

Computer Room Air Conditioner (CRAC)



50/60 Hz

Range 5TR to 30TR
(17 kW to 105 kW)



Made in UAE صنع في الامارات

Contents

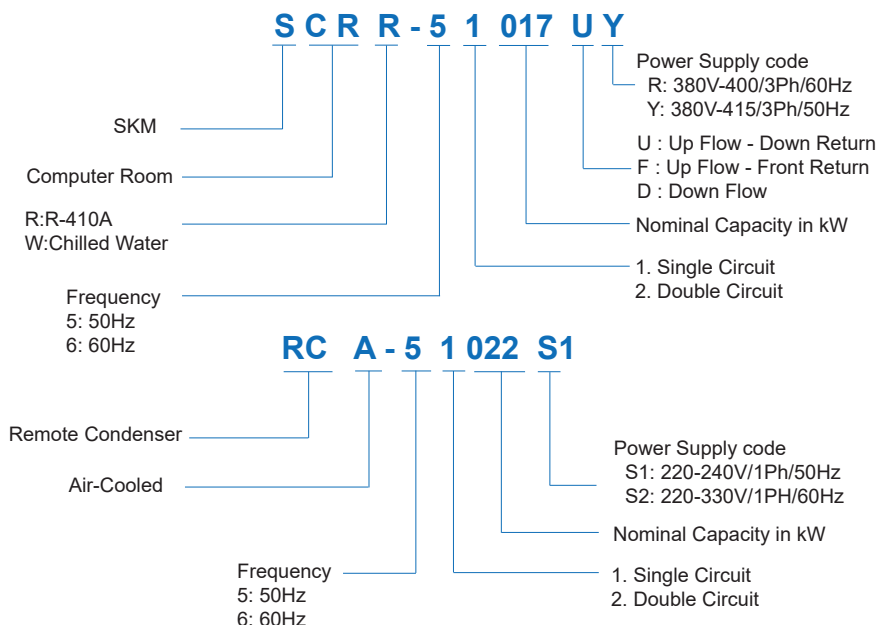
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Legend

The following legends are used throughout this manual:

cfm	Cubic feet per minute	PI	Power Input of Compressor
Hz	Hertz	TR	Tons of Refrigeration
kW	Kilowatts	V	Volts
kg	Kilogram	Pa	Pascal
lbs	Pounds	EWB	Evaporator Wet Bulb air entering temperature
l/s	Liters per second	BPF	By Pass Factor
MBh	BTUH x 1000	EER	Energy Efficiency Ratio
Ph	Phase	AFR	Air Flow Rate
RPM	Revolutions per minute		
in. wg	Inch water gauge		

Nomenclature



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

SKM Air Conditioning LLC



*You name it.....
We cool it*

Introduction

SKM Computer Room Series (**CRAC**) is designed and manufactured to meet the requirements of precision cooling and to work under Gulf's severe climatic conditions.

By precisely regulating the temperature and humidity, **SKMCRAC** series guarantee optimum ambient conditions for your data centers and IT equipment. SKM offers the series in both option of Direct Expansion and Chilled water to satisfy the market requirement and provide the best solution for SKM customers. They are designed for different air flow configuration, down flow or up flow (front or down return).

SCRR+RCA :

Direct Expansion type; It's a combination of indoor unit (**SCRR**) and outdoor unit (**RCA**).

SCRW :

Chilled Water type

SCRR+RCA units (hermetic scroll) are available in 12 models covering nominal capacity ranges from 5 TR – 23 TR in 60Hz and 5 TR – 21 TR in 50Hz, it's performance rated in accordance to AHRI1360 and exceeds SASO2874 standard requirement.

SCRW units supplied by SKM are ready to be connected with source of chilled water like chiller. **SCRW** units are available in 10 models covering nominal capacity ranges from 5 TR – 30 TR in both 50 & 60 Hz.

SKM CRAC series adopt in-room precision air conditioner for data center and IT cooling system, this series with advantages of reliability, rigid structure, high performance, advanced controller and precise temperature control , fully satisfies the cooling and humidity requirements of data center.

SKM CRAC units are internally wired and all that is required to be done on site are ducting, if required refrigerant piping, power wiring for **RCA** fans from **SCRR**, and power supply connection which reduces installation work and consequently keeps costs to a minimum. In other hand for **SCRW**, all that is required to be done on site are ducting (if required), Chilled Water piping, and power supply connection. SKM provides qualified service and stocks of replacement parts in all major cities of G.C.C countries, Egypt, Jordan and Pakistan. See back cover for details.

General Features

SCRR + RCA

The **SCRR+RCA** Series Computer Room Air Conditioners Direct Expansion type are yet another new unique series from SKM incorporates many salient features which, together, provides a heavy duty, robust, long lasting commercial unit meant for high end data center applications. The **SCRR+RCA** series models combine high efficiency condenser and cooling coil, plug evaporator fan, advanced controller, humidifier, and heater in addition to premium safety and operational controls.

SCRR+RCA units provide an extremely rugged, long life, energy efficient, and precise control air conditioner that will provide cooling with higher efficiency over a long and extended period of time.

What makes **SCRR+RCA** series yet another model in the top class range of SKM products is the use of:

- High efficiency totally sealed scroll hermetic compressor.
- High Efficiency evaporator EC plug fan.
- Totally enclosed , class F insulated , condenser fan motor.
- Heavy duty condenser and evaporator coils optimized and designed for a long life maintenance free operation.
- Cabinet construction specifically for gulf climate condition.
- Advanced controller for the unit operation.
- High efficiency steam humidifier.
- Electric heater (stepless control).
- Typically, much heavier gauge tubing and thicker fins for ruggedness and long life.
- Electronic expansion valve for precise control.
- Speed regulator on condenser fan for low ambient operation.

Main Component Features

Remote Condenser Unit

Condenser Coils

Condenser coils are manufactured from corrugated fin and Hi-X inner grooved seamless copper tubes mechanically bonded to aluminium fins to ensure optimum heat transfer. All coils are tested against leakage by high air pressure under water 715psig(4930kPa). An integral subcooling circuit is incorporated in the lower section of the condenser to increase system capacity. The additional condenser surface provides more cooling using less energy at no additional cost.

Condenser Fans

Condenser fans are propeller type with aluminum alloy blades and are directly driven by electric motors. Motors are Totally Enclosed Air Over (TEAO), six poles with Class F insulation and IP54 protection. The TEAO and Class F insulation features ensure long life and are unique to SKM. Condenser fan is provided with speed regulation to ensure smooth operation of the unit at low ambient condition.

Casing and Structure

The unit casing used in **RCA** series is made of hot dip galvanized (zinc coated) steel sheets, conforming to JIS-G 3302 and ASTM A653, which is phosphatized and baked after an electrostatic powder coat of approx. 60 microns. This finish and coating can pass a 1000 hour in 5% salt spray testing at 95°F (35°C) and 95% relative humidity as per ASTM B117.

Computer Room Air Conditioner

Compressors

Compressors used in the **SCRR** units are hermetically sealed, hi-efficiency, low noise, and compact scroll with the following features:

- High Efficiency.
- Quiet operation, Low Sound levels.
- Compact and light.
- Limited wear.
- 70% fewer moving parts than comparably sized reciprocating compressors.
- Unique ability to handle liquid refrigerant.
- Suction gas motor cooling.
- Suction screen.
- Centrifugal oil pumps with filter and magnet.
- Brazed fittings or Rotalock options.
- No internal valves.

Evaporator Coils

All evaporator coils are made of inner grooved copper tubes mechanically bonded into corrugated aluminum fins to ensure optimum heat transfer. Coils conform to AHRI-410. All evaporator coils are tested against leakage by 450psig (3100kPa) high pressure under water. Each evaporator coil is supplied with a factory sized and matched electronic expansion valves and 4 mounting holes for ceiling suspension.

Evaporator Fan & Drive

The fan is high efficient plug type , direct driven by EC motor with up to 33% greater efficiency than standard motor , to provide the optimal fan performance. Advantages of EC motors over conventional AC motors are:

- High efficiency.
- Integrated controller.
- Simple connections.
- Quite operation.
- Eco friendly and suitable for green building concept

Filter Section

SCRR series are supplied with 2" thick pleated type filters with grade G4 as standard for all models. Filter mounted on the evaporator coil for reduced airside pressure drop.

Casing and Structure

The unit casing for **SCRR** is made of zinc coated galvanized steel sheets conforming to JIS-G3302 and ASTM A653 which is phosphatized and baked after an electrostatic powder coat of approximately 60 microns. This finish and coating can pass a 1000 hour in 5% salt spray testing at 95°F (35°C) and 95% relative humidity as per ASTM B117. Panels and casing are insulated with 1" (25mm) thick fiberglass (with BGT coating) thermal and acoustic insulation having density of 2 lb/ft³. (32 kg/m³) and thermal conductivity of 0.23 BTU.in/ft²°Fh (0.033 W/m²K). Insulation meets the requirements of NFPA 90A and 90B for fire resistance. Raised floor stand as option available.

Steam Humidifier

The steam humidifier is of the immersed electrode type and is based on the most advanced microprocessor technology. It is complete with cleanable cylinder, fill and drain valves, stainless steel distributor and electronic control.

Refer next table for the Humidifier Capacity based on the models.

SCRR	Humidifier (kg/hr)
51017 / 61018	5
51020 / 61020	5
51024 / 61025	5
51030 / 61030	5
51036 / 61037	8
51042 / 61042	8
52036 / 62037	8
52042 / 62042	8
52048 / 62052	10
52063 / 62064	10
52070 / 62073	15
52075 / 62080	15

Table 1

Liquid Receiver

Liquid receiver provided in the liquid line with rotolock valves on both inlet and outlet.

Expansion Valve

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

Liquid Line Sight Glass

For monitoring refrigerant charge and to provide visual indication of moisture presence in the system.

Liquid and Discharge Shut Off Valve

To isolate indoor and outdoor unit, for maintenance purposes.

Electric Heater

Electric heating batteries are made up of finned heating elements, constructed from high quality 80/20 nickel chrome resistance wire centred in metal tube by compressed magnesium oxide. Helical fins are tightly wound around the tubular heating element. These heaters are provided with circuit breaker, contactor, thyristor and thermal safety cutouts. Thyristor control provides precise control of the heater to achieve an accurate temperature and humidity control.

Refer next table for the electric heater kilowatts based on the models.

SCRR	HEATER (KW)
51017 / 61018	6
51020 / 61020	6
51024 / 61025	6
51030 / 61030	6
51036 / 61037	7.5
52036 / 62037	7.5
51042 / 61042	7.5
52042 / 62042	7.5
52048 / 62052	10.5
52063 / 62064	10.5
52070 / 62073	15
52075 / 62080	15

Table 2

Stainless Steel Drain Pan

Stainless steel drain pan(Grade 304). Insulation under drain pan as per SKM standard.

Control Panel

Unit-mounted control panel is fabricated out of heavy gauge sheet steel in phosphatized powder coated baked finish. A hinged access door and lockable handle is provided for easy access and security, for the unit and the control panel. The panel is factory wired in accordance with NEC 430 & 440, labelled, tagged and features 220-230V controls. Below are the standard components provided in any **SCRR** control panel.

- Isolator on the main incomer with external door handle.
- Individual contactors for compressors, condenser fan motors, electric heater and humidifier. Supply fan individual starter.
- Individual circuit breakers for compressors, condenser fan motors, supply fan motor and electric heater.
- Thyristor for electric heater for modulated stepless control.
- Microprocessor-based main control board with a built-in HMI.
- Unit door mounted external keypad (HMI) with simple graphics.
- Electronic expansion valve driver, with stand-alone DC power supply.
- Humidifier advanced controller, for fully stand-alone control.
- Flood detection module, connected with spot flood sensors at the floor of the room.
- Voltage monitoring module with fuses, for protection against under voltage, over voltage, phase loss, phase reversal and phase unbalance of the incoming voltage.
- Control Relays and control circuit breaker.
- Unit on/off switch.
- Power and Control terminal blocks.
- All compressors are with DOL start, as standard. Supply fans are EC fans (BLDC motors).
- Note that wiring to the **RCA** condenser fan motors from **SCRR** control panel to be done at site by others.
- Connection between Indoor **SCRR** unit and Outdoor **RCA** unit is via a junction box with well-defined wiring.

SKM Microprocessor Controller



SKM Microprocessor controller is available for **SCRR** series as a standard feature. Our precision unit has a full function microprocessor controller, designed to keep the unit running at its most efficient level, under the hostile environment of HVAC industry. It provides flexibility with set points and control settings that can be selected during manufacturing level, during commissioning or when the unit is live and functioning.

Displays, unit status, measurements, alarms and other interfaces are accomplished in a clear and simple language that informs the user about the status of the system. It is designed to safeguard the unit that is being controlled, eliminate the need for manual intervention and to provide a simple but meaningful Human machine interface.

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

SKM Microprocessor controller comes with a flush mounted sleek and elegant design HMI, fixed on unit door unit is via a junction box with well-defined wiring.



BMS interface through Modbus RTU protocol is available as default BMS protocol. Other communication protocols is available by using external communication cards, inserted on the controller board itself. These protocols include MODBUS TCP/IP, BACNET-IP & BACNET-MSTP.

Factory Installed Options SCRR + RCA

As with all SKM air conditioning units, the **SCRR + RCA** Series available with multitude of optional features available on request:

Alternative Condenser Material

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

- Aluminum Fins with Aeris post Coat Protection (**FAA**).
- Pre-Coated aluminum fins (**FAP**).
- Copper Fins (**FC**).
- Copper Fins with Aeris post Coat Protection (**FCA**).

Alternative Evaporator Material

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

- Aluminum Fins with Aeris post Coat Protection (**EFAA**) .
- Pre-Coated aluminum fins (**EFAP**) .
- Copper Fins (**EFC**).
- Copper Fins with Aeris post Coat Protection (**EFCA**).

Western make Scroll Compressor (WMSC)

Western make scroll compressor

Rotalock Valves on Compressors (RVC)

For additional facilitation of maintenance of unit

Pressure Relief Valve (PRV)

To protect the unit from being over-pressurized.

Stainless Steel Drain Pan (Grad 316) (SDP-316)

Heavy gauge 316 stainless steel drain pan under the entire cooling coil and moisture eliminator. Insulation under drain pan as per SKM standard.

BMS Interface volt free contacts (BMVF)

Volt free contacts for run status, common fault status, auto mode status and provision for remote on/off shall be provided as option.

For other volt-free contact requirements, please contact SKM.

BMSP (BMS Interface through Protocol)

For software BMS interacting the unit microprocessor with BMS protocols such as Bacnet MS/TP, Bacnet IP or Modbus IP.

General Features SCRW

The **SCRW** Series Computer Room Air Conditioners are yet another new unique series from SKM incorporates many salient features which, together, provides a heavy duty, robust, long lasting commercial unit meant for high end data center applications. The **SCRW** series models combine cooling coil, plug evaporator fan, advanced controller, humidifier and heater in addition to premium safety and operational controls.

SCRW units provide an extremely rugged, long life, energy efficient, and precise control air conditioner that will provide cooling with higher efficiency over a long and extended period of time.

What makes **SCRW** series yet another model in the top class range of SKM products is the use of:

- Heavy duty cooling coils optimized and designed for a long life maintenance free operation.
- Cabinet construction specifically for gulf climate condition.
- Advanced controller for the unit operation.
- High efficiency steam humidifier.
- Electric heater (stepless control).
- 2-way valve for precise control.
- 3-way and PICV valves are available as option.

Main Component Features

Cooling Coils

All cooling coils are made of copper tubes mechanically bonded into corrugated aluminum fins to ensure optimum heat transfer. Coils conform to AHRI-410. All cooling coils are tested against leakage by 450psig (3100kPa) high pressure under water.

Evaporator Fan & Drive

The fan is high efficient plug type, direct driven by EC motor with up to 33% greater efficiency than standard motor, to provide the optimal fan performance. Advantages of EC motors over conventional AC motors are:

- High efficiency.
- Integrated controller.
- Simple connections.
- Quiet operation.
- Eco friendly and suitable for green building concept

Filter Section

SCRW series are supplied with 2" thick pleated type filters with grade G4 as standard for all models. Filter mounted on the cooling coil for reduced airside pressure drop.

Casing and Structure

The unit casing for **SCRW** is made of zinc coated galvanized steel sheets conforming to JIS-G3302 and ASTM A653 which is phosphatized and baked after an electrostatic powder coat of approximately 60 microns. This finish and coating can pass a 1000 hour in 5% salt spray testing at 95°F (35°C) and 95% relative humidity as per ASTM B117. Panels and casing are insulated with 1" (25mm) thick fiberglass (with BGT coating) thermal and acoustic insulation having density of 2 lb/ft³. (32 kg/m³) and thermal conductivity of 0.23 BTU.in/ft²°Fh (0.033 W/m²K). Insulation meets the requirements of NFPA 90A and 90B for fire resistance. Raised floor stand as option available.

Steam Humidifier

The steam humidifier is of the immersed electrode type and is based on the most advanced microprocessor technology. It is complete with cleanable cylinder, fill and drain valves, stainless steel distributor and electronic control.

Refer next table for the Humidifier Capacity based on the models.

SCRW	HUMIDIFIER (kg/hr)
51016 / 61016	5
51020 / 61020	5
51024 / 61024	5
51028 / 61028	5
51036 / 61036	8
51047 / 61047	8
51050 / 61050	10
51058 / 61058	10
52080 / 61080	15
51100 / 61100	15

Table 3

Two-way Valve

Motorized two-way valve to regulate the water flow , and improve the efficiency and the anti-oscillation function.

Solder Pipe Connection

SCRW pipe connection is solder type as standard. MPT and Flanged connections available as an option.

Electric Heater

Electric heating batteries are made up of finned heating elements, constructed from high quality 80/20 nickel chrome resistance wire centred in metal tube by compressed magnesium oxide. Helical fins are tightly wound around the tubular heating element. These heaters are provided with circuit breaker, contactor, thyristor and thermal safety cutouts. Thyristor control provides precise control of the heater to achieve an accurate temperature and humidity control.

Refer next table for the electric heater kilowatts based on the models.

SCRW	HEATER (KW)
51016 / 61016	6
51020 / 61020	6
51024 / 61024	6
51028 / 61028	6
51036 / 61036	7.5
51047 / 61047	7.5
51050 / 61050	10.5
51058 / 61058	10.5
52080 / 61080	15
51100 / 61100	15

Table 4

Stainless Steel Drain Pan

Stainless steel drain pan(Grade 304). Insulation under drain pan as per SKM standard.

Control Panel

Unit-mounted control panel is fabricated out of heavy gauge sheet steel in phosphatized powder coated baked finish. A hinged access door and lockable handle is provided for easy access and security, for the unit and the control panel. The panel is factory wired in accordance with NEC 430 & 440, labelled, tagged and features 220-230V controls. Below are the standard components provided in any SCRW control panel.

- Isolator on the main incomer with external door handle
- Individual contactors for electric heater and humidifier.
- Individual circuit breakers for supply fan motor & electric heater.
- Thyristor for electric heater for modulated stepless control.
- Microprocessor-based main control board with a built-in HMI.
- Unit door mounted external keypad (HMI) with simple graphics.
- Humidifier advanced controller, for fully stand-alone control.
- Flood detection module, connected with spot flood sensors at the floor of the room.
- Voltage monitoring module with fuses, for protection again under voltage, over voltage, phase loss, phase reversal and phase unbalance of the incoming voltage.
- Control Relays and control circuit breaker.
- Unit on/off switch.
- Power and Control terminal blocks.

SKM Microprocessor Controller



SKM microprocessor controller is available for **SCRW** series as a standard feature. Our precision unit has a full function microprocessor controller, designed to keep the unit running at its most efficient level, under the hostile environment of HVAC industry. It provides flexibility with set points and control settings that can be selected during manufacturing level, during commissioning or when the unit is live and functioning. Displays, unit status, measurements, alarms and other interfaces are accomplished in a clear and simple language that informs the user about the status of the system. It is designed to safeguard the unit that is being controlled, eliminate the need for manual intervention and to provide a simple but meaningful Human machine interface.

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

SKM Microprocessor controller comes with a flush mounted sleek and elegant design touch HMI, fixed on unit door.

BMS interface through Modbus RTU protocol is available as default BMS protocol. Other communication protocols is available by using external communication cards, inserted on the controller board itself. These protocols include MODBUS TCP/IP, BACNET-IP & BACNET-MSTP.

