilled water piping of the cooler (in the horizontal piping of the supply) to avoid evaporator freeze-up under low or no water flow conditions.
- Recommended to regular water analysis and chemical water treatment for the evaporator loop at equipment start-up.
- The inlet and outlet chilled water piping's that are exposed to outdoor ambient should be wrapped or covered with insulation.

TYPICAL CHILLED WATER PIPING FOR S&T COOLER



CHILLED WATER VOLUME

The chilled water systems required sufficient volume of water in the piping system to avoid short cycling of the compressor, unstable system operation or loss control.

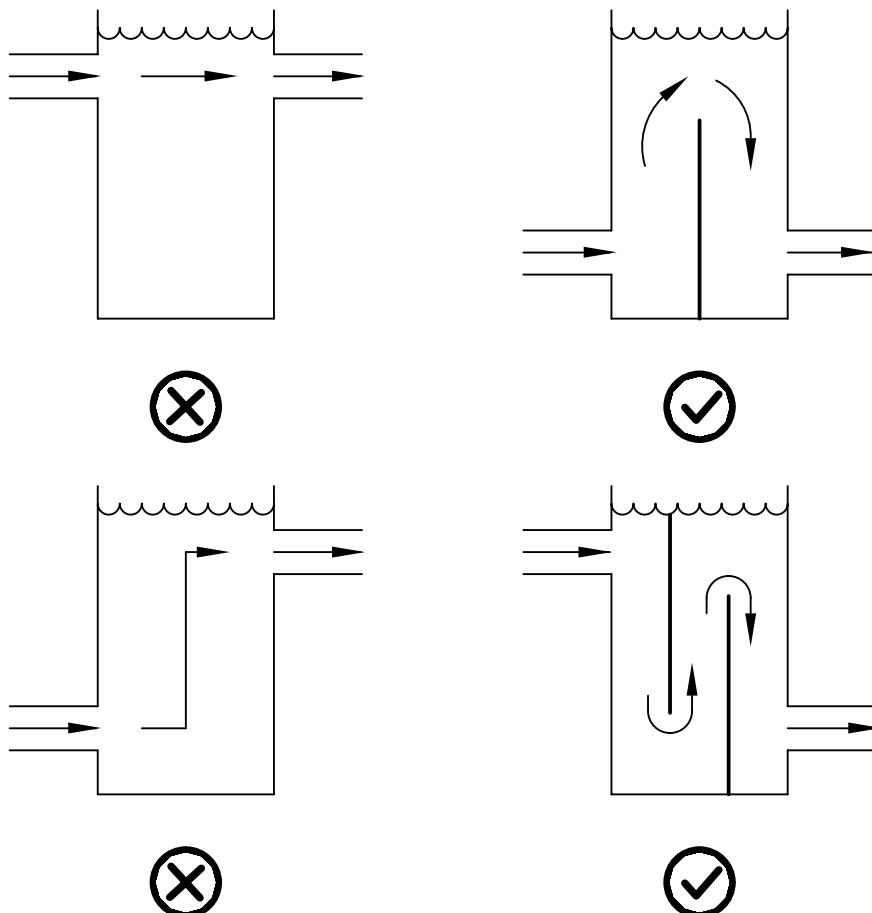
The possible for short water loop or short cycling usually when the building piping water system load falls below the minimum chiller plant capacity with very small water volumes.

To ensure the total volume of water in the piping system, a rule of thumb of "gallons of water volume is equal to 2 to 3 times the chilled water GPM flow rate".

To prevent this "short water loop", a storage tank should be installed to increase sufficient water volume. This tank should be provided on the return water side to the chiller and tank should be baffled to ensure there is no stratification and that water entering tank is to satisfactory mixed with liquid in the tank.

A properly designed storage tank should be added if the system components do not provide sufficient water volume as shown in figure below.

