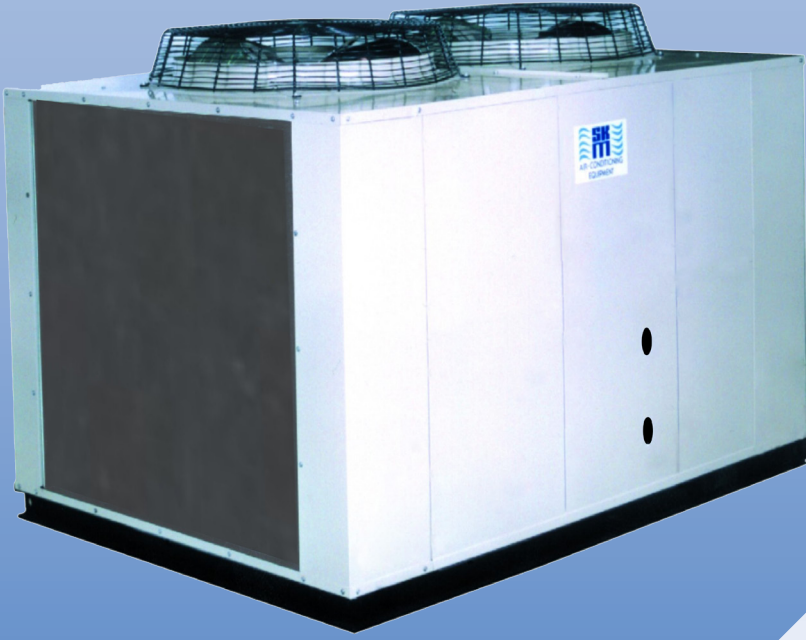


R-22/R-407C

ACUS-Series

Air Cooled Condensing Units



Range 5 TR to 107 TR
(17 kW to 375 kW)



*you name it
we cool it*



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Sharjah Economic Excellence
Award winner

SKM Air Cooled Condensing Units

ACUS Series - R-22 & R-407C

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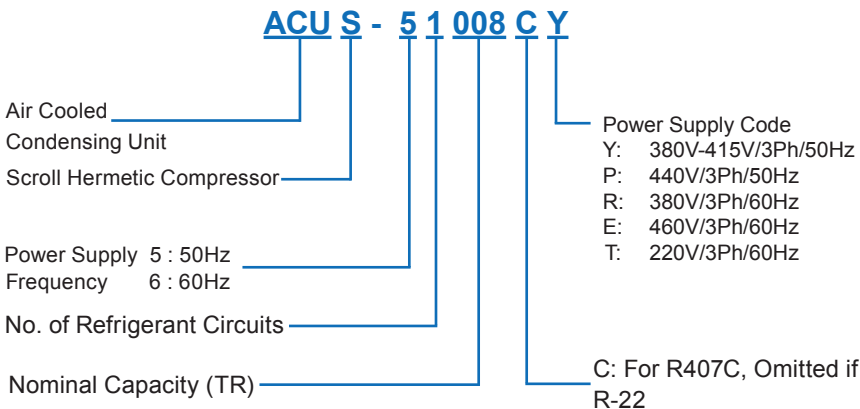
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Legend

The following abbreviations are used throughout this manual:

BPF..... By-pass Factor	MbH.... BTUH x 1000
cfm Cubic feet per minute	Ph Phase
EER Energy Efficiency Ratio	Pa Pascals
Hz Hertz	PD Pressure Drop
inwg Inches of water gauge	PI Power Input
kW Kilowatts	RPM.....Revolutions per Minute
kg kilogram	TR Tons of Refrigeration = 12 MbH
lbs Pounds weight (British units)	V Volt
L/S Liters per second	

Nomenclature



Introduction

SKM **ACUS** series Air cooled condensing unit are designed for the use on systems with indoor units connected to remote condensing units located outside either on ground or on roof level.

SKM **ACUS** units are manufactured to meet the requirements of the gulf severe climatic conditions.

The **ACUS** Air Cooled Condensing unit are ideal for warehouses, large halls, schools, mosques, or wherever the requirement calls for a heavy duty unit with a scroll hermetic compressor.

ACUS series Air cooled condensing unit (Hermetic Scroll) are available in 32 models covering nominal capacity ranges from 5 TR – 107 TR (17 kW to 375 kW) in 50Hz and 60Hz.

ACUS Air Cooled Condensing unit are rated in accordance with AHRI-365.

ACUS series provide efficient operation, wide range of design flexibility coupled with packaged concept requiring least on-site work.

ACUS series Air Cooled Condensing units are used for commercial and industrial applications where high efficient condensing units are needed to match an indoor central station AHUs or coils to get maximum performance advantages of split sytem with reasonable initial cost.

SKM provides qualified service and stock of replacement parts in all major cities of the G.C.C. countries, Egypt, Jordan, and Pakistan. See back cover for details or call SKM.



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

SKM Air Cooled Condensing Units

ACUS Series - R-22 & R-407C

General Features

The complete **ACUS** condensing unit provides an extremely rugged, heavy duty, long-life and energy efficient that will provide higher efficiency over a long and extended life. What makes **ACUS** series the pride of SKM products is the use of :

- High efficiency totally sealed hermetic scroll compressor.
- Totally enclosed, Class F insulated, IP55 protected condenser fan motor.
- Heavy duty condenser optimised in design for long-life maintenance free operation.
- Cabinet construction specifically designed for Gulf climates.
- IP 54 Electrical panel.
- Factory installed, advanced and user friendly microprocessor based control system.
- Interface capability with major BMS protocols (option).

The SKM **ACUS** series air cooled condensing units are durable, dependable, strong, reliable, versatile, quiet and energy efficient. Wherever a heavy duty condensing unit is required, the **ACUS** series should be an automatic choice.

Component Features

Compressor

Compressors used in **ACUS** condensing unit series are hermetically sealed, 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.
- Centrifugal oil pumps with filter and magnet.
- Brazed fittings or Rotalock as options.
- Two refrigerant circuits on larger units provides efficient part load.

Parallel Operation

A parallel compressors installation, with common suction line and common discharge line, give reduced operating cost through greater control of capacity and power consumption. This is achieved by staggering compressor switch-on sequences that allow the parallel system to match its power with the capacity needed. By switching-off individual compressor from parallel installation, while other compressor is operating 100%, the improved part load efficiency can be achieved. The specially developed and adopted oil equalization system ensures correct compressors operation, oil balancing between compressors and reliability.

Condensers

Condenser coils are manufactured of seamless copper tubes mechanically bonded to aluminum fins to ensure optimum heat transfer.



Condenser Coil

All coils are tested against leakage by air pressure of 450 psig (3100 kPa) under water. All standard coils are 3 or 4 rows/14 FPI, 3/8" (9.5 mm) O.D. tubes. An integral subcooling circuit is provided to increase the cooling capacity, without additional operating cost.

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

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

SKM **ACUS** series, all models, are restricted to a 14 FPI (1.8 mm) fin spacing condenser coil. Gulf dust storms and the general level of available maintenance in Gulf countries ensures this condenser coil design shall provide long life and maintenance-free operation with the least possibility of operational blockage on the condenser. Ample condenser surface and sensible air flow across the condenser ensures a low temperature differential between condensing temperature and the high Gulf ambients making the **ACUS** condensing units perform efficiently and durably.

SKM Air Cooled Condensing Units

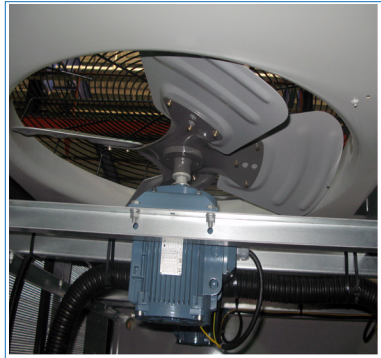
ACUS Series - R-22 & R-407C

Condenser Fans

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

The motors are factory wired, using wires specially selected for high ambient operation, to unit control panel where the motor contactors are located to control the operation of these motors.

The condenser fans are individually statically and dynamically balanced at the factory.



Condenser Fan Motor

Complete fan assembly is provided with suitable acrylic coated fan guard.