Factory Installed Options SCRW

As with all SKM air conditioning units, the **SCRW** Series available with multitude of optional features available on request:

Alternative Cooling Coil Material

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

- Aluminum Fins with Aeris post Coat Protection (**EFAA**) .
- Pre-Coated aluminum fins (**EFAP**) .
- Copper Fins (**EFC**).
- Copper Fins with Aeris post Coat Protection (**EFCA**).

Three-way Valve (3WV)

Motorized three-way valve to regulate the water flow , in the case of constant flow system where bypass line is required.

PICV Valve (PICV)

Pressure independent control of water flow maintains equal percentage control characteristic at all flow rate settings . it will regulate the chilled water flow by adjusting the actuator position, to maintain the correct water flow and supply air temperature at all times.

Stainless Steel Drain Pan (SSP)

Heavy gauge 316 stainless steel drain pan under the entire cooling coil and moisture eliminator. Insulation under drain pan as per SKM standard.

BMS Interface volt free contacts (BMVF)

Volt free contacts for run status, common fault status, auto mode status and provision for remote on/off shall be provided as option.

For other volt-free contact requirements, please contact SKM.

BMSP (BMS Interface through Protocol)

For interacting the unit microprocessor with BMS protocols such as Lonworks, Bacnet MS/TP, Bacnet IP or Modbus IP.

Alternative pipe Connection Type

Male Pipe Thread (**MPT**)
Flanged Connection (**GPT**)

GENERAL DATA - REMOTE CONDENSING UNIT

RCA - 50Hz

Outdoor Unit		RCA	51022	51026	51028	51037	51046	52046
Matched SCRR		SCRR	51017	51020	51024	51030	51036	52036
Outdoor Coil	Type	-	Hi-X Tubes					
	Face Area	ft ²	11.1	11.1	11.1	17.8	17.8	17.8
		m ²	1.0	1.0	1.0	1.7	1.7	1.7
Outdoor Fan	Type	-	Propeller Direct Drive					
	Code / Quantity	-	630/1	630/1	630/1	630/2	630/2	630/2
Outdoor Motor	Type	-	Totally enclosed fan					
	Size / Quantity	kW	0.47 / 1	0.47 / 1	0.47 / 1	0.47 / 2	0.47 / 2	0.47 / 2
Number of Refrigerant Circuits		-	1	1	1	1	1	2
Connection	Liquid	in	1/2	1/2	1/2	5/8	5/8	1/2
	Discharge	in	5/8	5/8	7/8	7/8	7/8	5/8
Unit Operating Weight		lbs	217	240	243	374	388	388
		kg	98	109	110	170	176	176

Table 5

Outdoor Unit		RCA	51052	52052	52055	52074	52078	52080
Matched SCRR		SCRR	51042	52042	52048	52063	52070	52075
Outdoor Coil	Type	-	Hi-X Tubes					
	Face Area	ft ²	21.4	21.4	21.4	30.6	30.6	30.6
		m ²	2.0	2.0	2.0	2.8	2.8	2.8
Outdoor Fan	Type	-	Propeller Direct drive					
	Code / Quantity	-	630/2	630/2	630/2	630/3	630/3	630/3
Outdoor Motor	Type	-	Totally enclosed fan					
	Size / Quantity	kW	0.47 / 2	0.47 / 2	0.47 / 2	0.47 / 3	0.47 / 3	0.47 / 3
Number of Refrigerant Circuits		-	1	2	2	2	2	2
Connection	Liquid	in	5/8	1/2	1/2	5/8	5/8	5/8
	Discharge	in	7/8	5/8	7/8	7/8	7/8	7/8
Unit Operating Weight		lbs	431	437	440	610	615	615
		kg	195	198	200	277	279	279

Table 6

Notes:

(1) Connections are based on 50 ft equivalent length between the outdoor & indoor unit.

GENERAL DATA - COMPUTER ROOM AIR CONDITIONER

SCRR - 50Hz

Indoor Unit		SCRR	51017	51020	51024	51030	51036	52036
Matched RCA		RCA	51022	51026	51028	51037	51046	52046
Cooling Capacity (C1)		MBH	53.3	68.1	77.4	101.7	118.5	111.6
		kW	15.6	20.0	22.7	29.8	34.7	32.7
Cooling Capacity (C2)		MBH	57.3	70.1	80.9	104.8	123.2	116.5
		kW	16.8	20.5	23.7	30.7	36.1	34.1
Compressor	Type	-	Hermetic Scroll					
	Quantity	-	1	1	1	1	1	2
	Oil Charge Ckt (A / B)	US Gal	0.5	0.5	0.7	0.9	0.9	0.9
		Liter	1.9	1.9	2.6	3.4	3.4	3.4
Indoor Coil	Type	-	Hi-X Tubes					
	Face Area	ft ²	5.0	5.0	7.5	7.5	10.5	10.5
		m ²	0.5	0.5	0.7	0.7	1.0	1.0
Indoor Fan	Type	-	Plug Fan					
	Code / Quantity	-	355 / 1	355 / 1	355 / 1	450 / 1	450 / 1	450 / 1
	Air flow Rate	cfm	2200	2500	3200	3750	4500	4500
		l/s	1038.3	1179.9	1510.2	1769.8	2123.8	2123.8
Indoor Motor	Type	-	EC					
	Size / Quantity	kW	2.1/1	2.1/1	2.1/1	2.4/1	2.4/1	2.4/1
Refrigerant Operating Charge R-410A		lbs	10	13	17	16	23	22
		kg	4.5	5.9	7.7	7.3	10.4	10.0
Number of Refrigerant Circuits		-	1	1	1	1	1	2
Unit Operating Weight		lbs	703	716	917	939	1113	1381
		kg	319	325	416	426	505	626

Table 7

Indoor Unit		SCRR	51042	52042	52048	52063	52070	52075
Matched RCA		RCA	51052	52052	52055	52074	52078	52080
Cooling Capacity (C1)		MBH	131.5	136.3	156.5	207.1	228.6	247.8
		kW	38.5	39.9	45.9	60.7	67.0	72.6
Cooling Capacity (C2)		MBH	137.8	140.7	164.1	215.1	236.5	254.9
		kW	40.4	41.2	48.1	63.0	69.3	74.7
Compressor	Type	-	Hermetic Scroll					
	Quantity	-	1	2	2	2	2	2
	Oil Charge Ckt (A / B)	US Gal	0.9	0.9	1.3	1.7	1.7	1.7
		Liter	3.4	3.4	4.9	6.4	6.4	6.4
Indoor Coil	Type	-	Hi-X Tubes					
	Face Area	ft ²	10.5	10.5	17.5	17.5	17.5	17.5
		m ²	1.0	1.0	1.6	1.6	1.6	1.6
Indoor Fan	Type	-	Plug Fan					
	Code / Quantity	-	450 / 1	450 / 1	355 / 2	450 / 2	450 / 2	450 / 2
	Air flow Rate	cfm	5000	5000	6500	8000	9000	9500
		l/s	2359.7	2359.7	3067.7	3775.6	4247.5	4483.5
Indoor Motor	Type	-	EC					
	Size / Quantity	kW	2.4/1	2.4/1	2.1/2	2.4/2	2.4/2	2.4/2
Refrigerant Operating Charge R-410A		lbs	26	24	32	37	46	46
		kg	11.8	11.1	14.7	16.8	21.0	20.9
Number of Refrigerant Circuits		-	1	2	2	2	2	2
Unit Operating Weight		lbs	1128	1387	1982	2048	2068	2087
		kg	512	629	899	929	938	947

Table 8

Notes:

- (1) Rated Capacity(C1) is based on AHRI Standard 1360 . Evaporator entering air conditions of 75°/61°F (23.9°/16°C) dry bulb/wet bulb and condenser entering air temperature of 95°F (35°C) dry bulb
- (2) Rated Capacity(C2) is based on AHRI Standard 1360 . Evaporator entering air conditions of 85°/64.2°F (29.4°/17.9°C) dry bulb/wet bulb and condenser entering air temperature of 95°F (35°C) dry bulb
- (3) Cooling capacity mentioned is gross which does not include the effect of evaporator fan motor heat.

GENERAL DATA - REMOTE CONDENSING UNIT

RCA - 60Hz

Outdoor Unit		RCA	61023	61028	61030	61040	61050	62050
Matched SCRR		SCRR	61018	61020	61025	61030	61037	62037
Outdoor Coil	Type	-	Hi-X Tubes					
	Face Area	ft ²	11.1	11.1	11.1	17.8	17.8	17.8
		m ²	1.0	1.0	1.0	1.7	1.7	1.7
Outdoor Fan	Type	-	Propeller Direct Drive					
	Code / Quantity	-	630/1	630/1	630/1	630/2	630/2	630/2
Outdoor Motor	Type	-	Totally enclosed fan					
	Size / Quantity	kW	0.64 / 1	0.64 / 1	0.64 / 1	0.64 / 2	0.64 / 2	0.64 / 2
Number of Refrigerant Circuits		-	1	1	1	1	1	2
Connection	Liquid	in	1/2	1/2	1/2	5/8	5/8	1/2
	Discharge	in	5/8	5/8	7/8	7/8	7/8	5/8
Unit Operating Weight		lbs	217	240	243	374	388	388
		kg	98	109	110	170	176	176

Table 9

Outdoor Unit		RCA	61055	62055	62058	62082	62086	62088
Matched SCRR		SCRR	61042	62042	62052	62064	62073	62080
Outdoor Coil	Type	-	Hi-X Tubes					
	Face Area	ft ²	21.4	21.4	21.4	30.6	30.6	30.6
		m ²	2.0	2.0	2.0	2.8	2.8	2.8
Outdoor Fan	Type	-	Propeller Direct drive					
	Code / Quantity	-	630/2	630/2	630/2	630/3	630/3	630/3
Outdoor Motor	Type	-	Totally enclosed fan					
	Size / Quantity	kW	0.64 / 2	0.64 / 2	0.64 / 2	0.64 / 3	0.64 / 3	0.64 / 3
Number of Refrigerant Circuits		-	1	2	2	2	2	2
Connection	Liquid		5/8	1/2	1/2	5/8	5/8	5/8
	Discharge		7/8	5/8	7/8	7/8	7/8	7/8
Unit Operating Weight		lbs	431	437	440	610	615	615
		kg	195	198	200	277	279	279

Table 10

Notes:

(1) Connections are based on 50 ft equivalent length between the outdoor & indoor unit.

GENERAL DATA - COMPUTER ROOM AIR CONDITIONER SCRR - 60Hz

Indoor Unit		SCRR	61018	61020	61025	61030	61037	62037
Matched RCA		RCA	61023	61028	61030	61040	61050	62050
Cooling Capacity (C1)	MBH		57.0	66.1	83.1	104.0	125.0	118.6
	kW		16.7	19.4	24.4	30.5	36.6	34.8
Cooling Capacity (C2)	MBH		58.3	68.3	86.6	106.9	129.3	123.4
	kW		17.1	20.0	25.4	31.3	37.9	36.2
Compressor	Type	-	Hermetic Scroll					
	Quantity	-	1	1	1	1	1	2
	Oil Charge Ckt (A / B)	US Gal	0.5	0.4	0.4	0.9	0.9	1.0
		Liter	1.9	1.5	1.5	3.4	3.4	3.8
Indoor Coil	Type	-	Hi-X Tubes					
	Face Area	ft ²	5.0	5.0	7.5	7.5	10.5	10.5
		m ²	0.5	0.5	0.7	0.7	1.0	1.0
Indoor Fan	Type	-	Plug Fan					
	Code / Quantity	-	355 / 1	355 / 1	355 / 1	450 / 1	450 / 1	450 / 1
	Air flow Rate	cfm	2200	2500	3200	3750	4500	4500
		l/s	1038.3	1179.9	1510.2	1769.8	2123.8	2123.8
Indoor Motor	Type	-	EC					
	Size / Quantity	kW	2.1/1	2.1/1	2.1/1	2.4/1	2.4/1	2.4/1
Refrigerant Operating Charge R-410A	lbs		10	13	17	16	23	22
	kg		4.5	5.9	7.7	7.3	10.4	10.0
Number of Refrigerant Circuits		-	1	1	1	1	1	2
Unit Operating Weight	lbs		703	716	917	393	1113	388
	kg		319	325	416	178	505	176

Table 11

Indoor Unit		SCRR	61042	62042	62052	62064	62073	62080
Matched RCA		RCA	61055	62055	62058	62082	62086	62088
Cooling Capacity (C1)	MBH		139.4	132.3	168.1	211.7	241.9	263.3
	kW		40.9	38.8	49.3	62.0	70.9	77.2
Cooling Capacity (C2)	MBH		143.5	136.9	175.9	219.5	249.0	269.1
	kW		42.1	40.1	51.6	64.3	73.0	78.9
Compressor	Type	-	Hermetic Scroll					
	Quantity	-	1	2	2	2	2	2
	Oil Charge Ckt (A / B)	US Gal	0.9	0.9	0.9	1.7	1.7	1.7
		Liter	3.4	3.4	3.4	6.4	6.4	6.4
Indoor Coil	Type	-	Hi-X Tubes					
	Face Area	ft ²	10.5	10.5	17.5	17.5	17.5	17.5
		m ²	1.0	1.0	1.6	1.6	1.6	1.6
Indoor Fan	Type	-	Plug Fan					
	Code / Quantity	-	450 / 1	450 / 1	355 / 2	450 / 2	450 / 2	450 / 2
	Air flow Rate	cfm	5000	5000	6500	8000	9000	9500
		l/s	2359.7	2359.7	3067.7	3775.6	4247.5	4483.5
Indoor Motor	Type	-	EC					
	Size / Quantity	kW	2.4/1	2.4/1	2.1/2	2.4/2	2.4/2	2.4/2
Refrigerant Operating Charge R-410A	lbs		26	24	32	37	46	46
	kg		11.8	10.9	14.5	16.8	20.9	20.9
Number of Refrigerant Circuits		-	1	2	2	2	2	2
Unit Operating Weight	lbs		1128	1387	1982	2048	2068	2087
	kg		512	629	899	929	938	947

Table 12

Notes:

- (1) Rated Capacity(C1) is based on AHRI Standard 1360 & SASO 2874. Evaporator entering air conditions of 75°/61°F (23.9°/16°C) dry bulb/wet bulb and condenser entering air temperature of 95°F (35°C) dry bulb
- (2) Rated Capacity(C2) is based on AHRI Standard 1360 & SASO 2874. Evaporator entering air conditions of 85°/64.2°F (29.4°/17.9°C) dry bulb/wet bulb and condenser entering air temperature of 95°F (35°C) dry bulb
- (3) Cooling capacity mentioned is gross which does not include the effect of evaporator fan motor heat.

GENERAL DATA - COMPUTER ROOM AIR CONDITIONER

SCRW - 50 & 60Hz

Indoor Unit		SCRW	51016/61016	51021/61021	51024/61024	51028/61028	51036/61036
Cooling Capacity (C1)		MBH	56.4	73.8	81.6	101.8	116.0
		kW	16.5	21.6	23.9	29.8	34.0
Cooling Capacity (C2)		MBH	72.7	91.9	102.4	138.6	162.4
		kW	21.3	26.9	30.0	40.6	47.6
Cooling Coil	Type	-	Plain Tubes				
	Face Area	ft ²	5.0	5.0	7.5	7.5	10.5
		m ²	0.5	0.5	0.7	0.7	1.0
Fan	Type	-	Plug Fan				
	Code / Quantity	-	355 / 1	355 / 1	355 / 1	355 / 1	450 / 1
	Air flow Rate	cfm	2500	2500	3200	3500	5000
		l/s	1180.0	1180.0	1510.0	1510.0	2596.0
Motor	Type	-	EC				
	Size / Quantity	kW	2.1/1	2.1/1	2.1/1	2.1/1	2.4/1
Unit Operating Weight		lbs	590	618	750	793	944
		kg	268	280	340	360	428

Table 13

Indoor Unit		SCRW	51047/61047	51050/61050	51058/61058	51080/61080	51100/61100
Cooling Capacity (C1)		MBH	161.3	167.9	197.6	268.2	351.4
		kW	47.3	49.2	57.9	78.6	103.0
Cooling Capacity (C2)		MBH	209.0	234.3	275.8	365.9	456.3
		kW	61.3	68.7	80.8	107.2	133.7
Cooling Coil	Type	-	Plain Tubes				
	Face Area	ft ²	10.5	17.5	17.5	17.5	22.7
		m ²	1.0	1.6	1.6	1.6	2.1
Fan	Type	-	Plug Fan				
	Code / Quantity	-	450 / 1	355 / 2	450 / 2	450 / 2	355 / 3
	Air flow Rate	cfm	5500	7000	9000	9500	12000
		l/s	2596.0	3304.0	4484.0	4484.0	5663.0
Motor	Type	-	EC				
	Size / Quantity	kW	2.4/1	2.1/2	2.4/2	2.4/2	2.1/3
Unit Operating Weight		lbs	1002	1391	1404	1499	1561
		kg	454	631	637	680	708

Table 14

Notes:

- (1) Rated Capacity(C1) is based on AHRI Standard 1360 & SASO 2874. Evaporator entering air conditions of 75°/61°F (23.9°/16°C) dry bulb/wet bulb and condenser entering air temperature of 95°F (35°C) dry bulb
- (2) Rated Capacity(C2) is based on AHRI Standard 1360 & SASO 2874. Evaporator entering air conditions of 85°/64.2°F (29.4°/17.9°C) dry bulb/wet bulb and condenser entering air temperature of 95°F (35°C) dry bulb
- (3) Cooling capacity mentioned is gross which does not include the effect of evaporator fan motor heat.
- (4) For detailed Performance Selection, please contact SKM.