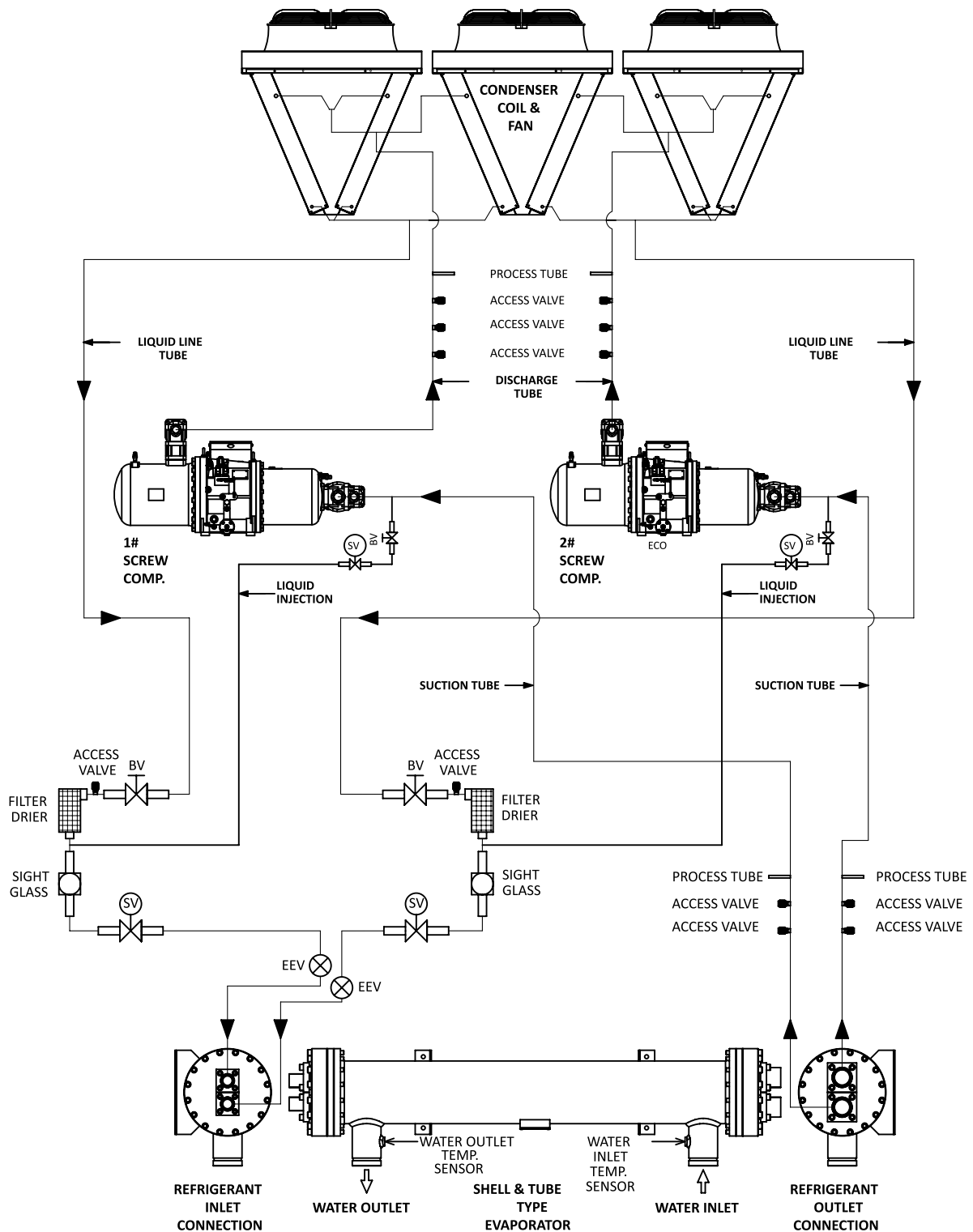
TANK INSTALLATION



PIPING DIAGRAM

MODELS - ACSC080, ACSC090

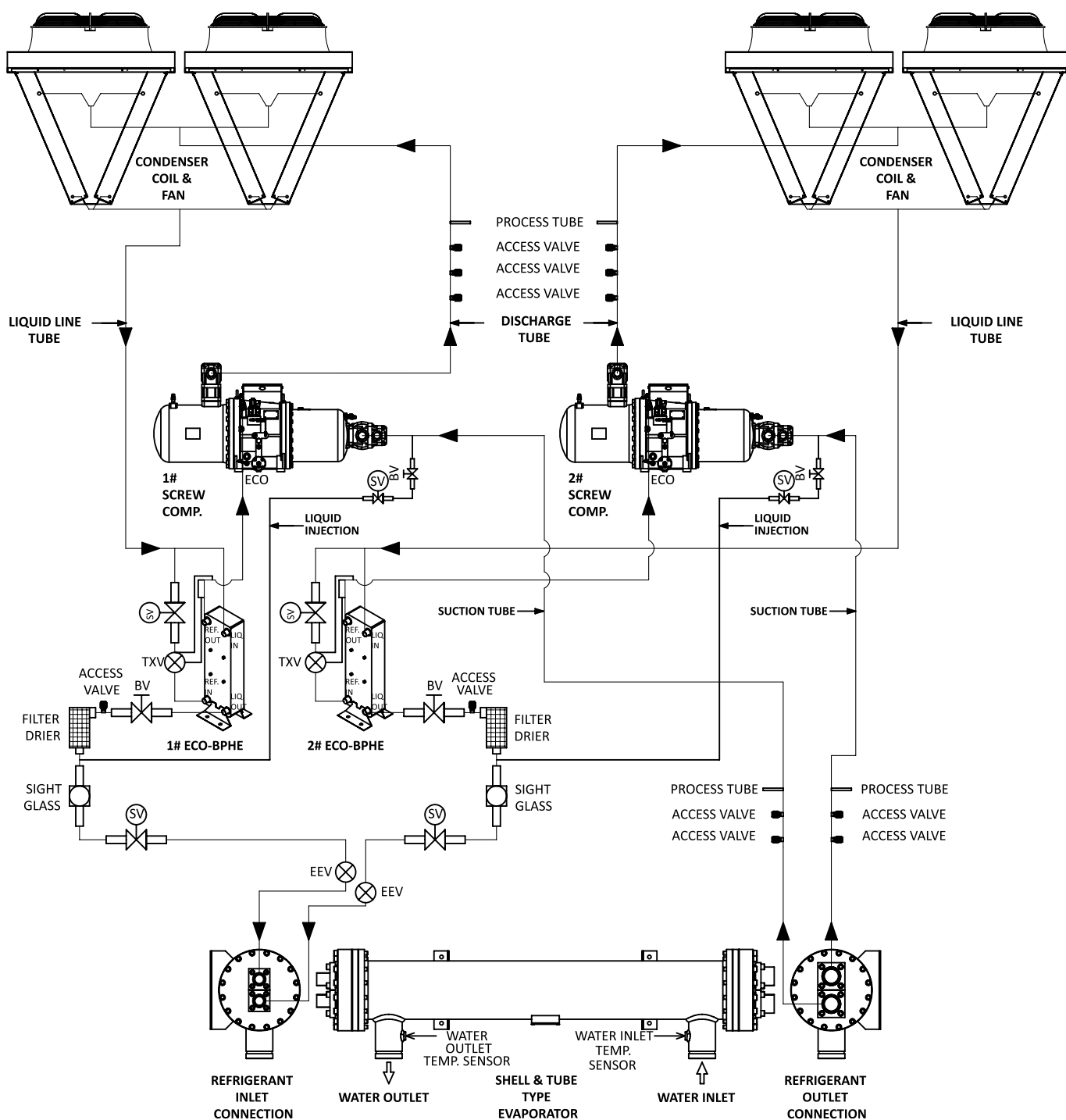
NOTE: Models ACSC080, ACSC090 are without economizer



PIPING DIAGRAM

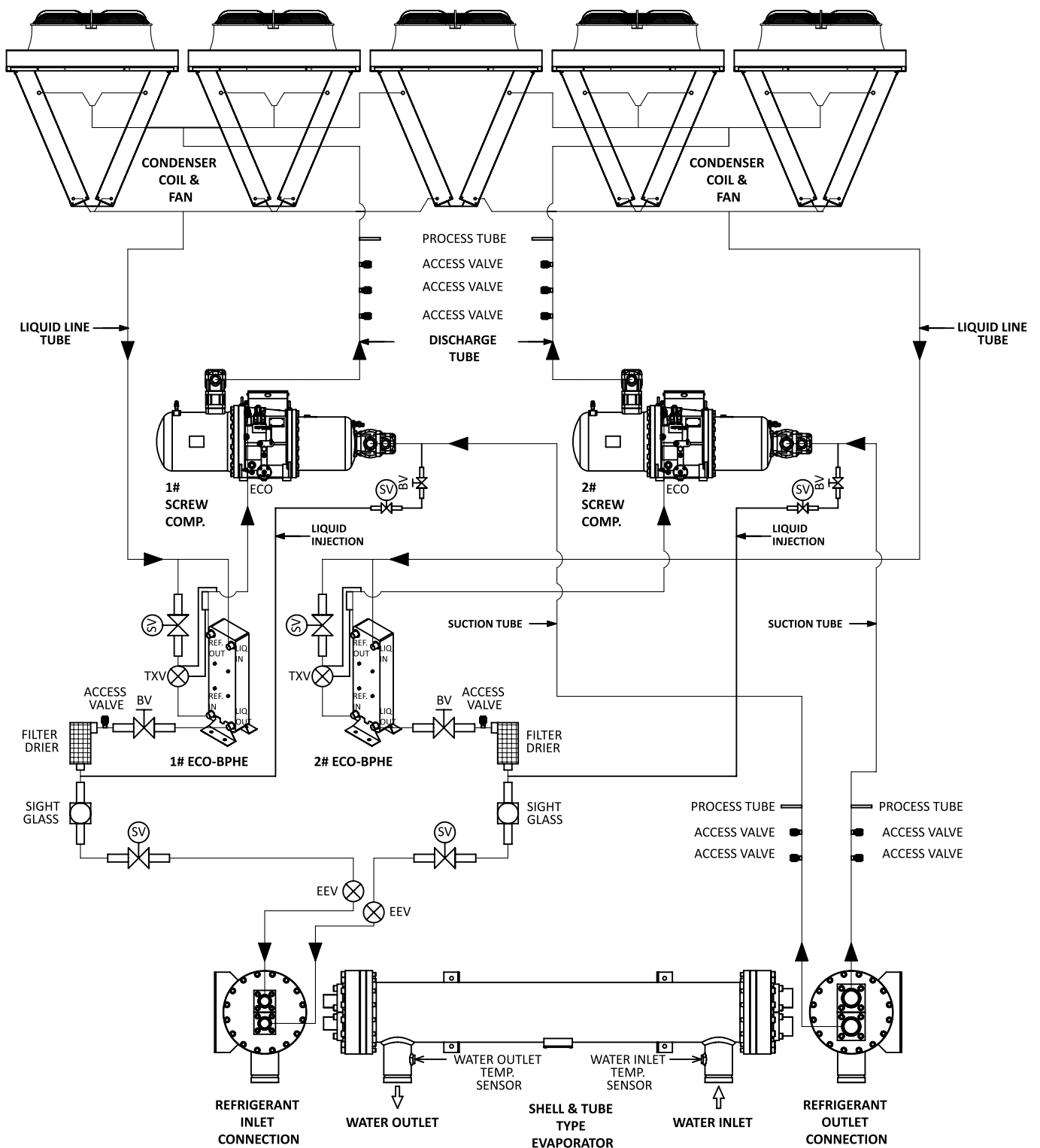
MODELS - ACSC100, ACSC110, ACSC120, ACSC130