Casing/Structure

Designed for ease of handling and low cost to install. The **ACUS** Air cooled condensing Units are factory assembled and mounted on a rigid base. The unit casing used in **ACUS** condensing units is made of zinc coated galvanized steel sheets conforming to JIS-G3302 and ASTM A653 which is phosphatized then baked after an electrostatic powder coat of approximately 60 microns.

This finish and coating pass a 1000 hours in 5% salt spray testing at 95°F (35°C) and 95% relative humidity as per ASTM B117.

The entire assembly comes complete with lifting holes on the base frame for rigging and installation. Access panels are provided for easy service and maintenance.

Options available include hot dipped galvanized base frame and structural members aluminium/stainless steel panels are available, on request, as options.

Refrigerant Charge

Condensing units are shipped with nitrogen holding charge only.

Piping connections

ACUS air Cooled Condensing units piping connections come, as standard, terminated with sealed and soldered copper pipe ends.

Normal installation would require the cutting off (using roller-type tube cutters) of the ends prior to connections being resoldered and connected to the field supplied refrigerant pipework.

Refrigerant Pipe work

SKM **ACUS** series Condensing units are provided with all internal piping, using ACR grade copper tubing, between compressor and condenser.

Loose supplied liquid line refrigerant controls are available as an option for field installation (Please specify CRSP). When this option is ordered, the unit will be supplied with a correctly sized thermostatic expansion valve, liquid line solenoid valve, liquid line sight glass/moisture indicator and filter drier having flared or soldered ends isolatable with one shut-off valve.

Shut-off valve for the other side of the filter drier can be supplied, if option CXFV is specified.

Installation of solenoid valve in the liquid line is recommended by SKM for proper operation of the unit.

Electrical Control Panel

The unit mounted control panel enclosure is fabricated out of heavy gauge sheet steel in phosphatized powder coated baked finish. The enclosure conforms to IP54 as per guidelines in IEC 529.

A hinged access door and key-fastener is provided for easy access and security. The panel is factory wired in accordance with NEC 430 & 440, labelled, tagged and features 220V / 240V controls.

- All compressors are with DOL starting.
- Individual compressor & condenser fan motor contactors.
- Motor protector circuit breaker for condenser fan motors.
- Voltage monitoring module for protection against under voltage, over voltage, phase loss, phase reversal and phase unbalance of the incoming voltage.
- Control circuit breaker.
- Control circuit on/off switch.
- Microprocessor control boards.
- Control Relays.
- Power and control terminal blocks.

SKM Air Cooled Condensing Units

ACUS Series - R-22 & R-407C

Microprocessor Controller



Microprocessor Controller

All **ACUS** series condensing units are equipped with a full function microprocessor based controller as a standard feature. The controller is factory programmed for the control of AHU fan motor, compressors and condenser fans. The controller comes with a built in keypad and display for simple but meaningful man machine interface. This 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 or system if necessary.



Room Unit

The controller comes with a loose supplied sleek and elegant design room unit for installing in the conditioned space. Communication between unit controller and room unit is through two wire interface. **The communication cable should be 2 core, twisted pair, unshielded with stranded conductors (as per KNX specification).** Maximum distance between room unit and controller can be 700 meters. The room unit has a built in sensor for measuring the room temperature. It transmits room temperature, set point, unit operating mode, operating schedule etc. to the unit controller. Control of the compressors is based on room temperature and the set point, as standard. **If unit control needs to be based on duct temperature, please specify during time of order.**

The Main Features of the controller are as follows:

- Built in LCD display with back light.
- Roll & push knob and 3 function buttons.
- Battery backed up built in real time clock.
- Multiple authorization level to provide tight security for the control system.
- Capacity control based on room temperature or return air temperature.
- Alarm history.
- A sleek & elegant design room unit.

Display Information

SKM **ACUS** series condensing units offer LCD display which allows the operator to access different parameters of the unit. Operator can view and change the unit parameters. The display information includes:

- Status
- Outputs
- Inputs
- Alarms
- Set points
- Password



System Control Philosophy

Unit maybe enabled or disabled through the on/off switch in the unit control panel. Control is based on room temperature sensed by room unit, Compressors will be staged based on the set point and actual room temperature. On an increase in room temperature, cooling stages will be added and on a decrease in room temperature, cooling stages will be removed from the system.

System Protection

The intelligent microprocessor based controller monitors all the safeties related to the unit and makes the necessary protections, by shutting down the entire unit or the effected circuit. The protection includes:

- Low suction pressure.
- High discharge pressure.
- High compressor motor temperature. (For compressors with electronic module).
- Compressor short cycling.

BMS Connectivity (Optional)

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

In addition, the **ACUS** microprocessor can support the major BMS protocols such as BACnet, Modbus & LON. Extra hardware may be required depending on the protocol.

Optional Features

Alternative Condenser Material

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

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

Condenser Coil Guard

(CGP)

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

Galvanized Frame And Base

(GFB)

Steel frame and base which are hot dip galvanized after manufacturing process. This is recommended for highly corrosive environments.

Pressure Gauges

(SDG1)

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

Pressure Relief Valve

(PRV)

To protect the unit from being over-pressurized.

SKM Air Cooled Condensing Units

ACUS Series - R-22 & R-407C

Rotalock Valves on compressors (RVC)

For additional facilitation of maintenance of unit.

Condenser Fan with polyglycoat coating (PGF)

To provide protection against corrosion for condenser fans.

Marine Paint (MP)

To provide increased corrosion resistance coastal environments and offshore locations.

Condenser Fan motors with anti-condensation heaters built-in (CFMA)

Where application so requires.

Isolated Condenser Fan Motor (CMS)

For elimination of extraneous noise and vibrations from condenser fan motor, the motors are individually isolated from the frame.

Hot Gas Bypass System (GBP)

With solenoid valve to enable operation of a large sized unit at low loads, like during low ambients due to application requirements. (Highly recommended for 100% fresh air application).

Pump Down Facility (PD)

The compressor will switch off each time with a Pump Down Cycle in order to prevent Liquid refrigerant migration to the compressor during off Cycle periods.

With this option, each circuit will be provided with an additional discharge check valve (if required) to prevent Refrigerant Migration from High side to Low side when the compressor is off.

IP-55 Control Panel (ICP)

Control Panel for special applications to meet IP55 requirements.

Low Ambient Operation Kit (LAO)

For unit operation down to lower than normal gulf ambient. Please specify during the time of order.

Main Isolator (Without door interlock) (ISO)

For main power isolation. (consult SKM)

Control Transformer (CXT)

This option is necessary and available for ACUS models rated for 440V/3PH/50Hz or 460V/3PH/60Hz or power supplies without neutral. When ordering for these voltages, this option must be ordered.

Voltage Monitoring Module as per DEWA (DVM)

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

Circuit Breaker for Compressor (CBC)

For those electrical specification calls for additional over load and short circuit protection.

External Overload Protection (EOP)

For those electrical specification which require additional overload protection for the compressors.

Ammeter & Phase Selector switch (AMPC)

To indicate running AMPS of each compressor.

Ammeter & Phase Selector switch (AMPI)

To indicate running AMPS on main incomer of the unit.

Voltmeter & Selector Switch (VSS)

For incoming line voltage.

Soft Starter (SFS)

To reduce the starting current of compressors using reduced voltage starting method. Compressors will be started using electronic solid state soft starters that will ramp up the speed of the compressors to rated speed within few seconds thus reducing the mechanical & electrical stresses .

Suction Pressure read out Capability (SPC)

Additional transducer in suction line to display suction pressure in microprocessor.

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 if required. For additional requirements, please contact SKM.

BMS Interface thru protocol (BMSP)

For interfacing the units with major BMS protocols such as BACNet, Modbus or LON. Extra hardware may be required depending on the protocol.

UL 1995 (UL-LISTED)

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

Options for Field Installations

Anti-vibration mounts (CAVM)

Recommended for roof mounted units or other locations in the vicinity of occupied spaces, where noise/vibration may be objectionable.

Hi-Lo Gauges (CSDG1)

Without piping or isolating pet cocks.