GROSS CAPACITY RATINGS

SCRR + RCA - 50Hz

Model SCRR + RCA	AFR		EWB	Condenser Entering Air Temperature																										
	cfm	95°F (35°C)																105°F (40.6°C)				115°F (46.1°C)				125°F (51.7°C)				
		Total Capacity				Sensible Capacity				PI*	Total Capacity				Sensible Capacity				PI*	Total Capacity				Sensible Capacity				PI*		
		(BPF)	°F	°C	MBh	kW	MBh	kW	kW	MBh	kW	MBh	kW	kW	MBh	kW	MBh	kW	kW	MBh	kW	MBh	kW	kW						
51017 + 51022	1800	61	16.1	52.5	15.4	42.7	12.5	4.4	48.8	14.3	41.1	12.1	5.1	45.0	13.2	39.5	11.6	5.7	41.5	12.2	38.1	11.2	6.3							
	850	63	17.2	54.1	15.9	39.3	11.5	4.5	50.9	14.9	38.0	11.1	5.1	47.4	13.9	36.5	10.7	5.7	43.6	12.8	35.0	10.3	6.3							
	0.2	65	18.3	55.9	16.4	35.8	10.5	4.5	52.7	15.4	34.5	10.1	5.1	49.3	14.5	33.2	9.7	5.8	45.9	13.4	31.9	9.4	6.3							
	2200	61	16.1	53.3	15.6	46.7	13.7	4.5	49.5	14.5	45.1	13.2	5.1	45.8	13.4	43.6	12.8	5.7	42.4	12.4	42.2	12.4	6.3							
	1038	63	17.2	55.6	16.3	42.9	12.6	4.5	52.0	15.3	41.5	12.2	5.1	48.0	14.1	39.9	11.7	5.7	44.3	13.0	38.5	11.3	6.3							
	0.2	65	18.3	57.4	16.8	38.9	11.4	4.6	54.1	15.9	37.6	11.0	5.2	50.4	14.8	36.2	10.6	5.8	46.5	13.6	34.8	10.2	6.4							
	2600	61	16.1	53.8	15.8	50.4	14.8	4.5	50.2	14.7	49.0	14.4	5.1	46.5	13.6	46.5	13.6	5.7	43.0	12.6	43.0	12.6	6.3							
	1227	63	17.2	56.5	16.6	46.2	13.6	4.5	52.5	15.4	44.7	13.1	5.1	48.6	14.2	43.2	12.7	5.7	45.0	13.2	41.9	12.3	6.3							
	0.3	65	18.3	58.6	17.2	41.7	12.2	4.6	55.1	16.1	40.5	11.9	5.2	50.9	14.9	38.9	11.4	5.8	47.0	13.8	37.5	11.0	6.4							
	51020 + 51026	2000	61	16.1	66.6	19.5	53.1	15.6	5.5	62.6	18.4	51.3	15.0	6.3	58.2	17.0	49.4	14.5	7.1	54	15.8	48	14.0	7.8						
944		63	17.2	68.7	20.1	48.9	14.3	5.6	65.1	19.1	47.4	13.9	6.4	61.2	17.9	45.8	13.4	7.2	56.7	16.6	43.9	12.9	7.9							
0.12		65	18.3	71.0	20.8	44.8	13.1	5.6	67.2	19.7	43.3	12.7	6.4	63.4	18.6	41.7	12.2	7.2	59.5	17.5	40.2	11.8	7.9							
2500		61	16.1	68.1	20.0	58.8	17.2	5.6	63.8	18.7	57.0	16.7	6.3	59.5	17.4	55.2	16.2	7.1	55.4	16.2	53.5	15.7	7.9							
1180		63	17.2	71.2	20.9	54.3	15.9	5.6	67.0	19.6	52.5	15.4	6.4	62.3	18.3	50.7	14.8	7.2	57.9	17.0	48.9	14.3	7.9							
0.14		65	18.3	73.7	21.6	49.3	14.4	5.7	69.7	20.4	47.7	14.0	6.5	65.5	19.2	46.1	13.5	7.3	60.7	17.8	44.4	13.0	8.0							
3000		61	16.1	69.0	20.2	64.2	18.8	5.6	64.8	19.0	62.5	18.3	6.4	60.5	17.7	60.5	17.7	7.2	56.4	16.5	56.4	16.5	7.9							
1416		63	17.2	72.5	21.2	58.9	17.3	5.6	67.8	19.9	57.1	16.7	6.4	63.2	18.5	55.3	16.2	7.2	58.9	17.3	53.7	15.7	7.9							
0.15		65	18.3	75.5	22.1	53.4	15.7	5.7	71.2	20.9	51.8	15.2	6.5	66.2	19.4	49.9	14.6	7.3	61.5	18.0	48.2	14.1	8.0							
51024 + 51028		2600	61	16.1	75.6	22.2	64.8	19.0	6.0	70.7	20.7	62.7	18.4	7.0	65.7	19.3	60.6	17.8	7.9	61.0	17.9	58.7	17.2	8.6						
	1227	63	17.2	79.1	23.2	59.9	17.5	6.1	73.7	21.6	57.7	16.9	7.0	68.5	20.1	55.5	16.3	7.9	63.7	18.7	53.6	15.7	8.6							
	0.11	65	18.3	82.5	24.2	54.7	16.0	6.3	77.1	22.6	52.6	15.4	7.1	71.5	21.0	50.4	14.8	8.0	66.3	19.4	48.5	14.2	8.7							
	3200	61	16.1	77.4	22.7	72.1	21.1	6.1	72.4	21.2	70.1	20.5	7.0	67.4	19.8	67.4	19.8	7.9	62.8	18.4	62.8	18.4	8.6							
	1510	63	17.2	80.6	23.6	66.0	19.3	6.2	75.4	22.1	63.9	18.7	7.1	70.2	20.6	61.9	18.1	8.0	65.3	19.1	60.0	17.6	8.6							
	0.12	65	18.3	84.0	24.6	59.8	17.5	6.3	78.4	23.0	57.7	16.9	7.2	72.9	21.4	55.6	16.3	8.0	66.8	19.6	53.7	15.7	8.7							
	3600	61	16.1	78.4	23.0	76.8	22.5	6.1	73.4	21.5	73.4	21.5	7.0	68.4	20.0	68.4	20.0	7.9	63.6	18.6	63.6	18.6	8.6							
	1699	63	17.2	81.5	23.9	70.0	20.5	6.2	76.3	22.4	67.9	19.9	7.1	71.1	20.8	66.0	19.3	8.0	66.1	19.4	64.1	18.8	8.7							
	0.13	65	18.3	84.8	24.8	63.1	18.5	6.4	79.2	23.2	61.0	17.9	7.2	73.7	21.6	59.0	17.3	8.0	68.6	20.1	57.1	16.7	8.7							
	51030 + 51037	3200	61	16.1	100.6	29.5	82.0	24.0	7.9	93.4	27.4	78.8	23.1	9.1	86.3	25.3	75.8	22.2	10.3	79.7	23.4	73.1	21.4	11.4						
1510		63	17.2	103.8	30.4	75.4	22.1	8.0	97.7	28.6	72.9	21.4	9.2	90.6	26.6	70.0	20.5	10.4	83.6	24.5	67.1	19.7	11.4							
0.12		65	18.3	107.3	31.4	68.9	20.2	8.0	101.1	29.6	66.4	19.5	9.3	94.7	27.7	63.9	18.7	10.4	88.1	25.8	61.3	18.0	11.4							
3750		61	16.1	101.7	29.8	88.1	25.8	7.9	94.7	27.7	85.1	24.9	9.1	87.7	25.7	82.2	24.1	10.3	81.2	23.8	79.6	23.3	11.4							
1770		63	17.2	106.4	31.2	81.2	23.8	8.0	99.4	29.1	78.3	23.0	9.2	91.8	26.9	75.3	22.1	10.4	85.1	24.9	72.7	21.3	11.4							
0.14		65	18.3	110.0	32.2	73.7	21.6	8.1	103.5	30.3	71.2	20.9	9.3	96.4	28.2	68.5	20.1	10.5	89.2	26.1	65.8	19.3	11.4							
4300		61	16.1	102.8	30.1	94.0	27.6	7.9	95.8	28.1	91.2	26.7	9.1	88.9	26.1	88.4	25.9	10.3	82.4	24.2	82.4	24.2	11.4							
2029		63	17.2	107.9	31.6	86.4	25.3	8.1	100.3	29.4	83.4	24.4	9.2	92.9	27.2	80.5	23.6	10.4	86.2	25.3	78.0	22.9	11.4							
0.15		65	18.3	112.0	32.8	78.3	22.9	8.2	105.2	30.8	75.7	22.2	9.4	97.2	28.5	72.7	21.3	10.5	90.1	26.4	70.1	20.6	11.5							
51036 + 51046		4000	61	16.1	117.2	34.3	99.5	29.2	8.8	109.1	32.0	96.0	28.1	10.1	100.9	29.6	92.6	27.2	11.5	93.2	27.3	89.5	26.2	12.7						
	1888	63	17.2	123.0	36.1	92.1	27.0	8.9	114.1	33.4	88.5	25.9	10.3	105.4	30.9	84.9	24.9	11.6	97.3	28.5	81.7	24.0	12.8							
	0.11	65	18.3	127.4	37.3	84.0	24.6	9.0	119.7	35.1	80.9	23.7	10.4	110.2	32.3	77.2	22.6	11.7	101.6	29.8	74.0	21.7	12.9							
	4500	61	16.1	118.5	34.7	105.4	30.9	8.8	110.5	32.4	102.1	29.9	10.2	102.4	30.0	98.7	28.9	11.5	94.7	27.7	94.7	27.7	12.8							
	2124	63	17.2	124.1	36.4	97.0	28.4	9.0	115.3	33.8	93.5	27.4	10.3	106.7	31.3	90.1	26.4	11.7	98.7	28.9	87.0	25.5	12.9							
	0.12	65	18.3	129.8	38.0	88.5	25.9	9.1	120.6	35.3	85.0	24.9	10.4	111.3	32.6	81.5	23.9	11.8	102.7	30.1	78.3	22.9	13.0							
	5000	61	16.1	119.8	35.1	111.3	32.6	8.9	111.8	32.8	108.0	31.7	10.2	103.7	30.4	103.7	30.4	11.6	95.9	28.1	95.9	28.1	12.8							
	2360	63	17.2	125.1	36.7	101.9	29.9	9.0	116.5	34.1	98.5	28.9	10.3	108.0	31.6	95.2	27.9	11.7	99.9	29.3	92.1	27.0	12.9							
	0.13	65	18.3	130.9	38.4	92.6	27.1	9.1	121.5	35.6	89.1	26.1	10.5	112.3	32.9	85.6	25.1	11.8	103.8	30.4	82.5	24.2	13.0							
	52036 + 52046	4000	61	16.1	110.1	32.3	96.5	28.3	8.8	102.8	30.1	93.4	27.4	10.0	95.5	28.0	90.4	26.5	11.3	88.5	25.9	87.5	25.7	12.5						
1888		63	17.2	115.2	33.8	88.9	26.1	8.9	107.4	31.5	85.7	25.1	10.1	99.6	29.2	82.7	24.2	11.4	92.4	27.1	79.8	23.4	12.6							
0.11		65	18.3	120.6	35.4	81.3	23.8	9.0	112.3	32.9	78.0	22.9	10.3	103.9	30.5	74.9	21.9	11.5	96.1	28.2	71.9	21.1	12.7							
4500		61	16.1	111.6	32.7	102.5	30.0	8.9	104.3	30.6	99.5	29.2	10.1	96.9	28.4	96.5	28.3	11.3	89.8	26.3	89.8	26.3	12.5							
2124		63	17.2	116.4	34.1	90.0	27.5	9.0	108.7	31.9	90.9	26.6	10.2	101.0	29.6	87.9	25.8	11.4	93.7	27.5	85.1	24.9	12.6							
0.12		65	18.3	121.6	35.7	85.4	25.0	9.1	113.3	33.2	82.2	24.1	10.3	105.1	30.8	79.1	23.2	11.6	97.3	28.5	76.2	22.3	12.8							
5000		61	16.1	112.9	33.1	108.4	31.8	8.9	105.6	30.9	105.5	30.9	10.1	98.2	28.8	98.2	28.8	11.3	91.0	26.7	91.0	26.7								

GROSS CAPACITY RATINGS

SCRR + RCA - 50Hz

Model SCRR + RCA	AFR		EWB		Condenser Entering Air Temperature																							
	cfm	lb/s			95°F (35°C)						105°F (40.6°C)						115°F (46.1°C)						125°F (51.7°C)					
					Total Capacity		Sensible Capacity		PI*	Total Capacity		Sensible Capacity		PI*	Total Capacity		Sensible Capacity		PI*	Total Capacity		Sensible Capacity		PI*				
			MBh	kW	MBh	kW	kW	MBh	kW	MBh	kW	kW	MBh	kW	MBh	kW	kW	MBh	kW	MBh	kW	kW						
51042 + 51052	4500	61	16.1	120.3	35.3	106.2	31.1	8.6	112.3	32.9	102.8	30.1	9.9	104.1	30.5	99.4	29.1	11.3	96.2	28.2	96.2	28.2	12.5					
	2124	63	17.2	126.1	37.0	97.8	28.7	8.7	117.3	34.4	94.3	27.6	10.0	108.6	31.8	90.8	26.6	11.4	100.4	29.4	87.6	25.7	12.6					
	0.12	65	18.3	131.6	38.6	89.2	26.1	8.8	122.9	36.0	85.8	25.2	10.1	113.4	33.2	82.3	24.1	11.5	104.5	30.6	78.9	23.1	12.7					
	5000	61	16.1	121.6	35.6	112.0	32.8	8.6	113.6	33.3	108.7	31.9	9.9	105.4	30.9	105.4	30.9	11.3	97.4	28.6	97.4	28.6	12.6					
	2360	63	17.2	127.1	37.3	102.7	30.1	8.7	118.5	34.7	99.3	29.1	10.0	109.8	32.2	95.9	28.1	11.4	101.6	29.8	92.8	27.2	12.7					
	0.13	65	18.3	133.1	39.0	93.4	27.4	8.8	123.7	36.3	89.9	26.3	10.1	114.4	33.5	86.4	25.3	11.5	105.6	31.0	83.1	24.4	12.8					
	5500	61	16.1	122.8	36.0	117.7	34.5	8.6	114.8	33.6	114.5	33.6	9.9	106.5	31.2	106.5	31.2	11.3	98.5	28.9	98.5	28.9	12.6					
	2596	63	17.2	128.1	37.5	107.5	31.5	8.7	119.6	35.0	104.2	30.5	10.0	110.9	32.5	100.9	29.6	11.4	102.6	30.1	97.7	28.6	12.7					
	0.14	65	18.3	133.9	39.2	97.3	28.5	8.8	124.6	36.5	93.8	27.5	10.1	115.3	33.8	90.4	26.5	11.5	106.6	31.2	87.2	25.6	12.8					
52042 + 52052	4500	61	16.1	135.2	39.6	112.5	33.0	11.2	126.4	37.1	108.7	31.9	12.7	117.8	34.5	105.1	30.8	14.3	109.5	32.1	101.7	29.8	15.8					
	2124	63	17.2	140.7	41.2	103.8	30.4	11.3	133.0	39.0	100.7	29.5	12.9	123.6	36.2	96.8	28.4	14.5	114.6	33.6	93.2	27.3	15.9					
	0.12	65	18.3	145.5	42.6	94.7	27.7	11.4	137.7	40.4	91.6	26.8	13.0	129.7	38.0	88.4	25.9	14.6	120.5	35.3	85.0	24.9	16.0					
	5000	61	16.1	136.3	40.0	118.1	34.6	11.2	127.7	37.4	114.5	33.6	12.8	119.1	34.9	111.0	32.5	14.4	110.9	32.5	107.6	31.5	15.8					
	2360	63	17.2	143.1	41.9	109.1	32.0	11.3	134.0	39.3	105.4	30.9	12.9	124.7	36.5	101.7	29.8	14.5	116.0	34.0	98.3	28.8	15.9					
	0.13	65	18.3	147.9	43.4	99.1	29.0	11.5	139.9	41.0	96.0	28.1	13.1	130.8	38.4	92.6	27.1	14.7	121.5	35.6	89.1	28.1	16.0					
	5500	61	16.1	137.4	40.3	123.7	36.3	11.2	128.8	37.8	120.2	35.2	12.8	120.3	35.3	116.7	34.2	14.4	112.1	32.9	112.1	32.9	15.8					
	2596	63	17.2	144.3	42.3	113.9	33.4	11.4	134.9	39.5	110.2	32.3	12.9	125.7	36.8	106.6	31.2	14.5	117.2	34.3	103.2	30.3	15.9					
	0.14	65	18.3	150.0	44.0	103.4	30.3	11.5	141.6	41.5	100.2	29.4	13.1	131.7	38.6	96.5	28.3	14.7	122.4	35.9	93.0	27.3	16.0					
52048 + 52055	5500	61	16.1	153.4	45.0	135.1	39.6	12.2	143.5	42.1	130.9	38.4	14.1	133.6	39.1	126.8	37.2	15.9	124.3	38.4	123.0	36.1	17.3					
	2596	63	17.2	159.8	46.8	124.2	36.4	12.5	149.3	43.8	120.0	35.2	14.2	139.1	40.8	115.9	34.0	16.0	129.4	37.9	112.0	32.8	17.3					
	0.10	65	18.3	166.9	48.9	113.3	33.2	12.7	155.5	45.6	108.9	31.9	14.4	144.6	42.4	104.7	30.7	16.0	134.4	39.4	100.9	29.6	17.4					
	6500	61	16.1	156.5	45.9	147.7	43.3	12.3	146.5	42.9	143.6	42.1	14.2	136.5	40.0	136.5	40.0	15.9	127.1	37.2	127.1	37.2	17.3					
	3088	63	17.2	162.7	47.7	134.9	39.5	12.6	152.3	44.7	130.8	38.3	14.3	141.9	41.6	126.7	37.1	16.0	132.0	38.7	122.9	36.0	17.3					
	0.11	65	18.3	169.2	49.6	122.0	35.7	12.8	158.0	46.3	117.8	34.5	14.5	147.2	43.1	113.7	33.3	16.0	136.9	40.1	109.9	32.2	17.4					
	7500	61	16.1	159.2	46.7	159.2	46.7	12.4	149.0	43.7	149.0	43.7	14.2	138.9	40.7	138.9	40.7	16.0	129.2	37.9	129.2	37.9	17.3					
	3540	63	17.2	165.3	48.5	145.3	42.6	12.7	154.8	45.4	141.2	41.4	14.4	144.1	42.2	137.3	40.2	16.0	134.1	39.3	133.5	39.1	17.4					
	0.12	65	18.3	171.3	50.2	130.5	38.2	12.9	160.2	47.0	126.4	37.0	14.5	149.4	43.8	122.4	35.9	16.0	139.0	40.8	118.7	34.8	17.4					
52063 + 52074	7000	61	16.1	203.8	59.7	173.0	50.7	16.0	189.8	55.6	167.1	49.0	18.3	176.0	51.6	161.3	47.3	20.7	163.0	47.8	155.9	45.7	22.8					
	3304	63	17.2	214.1	62.8	160.3	47.0	16.2	198.8	58.3	154.0	45.1	18.6	184.0	53.9	148.0	43.4	20.9	174.0	51.0	153.3	44.9	22.8					
	0.12	65	18.3	221.3	64.9	145.9	42.7	16.4	208.2	61.0	140.7	41.2	18.8	192.8	56.5	134.7	39.5	21.1	181.7	53.2	138.1	40.5	22.9					
	8000	61	16.1	207.1	60.5	185.0	54.1	15.9	192.6	56.4	179.0	52.5	18.4	178.8	52.4	173.3	50.8	20.8	168.9	49.5	168.9	49.5	22.8					
	3776	63	17.2	216.2	63.4	170.0	49.8	16.3	201.1	59.0	163.9	48.0	18.6	186.5	54.7	158.2	46.4	20.9	176.4	51.7	163.5	47.9	22.9					
	0.13	65	18.3	226.0	66.2	154.8	45.4	16.5	210.6	61.7	149.0	43.7	18.9	194.9	57.1	143.1	41.9	21.1	183.7	53.8	146.4	42.9	22.9					
	9000	61	16.1	208.8	61.2	196.1	57.5	16.1	195.0	57.2	190.5	55.8	18.5	181.2	53.1	181.2	53.1	20.8	170.9	50.1	170.9	50.1	22.8					
	4248	63	17.2	218.1	63.9	179.5	52.6	16.3	203.3	59.6	173.7	50.9	18.7	188.9	55.4	168.1	49.3	21.0	178.2	52.2	173.1	50.7	22.9					
	0.14	65	18.3	228.3	66.9	163.0	47.8	16.6	212.2	62.2	156.9	46.0	18.9	196.8	57.7	151.1	44.3	21.1	185.5	54.4	154.4	45.2	23.0					
52070 + 52078	8000	61	16.1	226.5	66.4	193.2	56.6	18.3	210.1	61.6	186.2	54.6	21.0	194.0	56.9	179.6	52.6	23.7	179.2	52.5	173.5	50.9	26.0					
	3776	63	17.2	236.8	69.4	178.3	52.3	18.6	220.1	64.5	171.6	50.3	21.3	202.8	59.4	164.6	48.2	24.0	187.2	54.9	158.4	46.4	26.2					
	0.13	65	18.3	244.5	71.7	162.0	47.5	18.8	229.4	67.2	156.2	45.8	21.6	212.5	62.3	149.7	43.9	24.2	195.7	57.4	143.4	42.0	26.4					
	9000	61	16.1	228.6	67.0	204.3	59.9	18.4	212.4	62.2	197.6	57.9	21.1	196.4	57.6	191.1	56.0	23.8	181.7	53.2	181.7	53.2	26.1					
	4248	63	17.2	239.8	70.3	188.1	55.1	18.7	222.0	65.1	181.0	53.1	21.4	204.9	60.1	174.3	51.1	24.0	189.5	55.5	168.4	49.4	26.2					
	0.14	65	18.3	248.6	72.9	170.6	50.0	19.0	232.5	68.1	164.6	48.2	21.7	214.1	62.8	157.7	46.2	24.3	197.7	57.9	151.5	44.4	26.4					
	10000	61	16.1	230.6	67.6	215.2	63.1	18.5	214.5	62.9	208.7	61.2	21.2	198.5	58.2	198.5	58.2	23.8	183.7	53.8	183.7	53.8	26.1					
	4719	63	17.2	241.2	70.7	197.2	57.8	18.8	223.7	65.6	190.3	55.8	21.4	206.8	60.6	183.8	53.9	24.1	191.6	56.1	178.1	52.2	26.3					
	0.15	65	18.3	251.9	73.8	178.9	52.4	19.1	233.8	68.5	172.1	50.4	21.7	215.7	63.2	165.3	48.5	24.3	199.3	58.4	159.4	46.7	26.5					
52075 + 52080	8500	61	16.1	243.7	71.4	205.6	60.3	21.1	224.8	65.9	197.6	57.9	23.8	206.8	60.6	190.1	55.7	26.4	193.6	56.7	184.7	54.1	28.8					
	4012	63	17.2	252.8	74.1	189.1	55.4	21.4	235.9	69.1	182.3	53.4	24.2	216.4	63.4	174.4	51.1	26.7	202.4	59.3	168.9	49.5	28.9					
	0.13	65	18.3	260.9	76.5	171.9	50.4	21.7	244.0	71.5	165.4	48.5	24.4	227.0	66.5	158.9	46.6	26.9	-	-	-	-	-					
	9500	61	16.1	247.2	71.9	218.2	63.4	21.2	226.8	66.5	208.7	61.2	23.9	209.0	61.3	201.4	59.0	26.5	195.9	57.4	195.9	57.4	28.8					
	4484	63	17.2	256.6	75.2	199.1	58.4	21.6	237.4	69.6	191.5	56.1	24.2	218.3	64.0	183.9	53.9	26.7	204.5	59.9	178.6	52.3	28.9					
	0.14	65	18.3	264.9	77.6	180.3	52.9	21.9																				