NOTE: Model ACSC110 is without economizer



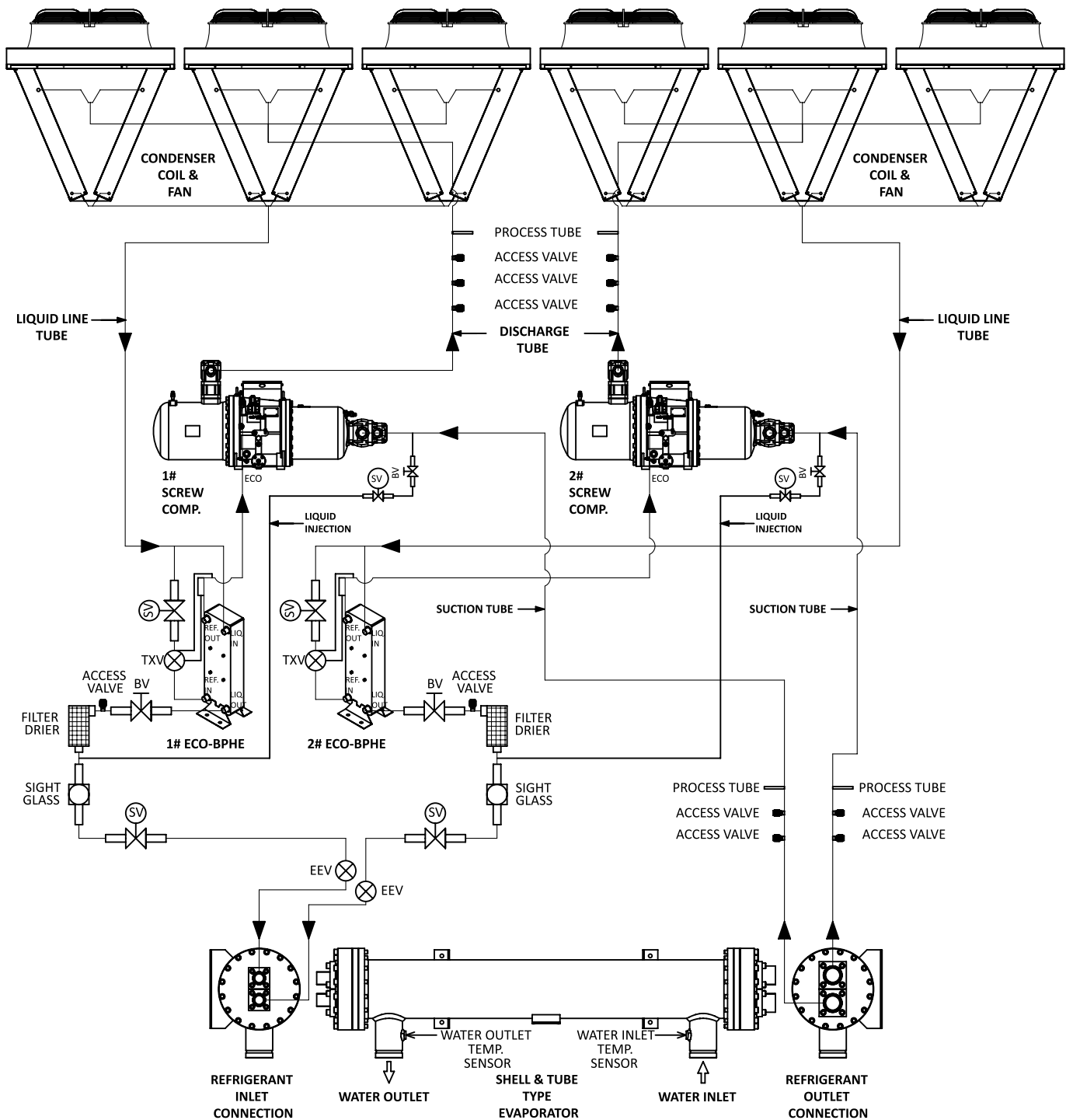
PIPING DIAGRAM

MODELS - ACSC140, ACSC160



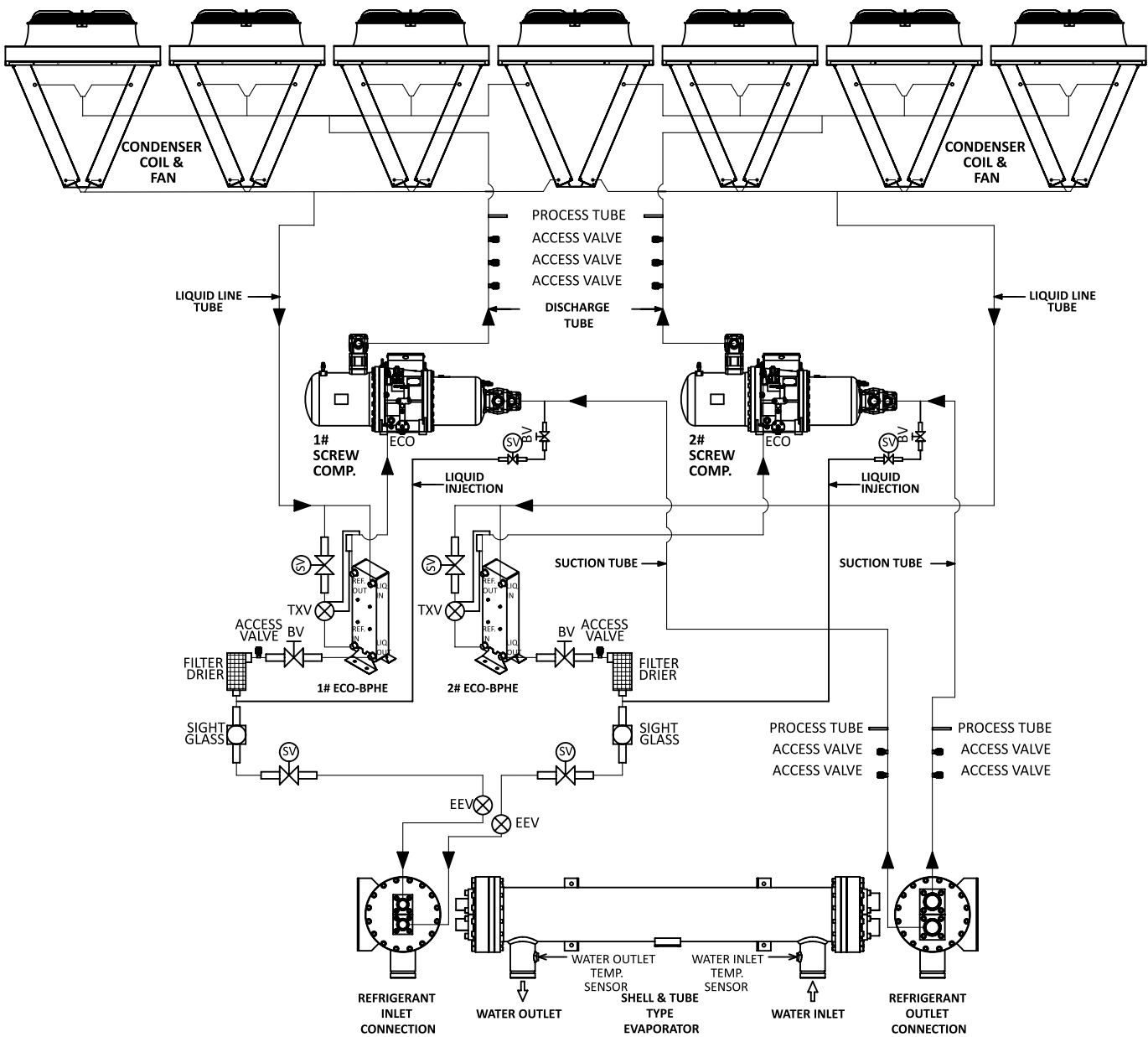
PIPING DIAGRAM

MODELS - ACSC180, ACSC190, ACSC200, ACSC210, ACSC220