Liquid Line Controls (CRSP)

Comprises of correctly sized thermostatic expansion valve, suitable solenoid valve, filter drier, sight glass and one number shut-off per circuit

Extra Shut Off Valve(s) (CXFV)

To fully Isolate refrigerant filter drier, additional shut-off valve (s) can be incorporated in the liquid line. Must be ordered, if required, with CRSP option.

Duct Temperature Sensor (DTS)

In order to control the unit based on return / supply air duct temperature.

Special custom built units incorporating specially required features like units with anti-condensation resistance heaters embedded in condenser motors and for off-shore application, special units with stainless steel panels can be manufactured as per customer requirement.

Contact SKM for all such applications or requirements.

SKM Air Cooled Condensing Units ACUS Series - R-22 & R-407C

ENGINEERING SPECIFICATIONS - 50 Hz

Model	ACUS	51005	51007	51008	51009	52010	51012	
Cooling Capacity (1) (R-22)	BTUH	60000	72000	86000	112000	122000	128000	
	W	17585	21102	25205	32825	35756	37515	
Cooling Capacity (2) (R-22)	BTUH	54205	65250	76270	101050	108415	112390	
	W	15887	19124	22353	29616	31775	32940	
Cooling Capacity (1) (R-407C)	BTUH	58000	70000	86000	112000	116000	126000	
	W	16999	20516	25205	32825	33998	36928	
Cooling Capacity (2) (R-407C)	BTUH	49950	60805	74125	96840	99900	107990	
	W	14640	17821	21725	28382	29279	31650	
Compressor	Type	-	Hermetic Scroll Compressor					
	Quantity	-	1	1	1	1	2	1
	Oil Charge per Circuit (A / B)	US Gal	0.47	0.47	0.66	0.86	0.47/0.47	0.86
		Liter	1.77	1.77	2.51	3.25	1.77/1.77	0.86
Condenser Coil	Type	-	Air cooled 3 or 4 rows 14 FPI (1.8mm) fin spacing HIX-Cu tubes Al fins					
	Face Area	ft ²	9.7	12.2	19.4	19.4	19.4	19.4
		m ²	0.9	1.1	1.8	1.8	1.8	1.8
Condenser Fan	Type	-	Propeller direct drive 960 RPM					
	Code / Quantity	-	628/1	723/1	628/2	628/2	628/2	628/2
	Air Flow Rate	cfm	4460	6620	9240	8920	8920	8920
		l/s	2105	3124	4361	4210	4210	4210
Condenser Motor	Type	-	Totally enclosed, air over Class F insulation, 6-pole, IP-55					
	Size / Quantity	kW	0.37/1	0.75/1	0.37/2	0.37/2	0.37/2	0.37/2
Refrigerant (R 22) Operating Charge Per Circuit	lbs	7.70	9.30	9.90	14.40	7.8/7.8	15.70	
	kg	3.5	4.2	4.5	6.5	3.6/3.6	7.1	
Refrigerant (R 407C) Operating Charge Per Circuit	lbs	7.30	8.80	9.40	13.60	6.9/6.9	14.80	
	kg	3.3	4	4.3	6.2	3.1/3.1	6.7	
Number of Refrigerant Circuits	-	1	1	1	1	2	1	
Unit Operating Weight	lbs	537	577	653	753	795	757	
	kg	244	262	296	341	360	343	

Model	ACUS	52013	52015	52019	52024	52025	52028	
Cooling Capacity (1) (R-22)	BTUH	146000	170000	222000	252000	278000	328000	
	W	42790	49824	65064	73857	81477	96131	
Cooling Capacity (2) (R-22)	BTUH	130505	150245	196555	221830	242105	283460	
	W	38249	44034	57607	65015	70957	83077	
Cooling Capacity (1) (R-407C)	BTUH	140000	170000	218000	248000	278000	318000	
	W	41032	49824	63892	72685	81477	93200	
Cooling Capacity (2) (R-407C)	BTUH	121615	145550	187300	212565	236415	273100	
	W	35643	42658	54894	62299	69289	80041	
Compressor	Type	-	Hermetic Scroll Compressor					
	Quantity	-	2	2	2	2	2	
	Oil Charge per Circuit (A / B)	US Gal	0.47/0.47	0.66/0.86	0.86/0.86	0.86/0.86	0.86/0.86	0.86/0.86
		Liter	1.77/1.77	2.51/2.51	3.25/3.25	3.25/3.25	3.25/3.25	3.25/3.25
Condenser Coil	Type	-	Air cooled 3 or 4 rows 14 FPI (1.8mm) fin spacing HIX-Cu tubes Al fins					
	Face Area	ft ²	24.4	26.2	26.2	26.2	35.6	40.0
		m ²	2.3	2.4	2.4	2.4	3.3	3.7
Condenser Fan	Type	-	Propeller direct drive 960 RPM					
	Code / Qty.	-	723/2	723/2	823/2	823/2	823/3	823/3
	Air Flow Rate	cfm	13240	13400	17360	16400	25200	26160
		l/s	6249	6324	8193	7740	11893	12346
Condenser Motor	Type	-	Totally enclosed, air over Class F insulation, 6-pole, IP-55					
	Size / Qty.	kW	0.75/2	0.75/2	1.5/2	1.5/2	1.5/3	1.5/3
Refrigerant (R 22) Operating Charge Per Circuit	lbs	9.5/9.5	9.9/9.9	9.9/9.9	14.3/14.3	14.3/14.3	16.7/16.7	
	kg	4.3/4.3	4.5/4.5	4.5/4.5	6.5/6.5	6.5/6.5	7.6/7.6	
Refrigerant (R 407C) Operating Charge Per Circuit	lbs	9.1/9.1	9.5/9.5	9.5/9.5	13.5/13.5	13.6/13.6	15.9/15.9	
	kg	4.1/4.1	4.3/4.3	4.3/4.3	6.1/6.1	6.2/6.2	7.2/7.2	
Number of Refrigerant Circuits	-	2	2	2	2	2	2	
Unit Operating Weight	lbs	919	1100	1233	1291	1454	1809	
	kg	417	499	559	586	659	821	

- 1). Cooling capacity at 95°F (35°C) ambient temperature according to AHRI-365.
- 2). Cooling capacity at Gulf conditions : 115°F (46.1°C) condenser entering air temperature & 45°F (7.2°C) SST.
- 3). Operating charge is approximate for condensing unit only and does not include refrigerant lines and evaporator coil.
- 4). Condensing units are shipped with nitrogen holding charge only.

Table 1

SKM Air Cooled Condensing Units ACUS Series - R-22 & R-407C

ENGINEERING SPECIFICATIONS - 50 Hz

Model	ACUS	52034	52039	52045	52049	52051	52055	
Cooling Capacity (1) (R-22)	BTUH	376000	425000	480000	535000	605000	650000	
	W	110199	124560	140680	156800	177315	190504	
Cooling Capacity (2) (R-22)	BTUH	330150	378505	426270	474320	525935	563180	
	W	96761	110933	124933	139015	154143	165059	
Cooling Capacity (1) (R-407C)	BTUH	368000	420000	475000	530000	595000	635000	
	W	107855	123095	139215	155334	174385	186108	
Cooling Capacity (2) (R-407C)	BTUH	317350	363305	409370	455850	509760	542345	
	W	93010	106479	119979	133602	149402	158952	
Compressor	Type	-	Hermetic Scroll Compressor					
	Quantity	-	2	2	2	2	4	4
	Oil Charge per Circuit (A / B)	US Gal	1.23/0.86	1.23/1.23	1.8/1.23	1.8/1.8	1.72/1.72	1.72/1.72
Liter		4.67/3.25	4.67/4.67	6.8/4.67	6.8/6.8	6.52/6.52	6.52/6.52	
Condenser Coil	Type	-	Air cooled 3 or 4 rows 14 FPI (1.8mm) fin spacing HIX-Cu tubes Al fins					
	Face Area	ft ²	40.0	53.3	64.0	72.0	72.0	72.0
		m ²	3.7	5.0	5.9	6.7	6.7	6.7
Condenser Fan	Type	-	Propeller direct drive 960 RPM					
	Code / Quantity	-	823/3	829/3	823/4	829/4	829/4	829/4
	Air Flow Rate	cfm	24780	32040	36480	42880	40920	40920
		l/s	11695	15121	17217	20237	19312	19312
Condenser Motor	Type	-	Totally enclosed, air over Class F insulation, 6-pole, IP-55					
	Size / Quantity	kW	1.5/3	1.5/3	1.5/4	1.5/4	1.5/4	1.5/4
Refrigerant (R 22) Operating Charge Per Circuit	lbs	20.9/20.9	20.9/20.9	24.5/24.5	26.9/26.9	35.1/35.1	37.7/37.7	
	kg	9.5/9.5	9.5/9.5	11.1/11.1	12.2/12.2	15.9/15.9	17.1/17.1	
Refrigerant (R 407C) Operating Charge Per Circuit	lbs	20.1/20.1	20.1/20.1	22.9/22.9	25.5/25.5	33.4/33.4	35.5/35.5	
	kg	9.1/9.1	9.1/9.1	10.4/10.4	11.6/11.6	15.2/15.2	16.1/16.1	
Number of Refrigerant Circuits	-	2	2	2	2	2	2	
Unit Operating Weight	lbs	2066	2374	2615	2721	2789	2799	
	kg	937	1077	1186	1234	1265	1270	