GROSS CAPACITY RATINGS

SCRR + RCA - 60Hz

Model SCRR + RCA	AFR		EWB	Condenser Entering Air Temperature																						
	cfm																									
		95°F (35°C)						105°F (40.8°C)						115°F (46.1°C)						125°F (51.7°C)						
		Total Capacity		Sensible Capacity		PI*	Total Capacity		Sensible Capacity		PI*	Total Capacity		Sensible Capacity		PI*	Total Capacity		Sensible Capacity		PI*					
(BPF)	°F	°C	MBh	kW	MBh	kW	kW	MBh	kW	MBh	kW	kW	MBh	kW	MBh	kW	kW	MBh	kW	MBh	kW	kW				
61018 + 61023	1800	61	16.1	55.4	16.2	43.9	12.9	4.7	52.4	15.4	42.6	12.5	5.3	48.7	14.3	41.1	12.0	6.1	45.0	13.2	39.6	11.6	6.7			
	850	63	17.2	57.1	16.7	40.5	11.9	4.7	54.1	15.9	39.2	11.5	5.4	50.9	14.9	37.9	11.1	6.1	47.5	13.9	36.6	10.7	6.7			
	0.2	65	18.3	59.0	17.3	37.0	10.9	4.7	55.9	16.4	35.8	10.5	5.4	52.7	15.4	34.5	10.1	6.1	49.6	14.5	33.3	9.8	6.7			
	2200	61	16.1	57.0	16.7	48.2	14.1	4.7	53.2	15.6	46.6	13.7	5.4	49.4	14.5	45.1	13.2	6.1	45.9	13.5	43.7	12.8	6.7			
	1038	63	17.2	58.8	17.2	44.2	12.9	4.7	55.6	16.3	42.9	12.6	5.4	52.0	15.2	41.5	12.2	6.1	48.2	14.1	40.0	11.7	6.7			
	0.2	65	18.3	60.7	17.8	40.1	11.8	4.7	57.5	16.9	38.9	11.4	5.4	54.2	15.9	37.7	11.0	6.1	50.8	14.9	36.4	10.7	6.8			
	2600	61	16.1	57.5	16.9	51.9	15.2	4.7	53.8	15.8	50.4	14.8	5.4	50.1	14.7	48.9	14.3	6.1	46.6	13.7	46.6	13.7	6.7			
	1227	63	17.2	60.0	17.6	47.6	14.0	4.7	56.6	16.6	46.3	13.6	5.4	52.5	15.4	44.7	13.1	6.1	48.8	14.3	43.3	12.7	6.7			
	0.3	65	18.3	62.0	18.2	43.1	12.6	4.7	58.7	17.2	41.8	12.3	5.4	55.3	16.2	40.5	11.9	6.1	51.3	15.0	39.1	11.5	6.8			
	2000	61	16.1	65.0	19.0	52.4	15.3	5.3	60.6	17.8	50.4	14.8	6.0	56.1	16.4	48.5	14.2	6.7	52	15.2	47	13.7	7.4			
61020 + 61028	944	63	17.2	67.1	19.7	48.2	14.1	5.3	63.3	18.6	46.7	13.7	6.0	59.1	17.3	44.9	13.2	6.7	54.6	16.0	43.1	12.6	7.4			
	0.12	65	18.3	69.2	20.3	44.1	12.9	5.4	65.5	19.2	42.6	12.5	6.1	61.6	18.1	41.0	12.0	6.8	57.5	16.8	39.4	11.6	7.4			
	2500	61	16.1	66.1	19.4	58.0	17.0	5.3	61.8	18.1	56.2	16.5	6.0	57.5	16.9	54.4	15.9	6.7	53.4	15.6	52.7	15.5	7.4			
	1180	63	17.2	69.4	20.4	53.5	15.7	5.4	64.8	19.0	51.7	15.1	6.0	60.2	17.6	49.8	14.6	6.8	55.8	16.4	48.1	14.1	7.4			
	0.14	65	18.3	71.8	21.0	48.5	14.2	5.4	67.8	19.9	47.0	13.8	6.1	63.2	18.5	45.3	13.3	6.8	58.4	17.1	43.5	12.7	7.5			
	3000	61	16.1	67.1	19.7	63.4	18.6	5.3	62.8	18.4	61.7	18.1	6.0	58.6	17.2	58.6	17.2	6.7	54.4	16.0	54.4	16.0	7.4			
	1416	63	17.2	70.3	20.6	58.0	17.0	5.4	65.7	19.2	56.3	16.5	6.1	61.2	17.9	54.5	16.0	6.8	56.9	16.7	52.9	15.5	7.4			
	0.15	65	18.3	73.5	21.5	52.7	15.4	5.4	68.8	20.2	50.9	14.9	6.1	63.9	18.7	49.1	14.4	6.8	59.2	17.4	47.4	13.9	7.5			
	2600	61	16.1	81.4	23.9	67.3	19.7	6.7	76.2	22.3	65.0	19.1	7.7	71.0	20.8	62.9	18.4	8.7	66.1	19.4	60.8	17.8	9.6			
	1227	63	17.2	85.4	25.0	62.5	18.3	6.8	79.9	23.4	60.2	17.6	7.8	74.3	21.8	57.9	17.0	8.8	69.1	20.3	55.8	16.4	9.6			
61025 + 61030	0.11	65	18.3	88.3	25.9	57.0	16.7	6.9	83.4	24.5	55.1	16.1	7.9	78.0	22.9	52.9	15.5	8.9	72.4	21.2	50.8	14.9	9.7			
	3200	61	16.1	83.1	24.4	74.5	21.8	6.7	78.0	22.9	72.4	21.2	7.7	72.9	21.4	70.3	20.6	8.8	68.0	19.9	68.0	19.9	9.6			
	1510	63	17.2	87.1	25.5	68.5	20.1	6.9	81.5	23.9	66.3	19.4	7.9	76.0	22.3	64.1	18.8	8.8	70.9	20.8	62.2	18.2	9.7			
	0.12	65	18.3	91.3	26.8	62.6	18.3	7.0	85.2	25.0	60.3	17.7	8.0	79.4	23.3	58.0	17.0	8.9	73.9	21.7	56.0	16.4	9.7			
	3600	61	16.1	84.2	24.7	79.2	23.2	6.8	79.1	23.2	77.1	22.6	7.8	73.9	21.7	73.9	21.7	8.8	69.0	20.2	69.0	20.2	9.6			
	1699	63	17.2	87.9	25.8	72.5	21.2	6.9	82.4	24.2	70.3	20.6	7.9	77.0	22.6	68.2	20.0	8.9	71.9	21.1	66.3	19.4	9.7			
	0.13	65	18.3	92.0	27.0	65.8	19.3	7.1	86.0	25.2	63.5	18.6	8.0	80.2	23.5	61.3	18.0	8.9	-	-	-	-	-			
	3200	61	16.1	102.4	30.0	82.8	24.3	8.1	95.8	28.1	79.9	23.4	9.2	88.7	26.0	76.8	22.5	10.4	82.2	24.1	74.1	21.7	11.5			
	1510	63	17.2	105.7	31.0	76.2	22.3	8.2	99.8	29.3	73.8	21.6	9.3	93.3	27.4	71.1	20.8	10.5	86.3	25.3	68.2	20.0	11.5			
	0.12	65	18.3	109.2	32.0	69.6	20.4	8.3	103.2	30.2	67.2	19.7	9.4	96.9	28.4	64.8	19.0	10.6	90.9	26.6	62.4	18.3	11.6			
61030 + 61040	3750	61	16.1	104.0	30.5	89.0	26.1	8.1	97.0	28.4	86.1	25.2	9.3	90.1	26.4	83.2	24.4	10.4	83.7	24.5	80.6	23.6	11.5			
	1770	63	17.2	108.4	31.8	82.0	24.0	8.2	102.0	29.9	79.4	23.3	9.4	94.4	27.7	76.4	22.4	10.5	87.6	25.7	73.7	21.6	11.6			
	0.14	65	18.3	112.0	32.8	74.5	21.8	8.3	105.7	31.0	72.1	21.1	9.5	99.3	29.1	69.6	20.4	10.7	92.0	27.0	66.9	19.6	11.7			
	4300	61	16.1	105.0	30.8	94.9	27.8	8.2	98.1	28.8	92.1	27.0	9.3	91.3	26.8	89.3	26.2	10.5	84.9	24.9	84.9	24.9	11.5			
	2029	63	17.2	110.3	32.3	87.4	25.6	8.3	102.8	30.1	84.4	24.7	9.4	95.4	28.0	81.5	23.9	10.6	88.7	26.0	79.0	23.1	11.6			
	0.15	65	18.3	114.1	33.4	79.1	23.2	8.4	107.7	31.6	76.7	22.5	9.5	100.1	29.3	73.8	21.6	10.7	92.9	27.2	71.1	20.8	11.7			
	4000	61	16.1	123.7	36.2	102.3	30.0	9.2	115.1	33.7	98.6	28.9	10.7	106.6	31.2	95.0	27.8	12.1	98.7	28.9	91.7	26.9	13.5			
	1888	63	17.2	129.1	37.8	94.6	27.7	9.4	120.9	35.4	91.2	26.7	10.8	111.6	32.7	87.5	25.6	12.2	103.2	30.3	84.1	24.6	13.5			
	0.11	65	18.3	133.5	39.1	86.4	25.3	9.5	125.7	36.9	83.3	24.4	10.9	117.3	34.4	80.0	23.4	12.3	108.3	31.7	76.5	22.4	13.5			
	4500	61	16.1	124.9	36.6	108.1	31.7	9.3	116.6	34.2	104.6	30.7	10.7	108.1	31.7	101.1	29.6	12.2	100.2	29.4	97.9	28.7	13.5			
61037 + 61050	2124	63	17.2	131.2	38.5	99.9	29.3	9.4	122.0	35.8	96.2	28.2	10.8	113.0	33.1	92.6	27.1	12.3	104.7	30.7	89.3	26.2	13.5			
	0.12	65	18.3	136.1	39.9	90.9	26.7	9.5	128.1	37.5	87.8	25.7	11.0	118.3	34.7	84.1	24.7	12.4	109.5	32.1	80.8	23.7	13.6			
	5000	61	16.1	126.2	37.0	113.9	33.4	9.3	117.9	34.6	110.5	32.4	10.7	109.5	32.1	107.0	31.4	12.2	101.5	29.8	101.5	29.8	13.5			
	2360	63	17.2	132.2	38.7	104.7	30.7	9.4	123.1	36.1	101.1	29.6	10.8	114.2	33.5	97.6	28.6	12.3	106.0	31.1	94.4	27.7	13.5			
	0.13	65	18.3	138.2	40.5	95.4	28.0	9.6	128.9	37.8	91.8	26.9	11.0	119.3	35.0	88.2	25.9	12.4	110.6	32.4	84.9	24.9	13.6			
	4000	61	16.1	117.2	34.4	99.5	29.2	9.2	109.9	32.2	96.4	28.3	10.6	102.6	30.1	93.3	27.4	12.0	95.6	28.0	90.4	26.5	13.3			
	1888	63	17.2	123.3	36.1	92.2	27.0	9.3	115.3	33.8	88.9	26.1	10.7	107.3	31.5	85.7	25.1	12.1	100.0	29.3	82.8	24.3	13.4			
	0.11	65	18.3	127.7	37.4	84.1	24.6	9.4	120.9	35.4	81.4	23.9	10.8	112.7	33.0	78.2	22.9	12.2	104.7	30.7	75.2	22.0	13.4			
	4500	61	16.1	118.6	34.8	105.5	30.9	9.3	111.4	32.7	102.5	30.0	10.6	104.1	30.5	99.4	29.1	12.0	97.1	28.5	96.6	28.3	13.3			
	2124	63	17.2	124.3	36.4	97.1	28.5	9.3	116.5	34.1	94.0	27.5	10.7	108.7	31.9	90.9	26.6	12.1	101.5	29.8	88.1	25.8	13.4			
62037 + 62050	0.12	65	18.3	130.2	38.2	88.7	26.0	9.4	122.2	35.8	85.6	25.1	10.8	113.8	33.3	82.4	24.2	12.2	106.0	31.1	79.5	23.3	13.4			
	5000	61	16.1	120																						

GROSS CAPACITY RATINGS

SCRR + RCA - 60Hz

Model SCRR + RCA	AFR		EWB	Condenser Entering Air Temperature																												
	cfm	95°F (35°C)									105°F (40.6°C)						115°F (46.1°C)						125°F (51.7°C)									
		l/s			Total Capacity			Sensible Capacity			PI*			Total Capacity			Sensible Capacity			PI*			Total Capacity			Sensible Capacity			PI*			
		(BPF)		°F	°C	MBh	kW	MBh	kW	kW	MBh	kW	MBh	kW	kW	MBh	kW	MBh	kW	kW	MBh	kW	MBh	kW	kW	MBh	kW	MBh	kW	kW		
61042 + 61055	4500	61	16.1	138.4	40.6	113.9	33.4	10.5	128.4	37.6	109.6	32.1	12.1	118.5	34.7	105.4	30.9	13.8	109.2	32.0	101.6	29.8	15.3									
	2124	63	17.2	143.4	42.0	104.9	30.8	10.7	134.8	39.5	101.4	29.7	12.3	124.3	36.4	97.1	28.5	13.9	114.3	33.5	93.1	27.3	15.4									
	0.12	65	18.3	148.1	43.4	95.7	28.1	10.8	139.3	40.8	92.2	27.0	12.4	130.2	38.2	88.7	26.0	14.0	119.8	35.1	84.7	24.8	15.5									
	5000	61	16.1	139.4	40.9	119.5	35.0	10.6	129.6	38.0	115.3	33.8	12.1	119.8	35.1	111.3	32.6	13.8	110.6	32.4	107.5	31.5	15.3									
	2360	63	17.2	145.7	42.7	110.2	32.3	10.7	136.0	39.9	106.3	31.1	12.3	125.4	36.7	102.0	29.9	13.9	115.5	33.9	98.1	28.8	15.4									
	0.13	65	18.3	150.6	44.1	100.1	29.4	10.8	141.6	41.5	96.7	28.3	12.4	131.4	38.5	92.8	27.2	14.1	120.8	35.4	88.8	26.0	15.5									
	5500	61	16.1	140.5	41.2	125.0	36.6	10.6	130.7	38.3	121.0	35.5	12.2	121.0	35.5	117.0	34.3	13.8	111.8	32.8	111.8	32.8	15.3									
	2596	63	17.2	147.6	43.3	115.2	33.8	10.8	136.9	40.1	111.0	32.5	12.3	126.4	37.0	106.8	31.3	13.9	116.6	34.2	103.0	30.2	15.4									
	0.14	65	18.3	152.7	44.7	104.4	30.6	10.9	143.5	42.1	101.0	29.6	12.5	132.2	38.8	96.7	28.3	14.1	121.7	35.7	92.8	27.2	15.5									
62042 + 62055	4500	61	16.1	131.2	38.5	110.8	32.5	10.7	122.4	35.9	107.0	31.4	12.1	113.8	33.4	103.4	30.3	13.5	105.6	30.9	100.1	29.3	14.9									
	2124	63	17.2	137.2	40.2	102.4	30.0	10.8	128.6	37.7	98.9	29.0	12.2	119.3	35.0	95.1	27.9	13.6	110.5	32.4	91.6	26.9	14.9									
	0.12	65	18.3	141.8	41.6	93.2	27.3	10.8	134.0	39.3	90.1	26.4	12.2	125.4	36.7	86.8	25.4	13.7	115.8	34.0	83.2	24.4	15.0									
	5000	61	16.1	132.3	38.8	116.5	34.1	10.7	123.7	36.3	112.9	33.1	12.1	115.2	33.8	109.4	32.1	13.5	107.0	31.4	106.0	31.1	14.9									
	2360	63	17.2	139.0	40.7	107.5	31.5	10.8	129.6	38.0	103.7	30.4	12.2	120.5	35.3	100.1	29.3	13.6	111.8	32.8	96.7	28.3	14.9									
	0.13	65	18.3	144.1	42.2	97.6	28.6	10.9	136.1	39.9	94.6	27.7	12.3	126.3	37.0	90.9	26.6	13.7	116.9	34.3	87.3	25.6	15.0									
	5500	61	16.1	133.4	39.1	122.1	35.8	10.7	124.9	36.6	118.6	34.8	12.1	116.4	34.1	115.1	33.7	13.6	108.2	31.7	108.2	31.7	14.9									
	2596	63	17.2	139.8	41.0	112.1	32.9	10.8	130.6	38.3	108.5	31.8	12.2	121.6	35.6	105.0	30.8	13.6	113.0	33.1	101.7	29.8	14.9									
	0.14	65	18.3	146.1	42.8	101.9	29.9	10.9	136.9	40.1	98.5	28.9	12.3	127.1	37.3	94.8	27.8	13.7	117.8	34.5	91.3	26.8	15.0									
62052 + 62058	5500	61	16.1	164.8	48.3	140.0	41.0	13.6	154.5	45.3	135.6	39.7	15.6	144.2	42.3	131.3	38.5	17.6	134.5	39.4	127.2	37.3	19.3									
	2596	63	17.2	172.7	50.6	129.5	38.0	13.8	161.4	47.3	124.9	36.6	15.8	150.5	44.1	120.4	35.3	17.7	140.4	41.1	116.4	34.1	19.4									
	0.10	65	18.3	180.6	52.9	118.7	34.8	14.1	169.1	49.6	114.2	33.5	15.1	157.3	46.1	109.6	32.1	17.9	-	-	-	-	-									
	6500	61	16.1	168.1	49.3	152.5	44.7	13.7	157.8	46.3	148.2	43.5	15.7	147.5	43.2	144.0	42.2	17.7	137.6	40.3	137.6	40.3	19.4									
	3068	63	17.2	175.5	51.4	140.0	41.0	13.9	164.5	48.2	135.6	39.7	15.9	153.7	45.0	131.3	38.5	17.8	143.5	42.1	127.3	37.3	19.4									
	0.11	65	18.3	183.5	53.8	127.4	37.3	14.2	171.5	50.3	122.8	36.0	16.1	159.9	46.9	118.5	34.7	18.0	-	-	-	-	-									
	7500	61	16.1	171.1	50.1	164.7	48.3	13.8	160.6	47.1	160.5	47.0	15.8	150.2	44.0	150.2	44.0	17.7	140.2	41.1	140.2	41.1	19.4									
	3540	63	17.2	178.1	52.2	150.3	44.0	14.0	167.2	49.0	146.0	42.8	16.0	156.3	45.8	141.8	41.6	17.9	-	-	-	-	-									
	0.12	65	18.3	185.5	54.4	135.8	39.8	14.3	173.8	50.9	131.4	38.5	16.2	162.3	47.6	127.1	37.3	18.0	-	-	-	-	-									
62064 + 62082	7000	61	16.1	209.2	61.3	175.3	51.4	16.3	195.4	57.3	169.4	49.7	18.5	181.6	53.2	163.6	48.0	20.9	168.9	49.5	158.4	46.4	23.0									
	3304	63	17.2	219.0	64.2	162.3	47.6	16.5	205.0	60.1	156.5	45.9	18.8	190.1	55.7	150.5	44.1	21.0	176.6	51.8	145.1	42.5	23.1									
	0.12	65	18.3	226.3	66.3	147.8	43.3	16.6	213.6	62.6	142.8	41.9	19.0	199.7	58.5	137.4	40.3	21.3	185.1	54.3	131.9	38.6	23.3									
	8000	61	16.1	211.7	62.1	186.9	54.8	16.3	198.1	58.1	181.3	53.1	18.6	184.5	54.1	175.7	51.5	20.9	171.8	50.3	170.5	50.0	23.0									
	3776	63	17.2	222.1	65.1	172.4	50.5	16.6	207.2	60.7	166.4	48.8	18.8	192.7	56.5	160.6	47.1	21.1	179.4	52.6	155.4	45.5	23.2									
	0.13	65	18.3	231.1	67.7	156.8	46.0	16.8	217.2	63.7	151.5	44.4	19.1	201.6	59.1	145.6	42.7	21.3	187.4	54.9	140.3	41.1	23.4									
	9000	61	16.1	214.1	62.7	198.3	58.1	16.4	200.6	58.8	192.8	56.5	18.6	186.9	54.8	186.9	54.8	21.0	174.1	51.0	174.1	51.0	23.1									
	4248	63	17.2	223.9	65.6	181.8	53.3	16.6	209.3	61.3	176.0	51.6	18.9	194.9	57.1	170.5	50.0	21.2	181.8	53.3	165.5	45.5	23.2									
	0.14	65	18.3	234.6	68.8	165.4	48.5	16.8	218.8	64.1	159.4	46.7	19.1	203.4	59.6	153.6	45.0	21.4	189.5	55.5	148.5	43.5	23.4									
62073 + 62086	8000	61	16.1	240.1	70.4	199.0	58.3	19.2	222.6	65.2	191.5	56.1	22.1	205.6	60.3	184.4	54.0	25.0	190.3	55.8	178.0	52.2	27.4									
	3776	63	17.2	248.4	72.8	183.1	53.7	19.4	233.5	68.4	177.0	51.9	22.3	215.8	63.2	169.8	49.8	25.2	199.4	58.4	163.2	47.8	27.5									
	0.13	65	18.3	256.5	75.2	166.8	48.9	19.6	241.4	70.7	160.8	47.1	22.6	226.0	66.2	154.8	45.4	25.4	209.6	61.4	148.7	43.6	27.6									
	9000	61	16.1	241.9	70.9	209.9	61.5	19.2	224.8	65.9	202.8	59.4	22.1	208.1	61.0	195.9	57.4	25.0	192.9	56.5	189.7	55.6	27.5									
	4248	63	17.2	252.8	74.1	193.4	56.7	19.5	235.9	69.1	186.6	54.7	22.4	217.8	63.8	179.4	52.6	25.2	201.7	59.1	173.1	50.7	27.6									
	0.14	65	18.3	261.1	76.5	175.5	51.4	19.7	245.6	72.0	169.5	49.7	22.7	228.6	67.0	163.1	47.8	25.4	211.5	62.0	156.7	45.9	27.6									
	10000	61	16.1	243.7	71.4	220.6	64.7	19.3	226.8	66.5	213.7	62.6	22.2	210.2	61.6	207.0	60.7	25.1	195.0	57.2	195.0	57.2	27.5									
	4719	63	17.2	255.9	75.0	203.0	59.5	19.6	237.4	69.6	195.7	57.4	22.4	219.6	64.4	188.7	55.3	25.3	203.8	59.7	182.7	53.5	27.6									
	0.15	65	18.3	264.8	77.6	183.8	53.9	19.8	248.9	73.0	177.8	52.1	22.8	230.0	67.4	170.7	50.0	25.5	213.2	62.5	164.4	48.2	27.6									
62080 + 62088	8500	61	16.1	259.7	76.1	212.5	62.3	22.7	241.4	70.7	204.6	60.0	26.0	221.9	65.0	196.4	57.6	29.1	204.2	59.9	189.1	55.4	31.8									
	4012	63	17.2	267.7	78.5	195.3	57.2	23.0	251.0	73.6	188.4	55.2	26.3	233.1	68.3	181.2	53.1	29.4	214.1	62.7	173.5	50.9	32.0									
	0.13	65	18.3	276.2	80.9	178.0	52.2	23.2	259.2	76.0	171.3	50.2	26.5	242.0	70.9	164.6	48.2	29.7	-	-	-	-	-									
	9500	61	16.1	263.3	77.2	223.9	65.6	22.8	243.2	71.3	215.4	63.1	26.0	224.0	65.7	207.5	60.8	29.2	206.6	60.6	200.4	58.7	31.9									
	4484	63	17.2	272.0	79.7	205.4	60.2	23.1	254.9	74.7	198.4	58.2	26.4																			