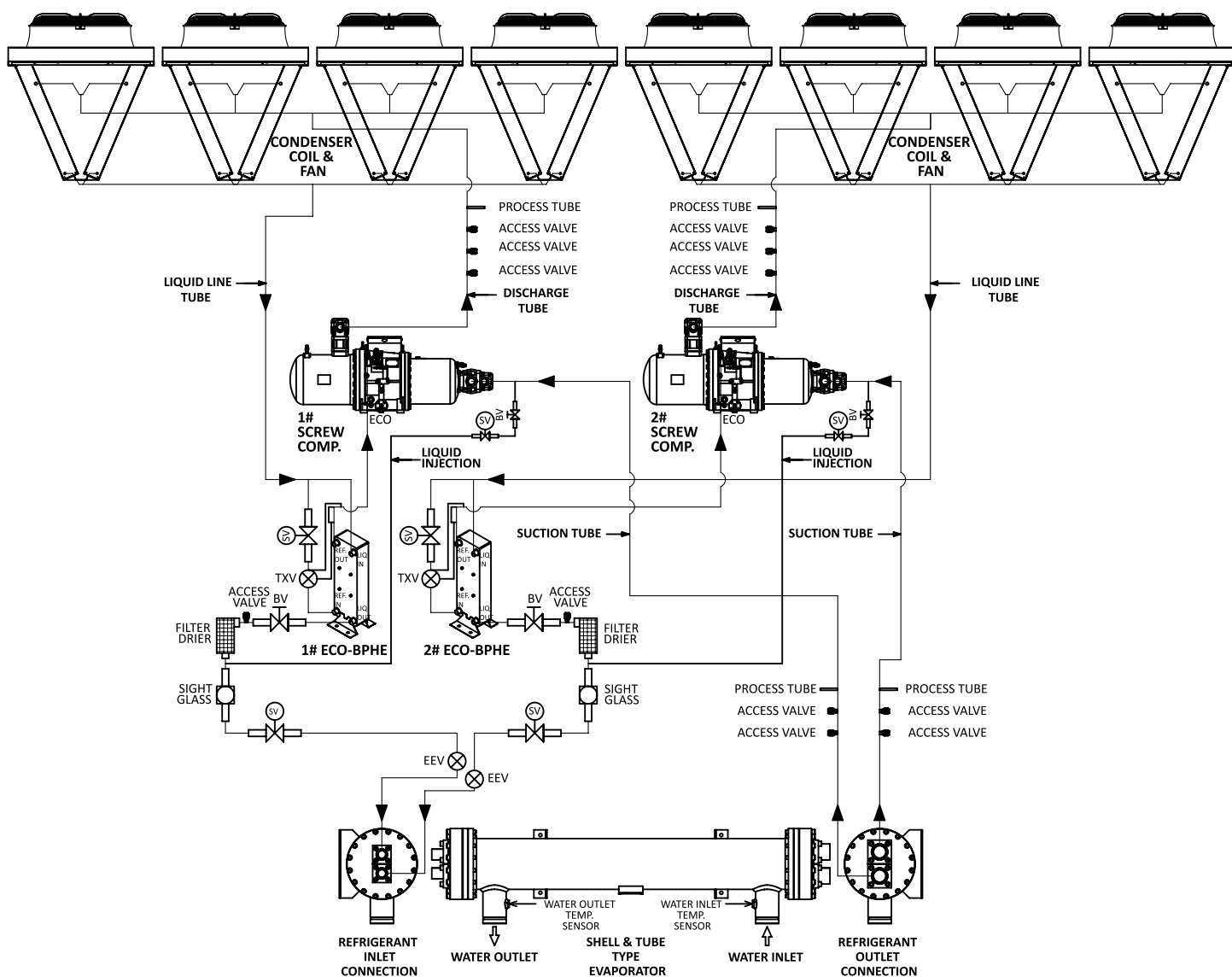
PIPING DIAGRAM

MODELS - ACSC240, ACSC250, ACSC260



PIPING DIAGRAM

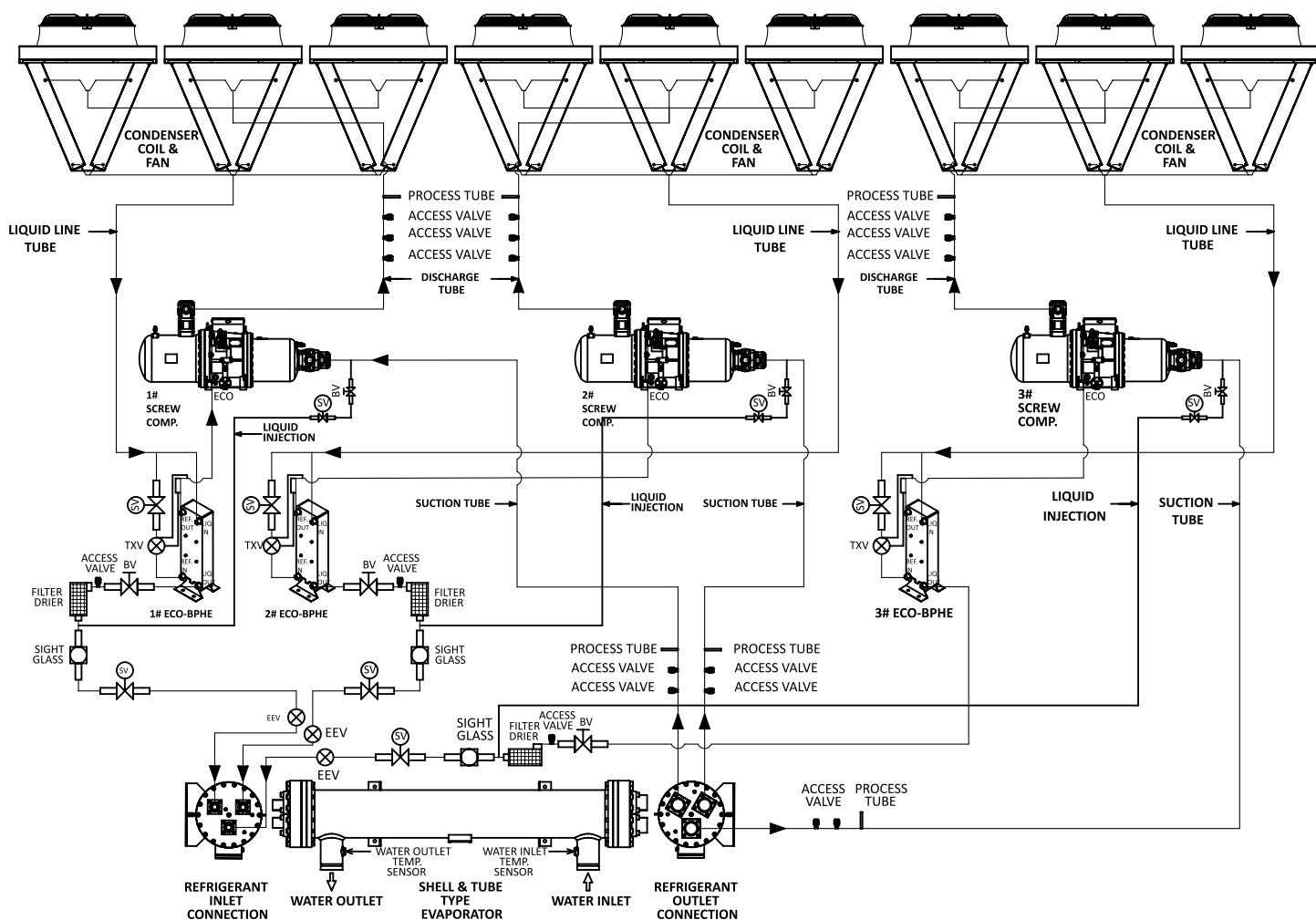
MODELS - ACSC270, ACSC280



PIPING DIAGRAM

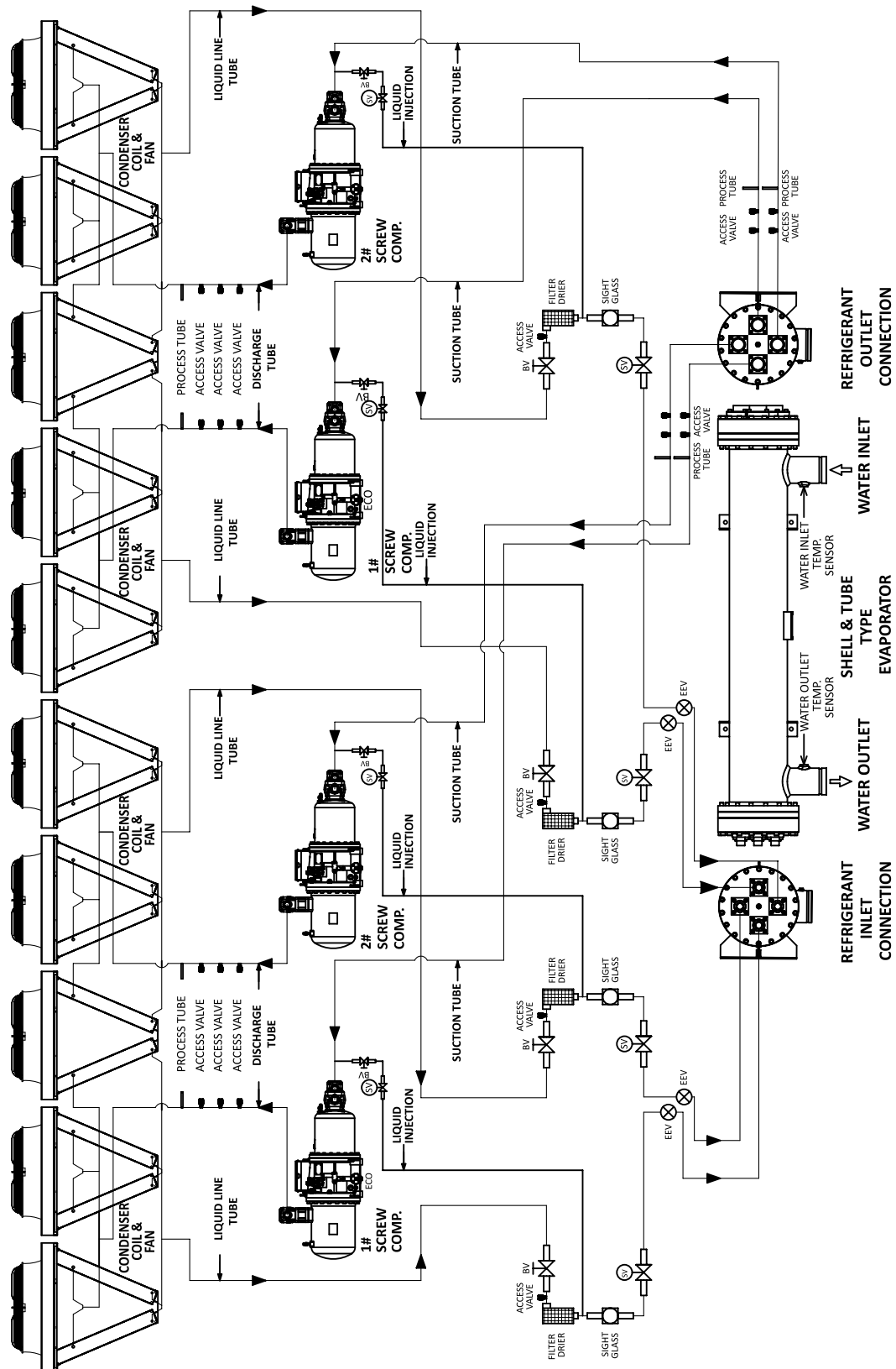
MODELS - ACSC300, ACSC310, ACSC320, ACSC330