Model	ACUS	52065	52075	52080	52085	52090	52095	
Cooling Capacity (1) (R-22)	BTUH	755000	850000	915000	965000	1020000	1070000	
	W	221278	249121	268171	282825	298945	313599	
Cooling Capacity (2) (R-22)	BTUH	664160	756715	814415	853685	899870	946045	
	W	194654	221780	238691	250201	263737	277270	
Cooling Capacity (1) (R-407C)	BTUH	740000	835000	905000	955000	1010000	1060000	
	W	216882	244725	265240	279894	296014	310668	
Cooling Capacity (2) (R-407C)	BTUH	638935	726255	783880	820090	864185	908640	
	W	187261	212853	229742	240355	253278	266307	
Compressor	Type	-	Hermetic Scroll Compressor					
	Quantity	-	4	4	4	4	4	4
	Oil Charge per Circuit (A / B)	US Gal	2.09/2.09	2.46/2.46	3.03/2.46	3.03/3.03	3.6/3.03	3.6/3.6
Liter		7.92/7.92	9.32/9.32	11.48/9.32	11.48/11.48	13.64/11.48	13.64/13.64	
Condenser Coil	Type	-	Air cooled 3 or 4 rows 14 FPI (1.8mm) fin spacing HIX-Cu tubes Al fins					
	Face Area	ft ²	130.0	130.0	130.0	130.0	130.0	130.0
		m ²	12.1	12.1	12.1	12.1	12.1	12.1
Condenser Fan	Type	-	Propeller direct drive 960 RPM					
	Code / Qty.	-	829/4	829/4	823/8	823/8	823/8	823/8
	Air Flow Rate	cfm	47320	46440	73200	73200	71800	70400
		l/s	22333	21917	34547	34547	33886	33225
Condenser Motor	Type	-	Totally enclosed, air over Class F insulation, 6-pole, IP-55					
	Size / Qty.	kW	1.5/4	1.5/4	1.5/8	1.5/8	1.5/8	1.5/8
Refrigerant (R 22) Operating Charge Per Circuit	lbs	52.8/52.8	68.6/68.6	55.8/55.8	55.8/55.8	69.9/55.8	70.1/70.1	
	kg	23.9/23.9	31.1/31.1	25.3/25.3	25.3/25.3	31.7/25.3	31.8/31.8	
Refrigerant (R 407C) Operating Charge Per Circuit	lbs	50.1/50.1	65.2/65.2	53.1/53.1	53.1/53.1	66.3/53.1	66.5/66.5	
	kg	22.7/22.7	29.6/29.6	24.1/24.1	24.1/24.1	30.1/24.1	30.1/30.1	
Number of Refrigerant Circuits	-	2	2	2	2	2	2	
Unit Operating Weight	lbs	5206	5830	7022	7075	7376	7439	
	kg	2361	2644	3185	3209	3345	3374	

Table 1 ends

- 1). Cooling capacity at 95°F (35°C) ambient temperature according to AHRI-365.
- 2). Cooling capacity at Gulf conditions : 115°F (46.1°C) condenser entering air temperature & 45°F (7.2°C) SST.
- 3). Operating charge is approximate for condensing unit only and does not include refrigerant lines and evaporator coil.
- 4). Condensing units are shipped with nitrogen holding charge only.

SKM Air Cooled Condensing Units

ACUS Series - R-22 & R-407C

ENGINEERING SPECIFICATIONS - 60 Hz

Model	ACUS	61006	61008	61009	61011	62011	61014	
Cooling Capacity (1) (R-22)	BTUH	72000	86000	102000	136000	146000	152000	
	W	21102	25205	29894	39859	42790	44549	
Cooling Capacity (2) (R-22)	BTUH	65300	77275	91620	121230	130605	134445	
	W	19138	22648	26852	35530	38278	39404	
Cooling Capacity (1) (R-407C)	BTUH	68000	82000	102000	132000	138000	148000	
	W	19930	24033	29894	38687	40445	43376	
Cooling Capacity (2) (R-407C)	BTUH	59140	71905	87695	116365	118280	129065	
	W	17333	21074	25702	34105	34666	37827	
Compressor	Type	Hermetic Scroll Compressor						
	Quantity	-	1	1	1	2	1	
	Oil Charge per Circuit (A / B)	US Gal	0.47	0.47	0.66	0.86	0.47/0.47	0.86
Liter		1.77	1.77	2.51	3.25	1.77/1.77	0.86	
Condenser Coil	Type	Air cooled 3 or 4 rows 14 FPI (1.8mm) fin spacing HIX-Cu tubes Al fins						
	Face Area	ft²	9.7	12.2	19.4	19.4	19.4	19.4
		m²	0.9	1.1	1.8	1.8	1.8	1.8
Condenser Fan	Type	Propeller direct drive 1150 RPM						
	Code / Quantity	-	628/1	723/1	628/2	628/2	628/2	628/2
	Air Flow Rate	cfm	5410	7830	11200	10820	10820	10820
l/s		2553	3695	5286	5106	5106	5106	
Condenser Motor	Type	Totally enclosed, air over Class F insulation, 6-pole, IP-55						
	Size / Quantity	kW	0.55/1	1.1/1	0.55/2	0.55/2	0.55/2	0.55/2
Refrigerant (R 22) Operating Charge Per Circuit	lbs	7.70	9.30	9.90	14.40	7.8/7.8	15.70	
	kg	3.50	4.20	4.50	6.50	3.6/3.6	7.10	
Refrigerant (R 407C) Operating Charge Per Circuit	lbs	7.30	8.80	9.40	13.60	6.9/6.9	14.80	
	kg	3.30	4.00	4.30	6.20	3.1/3.1	6.70	
Number of Refrigerant Circuits	-	1	1	1	1	2	1	
Unit Operating Weight	lbs	540	581	659	759	801	763	
	kg	245	264	299	344	363	346	