FAN PERFORMANCE

SCRR

Model SCRR	AirFlowRate		External Static Pressure - in.wg (Pa)					
			0 (0)		0.2 (50)		0.4 (100)	
	cfm	l/s	RPM	kW	RPM	kW	RPM	kW
51017 / 61018	1800	850	1482	0.38	1549	0.43	1615	0.45
	2200	1038	1745	0.57	1800	0.63	1854	0.69
	2600	1227	2031	0.83	2071	0.89	2177	0.97
51020 / 61020	2000	944	1614	0.47	1671	0.52	1730	0.58
	2500	1180	1955	0.75	2001	0.82	2049	0.89
	3000	1416	2311	1.19	2350	1.28	2390	1.36
51024 / 61025	2600	1227	1917	0.67	1956	0.73	2001	0.79
	3200	1510	2312	1.10	2342	1.17	2377	1.25
	3600	1699	2572	1.53	2609	1.63	2639	1.72
51030 / 61030	3200	1510	1292	0.73	1330	0.80	1378	0.90
	3750	1770	1472	1.03	1510	1.13	1551	1.25
	4300	2029	1669	1.48	1700	1.59	1736	1.72
51036 / 61037	4000	1888	1460	0.93	1508	1.07	1545	1.17
	4500	2124	1636	1.29	1664	1.40	1687	1.48
	5000	2360	1794	1.68	1826	1.82	1888	2.11
52036 / 62037	4000	1888	1460	0.93	1508	1.07	1545	1.17
	4500	2124	1636	1.29	1664	1.40	1687	1.48
	5000	2360	1794	1.68	1826	1.82	1888	2.11
51042 / 61042	4500	2124	1636	1.29	1664	1.40	1687	1.48
	5000	2360	1794	1.68	1826	1.82	1888	2.11
	5500	2596	1938	2.12	1952	2.21	-	-
52042 / 62042	4500	2124	1636	1.29	1664	1.40	1687	1.48
	5000	2360	1794	1.68	1826	1.82	1888	2.11
	5500	2596	1938	2.12	1952	2.21	-	-
52048 / 62052	5500	2596	1984	1.44	2031	1.58	2075	1.70
	6500	3068	2307	2.14	2348	2.32	2383	2.48
	7500	3540	2647	3.28	2673	3.42	2680	3.50
52063 / 62064	7000	3304	1340	1.54	1386	1.76	1430	1.96
	8000	3776	1517	2.18	1545	2.34	1584	2.58
	9000	4248	1669	2.82	1710	3.12	1744	3.38
52070 / 62073	8000	3776	1517	2.18	1545	2.34	1584	2.58
	9000	4248	1669	2.82	1710	3.12	1744	3.38
	10000	4719	1855	3.90	1880	4.14	1911	4.42
52075 / 62080	8500	4012	1584	2.42	1627	2.72	1663	2.96
	9500	4484	1770	3.40	1794	3.60	1827	3.88
	10300	4861	1896	4.14	1931	4.46	-	-

Table 19

FAN PERFORMANCE

SCRW

Model SCRW	AirFlowRate		External Static Pressure - in.wg (Pa)					
			0 (0)		0.2 (50)		0.4 (100)	
	cfm	l/s	RPM	kW	RPM	kW	RPM	kW
51016 / 61016	1800	850	1450	0.35	1509	0.40	1576	0.46
	2200	1038	1718	0.51	1767	0.59	1821	0.65
	2600	1227	1985	0.77	2040	0.85	2087	0.92
51021 / 61021	2000	944	1644	0.50	1692	0.54	1751	0.60
	2500	1180	1979	0.79	2036	0.87	2084	0.94
	3000	1416	2351	1.28	2399	1.38	2439	1.48
51024 / 61024	2800	1321	2015	0.74	2058	0.81	2100	0.88
	3200	1510	2277	1.03	2319	1.12	2355	1.20
	3600	1699	2555	1.48	2587	1.57	2635	1.71
51028 / 61028	2800	1321	2056	0.81	2094	0.87	2135	0.94
	3200	1510	2312	1.10	2359	1.21	2394	1.29
	3600	1699	2602	1.61	2627	1.68	2695	1.77
51036 / 61036	3600	1699	1316	0.70	1358	0.79	1402	0.89
	4500	2124	1611	1.21	1645	1.33	1678	1.45
	5000	2360	1779	1.62	1807	1.74	1839	1.88
51047 / 61047	4000	1888	1479	0.99	1517	1.09	1555	1.20
	4600	2171	1682	1.42	1714	1.54	1748	1.67
	5200	2454	1885	1.99	1912	2.12	1941	2.26
51050 / 61050	5500	2596	1965	1.38	2005	1.50	2048	1.62
	6500	3068	2290	2.06	2326	2.22	2360	2.38
	7000	3304	2463	2.58	2490	2.74	2522	2.90
51058 / 61058	7000	3304	1324	1.22	1360	1.64	1404	1.84
	8000	3776	1479	1.98	1522	2.22	1556	2.44
	9000	4248	1653	2.70	1690	2.98	1717	3.18
51080 / 61080	8000	3776	1536	2.30	1567	1.24	1602	2.70
	9000	4248	1703	3.08	1737	3.34	1771	3.60
	10000	4719	1885	4.18	1912	4.40	-	-
51100 / 61100	10000	4719	1348	2.46	1742	2.76	1885	3.90
	11000	5191	1471	3.15	1507	3.42	1548	3.75
	12000	5663	1593	1.32	1625	4.26	1663	4.62

Table 20

ELECTRICAL DATA

SCRR & RCA

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

Model SCRR	Unit Characteristic		Indoor Unit								Outdoor Unit				
			Compressor			Evaporator Fan Motor		Heater		Humidifier		Model RCA	Condenser Fan Motor		
	MFA	MCA	QTY	RLA	LRA	QTY	FLA	kW	FLA	kW	FLA		Qty	FLA	LRA
51017	50	36	1	12	74	1	3.3	6.0	9.9	3.75	5.4	51022	1	2.3	5.5
51020	63	38	1	14	101	1	3.3	6.0	9.9	3.75	5.4	51026	1	2.3	5.5
51024	63	41	1	16	95	1	3.3	6.0	9.9	3.75	5.4	51028	1	2.3	5.5
51030	80	49	1	20	118	1	3.7	6.0	9.9	3.75	5.4	51037	2	2.3	5.5
51036	80	55	1	21	118	1	3.7	7.5	12.4	6.0	8.7	51046	2	2.3	5.5
52036	80	56	2	12	74	1	3.7	7.5	12.4	6.0	8.7	52046	2	2.3	5.5
51042	100	61	1	25	140	1	3.7	7.5	12.4	6.0	8.7	51052	2	2.3	5.5
52042	80	60	2	14	101	1	3.7	7.5	12.4	6.0	8.7	52052	2	2.3	5.5
52048	100	76	2	16	95	2	3.3	10.5	17.4	7.5	10.8	52055	2	2.3	5.5
52063	125	88	2	20	118	2	3.7	10.5	17.4	7.5	10.8	52074	3	2.3	5.5
52070	125	102	2	21	118	2	3.7	15.0	24.9	11.25	16.2	52078	3	2.3	5.5
52075	160	112	2	25	140	2	3.7	15.0	24.9	11.25	16.2	52080	3	2.3	5.5

Table 21

Power Supply: 380~400V/3PH/60Hz

Model SCRR	Unit Characteristic		Indoor Unit								Outdoor Unit				
			Compressor			Evaporator Fan Motor		Heater		Humidifier		Model RCA	Condenser Fan Motor		
	MFA	MCA	QTY	RLA	LRA	QTY	FLA	kW	FLA	kW	FLA		Qty	FLA	LRA
61018	50	34	1	10	94	1	3.3	6.0	9.9	3.75	5.4	61023	1	2.9	4.6
61020	50	37	1	12	88	1	3.3	6.0	9.9	3.75	5.4	61028	1	2.9	4.6
61025	63	41	1	16	94	1	3.3	6.0	9.9	3.75	5.4	61030	1	2.9	4.6
61030	80	52	1	21	140	1	3.7	6.0	9.9	3.75	5.4	61040	2	2.9	4.6
61037	100	64	1	26	145	1	3.7	7.5	12.4	6.0	8.7	61050	2	2.9	4.6
62037	80	53	2	10	94	1	3.7	7.5	12.4	6.0	8.7	62050	2	2.9	4.6
61042	100	64	1	26	145	1	3.7	7.5	12.4	6.0	8.7	61055	2	2.9	4.6
62042	80	58	2	12	88	1	3.7	7.5	12.4	6.0	8.7	62055	2	2.9	4.6
62052	100	75	2	16	94	2	3.3	10.5	17.4	7.5	10.8	62058	2	2.9	4.6
62064	125	92	2	21	140	2	3.7	10.5	17.4	7.5	10.8	62082	3	2.9	4.6
62073	160	117	2	26	145	2	3.7	15.0	24.9	11.25	16.2	62086	3	2.9	4.6
62080	160	117	2	26	145	2	3.7	15.0	24.9	11.25	16.2	62088	3	2.9	4.6

Table 22

Legend

- MFA** Maximum Fuse Amps (for fuse/circuit breaker sizing), complies with NEC Article 440-22 & 430-52.
- MCA** Minimum Circuit Amps.(for wire sizing), complies with NEC article 440-33.
- RLA** Rated Load Amps. (at worst operating condition)

- LRA** Locked Rotor Amps
- FLA** Full Load Amps

Note :

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

ELECTRICAL DATA**SCRW***Power Supply: 380~415V/3PH/50Hz**Power Supply: 380~400V/3PH/60Hz*

Model SCRW	Unit Characteristic		Supply Fan Motor		Heater		Humidifier	
	MFA	MCA	QTY	FLA	kW	FLA	kW	FLA
51016 / 61016	32	21	1	3.3	6.0	9.9	3.75	5.4
51021 / 61021	32	21	1	3.3	6.0	9.9	3.75	5.4
51024 / 61024	32	21	1	3.3	6.0	9.9	3.75	5.4
51028 / 61028	32	21	1	3.3	6.0	9.9	3.75	5.4
51036 / 61036	50	28	1	3.7	7.5	12.4	6.0	8.7
51047 / 61047	50	28	1	3.7	7.5	12.4	6.0	8.7
51050 / 61050	63	39	2	3.3	10.5	17.4	7.5	10.8
51058 / 61058	80	55	2	3.7	15.0	24.9	11.25	16.2
51080 / 61080	80	55	2	3.7	15.0	24.9	11.25	16.2
51100 / 61100	100	58	3	3.7	15.0	24.9	11.25	16.2

Table 23**Legend**

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

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

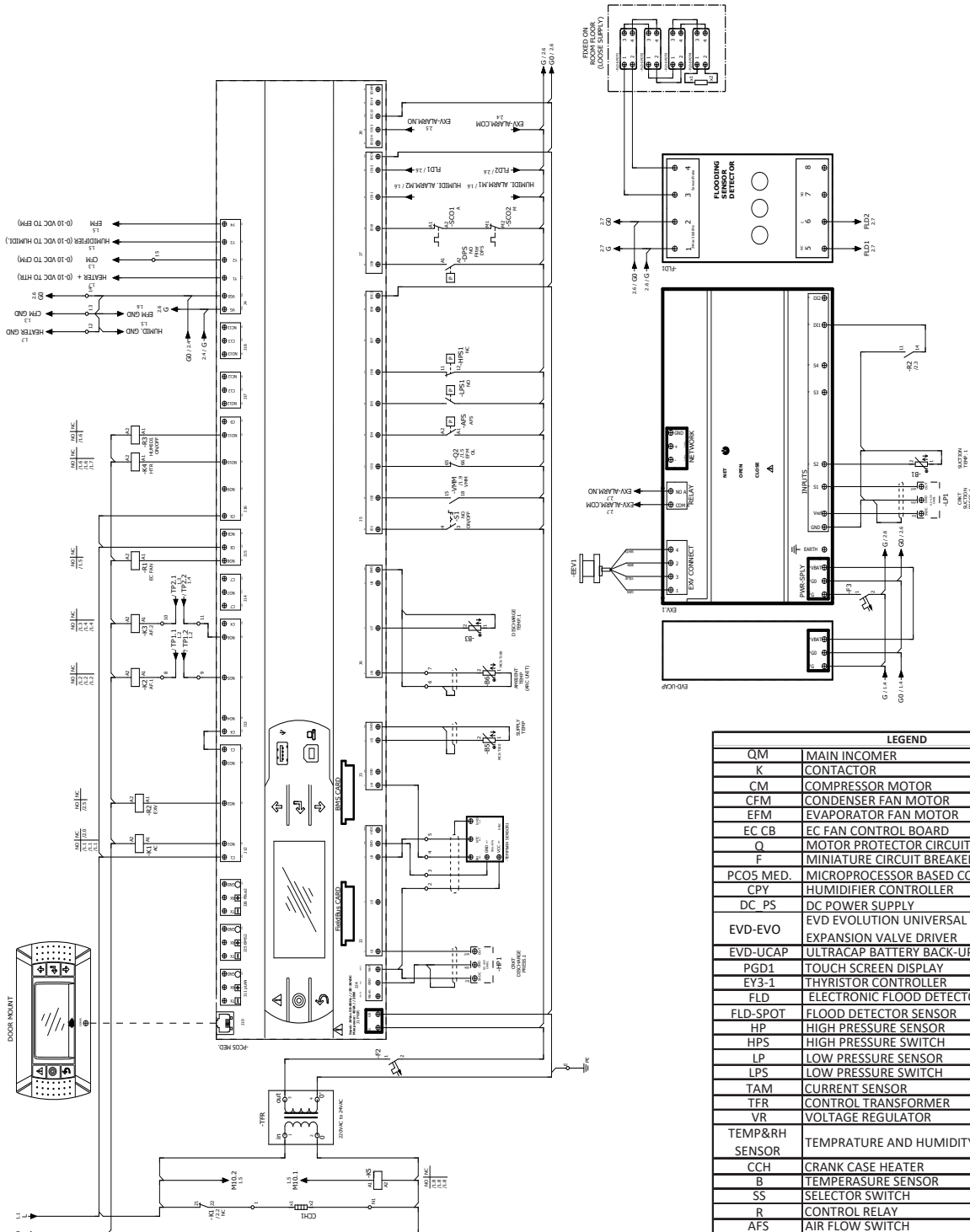
FLA Full Load Amps

Note :