NOTE: Models ACSC300, ACSC310, ACSC320 are without economizer



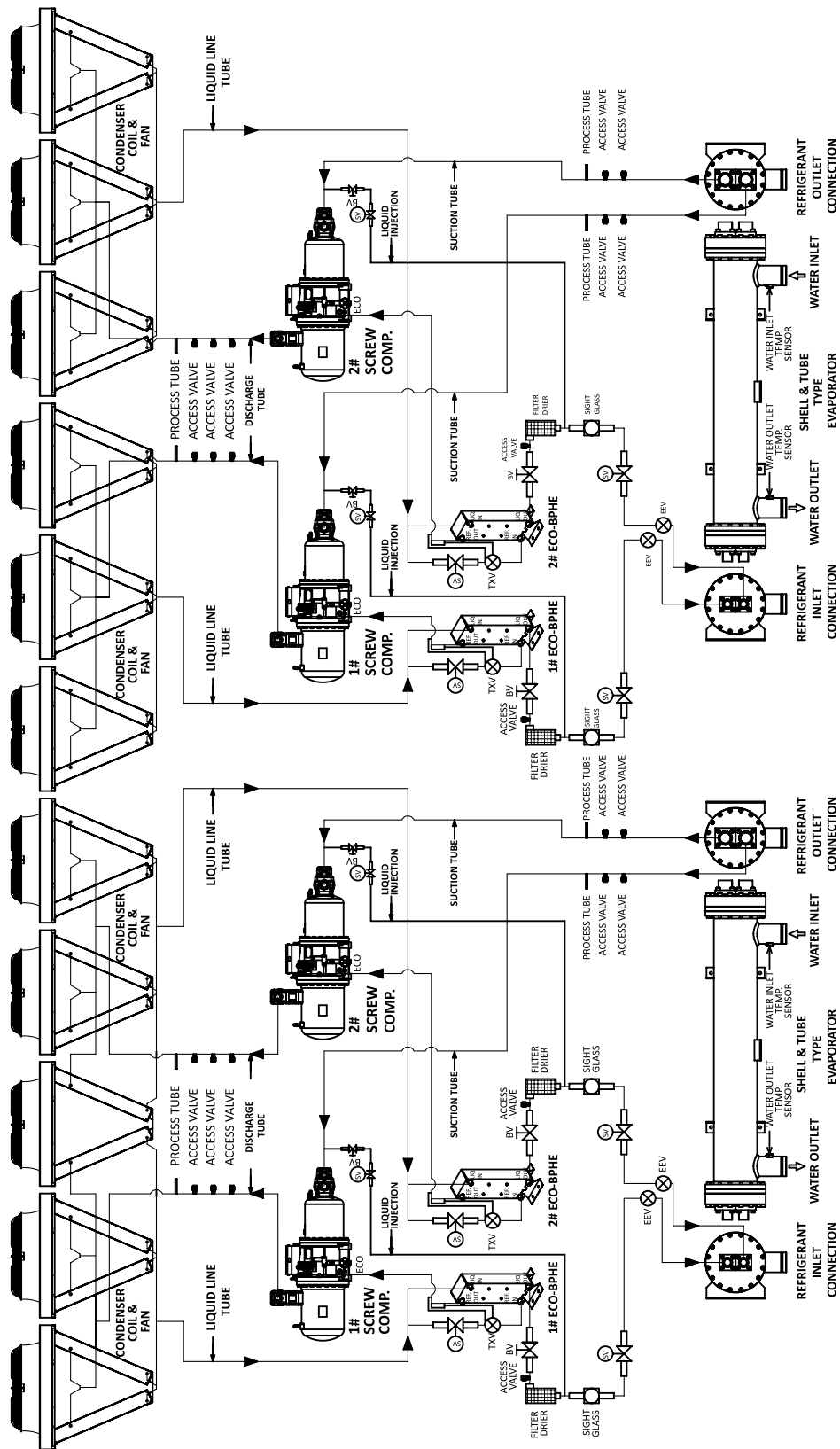
PIPING DIAGRAM

MODELS - ACSC350, ACSC365

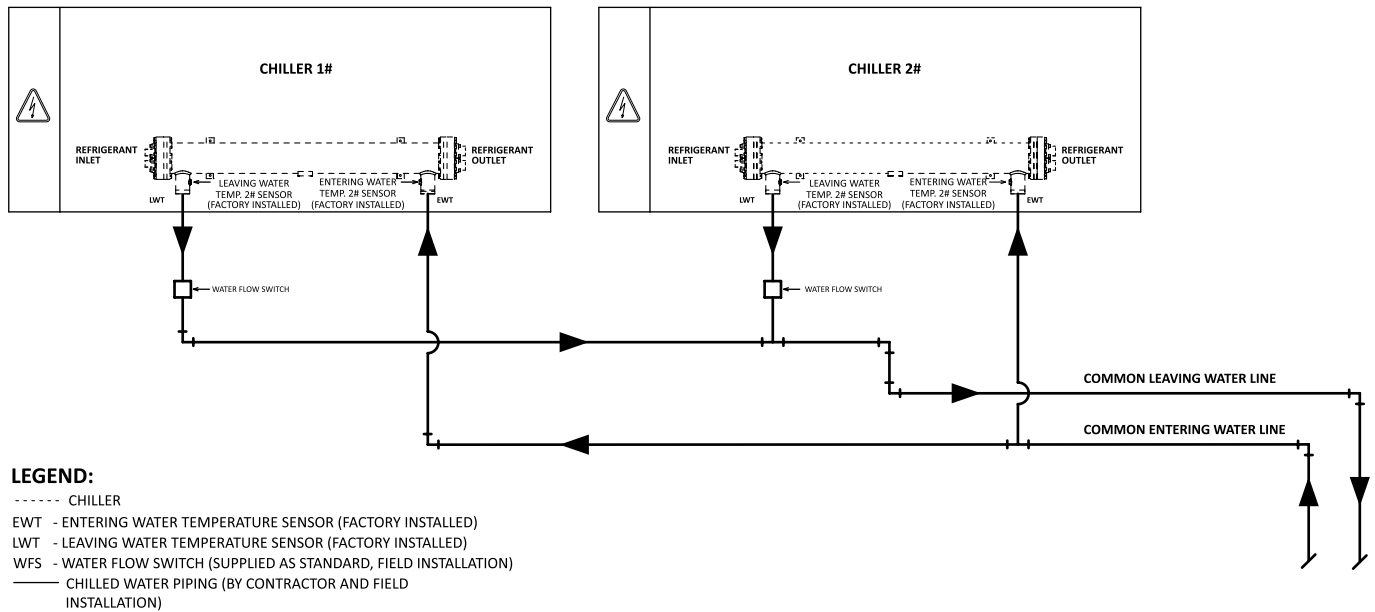


PIPING DIAGRAM

MODELS - ACSC380, ACSC400, ACSC420

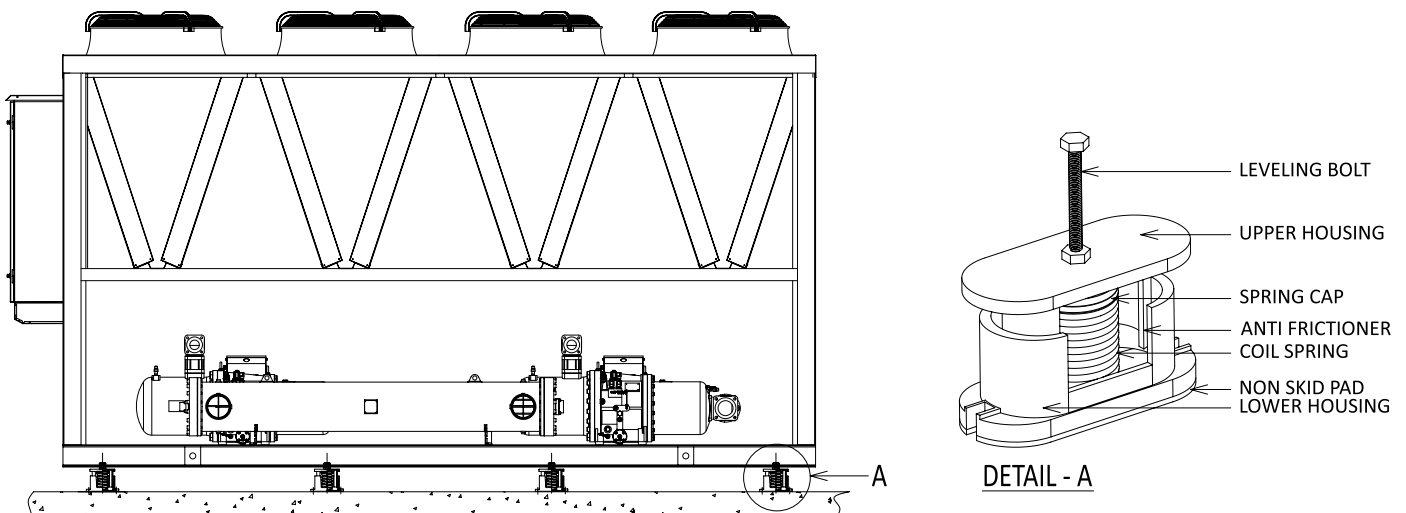


CHILLED WATER FOR TYPICAL MULTIPLE CHILLER INSTALLATION



VIBRATION ISOLATION

It is recommended to install under the base of the unit a vibration isolation of rubber-in-shear or spring type for further reduction of sound and vibration transmission to building structures . Vibration isolators must be correctly designed for each mounting loads of the unit. Refer to page 56-58 for operating weight at each mounting points.



INSTALLATION CLEARANCE

FIGURE 1
CORNER WALL