Model	ACUS	62014	62018	62023	62028	62030	62034	
Cooling Capacity (1) (R-22)	BTUH	174000	204000	264000	300000	326000	394000	
	W	50996	59789	77374	87925	95545	115475	
Cooling Capacity (2) (R-22)	BTUH	154545	180250	234765	265175	286670	344045	
	W	45295	52828	68806	77718	84018	100834	
Cooling Capacity (1) (R-407C)	BTUH	166000	200000	258000	294000	326000	378000	
	W	48652	58617	75615	86166	95545	110785	
Cooling Capacity (2) (R-407C)	BTUH	143815	171775	224135	253890	280195	325130	
	W	42150	50344	65690	74411	82120	95290	
Compressor	Type	Hermetic Scroll Compressor						
	Quantity	-	2	2	2	2	2	
	Oil Charge per Circuit (A / B)	US Gal	0.47/0.47	0.66/0.86	0.86/0.86	0.86/0.86	0.86/0.86	0.86/0.86
Liter		1.77/1.77	2.51/2.51	3.25/3.25	3.25/3.25	3.25/3.25	3.25/3.25	
Condenser Coil	Type	Air cooled 3 or 4 rows 14 FPI (1.8mm) fin spacing HIX-Cu tubes Al fins						
	Face Area	ft²	24.4	26.2	26.2	26.2	35.6	40.0
		m²	2.3	2.4	2.4	2.4	3.3	3.7
Condenser Fan	Type	Propeller direct drive 1150 RPM						
	Code / Qty.	-	723/2	723/2	823/2	823/2	823/3	823/3
	Air Flow Rate	cfm	15660	15880	21140	20020	30720	31860
l/s		7391	7495	9977	9448	14498	15036	
Condenser Motor	Type	Totally enclosed, air over Class F insulation, 6-pole, IP-55						
	Size / Qty.	kW	1.1/2	1.1/2	2.2/2	2.2/2	2.2/3	2.2/3
Refrigerant (R 22) Operating Charge Per Circuit	lbs	9.5/9.5	9.9/9.9	9.9/9.9	14.3/14.3	14.3/14.3	16.7/16.7	
	kg	4.3/4.3	4.5/4.5	4.5/4.5	6.5/6.5	6.5/6.5	7.6/7.6	
Refrigerant (R 407C) Operating Charge Per Circuit	lbs	9.1/9.1	9.5/9.5	9.5/9.5	13.5/13.5	13.6/13.6	15.9/15.9	
	kg	4.1/4.1	4.3/4.3	4.3/4.3	6.1/6.1	6.2/6.2	7.2/7.2	
Number of Refrigerant Circuits	-	2	2	2	2	2	2	
Unit Operating Weight	lbs	927	1108	1253	1311	1483	1838	
	kg	420	502	568	594	672	834	

- 1). Cooling capacity at 95°F (35°C) ambient temperature according to AHRI-365.
- 2). Cooling capacity at Gulf conditions : 115°F (46.1°C) condenser entering air temperature & 45°F (7.2°C) SST.
- 3). Operating charge is approximate for condensing unit only and does not include refrigerant lines and evaporator coil.
- 4). Condensing units are shipped with nitrogen holding charge only.

Table 2

SKM Air Cooled Condensing Units

ACUS Series - R-22 & R-407C

ENGINEERING SPECIFICATIONS - 60 Hz

Model	ACUS	62040	62046	62053	62060	62062	62065	
Cooling Capacity (1) (R-22)	BTUH	450000	510000	575000	640000	720000	785000	
	W	131887	149472	168523	187573	211020	230070	
Cooling Capacity (2) (R-22)	BTUH	401265	458240	512945	567055	633325	685820	
	W	117604	134302	150336	166194	185617	201002	
Cooling Capacity (1) (R-407C)	BTUH	435000	495000	560000	625000	705000	750000	
	W	127491	145076	164127	183177	206624	219812	
Cooling Capacity (2) (R-407C)	BTUH	377925	430305	484670	538250	607865	647915	
	W	110763	126115	142049	157752	178155	189893	
Compressor	Type	-	Hermetic Scroll Compressor					
	Quantity	-	2	2	2	2	4	4
	Oil Charge per Circuit (A / B)	US Gal	1.23/0.86	1.23/1.23	1.8/1.23	1.8/1.8	1.72/1.72	1.72/1.72
Liter		4.67/3.25	4.67/4.67	6.8/4.67	6.8/6.8	6.52/6.52	6.52/6.52	
Condenser Coil	Type	-	Air cooled 3 or 4 rows 14 FPI (1.8mm) fin spacing HIX-Cu tubes Al fins					
	Face Area	ft ²	40.0	53.3	64.0	72.0	72.0	72.0
		m ²	3.7	5.0	5.9	6.7	6.7	6.7
Condenser Fan	Type	-	Propeller direct drive 1150 RPM					
	Code / Quantity	-	823/3	829/3	823/4	829/4	829/4	829/4
	Air Flow Rate	cfm	30210	38700	44400	51760	49560	49560
l/s		14258	18264	20954	24428	23390	23390	
Condenser Motor	Type	-	Totally enclosed, air over Class F insulation, 6-pole, IP-55					
	Size / Quantity	-	2.2/3	2.2/3	2.2/4	2.2/4	2.2/4	2.2/4
Refrigerant (R 22) Operating Charge Per Circuit	lbs	20.9/20.9	20.9/20.9	24.5/24.5	26.9/26.9	35.1/35.1	37.7/37.7	
	kg	9.5/9.5	9.5/9.5	11.1/11.1	12.2/12.2	15.9/15.9	17.1/17.1	
Refrigerant (R 407C) Operating Charge Per Circuit	lbs	20.1/20.1	20.1/20.1	22.9/22.9	25.5/25.5	33.4/33.4	35.5/35.5	
	kg	9.1/9.1	9.1/9.1	10.4/10.4	11.6/11.6	15.2/15.2	16.1/16.1	
Number of Refrigerant Circuits	-	2	2	2	2	2	2	
Unit Operating Weight	lbs	2095	2403	2654	2759	2827	2838	
	kg	950	1090	1204	1251	1282	1287	

Model	ACUS	62080	62090	62095	62100	62105	62110	
Cooling Capacity (1) (R-22)	BTUH	915000	1030000	1105000	1155000	1220000	1280000	
	W	268171	301876	323857	338511	357562	375147	
Cooling Capacity (2) (R-22)	BTUH	809120	922290	983970	1027490	1081350	1135225	
	W	237140	270308	288385	301140	316926	332715	
Cooling Capacity (1) (R-407C)	BTUH	880000	1000000	1075000	1125000	1185000	1250000	
	W	257913	293083	315064	329719	347304	366354	
Cooling Capacity (2) (R-407C)	BTUH	763100	867325	929710	971165	1024470	1077775	
	W	223652	254198	272482	284632	300255	315878	
Compressor	Type	-	Hermetic Scroll Compressor					
	Quantity	-	4	4	4	4	4	4
	Oil Charge per Circuit (A / B)	US Gal	2.09/2.09	2.46/2.46	3.03/2.46	3.03/3.03	3.6/3.03	3.6/3.6
Liter		7.92/7.92	9.32/9.32	11.48/9.32	11.48/11.48	13.64/11.48	13.64/13.64	
Condenser Coil	Type	-	Air cooled 3 or 4 rows 14 FPI (1.8mm) fin spacing HIX-Cu tubes Al fins					
	Face Area	ft ²	130.0	130.0	130.0	130.0	130.0	130.0
		m ²	12.1	12.1	12.1	12.1	12.1	12.1
Condenser Fan	Type	-	Propeller direct drive 1150 RPM					
	Code / Qty.	-	829/4	829/4	823/8	823/8	823/8	823/8
	Air Flow Rate	cfm	56960	55880	89120	89120	87440	85760
l/s		26882	26372	42060	42060	41267	40474	
Condenser Motor	Type	-	Totally enclosed, air over Class F insulation, 6-pole, IP-55					
	Size / Qty.	-	2.2/4	2.2/4	2.2/8	2.2/8	2.2/8	2.2/8
Refrigerant (R 22) Operating Charge Per Circuit	lbs	52.8/52.8	68.6/68.6	55.8/55.8	55.8/55.8	69.9/55.8	70.1/70.1	
	kg	23.9/23.9	31.1/31.1	25.3/25.3	25.3/25.3	31.7/25.3	31.8/31.8	
Refrigerant (R 407C) Operating Charge Per Circuit	lbs	50.1/50.1	65.2/65.2	53.1/53.1	53.1/53.1	66.3/53.1	66.5/66.5	
	kg	22.7/22.7	29.6/29.6	24.1/24.1	24.1/24.1	30.1/24.1	30.1/30.1	
Number of Refrigerant Circuits	-	2	2	2	2	2	2	
Unit Operating Weight	lbs	5244	5868	7100	7153	7453	7517	
	kg	2378	2661	3220	3244	3380	3409	

Table 2 ends

- 1). Cooling capacity at 95°F (35°C) ambient temperature according to AHRI-365.
- 2). Cooling capacity at Gulf conditions : 115°F (46.1°C) condenser entering air temperature & 45°F (7.2°C) SST.
- 3). Operating charge is approximate for condensing unit only and does not include refrigerant lines and evaporator coil.
- 4). Condensing units are shipped with nitrogen holding charge only.