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

Typical Wiring Diagram SCRR + RCA

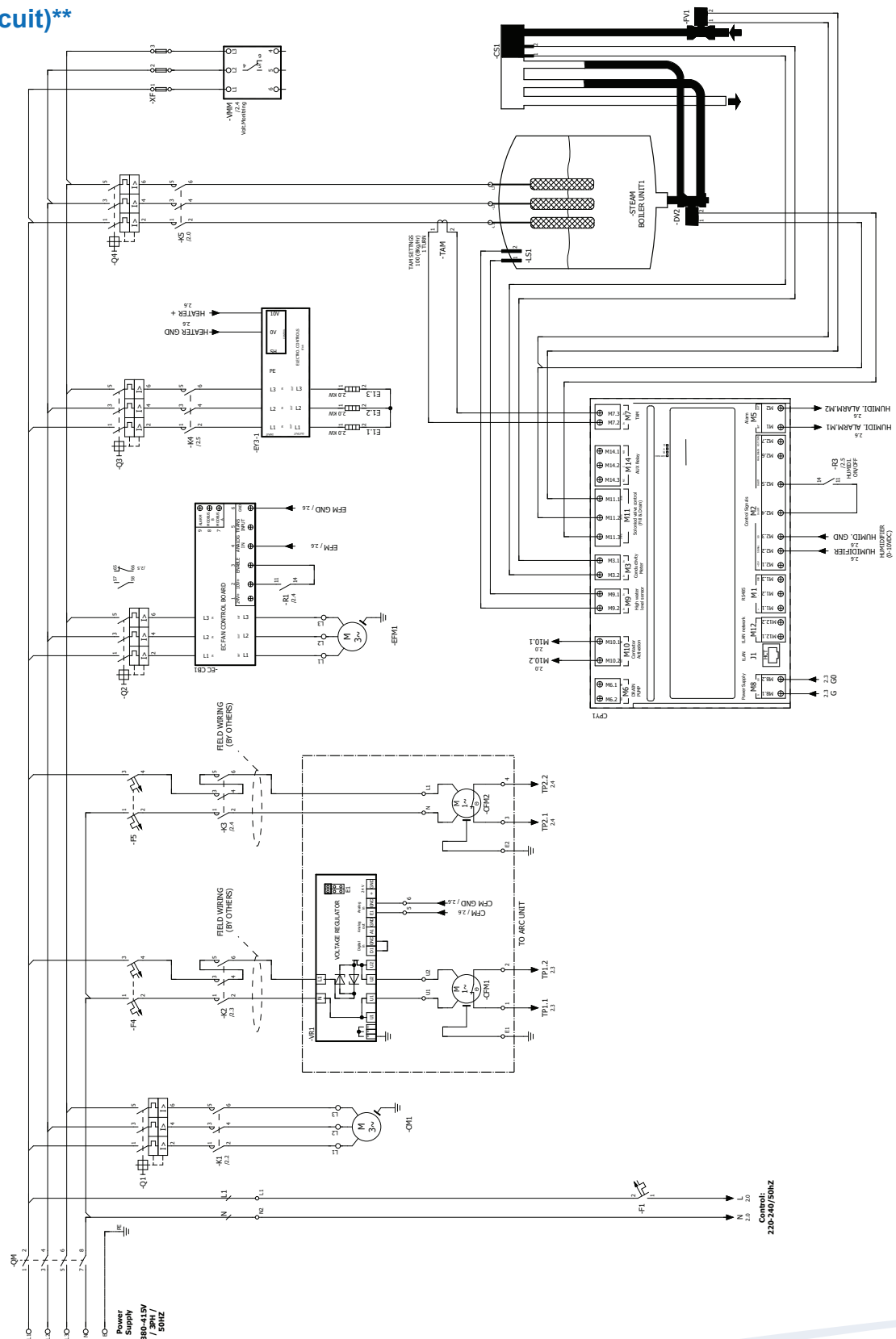
(Single Circuit)**



LEGEND	
QM	MAIN INCOMER
K	CONTACTOR
CM	COMPRESSOR MOTOR
CFM	CONDENSER FAN MOTOR
EFM	EVAPORATOR FAN MOTOR
EC CB	EC FAN CONTROL BOARD
Q	MOTOR PROTECTOR CIRCUIT BREAKER
F	MINIATURE CIRCUIT BREAKER
PCOS MED.	MICROPROCESSOR BASED CONTROLLER
CPY	HUMIDIFIER CONTROLLER
DC PS	DC POWER SUPPLY
EVD-EVO	EVD EVOLUTION UNIVERSAL ELECTRONIC EXPANSION VALVE DRIVER
EVD-UCAP	ULTRACAP BATTERY BACK-UP
PGD1	TOUCH SCREEN DISPLAY
EY3-1	THYRISTOR CONTROLLER
FLD	ELECTRONIC FLOOD DETECTOR
FLD-SPOT	FLOOD DETECTOR SENSOR
HP	HIGH PRESSURE SENSOR
HPS	HIGH PRESSURE SWITCH
LP	LOW PRESSURE SENSOR
LPS	LOW PRESSURE SWITCH
TAM	CURRENT SENSOR
TFR	CONTROL TRANSFORMER
VR	VOLTAGE REGULATOR
TEMP&RH SENSOR	TEMPRATURE AND HUMIDITY SENSOR
CCH	CRANK CASE HEATER
B	TEMPERATURE SENSOR
SS	SELECTOR SWITCH
R	CONTROL RELAY
AFS	AIR FLOW SWITCH
DPS	DIFFERENTIAL PRESSURE SWITCH
S	ON/OFF SWITCH
SCO	SAFETY CUTOUT
X2	CONTROL TERMINALS
XF	POWER CIRCUIT FUSE
VMM	VOLTAGE MONITORING MODULE
EEV	ELECTRONIC EXPANSION VALVE

** Note: Wiring diagram is for reference only, for exact wiring diagram consult SKM.

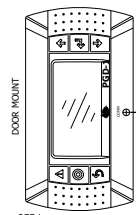
(Single Circuit)**



**** Note:** Wiring diagram is for reference only, for exact wiring diagram consult SKM.

(Two Circuit)**

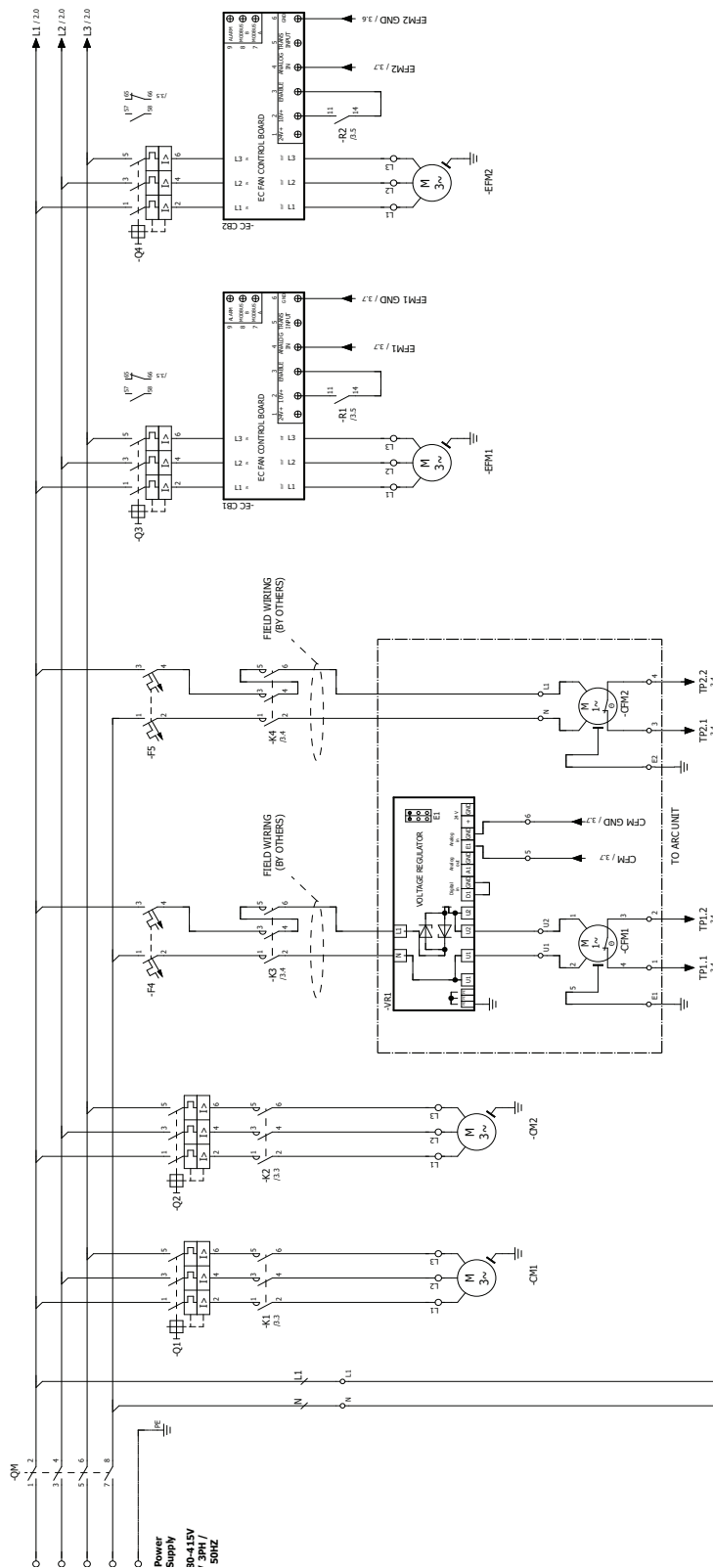
(Two Circuit)**



** Note: Wiring diagram is for reference only, for exact wiring diagram consult SKM.

Typical Wiring Diagram SCRR + RCA

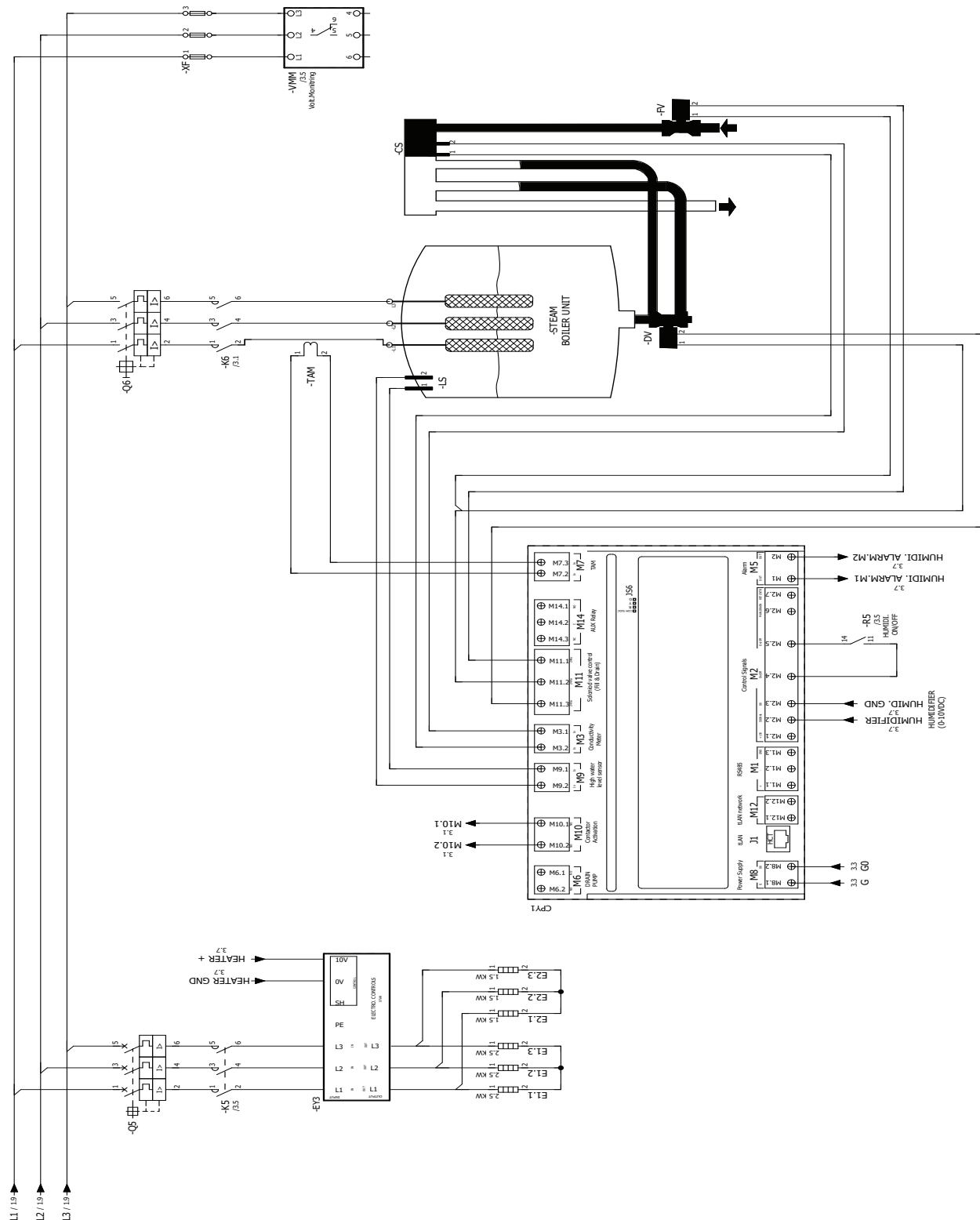
(Two Circuit)**



LEGEND	
QM	MAIN INCOMER
K	CONTACTOR
CM	COMPRESSOR MOTOR
CFM	CONDENSER FAN MOTOR
EFM	EVAPORATOR FAN MOTOR
EC CB	EC FAN CONTROL BOARD
Q	MOTOR PROTECTOR CIRCUIT BREAKER
F	MINIATURE CIRCUIT BREAKER
PCO5 MED.	MICROPROCESSOR BASED CONTROLLER
CPY	HUMIDIFIER CONTROLLER
DC PS	DC POWER SUPPLY
EVD-TWIN	EVD EVOLUTION UNIVERSAL ELECTRONIC EXPANSION VALVE DRIVER
EVD-UCAP	ULTRACAP BATTERY BACK-UP
PGD1	TOUCH SCREEN DISPLAY
EY3-1	THYRISTOR CONTROLLER
FLD	ELECTRONIC FLOOD DETECTOR
FLD-SPOT	FLOOD DETECTOR SENSOR
HP	HIGH PRESSURE SENSOR
HPS	HIGH PRESSURE SWITCH
LP	LOW PRESSURE SENSOR
LPS	LOW PRESSURE SWITCH
TAM	CURRENT SENSOR
TER	CONTROL TRANSFORMER
VR	VOLTAGE REGULATOR
TEMP&RH SENSOR	TEMPERATURE AND HUMIDITY SENSOR
CCH	CRANK CASE HEATER
B	TEMPERATURE SENSOR
SS	SELECTOR SWITCH
R	CONTROL RELAY
AFS	AIR FLOW SWITCH
DPS	DIFFERENTIAL PRESSURE SWITCH
S	ON/OFF SWITCH
SCO	SAFETY CIRCUIT
X2	CONTROL TERMINALS
XF	POWER CIRCUIT FUSE
VMM	VOLTAGE MONITORING MODULE
EEV	ELECTRONIC EXPANSION VALVE

** Note: Wiring diagram is for reference only, for exact wiring diagram consult SKM.

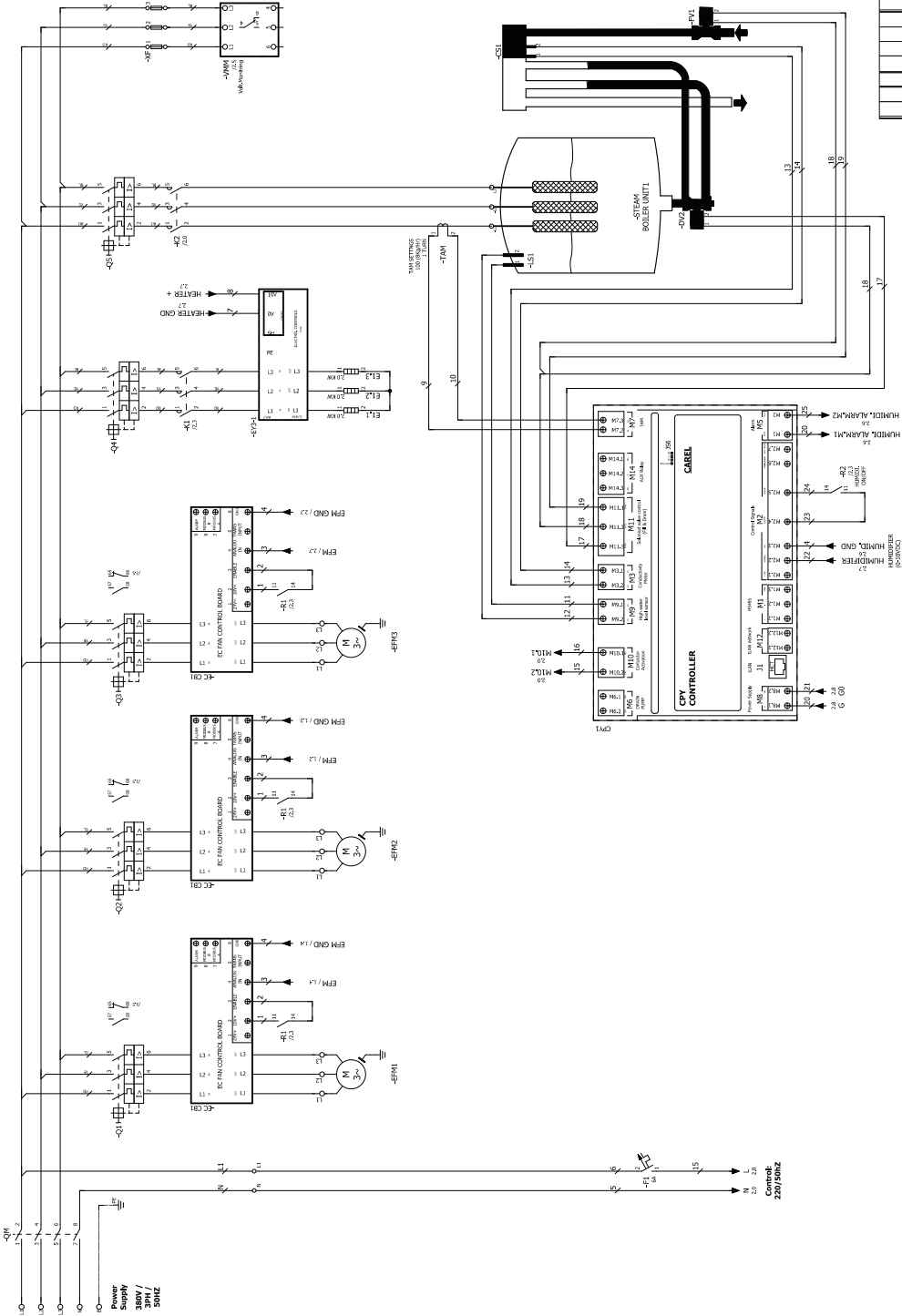
(Two Circuit)**



** Note: Wiring diagram is for reference only, for exact wiring diagram consult SKM.

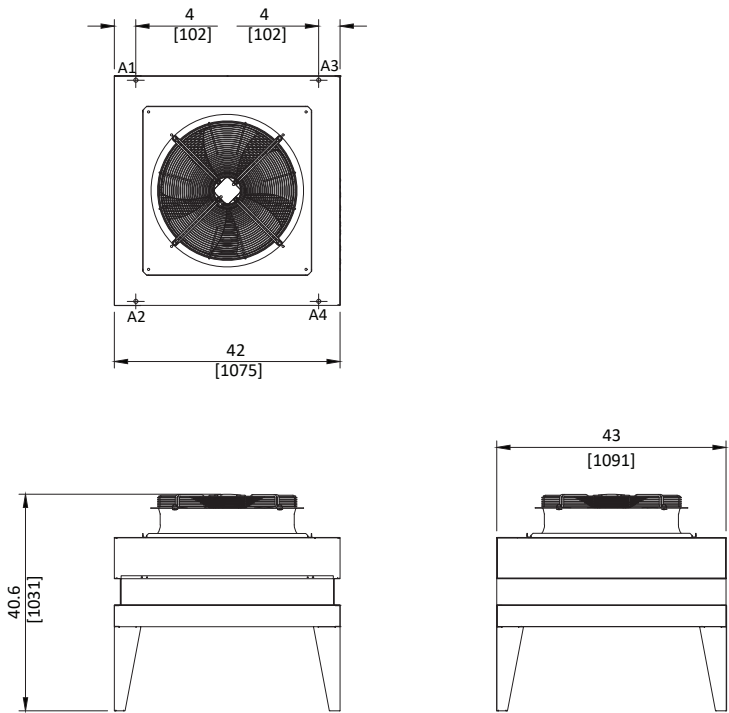
Typical Wiring Diagram
SCRW

LEGEND	
QM	MAIN INCOMER
K	CONTACTOR
EFM	EVAPORATOR FAN MOTOR
Q	MOTOR PROTECTOR CIRCUIT BREAKER
PC05 SML	MICROPROCESSOR BASED CONTROLLER
CPY	HUMIDIFIER CONTROLLER
CHW VALVE	CHILLED WATER VALVE
PGD1	TOUCH SCREEN DISPLAY
EY3-1	THYRISTOR CONTROLLER
FLD	ELECTRONIC FLOOD DETECTOR
TAM	CURRENT SENSOR
TFR	CONTROL TRANSFORMER
TEMP&RH SENSOR	TEMPERATURE AND HUMIDITY SENSOR
B	TEMPERASURE SENSOR
R	CONTROL RELAY
AFS	AIR FLOW SWITCH
DPS	DIFFERENTIAL PRESSURE SWITCH
S	ON/OFF SWITCH
SCO	SAFETY CUTOUT
X2	CONTROL TERMINALS
XF	POWER CIRCUIT FUSE
VMM	VOLTAGE MONITORING MODULE