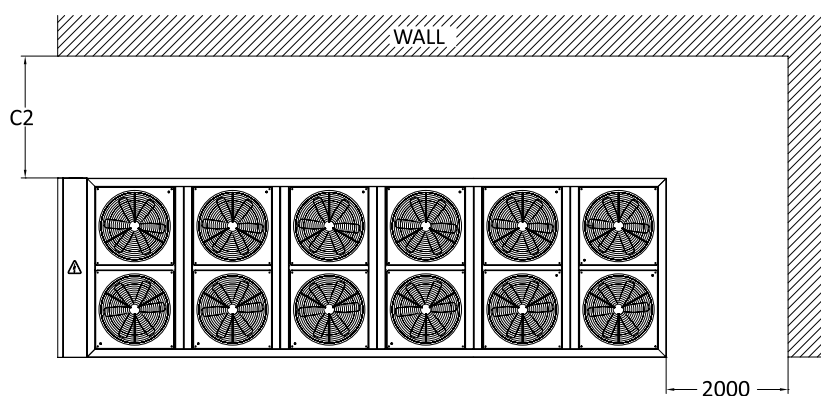
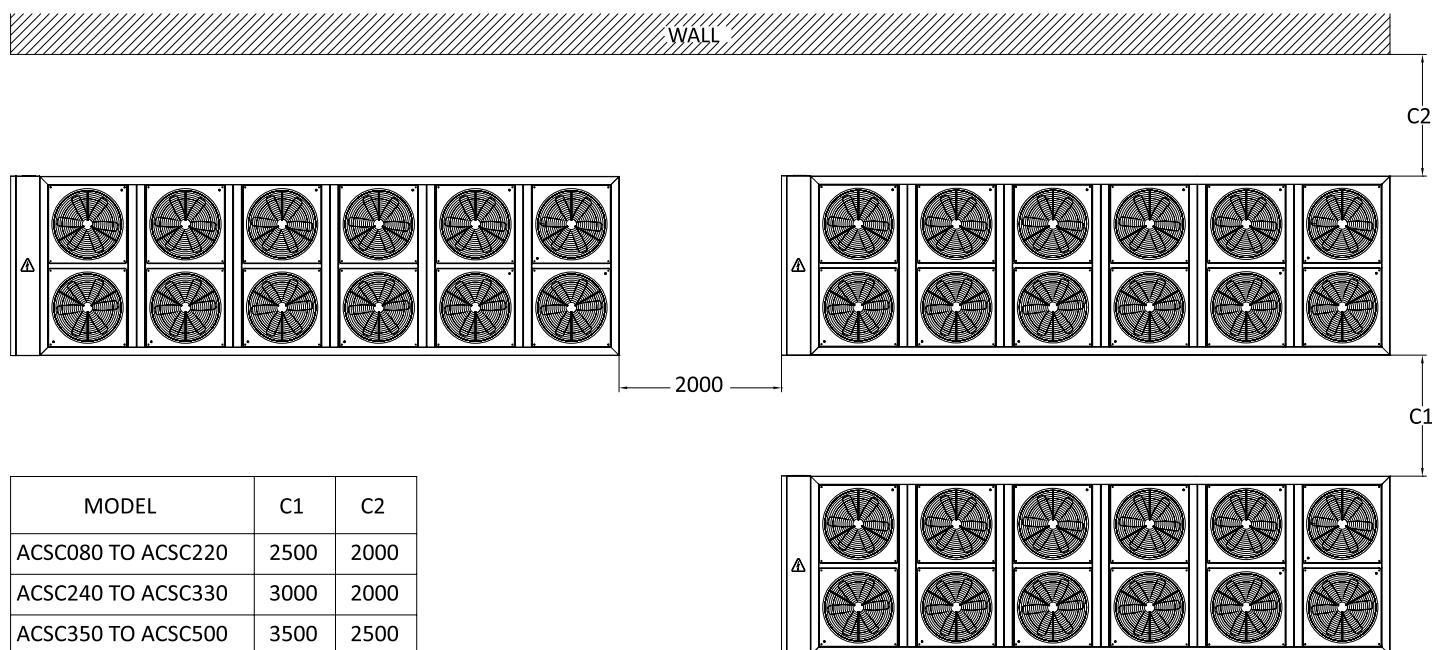


FIGURE 2
STRAIGHT WALL



MODEL	C1	C2
ACSC080 TO ACSC220	2500	2000
ACSC240 TO ACSC330	3000	2000
ACSC350 TO ACSC500	3500	2500

NOTE:

- Pit installations are not recommended where circulation of hot condenser air can take place and it will severely affect unit efficiency (EER) causing high pressure or fan motor temperature trips.
- ALL DIMENSIONS ARE IN MILLIMETERS (mm)

FOUNDATION

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

RIGGING INSTRUCTIONS

COOLEX chillers are designed for overhead rigging only, for this purpose the base channel has been extended beyond the sides of the unit with rigging holes. Use a spreader frame above the unit to keep the cables vertical and away from the sides.