SKM Air Cooled Condensing Units

ACUS Series - R-22 & R-407C

CAPACITY RATINGS - 50 Hz (R-22)

Model ACUS	SST		Condenser Entering Air Temperature											
			95°F (35°C)			105°F (40.6°C)			115°F (46.1°C)			125°F (51.7°C)		
			Total Capacity		PI*	Total Capacity		PI*	Total Capacity		PI*	Total Capacity		PI*
°F	°C	MBh	kW	kW	MBh	kW	kW	MBh	kW	kW	MBh	kW	kW	
51005	35	1.7	51	15	4	47.9	14	4.6	44.4	13	5.2	41.1	12	5.8
	40	4.4	56.3	16.5	4.1	52.9	15.5	4.7	49.2	14.4	5.2	45.6	13.4	5.8
	45	7.2	61.6	18.1	4.2	58	17	4.7	54.1	15.9	5.3	50.5	14.8	5.9
	50	10	66.9	19.6	4.3	63.1	18.5	4.9	59.2	17.4	5.4	55.5	16.3	6
51007	35	1.7	61.6	18.1	4.6	57.9	17	5.1	53.9	15.8	5.8	50	14.7	6.5
	40	4.4	67.5	19.8	4.7	63.6	18.6	5.3	59.4	17.4	5.9	55.3	16.2	6.6
	45	7.2	73.6	21.6	4.8	69.5	20.4	5.4	65.2	19.1	6	60.9	17.9	6.7
	50	10	79.9	23.4	4.9	75.6	22.2	5.5	71.1	20.8	6.2	66.6	19.5	6.8
51008	35	1.7	72	21.1	5.3	67.6	19.8	6	62.6	18.3	6.8	57.5	16.9	7.6
	40	4.4	79	23.2	5.4	74.2	21.8	6.1	69.1	20.3	6.9	64	18.8	7.7
	45	7.2	86.4	25.3	5.5	81.3	23.8	6.2	76.1	22.3	7	70.9	20.8	7.8
	50	10	94.4	27.7	5.7	89	26.1	6.4	83.4	24.5	7.2	78	22.9	7.9
51009	35	1.7	95.6	28	7.1	90	26.4	8.1	84.1	24.6	9.2	78.2	22.9	10.3
	40	4.4	104.5	30.6	7.3	98.6	28.9	8.2	92.2	27	9.4	86	25.2	10.4
	45	7.2	113.8	33.4	7.4	107.5	31.5	8.4	100.8	29.6	9.5	94.4	27.7	10.5
	50	10	123.5	36.2	7.6	116.8	34.2	8.6	109.9	32.2	9.7	103.2	30.2	10.7
51012	35	1.7	107.7	31.6	8.3	100.9	29.6	9.3	93.6	27.4	10.5	86.5	25.4	11.7
	40	4.4	117.8	34.5	8.5	110.5	32.4	9.6	102.8	30.1	10.8	95.4	28	11.9
	45	7.2	128	37.5	8.7	120.3	35.3	9.8	112.4	32.9	10.9	104.8	30.7	12
	50	10	137.9	40.4	9	130	38.1	10	121.9	35.7	11.1	114.2	33.5	12.1
52010	35	1.7	102.1	29.9	8	95.7	28.1	9.1	88.9	26.1	10.3	82.2	24.1	11.5
	40	4.4	112.6	33	8.2	105.7	31	9.3	98.3	28.8	10.5	91.2	26.7	11.6
	45	7.2	123.3	36.1	8.4	115.9	34	9.5	108.3	31.7	10.6	100.9	29.6	11.7
	50	10	133.8	39.2	8.6	126.2	37	9.7	118.5	34.7	10.9	110.9	32.5	11.9
52013	35	1.7	123.2	36.1	9.2	115.8	33.9	10.3	107.9	31.6	11.6	100	29.3	13
	40	4.4	134.9	39.5	9.4	127.2	37.3	10.6	118.9	34.8	11.8	110.6	32.4	13.1
	45	7.2	147.2	43.1	9.6	139	40.7	10.8	130.3	38.2	12.1	121.8	35.7	13.3
	50	10	159.9	46.9	9.7	151.3	44.3	11	142.1	41.7	12.3	133.3	39.1	13.7
52015	35	1.7	142.5	41.8	10.9	133.3	39.1	12.3	123.3	36.1	13.9	113.3	33.2	15.6
	40	4.4	156.1	45.8	11.1	146.4	42.9	12.5	136.1	39.9	14.2	126.1	36.9	15.7
	45	7.2	170.6	50	11.4	160.4	47	12.8	149.9	43.9	14.4	139.6	40.9	15.9
	50	10	186.1	54.6	11.8	175.3	51.4	13.2	164.4	48.2	14.7	153.6	45	16.1
52019	35	1.7	187.1	54.8	14.9	175.7	51.5	17	163.8	48	19.3	152.3	44.6	21.4
	40	4.4	204.3	59.9	15.3	192.1	56.3	17.4	179.5	52.6	19.6	167.5	49.1	21.6
	45	7.2	222.2	65.1	15.7	209.3	61.3	17.8	196.2	57.5	19.9	183.8	53.9	21.8
	50	10	240.7	70.6	16.2	227.2	66.6	18.3	213.6	62.6	20.3	200.9	58.9	22.1
52024	35	1.7	213.1	62.5	16.9	199.3	58.4	19.1	184.8	54.2	21.5	170.9	50.1	23.7
	40	4.4	233.1	68.3	17.3	218.3	64	19.6	203	59.5	21.9	188.5	55.2	24.1
	45	7.2	253.1	74.2	17.8	237.6	69.6	20	221.8	65	22.3	207	60.7	24.4
	50	10	272.5	79.9	18.4	256.6	75.2	20.5	240.7	70.5	22.7	225.5	66.1	24.6

Table 3

Notes :

* Power input mentioned in this page should not be used for cable or fuse selection. MCA and MFA values given in the electrical data pages (22-24) should be referred for the same.

Computer Print outs for matched ratings with SKM Air Handling Units are available.

SKM Air Cooled Condensing Units

ACUS Series - R-22 & R-407C

CAPACITY RATINGS - 50 Hz (R-22)