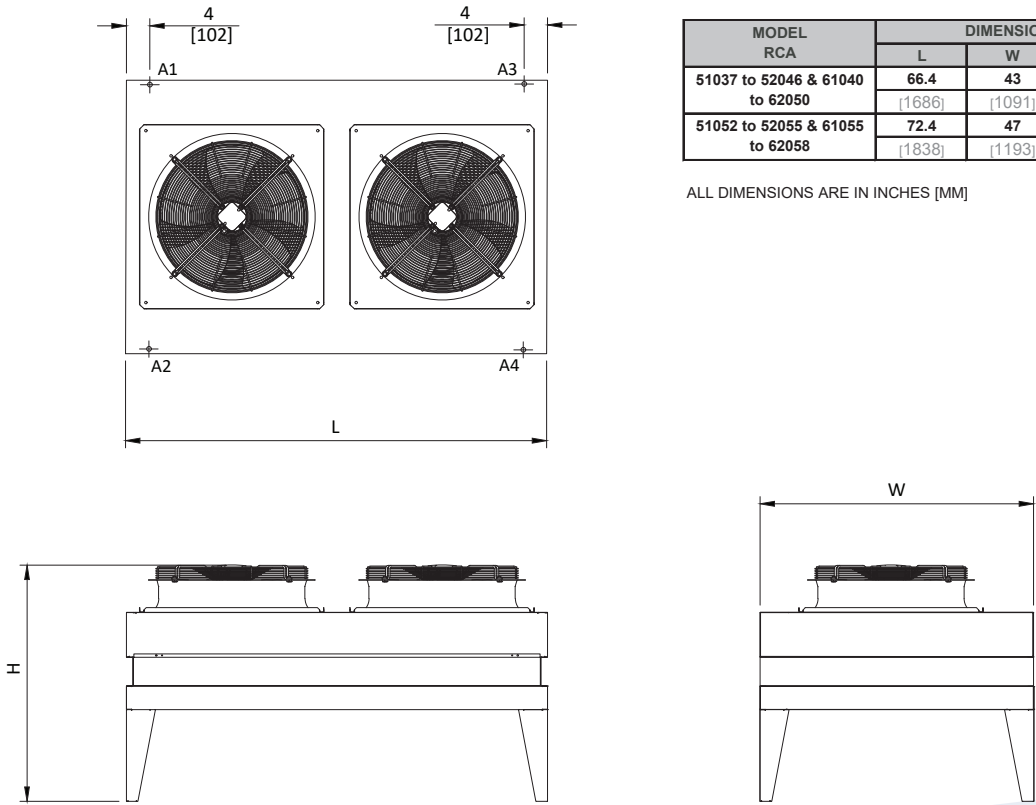


** Note: Wiring diagram is for reference only, for exact wiring diagram consult SKM.

Dimensional Data - Outdoor Unit
RCA Models : 51022 to 51028 & 61023 to 61030



RCA Models : 51037 to 52055 & 61040 to 62058

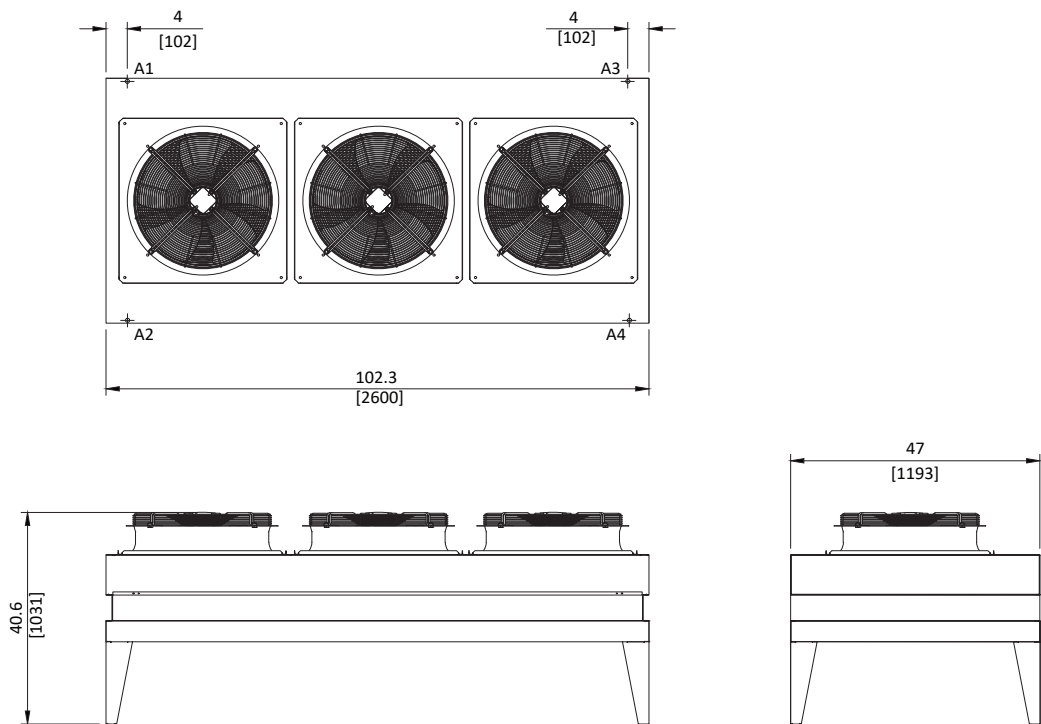


MODEL RCA	DIMENSIONS		
	L	W	H
51037 to 52046 & 61040 to 62050	66.4 [1686]	43 [1091]	40.6 [1031]
51052 to 52055 & 61055 to 62058	72.4 [1838]	47 [1193]	40.6 [1031]

Table 26

ALL DIMENSIONS ARE IN INCHES [MM]

RCA Models : 52074 to 52080 & 62082 to 62088

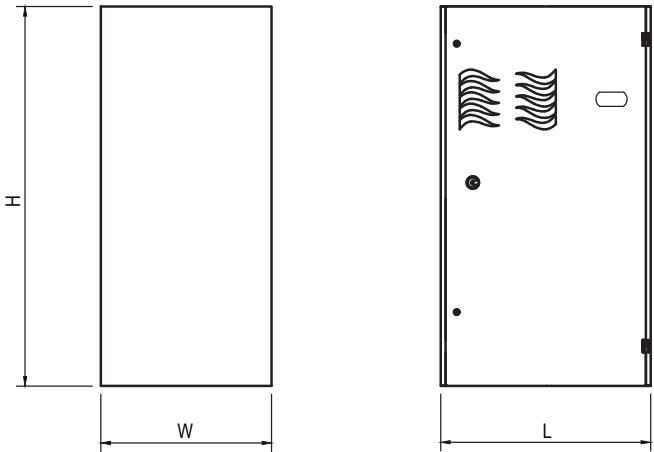
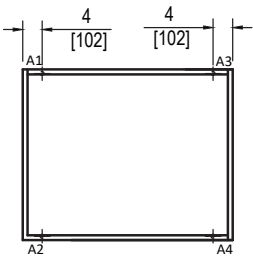


Dimensional Data - Indoor Unit

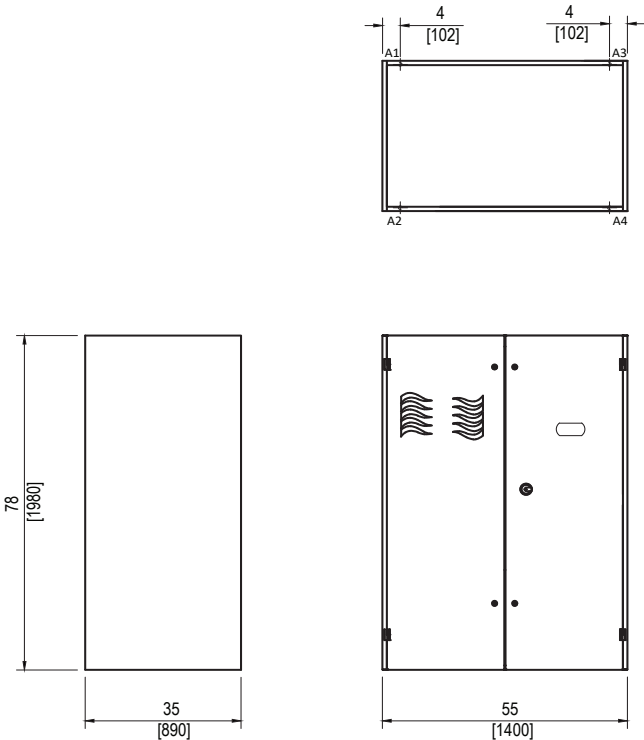
SCRR Models: 51017 to 51030 & 61018 to 61030
SCRW Models: 51016 to 51028 & 61016 to 61028

MODEL SCRW	MODEL SCRR	DIMENSIONS		
		L	W	H
51016 to 51021 & 61016 to 61021	51017 to 51020 & 61018 to 61020	33.2 [842]	35 [890]	78 [1980]
51024 to 51028 & 61024 to 61028	51024 to 51030 & 61025 to 61030	43.2 [1096]	35 [890]	78 [1980]

ALL DIMENSIONS ARE IN INCHES [MM]



SCRR Models: 51036 to 52042 & 61037 to 62042
SCRW Models: 51036 to 51047 & 61036 to 61047

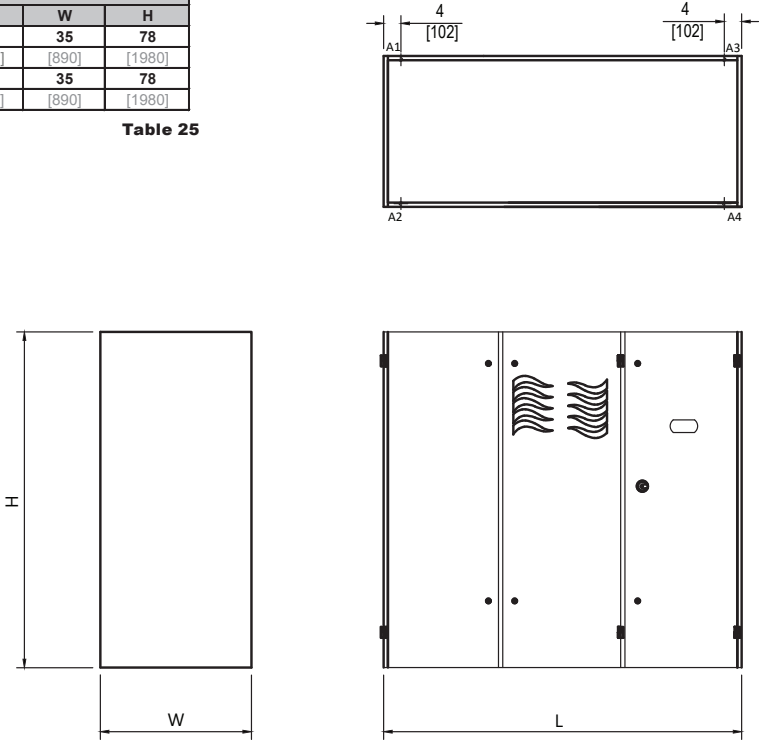


SCRR Models: 52048 to 52075 & 62052 to 62080
SCRW Models: 51050 to 51100 & 61050 to 61100

MODEL SCRW	MODEL SCRR	DIMENSIONS		
		L	W	H
51050 to 51080 & 61050 to 61080	52048 to 52075 & 62052 to 62080	83	35	78
		[2108]	[890]	[1980]
51100 & 61100	-	98.4	35	78
		[2500]	[890]	[1980]

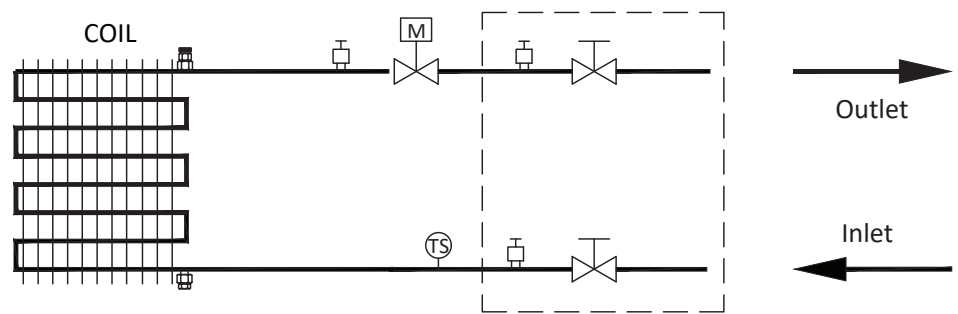
ALL DIMENSIONS ARE IN INCHES [MM]

Table 25

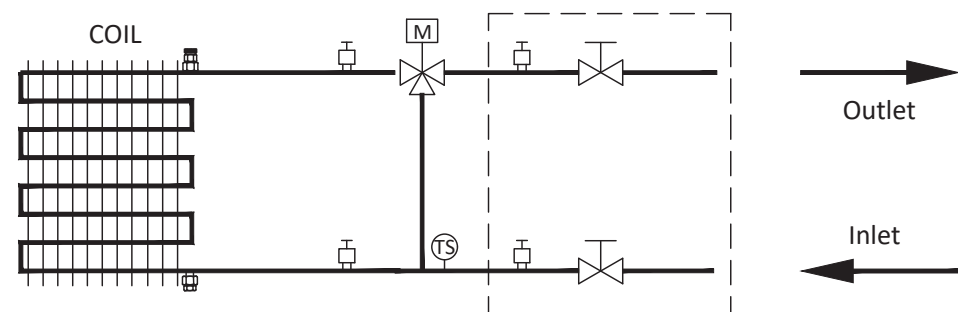


Chilled Water Piping Schematic

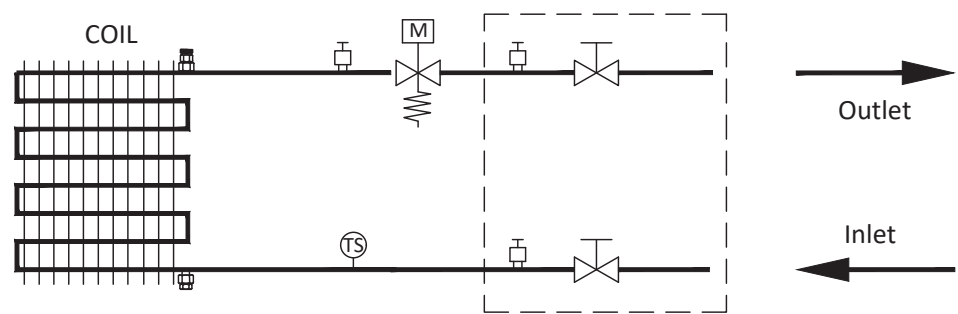
Two-way Motorized Valve (Standard)



Three-way Motorized Valve (Optional)



Pressure Independent Control Valves - PICV (Optional)



Legend:

- | | | | |
|-------------|----------------|--------------------|-------------------------|
| 2 Way Valve | PICV Valve | Temperature Sensor | Coil Automatic Air Vent |
| 3 Way Valve | Shut off Valve | Test Point | Coil Drain Plug |

--- Not Supplied by SKM, but these components to be field supplied and assembled for proper unit operation and maintenance.

Weights and Loading Points

SCRR	UNIT	LOADING POINTS				Total Weight
		A1	A2	A3	A4	
51017 / 61018	lb.	159	229	139	175	703
	kg.	72	104	63	80	319
51020 / 61020	lb.	158	208	148	202	716
	kg.	72	94	67	92	325
51024 / 61025	lb.	192	277	181	267	917
	kg.	87	126	82	121	416
51030 / 61030	lb.	196	284	185	273	939
	kg.	89	129	84	124	426
51036 / 61037	lb.	231	371	210	301	1113
	kg.	105	168	95	137	505
52036 / 62037	lb.	262	491	233	396	1381
	kg.	119	223	106	179	627
51042 / 61042	lb.	234	376	213	305	1128
	kg.	106	171	97	138	512
52042 / 62042	lb.	306	450	260	371	1387
	kg.	139	204	118	168	629
52048 / 62052	lb.	341	691	325	624	1982
	kg.	155	313	148	283	899
52063 / 62064	lb.	442	628	402	576	2048
	kg.	201	285	182	261	929
52070 / 62073	lb.	353	728	335	652	2068
	kg.	160	330	152	296	938
52075 / 62080	lb.	354	738	337	658	2087
	kg.	161	335	153	299	947

Table 27

RCA	UNIT	LOADING POINTS				Total Weight
		A1	A2	A3	A4	
51022 / 61023	lb.	54	54	54	54	217
	kg.	25	25	25	25	98
51026 / 61028	lb.	60	60	60	60	240
	kg.	27	27	27	27	109
51028 / 61030	lb.	61	61	61	61	243
	kg.	28	28	28	28	110
51037 / 61040	lb.	94	94	94	94	374
	kg.	42	42	42	42	170
51046 / 61050	lb.	97	97	97	97	388
	kg.	44	44	44	44	176
52046 / 62050	lb.	97	97	97	97	388
	kg.	44	44	44	44	176
51052 / 61055	lb.	108	108	108	108	431
	kg.	49	49	49	49	196
52052 / 62055	lb.	109	109	109	109	437
	kg.	49	49	50	50	198
52055 / 62058	lb.	110	110	110	110	440
	kg.	50	50	50	50	200
52074 / 62082	lb.	152	152	153	153	610
	kg.	69	69	69	69	277
52078 / 62086	lb.	154	154	154	154	615
	kg.	70	70	70	70	279
52080 / 62088	lb.	154	154	154	154	615
	kg.	70	70	70	70	279

Table 28

SCRW	UNIT	LOADING POINTS				Total Weight
		A1	A2	A3	A4	
51016 / 61016	lb.	135	164	133	158	590
	kg.	61	74	60	72	268
51021 / 61021	lb.	143	174	138	165	618
	kg.	65	79	62	75	280
51024 / 61024	lb.	173	209	167	201	750
	kg.	79	95	76	91	340
51028 / 61028	lb.	184	226	173	209	793
	kg.	84	102	79	95	359
51036 / 61036	lb.	223	275	208	238	944
	kg.	101	125	94	108	428
51047 / 61047	lb.	238	298	217	250	1002
	kg.	108	135	98	113	454
51050 / 61050	lb.	327	386	311	366	1391
	kg.	148	175	141	166	631
51058 / 61058	lb.	330	390	314	370	1404
	kg.	150	177	143	168	637
51080 / 61080	lb.	355	427	328	389	1499
	kg.	161	194	149	176	680
51100 / 61100	lb.	370	444	343	404	1561
	kg.	168	201	156	183	708

Table 29

Sound Data

SCRR & RCA (50Hz)

MODEL	Sound pressure level in dBA ref 2x10 ⁻⁵ Pa @ 2 meter in free field								Overall
	Spectrum per Octave band dB(A) **								
SCRR	63	125	250	500	1k	2k	4k	8k	dBA
51017	22	32	46	47	49	46	43	36	54
51020	25	35	49	50	50	48	46	38	56
51024	28	40	54	56	55	52	48	40	61
51030	33	49	51	53	53	50	45	36	59
51036	32	49	57	57	54	53	48	41	62
52036	32	49	57	57	55	52	48	41	62
51042	35	52	60	60	57	55	51	43	65
52042	35	52	60	60	57	54	50	43	65
52048	31	43	58	59	59	55	51	43	64
52063	31	48	57	57	54	53	49	40	62
52070	34	51	60	59	57	56	51	43	65
52075	36	53	62	61	59	57	53	45	67