Run the cables to a central suspension point so that the angle from the horizontal is not less than 45° . As an added protection, put plywood sheets on the sides of the unit behind cables while rigging. Raise and set the unit carefully.

ATTENTION TO RIGGERS

The positions of the rigging slings should be as per the below given drawings.

Lifting points are so provided in the unit as to evenly distribute the units load..

Center of gravity of the unit is not necessarily its center line.

Ensure that the center of gravity aligns with the main lifting pole before lifting the unit.

To avoid damage to the unit by the rigging slings, use spreader bars as shown below.

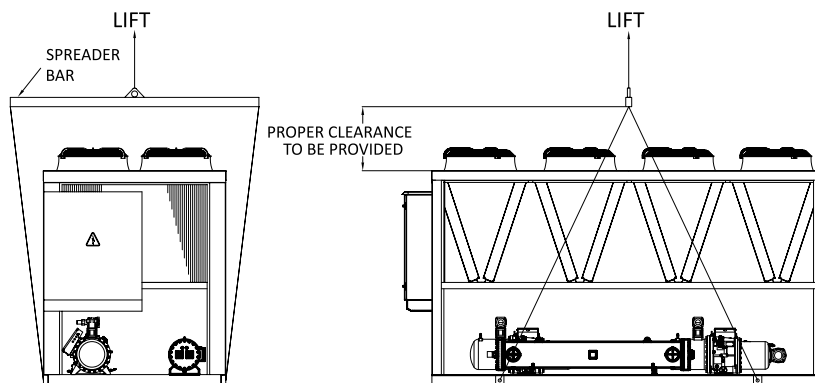
CAUTION

All panels should be in place when rigging.

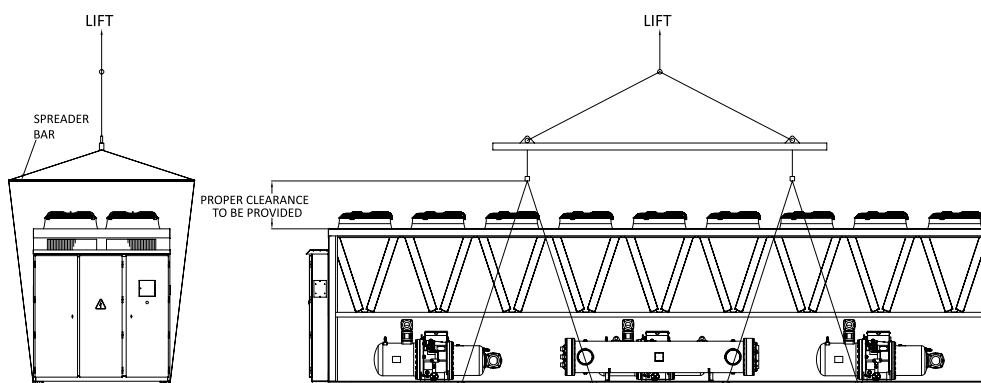
Care must be taken to avoid damage to the coils during handling.

Insert packing material between coils & slings as necessary.

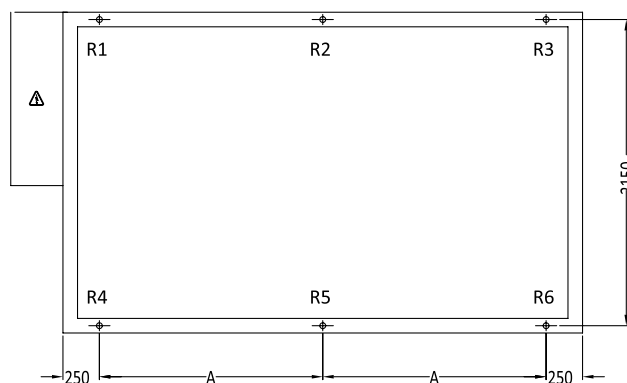
MODELS - ACSC080 TO ACSC280



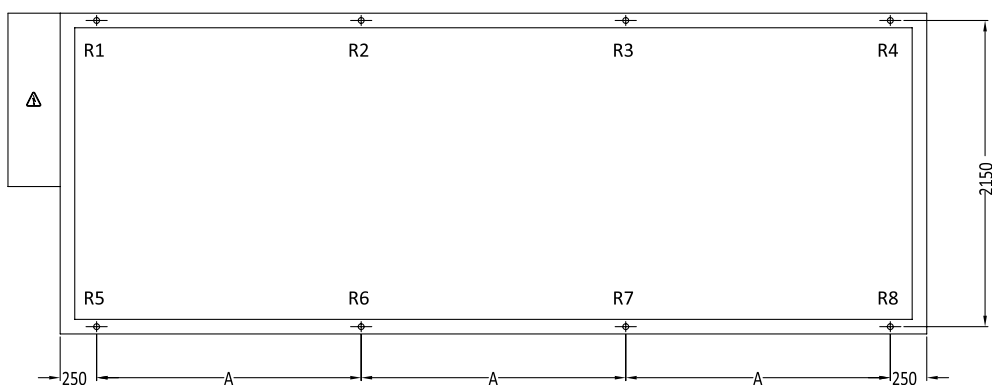
MODELS - ACSC300 TO ACSC500



MOUNTING LOCATION AND DISTRIBUTION LOAD

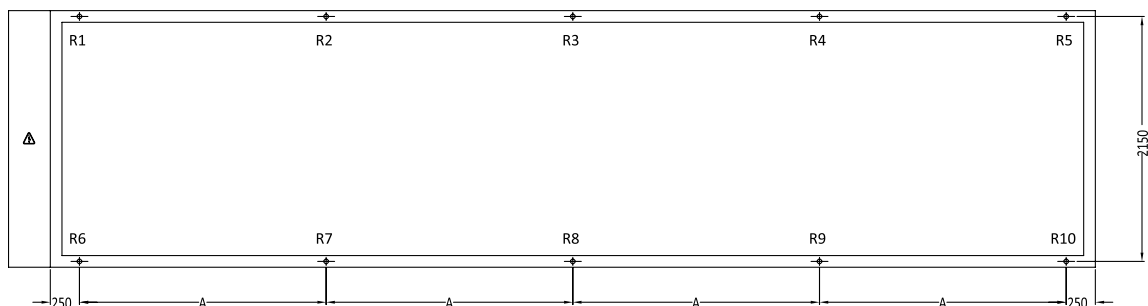


MODEL	LOAD DISTRIBUTION							OPERATING WEIGHT
	A	R1	R2	R3	R4	R5	R6	
	(mm)	(kg)						
ACSC080	1430	560	529	513	492	461	445	3001
ACSC090	1430	583	552	536	505	474	458	3108