Model ACUS	SST		Condenser Entering Air Temperature											
			95°F (35°C)			105°F (40.6°C)			115°F (46.1°C)			125°F (51.7°C)		
			Total Capacity	PI*		Total Capacity	PI*		Total Capacity	PI*		Total Capacity	PI*	
°F	°C	MBh	kW	kW	MBh	kW	kW	MBh	kW	kW	MBh	kW	kW	
52025	35	1.7	234.2	68.6	18.3	217	63.6	20.6	197.9	58	23.3	179.2	52.5	25.8
	40	4.4	255.7	75	18.9	238.2	69.8	21.2	219.3	64.3	23.7	201.1	58.9	26.1
	45	7.2	278.6	81.7	19.4	260.6	76.4	21.7	241.7	70.8	24.2	223.6	65.6	26.6
	50	10	302.7	88.7	19.8	284.1	83.3	22.3	264.9	77.6	24.7	246.8	72.3	27.1
52028	35	1.7	273.9	80.3	22.6	253.7	74.4	25.5	232	68	28.6	211.1	61.9	31.6
	40	4.4	300	87.9	23.2	278.9	81.8	26.1	256.7	75.2	29.1	235.6	69.1	32
	45	7.2	327.3	95.9	23.9	305.3	89.5	26.7	282.7	82.9	29.6	261.5	76.6	32.2
	50	10	356	104.3	24.5	333.2	97.7	27.2	310.2	90.9	30	288.8	84.6	32.3
52034	35	1.7	315.5	92.5	26.2	294.3	86.2	29.6	271.7	79.6	33.2	250	73.3	36.7
	40	4.4	344.9	101.1	27	322.8	94.6	30.3	299.7	87.8	33.8	277.9	81.4	37.1
	45	7.2	375.9	110.2	27.7	352.8	103.4	31	329.3	96.5	34.4	307.1	90	37.4
	50	10	408.8	119.8	28.3	384.8	112.8	31.5	360.6	105.7	34.7	337.8	99	37.5
52039	35	1.7	358.3	105	29.7	336.2	98.5	33.5	312.7	91.7	37.6	290.2	85.1	41.6
	40	4.4	391.2	114.7	30.5	368.1	107.9	34.3	344.2	100.9	38.4	321.5	94.2	42.1
	45	7.2	426.2	124.9	31.2	402.1	117.8	35	377.6	110.7	38.9	354.2	103.8	42.4
	50	10	463.5	135.9	31.9	438.2	128.4	35.6	412.8	121	39.3	388.4	113.8	42.5
52045	35	1.7	402.6	118	32.9	377.7	110.7	37.1	351.4	103	41.8	325.8	95.5	46.3
	40	4.4	440.9	129.2	33.8	414.5	121.5	38	387.1	113.5	42.7	360.7	105.7	47
	45	7.2	481.6	141.2	34.6	453.7	133	38.9	425.1	124.6	43.4	397.7	116.6	47.5
	50	10	524.9	153.9	35.4	495.3	145.2	39.7	465.4	136.4	44.1	436.9	128.1	47.9
52049	35	1.7	447	131	36	419.2	122.9	40.8	390.1	114.3	46	361.5	105.9	51
	40	4.4	490.8	143.9	37	461.1	135.1	41.7	430.2	126.1	46.9	400.2	117.3	51.8
	45	7.2	537.4	157.5	37.9	505.6	148.2	42.7	473	138.6	47.8	441.5	129.4	52.5
	50	10	586.7	172	38.8	552.8	162	43.7	518.4	152	48.8	485.7	142.4	53.3
52051	35	1.7	508.3	149	40.8	471	138	46	430.2	126.1	51.8	390.5	114.5	57.4
	40	4.4	556.1	163	42	517.5	151.7	47.2	476.4	139.6	52.8	437	128.1	58.1
	45	7.2	606.3	177.7	43.2	566.4	166	48.3	524.8	153.8	53.7	485.5	142.3	58.8
	50	10	659.2	193.2	44.3	617.7	181.1	49.4	575.5	168.7	54.7	535.9	157.1	59.4
52055	35	1.7	544.8	159.7	45.6	504.2	147.8	51.4	460.9	135.1	57.6	419.5	122.9	63.5
	40	4.4	596.7	174.9	46.9	554.3	162.5	52.7	510	149.5	58.7	468.3	137.3	64.3
	45	7.2	650.8	190.7	48.2	606.7	177.8	53.8	561.7	164.6	59.6	519.8	152.4	64.9
	50	10	707.7	207.4	49.6	662.1	194.1	55	616.3	180.6	60.4	574.1	168.3	65
52065	35	1.7	633.9	185.8	52	591.8	173.5	58.7	546.5	160.2	65.9	502.9	147.4	72.9
	40	4.4	693.2	203.2	53.4	649.1	190.3	60.1	602.9	176.7	67.2	558.9	163.8	73.8
	45	7.2	755.8	221.5	54.8	709.7	208	61.3	662.4	194.2	68.2	617.6	181	74.4
	50	10	822.1	241	56.1	774	226.9	62.4	725.4	212.6	68.9	679.4	199.1	74.6
52075	35	1.7	716.4	210	59.4	672.2	197	67	625.2	183.2	75.3	580.3	170.1	83.2
	40	4.4	782.1	229.2	61	736	215.7	68.7	688.2	201.7	76.8	642.8	188.4	84.3
	45	7.2	852.1	249.8	62.5	803.8	235.6	70.1	754.8	221.2	77.9	708.2	207.6	84.9
	50	10	926.7	271.6	63.8	876	256.8	71.2	825.2	241.9	78.6	776.6	227.6	85
52080	35	1.7	768	225.1	61.4	721.7	211.5	69.3	671.9	196.9	78.1	623	182.6	86.7
	40	4.4	840.4	246.3	62.9	791.4	232	70.9	740	216.9	79.6	690	202.2	87.9
	45	7.2	917.4	268.9	64.4	865.6	253.7	72.3	812.2	238.1	80.8	760.6	222.9	88.7
	50	10	999.4	292.9	65.7	944.6	276.9	73.6	888.9	260.5	81.8	835.1	244.8	89.2
52085	35	1.7	806	236.2	65.6	756.2	221.7	74.1	703.6	206.2	83.5	652.3	191.2	92.5
	40	4.4	882.8	258.7	67.3	830	243.3	75.9	775.3	227.2	85.1	722.3	211.7	93.8
	45	7.2	964.4	282.7	69	908.5	266.3	77.6	851.3	249.5	86.6	796.5	233.5	94.9
	50	10	1051.2	308.1	70.6	991.9	290.7	79.1	932.1	273.2	88	875	256.5	95.6
52090	35	1.7	849	248.8	68.99	796.3	233.4	78.01	740.9	217.1	87.9	686.7	201.3	97.4
	40	4.4	931	272.9	70.83	874.9	256.4	79.9	816.7	239.4	89.6	760.3	222.8	98.8
	45	7.2	1018.3	298.4	72.6	958.5	280.9	81.73	897.3	263.0	91.3	838.6	245.8	100.1
	50	10	1110.8	325.6	74.3	1047.3	306.9	83.51	983	288.1	93	921.9	270.2	101.2
52095	35	1.7	892.1	261.5	72.4	836.4	245.1	81.9	778.2	228.1	92.3	721	211.3	102.4
	40	4.4	979.4	287.1	74.3	919.8	269.6	83.9	858.2	251.5	94.2	798.2	234	103.9
	45	7.2	1072.2	314.3	76.2	1008.5	295.6	85.9	943.3	276.5	96.1	880.7	258.1	105.4
	50	10	1170.4	343.1	78	1102.6	323.2	87.9	1033.9	303	98.1	968.9	284	106.8

Table 3 ends

Notes :

* Power input mentioned in this page should not be used for cable or fuse selection. MCA and MFA values given in the electrical data pages (22-24) should be referred for the same.

Computer Print outs for matched ratings with SKM Air Handling Units are available.

SKM Air Cooled Condensing Units

ACUS Series - R-22 & R-407C

CAPACITY RATINGS - 60 Hz (R-22)