** Sound data +/- 2dB(A)

Table 30

MODEL	Sound pressure level in dBA ref 2x10 ⁻⁵ Pa @ 5 meter in free field								Overall
	Spectrum per Octave band dB(A) **								
RCA	63	125	250	500	1k	2k	4k	8k	dBA
51022	56	47	43	43	46	44	39	31	58
51026	56	47	43	43	46	44	39	31	58
51028	56	47	43	43	46	44	39	31	58
51037	59	49	46	46	49	47	42	34	61
51046	59	49	46	46	49	47	42	34	61
52046	59	49	46	46	49	47	42	34	61
51052	59	49	46	46	49	46	42	33	60
52052	59	49	46	46	49	46	42	33	60
52055	59	49	46	46	49	46	42	33	60
52074	61	51	47	47	51	48	43	35	62
52078	61	51	47	47	51	48	43	35	62
52080	61	51	47	47	51	48	43	35	62

Table 31

** Sound data +/- 2dB(A)

Sound Data

SCRR & RCA (60Hz)

MODEL	Sound pressure level in dBA ref 2x10 ⁻⁵ Pa @ 2 meter in free field								Overall
	Spectrum per Octave band dB(A) **								
SCRR	63	125	250	500	1k	2k	4k	8k	dBA
61018	22	32	46	51	49	48	46	38	55
61020	25	35	49	52	50	49	47	39	57
61025	28	40	54	56	55	52	49	41	61
61030	33	49	51	54	53	52	47	38	59
61037	32	49	57	57	55	55	51	41	63
62037	32	49	57	58	55	53	50	42	63
61042	35	52	60	60	58	58	51	44	65
62042	35	52	60	60	57	55	51	43	65
62052	31	43	58	60	59	55	52	44	65
62064	31	48	57	57	55	55	50	42	63
62073	34	51	60	60	58	57	53	44	65
62080	36	53	62	61	59	60	53	46	67

Table 32

** Sound data +/- 2dB(A)

MODEL RCA	Sound pressure level in dBA ref 2x10 ⁻⁵ Pa @ 5 meter in free field								Overall
	Spectrum per Octave band dB(A) **								
	63	125	250	500	1k	2k	4k	8k	
61023	58	49	43	44	45	44	43	34	59
61028	58	49	43	44	45	44	43	34	59
61030	58	49	43	44	45	44	43	34	59
61040	60	52	45	47	48	47	46	37	62
61050	60	52	45	47	48	47	46	37	62
62050	60	52	45	47	48	47	46	37	62
61055	60	52	45	47	48	47	46	37	62
62055	60	52	45	47	48	47	46	37	62
62058	60	52	45	47	48	47	46	37	62
62082	62	53	47	48	50	49	47	39	63
62086	62	53	47	48	50	49	47	39	63
62088	62	53	47	48	50	49	47	39	63

Table 33

** Sound data +/- 2dB(A)

Sound Data

SCRW (50 & 60Hz)

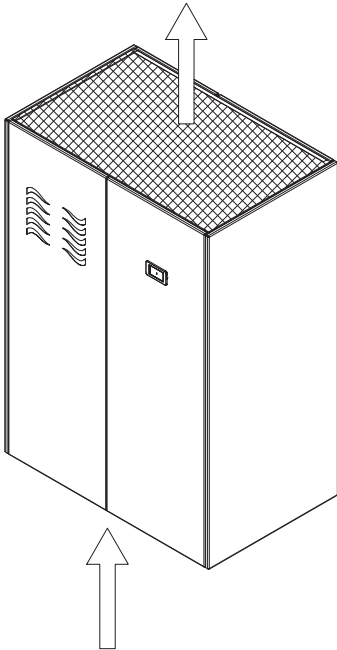
MODEL	Sound pressure level in dBA ref 2x10 ⁻⁵ Pa @ 2 meter in free field								Overall
	Spectrum per Octave band dB(A) **								
	63	125	250	500	1k	2k	4k	8k	
51016 / 61016	22	32	46	47	45	43	40	31	52
51021 / 61021	25	35	49	50	48	46	43	34	55
51024 / 61024	28	40	54	56	55	51	47	39	61
51028 / 61028	28	40	54	56	55	51	47	39	61
51036 / 61036	32	49	57	56	54	51	46	38	62
51047 / 61047	33	50	58	57	55	52	47	39	63
51050 / 61050	31	43	58	59	58	55	50	42	64
51058 / 61058	31	48	57	56	53	51	45	37	61
51080 / 61080	34	51	60	59	56	54	48	40	64
51100 / 61100	36	52	54	56	55	50	43	34	61

Table 34

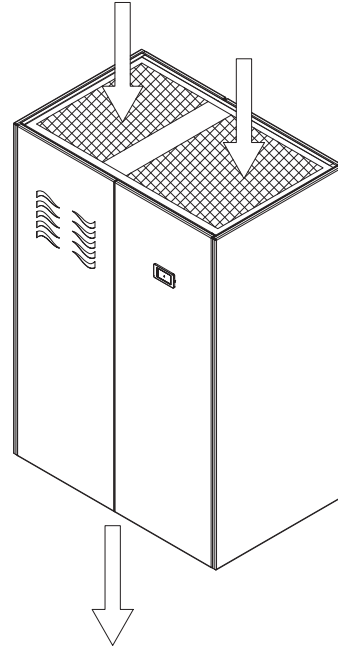
** Sound data +/- 2dB(A)

Unit Configuration

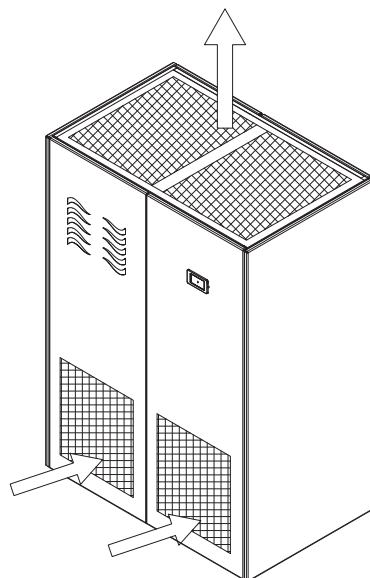
Up Flow - Down Return



Down Flow



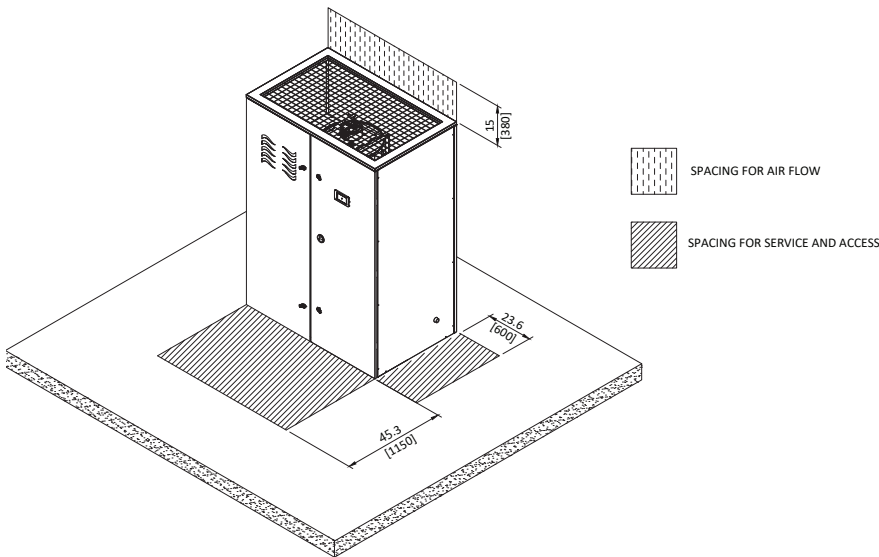
Up Flow - Front Return



Recommended Clearances

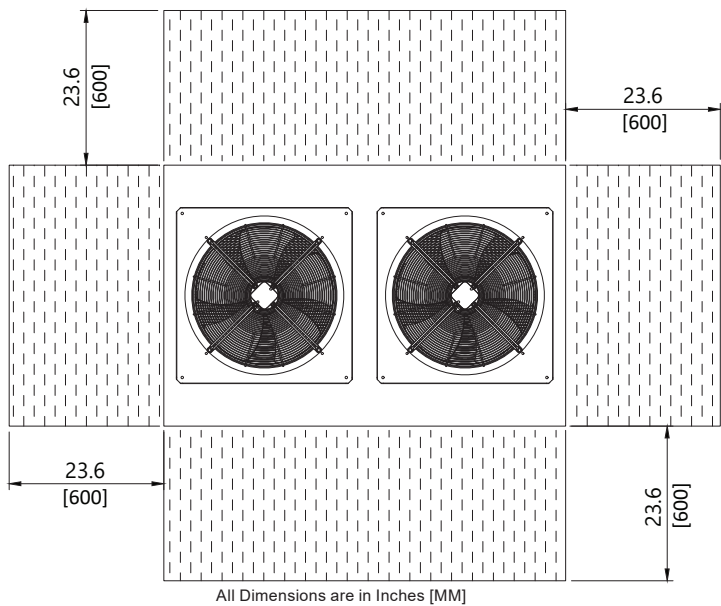
Indoor Unit

Indoor unit minimum required clearance space is as shown following figure.



Outdoor Unit

Outdoor unit minimum required clearance space is as shown following figure.

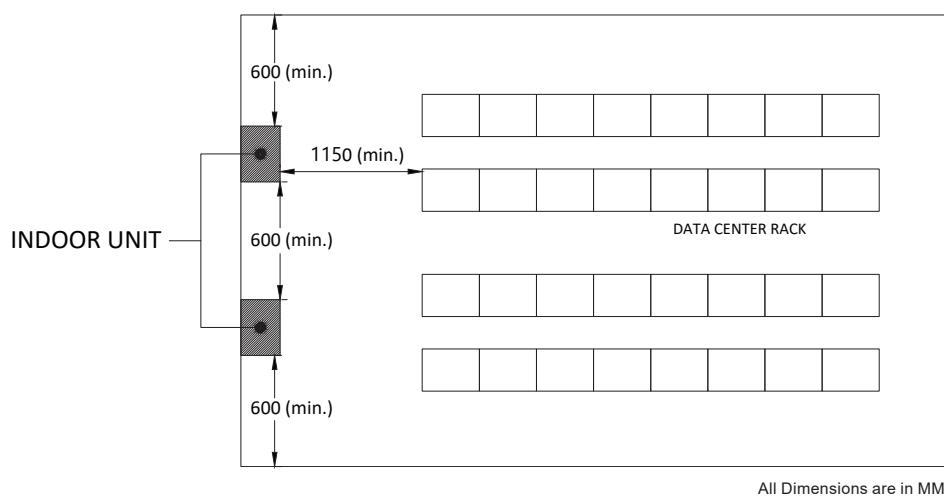


Location and Space Requirements

- Install the unit in such a location which is flat and strong enough to support its weight.
- All field wiring must comply with applicable local and national codes.
- Service spacing should be provided as shown in the figure. If any obstacles are around the unit, distributed air is short-circuited so that the unit stops frequently and access to the unit is difficult for inspection and aftersales services.

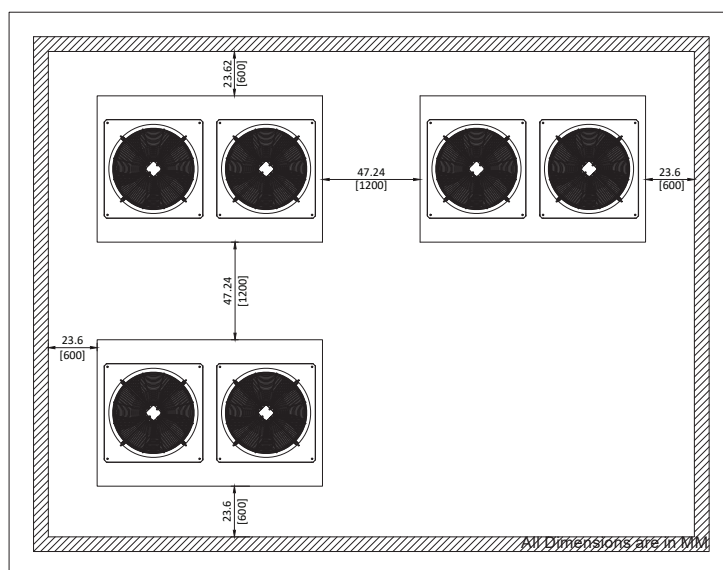
Indoor Unit

It shall be ensured that there is enough space around the installation position of the unit for operation and maintenance. At the same time, it shall be ensured that the air flow is smooth, unobstructed and there is no short circuit. Indoor unit minimum required installation space is shown in the following figure.



Outdoor Unit

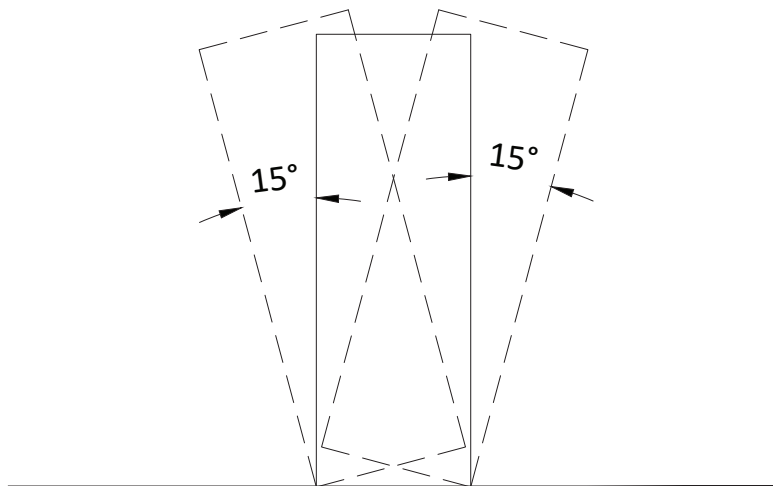
Air-cooled outdoor units minimum installation space is as shown in the following figure.



Note: Above shown installation space are applicable for entire series.

Unit Handling

During the handling of the unit, the balance of the machine body shall be maintained. And the left-right tilt angle of the air conditioner shall not exceed $\pm 15^\circ$ during loading and unloading. As shown in the figure below.



Mechanical handling tools such as forklift shall be selected as much as possible in the process of unloading and handling. The product shall be forked in the middle position to ensure symmetry. Special care shall be taken to prevent dumping during transportation.

GUIDE SPECIFICATIONS

GENERAL

Computer Room Air Conditioner (**CRAC**) can be supplied with Chilled Water or Direct Expansion types. Direct Expansion type CRAC shall have two separate units; indoor unit (**SCRR**) and outdoor unit (**RCA**) connected thru refrigerant piping. **SCRR** shall be composed of compressor(s), evaporator coil, plug fan(s), humidifier, electric heater, electrical components & enclosing cabinet in one piece. **RCA** shall be composed of condenser coil and condenser fan(s) and speed regulator. Chilled Water type **CRAC** shall have one unit (**SCRW**), **SCRW** shall be composed of cooling coil, plug fan(s), humidifier, electric heater, water valve(s), electrical components & enclosing in one piece. These units shall be factory assembled, internally wired, and tested under strict quality standards.

REMOTE CONDENSING UNIT

CONDENSER COIL(S)

Condenser coils shall be air cooled with integral sub cooler, constructed of special inner grooved seamless copper tubes 3/8" OD mechanically expanded into corrugated aluminum fins. These coils shall be tested against leakage by high pressure under water, cleaned & dehydrated at the factory.

CONDENSER FAN(S)

Condenser fans are propeller type with aluminum alloy blades and are directly driven by electric motors. Motors are Totally Enclosed Air Over (TEAO), six pole with Class F insulation and IP54 protection. The TEAO and Class F insulation features ensure long life. Condenser fan shall be provided with speed regulation to ensure smooth operation of the unit at low ambient condition.

CONDENSER FAN SPEED REGULATION

Speed regulation of condenser fan shall be done by using Electronic voltage controller which will vary the fan speed based on discharge pressure reading.

COMPUTER ROOM AIR CONDITIONER

COMPRESSOR(S)

Compressor shall be hermetically sealed, compact high efficiency and low noise scroll type. These compressors are refrigerant gas cooled, furnished with advanced scroll temperature protection or internal motor protection.

EVAPORATOR COIL

Evaporator coil shall be constructed of inner grooved copper tubes 3/8" OD mechanically bonded to aluminum corrugated fins. Coil consists of headers of seamless copper tubing, electronic expansion valve(s) & multi-circuited distributor(s). These coils shall be tested against leakage by 450 psig high pressure under water, cleaned & dehydrated at the factory. Coil shall conform to AHRI-410.

EVAPORATOR FAN & DRIVE

Fans of evaporator shall be high efficient direct driven plug, centrifugal type, driven by EC motor.

FILTER SECTION

SCRR & **SCRW** units shall be provided with 2" thick pleated filter with grade G4 as standard for all models. Filter shall be mounted on the evaporator coil for reduced airside pressure drop.

CASING & STRUCTURE

CRAC unit casing shall be made of zinc coated galvanized steel sheets conforming to JIS-G3302 and ASTM A653 which is phosphatized and baked after an electrostatic powder coat of approximately 60 microns. This finish and coating can pass a 1000 hour in 5% salt spray testing at 95°F (35°C) and 95% relative humidity as per ASTM B117.

SCRR & **SCRW** Panels and casing are insulated with 1" (25mm) thick fiberglass (with BGT coating) thermal and acoustic insulation having density of 2 lb/ft³. (32 kg/m³) and thermal conductivity of 0.23 BTU.in/ft²°Fh (0.033 W/m°K). Insulation meets the requirements of NFPA 90A and 90B for fire resistance.

COOLING COIL (CHILLED WATER)

Cooling coil shall be constructed of plain copper tubes 3/8" OD mechanically bonded to aluminum corrugated fins. Coil consists of headers of seamless copper tubing, water connection (can be solder connection, MPT or flange) and water regulating valve. These coils shall be tested against leakage by 450 psig high pressure under water, cleaned & dehydrated at the factory. Coil shall conform to AHRI-410.

STEAM HUMIDIFIER

Humidifier shall be steam type with immersed electrode, it shall be provided with cleanable cylinder, fill and drain valves, stainless steel distributor and electronic control.

LIQUID RECEIVER

Liquid receiver shall be provided in the liquid line of **SCRR** with rotolock valves on both inlet and outlet.

EXPANSION VALVE

SCRR Expansion valve shall be electronic type for precise control.

GUIDE SPECIFICATIONS

ELECTRIC HEATER

Electric Heater shall be made up of finned heating elements, constructed from high quality 80/20 nickel chrome resistance wire centred in metal tube by compressed magnesium oxide. Helical fins are tightly wound around the tubular heating element.

WATER VALVE

SCRW shall be supplied with two-way motorized valve to regulate the water flow. Three-way & PICV available as an option.

CONTROL PANEL

Control panel shall be fabricated out of heavy gauge sheet steel in phosphatized powder coated baked finish. Access shall be hinged and with lockable handle, and shall be provided for the unit and the control panel. The panel shall be factory wired in accordance with NEC 430 & 440, labelled, tagged and features 220-230V controls.

Below are the standard components which shall be provided in any **SCRW** control panel. (Except compressor, condenser fan and expansions all other features applicable for **SCRW**)

- Isolator on the main incomer.
- Individual contactors for compressors, condenser fan motors, electric heater and humidifier.
- Individual circuit breakers for compressors, condenser fan motors, supply fan motor and electric heater.
- Thyristor for electric heater.
- Microprocessor-based main control board.
- Unit door mounted touch screen graphical display.
- Electronic expansion valve driver, with stand-alone DC power supply.
- Humidifier controller.
- Flood detection module, connected with spot flood sensors at the floor of the room.
- Voltage monitoring module for protection against under voltage, over voltage, phase loss, phase reversal and phase unbalance of the incoming voltage.
- Unit on/off switch.
- Control Relays and control circuit breaker.
- Power and Control terminal blocks.
- All compressors are with DOL start, as standard.

This image shows a full page of white paper with evenly spaced horizontal grey lines, typical of notebook or primary writing paper. There are no margins, text, or other markings present.

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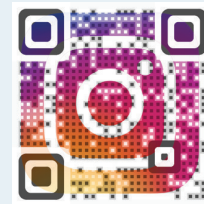
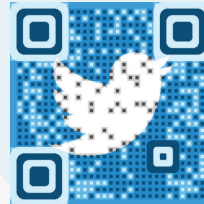
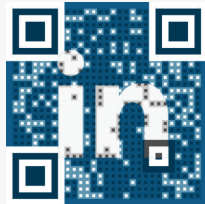
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