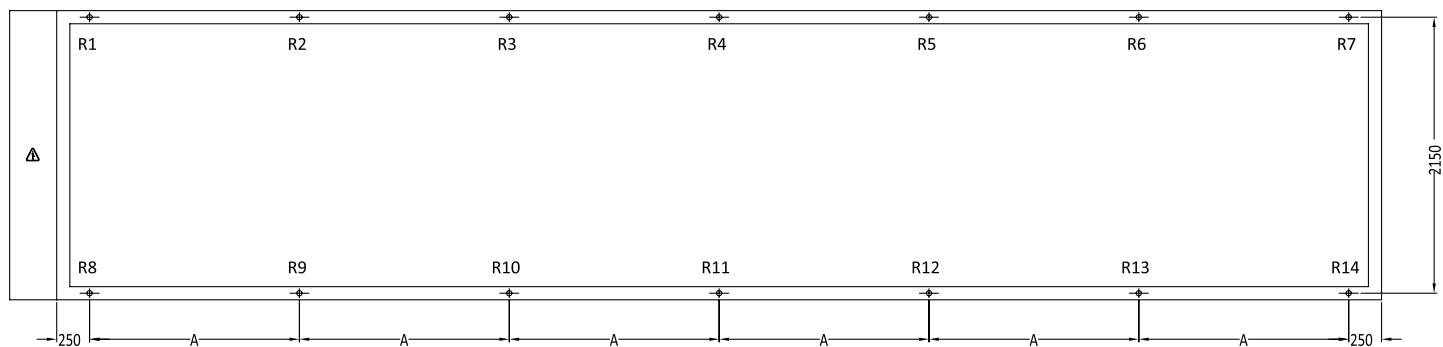
MODEL	LOAD DISTRIBUTION									OPERATING WEIGHT
	A	R1	R2	R3	R4	R5	R6	R7	R8	
	(mm)	(kg)								
ACSC100	1327	515	492	477	460	443	420	405	388	3599
ACSC110	1327	537	514	499	482	467	444	429	412	3783
ACSC120	1327	540	517	502	485	468	445	430	413	3800
ACSC130	1327	548	525	510	493	473	450	435	418	3851
ACSC140	1700	618	595	580	563	537	514	499	482	4387
ACSC160	1700	661	638	623	606	588	565	550	533	4765

MOUNTING LOCATION AND DISTRIBUTION LOAD



MODEL	LOAD DISTRIBUTION											OPERATING WEIGHT
	A	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	
	(mm)	(kg)										
ACSC180	1555	605	571	554	548	542	535	501	484	478	472	5292
ACSC190	1555	624	590	573	567	561	549	515	498	492	486	5454
ACSC200	1555	664	630	613	607	601	579	545	528	522	516	5805
ACSC210	1555	664	630	613	607	601	576	542	525	519	513	5788
ACSC220	1555	672	638	621	615	609	594	560	543	537	531	5918
ACSC240	1835	745	711	694	688	682	672	638	621	615	609	6673
ACSC250	1835	771	737	720	714	708	695	661	644	638	632	6919
ACSC260	1835	781	747	730	724	718	704	670	653	647	641	7015
ACSC270	2115	835	801	784	778	772	758	724	707	701	695	7553
ACSC280	2115	847	813	796	790	784	765	731	714	708	702	7648

MOUNTING LOCATION AND DISTRIBUTION LOAD



MODEL	LOAD DISTRIBUTION															OPERATING WEIGHT
	A	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	
	(mm)	(kg)														
ACSC300	1597	709	691	681	672	663	659	654	620	602	592	583	574	570	565	8836
ACSC310	1597	721	703	693	684	675	671	666	643	625	615	606	597	593	588	9081
ACSC320	1597	743	725	715	706	697	693	688	656	638	628	619	610	606	601	9325
ACSC330	1597	711	693	683	674	665	661	656	624	606	596	587	578	574	569	8878
ACSC350	1783	823	805	795	786	777	773	768	738	720	710	701	692	688	683	10462
ACSC365	1783	820	802	792	783	774	770	765	735	717	707	698	689	685	680	10420
ACSC380	1970	856	838	828	819	810	806	801	774	756	746	737	728	724	719	10939
ACSC400	1970	867	849	839	830	821	817	812	784	766	756	747	738	734	729	11086
ACSC420	1970	872	854	844	835	826	822	817	786	768	758	749	740	736	731	11137
ACSC450	2530	865	847	837	828	819	815	810	783	765	755	746	737	733	728	11072
ACSC475	2530	902	884	874	865	856	852	847	818	800	790	781	772	768	763	11572
ACSC500	2530	935	917	907	898	889	885	880	854	836	826	817	808	804	799	12056

GUIDE SPECIFICATION

GENERAL

AIR COOLED COOLEX CHILLER SCREW COMPRESSOR, provide and install as shown on the plans factory assembled. It is fully charge with R134A in the quantity specified. Each Chiller utilizing double and more screw compressor, insulated DX Shell & Tube Heat Exchangers (S&T) evaporator, microprocessor control system, low sound condenser fan motor and all components required for controlled unit operation prior to field start-up.

Air Cooled Chiller shall be rated in accordance with AHRI (Air Conditioning, Heating and Refrigeration Institute) Standard 550/590 2018 and Designed conformance to ASHRAE 15-2016 (Safety Standard for Refrigeration Systems).

Each Air Cooled Chiller shall be full load run tested at the factory to verify operation.

Compressors:

Semi-hermetic screw compressor has the latest and advanced 5:6 Patented Screw Rotor Profile designed to ensure high capacity and efficiency in all operating conditions. Each compressor is equipped with separated radial and axial bearings, liquid injection and economizer connection, PTC motor temperature thermistors and discharge temperature thermistors, a motor protector, and oil level switch and oil pressure differential switch connector and other accessories that new designs guarantee the compressor has the best reliability, longest bearing life during heavy duty running and strict operating conditions.

Evaporator / Cooler:

High efficiency DX shell & tube type evaporators are the water chilling in air conditioning package. DX Evaporator optimized for use with R134A. It has been developed for commercial and industrial refrigeration cooling with positive evaporation temperature. The

coolers are insulated with heavy closed cellular foam insulation 1 inch (25mm), K factor 0.28 Btu.in/hr.ft².°F (0.038 W/m°C). as a standard other thickness are available as an option. All chiller barrels are fitted with vent, drain connection.

Condenser Coil:

The coils are built up seamless copper tubes and mechanically bonded to scientifically designed aluminum fins for maximum heat transfer efficiency. The assembled coils are factory leak tested under water at a pressure of 450 psig for quality and leak free unit. They also undergo dry chemical cleaning after Manufacturing for optimum system cleanliness.

Condenser Fan Motor:

Fans shall be propeller type arranged for vertical discharge and individually driven by direct drive fan motors. All condenser fan motors are totally enclosed air over type (TEAO) with class "F" winding insulation and ball bearings for high ambient application. The motors shall be three phase with inherent thermal protection of automatic reset type. Condenser fans are constructed of die cast aluminum blades/hubs with direct driven motors. All fans are statically and dynamically balanced to operate at minimum noise and vibration.

Unit Casing / structure Frame:

The unit casing are perfectly designed to eliminate the corrosion problem usually associated with outdoor equipment. The casing sheet metal is fabricated from hot dipped heavy gauge (G90), zinc coating and zero spangle galvanized steel, oven-baked powder coated. Steel sheet panels lock forming quality conforming to ASTM A653-CS Type B G90. Painted panel Salt Spray test in accordance to ASTM B 117 Operating Salt Spray (Fog) Testing.

GUIDE SPECIFICATION

Refrigerant Piping Components:

Refrigerant pipe should be purity 99.9% or above Phosphorus Deoxidized Copper without joint, and it should be piped for fluent refrigerant flow between each component. Each refrigeration circuit shall include filter drier, moisture liquid indicating sight glass, thermostatic expansion valve and shut off valve. Suction line shall be insulated with closed cell pipe insulation.

Control Panel System:

Control panel shall contain the field power connection points, control interlock terminals and control system. The control box panel designed in accordance with NEMA 4 (IP55) with hinged access doors shall be lockable ensuring dust and weatherproof construction. Internal power and control wiring is neatly routed, adequately anchored and all wires identified with cable markers as per NEC standards applicable to HVAC industry.

Microprocessor Controller:

Microprocessor controller with an attractive user-friendly interface to fully manage the unit's operation and safety. The advanced microprocessor controller is designed with the latest technology to give the best performance of the chiller and to ensure its efficiency and reliability.

Safety Devices:

The Air Cooled Chiller shall be protected with safety devices of the following;

1. Pressure for low & high cut-off.
2. Starters.
3. Under/Over voltage and phase protection.
4. Compressor motor internal inherent protection.
5. Crankcase heaters.
6. Microprocessor Controller.

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