Model ACUS	SST		Condenser Entering Air Temperature											
			95°F (35°C)			105°F (40.6°C)			115°F (46.1°C)			125°F (51.7°C)		
			Total Capacity		PI*	Total Capacity		PI*	Total Capacity		PI*	Total Capacity		PI*
	°F	°C	MBh	kW	kW	MBh	kW	kW	MBh	kW	kW	MBh	kW	kW
62030	35	1.7	274	80.3	23.2	255.5	74.9	26.1	235.9	69.1	29.2	216.9	63.6	32.1
	40	4.4	299.8	87.9	23.8	280.5	82.2	26.7	260.5	76.4	29.8	241.3	70.7	32.6
	45	7.2	326.9	95.8	24.5	306.7	89.9	27.4	286.2	83.9	30.3	266.6	78.1	33
	50	10	355.1	104.1	25.3	334	97.9	28	312.8	91.7	30.8	292.9	85.8	33.1
62034	35	1.7	330.5	96.9	28.8	307.6	90.2	32.1	283.9	83.2	35.6	261.4	76.6	38.9
	40	4.4	361.4	105.9	29.6	337.4	98.9	33	312.8	91.7	36.4	290	85	39.5
	45	7.2	393.7	115.4	30.6	368.5	108	33.9	343.3	100.6	37.2	320.2	93.9	40.2
	50	10	427.3	125.2	31.6	401.1	117.6	34.9	375.3	110	38.1	363.2	106.4	39.5
62040	35	1.7	380.4	111.5	33.2	356.6	104.5	37	332.2	97.4	41	308.8	90.5	44.7
	40	4.4	416	121.9	34.2	390.8	114.5	38	365.3	107.1	42	341.2	100	45.5
	45	7.2	453.6	132.9	35.2	426.9	125.1	39.1	400.3	117.3	42.9	387.5	113.6	44.7
	50	10	493.1	144.5	36.4	465	136.3	40.2	437.2	128.2	44	423.9	124.3	45.7
62046	35	1.7	430.1	126.1	37.6	405.4	118.8	41.9	380.3	111.5	46.4	356.1	104.4	50.6
	40	4.4	470.3	137.8	38.7	444	130.1	43.1	417.6	122.4	47.6	392.2	114.9	51.5
	45	7.2	513.2	150.4	40	485.1	142.2	44.3	457	134	48.7	443.4	129.9	50.7
	50	10	558.6	163.7	41.2	528.6	154.9	45.6	498.9	146.2	49.9	484.4	142	51.9
62053	35	1.7	482.3	141.4	41.6	453.9	133	46.4	425	124.6	51.4	396.7	116.3	56.2
	40	4.4	528.1	154.8	42.8	497.7	145.9	47.7	467	136.9	52.7	437	128.1	57.4
	45	7.2	576.6	169	44	544.1	159.5	49	511.6	150	54	479.8	140.6	58.5
	50	10	627.9	184.1	45.3	593.4	173.9	50.3	558.9	163.8	55.3	541.8	158.8	57.6
62060	35	1.7	534.1	156.5	45.6	501.9	147.1	51	469.2	137.5	56.5	437	128.1	61.9
	40	4.4	585.3	171.6	46.9	550.7	161.4	52.4	515.8	151.2	58	481.5	141.1	63.3
	45	7.2	639.3	187.4	48.2	602.5	176.6	53.7	565.6	165.8	59.4	529.1	155.1	64.5
	50	10	696.6	204.2	49.4	657.4	192.7	55.1	618.3	181.2	60.9	598.8	175.5	63.4
62062	35	1.7	606.5	177.8	51.7	565.3	165.7	57.9	521.9	153	64.5	480.2	140.7	70.8
	40	4.4	663.6	194.5	53.1	620.4	181.8	59.3	575.7	168.7	65.9	533.3	156.3	71.9
	45	7.2	723.3	212	54.8	678.1	198.7	60.9	632.1	185.3	67.2	588.9	172.6	72.9
	50	10	785.5	230.2	56.6	738.3	216.4	62.6	690.9	202.5	68.6	647.2	189.7	73.6
62065	35	1.7	659.1	193.2	57.8	613.3	179.8	64.5	565.9	165.9	71.6	521.2	152.8	78.1
	40	4.4	720.7	211.2	59.5	672.6	197.1	66.3	623.6	182.8	73.1	578.3	169.5	79.3
	45	7.2	785	230.1	61.5	734.6	215.3	68.1	684.3	200.6	74.8	660.6	193.6	77.8
	50	10	851.9	249.7	63.6	799.5	234.3	70.2	748.1	219.3	76.5	724.1	212.2	79.3
62080	35	1.7	765.9	224.5	65.5	718.6	210.6	73.1	669.5	196.2	81.2	622.3	182.4	88.7
	40	4.4	838	245.6	67.4	787.7	230.9	75.1	736.5	215.9	83	687.6	201.5	90.3
	45	7.2	914.1	267.9	69.5	860.8	252.3	77.2	807.1	236.6	84.9	756.4	221.7	91.9
	50	10	994.1	291.4	71.7	937.8	274.9	79.4	881.8	258.5	87	854.8	250.6	90.5
62090	35	1.7	864.6	253.4	74.5	815.4	239	83.1	765.1	224.3	92.1	716.3	210	100.5
	40	4.4	945.8	277.2	76.7	893.3	261.8	85.3	840.3	246.3	94.3	789	231.3	102.4
	45	7.2	1032.3	302.6	79	976.1	286.1	87.7	919.8	269.6	96.5	865.5	253.7	104.4
	50	10	1124.1	329.5	81.5	1064.1	311.9	90.2	1004.3	294.4	98.9	975.1	285.8	102.9
62095	35	1.7	922.1	270.3	77.6	869.3	254.8	86.6	815.1	238.9	96.1	761.9	223.3	105.3
	40	4.4	1009.7	295.9	79.8	953.2	279.4	88.9	895.7	262.5	98.4	839.5	246.1	107.4
	45	7.2	1102.9	323.3	82	1042.3	305.5	91.3	981.3	287.6	100.8	921.7	270.1	109.5
	50	10	1201.8	352.2	84.3	1137	333.3	93.7	1072.2	314.3	103.2	1008.8	295.7	111.6
62100	35	1.7	965.8	283.1	83	909.1	266.4	92.6	851.2	249.5	102.6	794.6	232.9	112.2
	40	4.4	1057.6	310	85.3	996.8	292.2	95.1	935.4	274.2	105.2	875.3	256.6	114.5
	45	7.2	1154.8	338.5	87.8	1089.9	319.4	97.7	1024.8	300.4	107.8	961.1	281.7	116.8
	50	10	1257.8	368.7	90.2	1188.7	348.4	100.4	1119.6	328.2	110.4	1085.5	318.1	114.9
62105	35	1.7	1017.4	298.2	87.06	956.82	280.4	97.19	895.23	262.4	107.76	834.67	244.6	117.93
	40	4.4	1114.6	326.7	89.54	1049.65	307.6	99.87	984.03	288.4	110.49	919.64	269.5	120.49
	45	7.2	1217.3	356.8	91.99	1147.99	336.5	102.44	1078.6	316.1	113.23	1010.22	296.1	122.84
	50	10	1326.1	388.7	94.4	1252.36	367.0	105.24	1178.69	345.5	115.96	1142.07	334.7	120.7
62110	35	1.7	1069	313.3	91.1	1004.6	294.5	101.8	939.3	275.3	112.9	874.7	256.4	123.7
	40	4.4	1171.7	343.4	93.7	1102.5	323.1	104.5	1032.7	302.7	115.8	963.9	282.5	126.4
	45	7.2	1279.8	375.1	96.2	1206.2	353.5	107.3	1132.4	331.9	118.7	1059.2	310.5	128.9
	50	10	1394.5	408.7	98.6	1316.1	385.8	110.1	1237.8	362.8	121.5	1198.8	351.4	126.6

Notes :

Table 4 ends

* Power input mentioned in this page should not be used for cable or fuse selection. MCA and MFA values given in the electrical data pages (22-24) should be referred for the same.

Computer Print outs for matched ratings with SKM Air Handling Units are available.

SKM Air Cooled Condensing Units

ACUS Series - R-22 & R-407C

CAPACITY RATINGS - 50 Hz (R407C)

Model ACUS	SST		Condenser Entering Air Temperature													
			95°F (35°C)			105°F (40.6°C)			115°F (46.1°C)			125°F (51.7°C)				
	°F	°C	Total Capacity		PI*	Total Capacity		PI*	Total Capacity		PI*	Total Capacity		PI*		
		MBh	kW	kW	MBh	kW	kW	MBh	kW	kW	MBh	kW	kW	MBh	kW	kW
51005-C	35	1.7	45.3	13.3	3.9	41.7	12.2	4.5	37.7	11.1	5.2	33.7	9.9	5.9		
	40	4.4	51.7	15.2	4	47.8	14	4.6	43.6	12.8	5.3	39.5	11.6	6		
	45	7.2	58.4	17.1	4.1	54.2	15.9	4.8	49.8	14.6	5.5	45.6	13.4	6.2		
	50	10	65.4	19.2	4.3	60.9	17.9	4.9	56.3	16.5	5.6	51.9	15.2	6.3		
51007-C	35	1.7	57.6	16.9	4.4	53.6	15.7	5.1	49.3	14.4	5.8	44.9	13.2	6.6		
	40	4.4	63.8	18.7	4.5	59.4	17.4	5.2	54.7	16	5.9	50	14.7	6.7		
	45	7.2	70.4	20.6	4.6	65.7	19.2	5.3	60.6	17.8	6.1	55.6	16.3	6.8		
	50	10	77.5	22.7	4.8	72.3	21.2	5.5	66.9	19.6	6.2	61.6	18	6.9		
51008-C	35	1.7	71	20.8	5.4	66	19.3	6.1	60	17.6	7	54	15.8	8		
	40	4.4	78.3	23	5.4	73	21.4	6.2	66.8	19.6	7.1	60.7	17.8	8.1		
	45	7.2	86	25.2	5.5	80.3	23.5	6.3	74	21.7	7.2	67.9	19.9	8.1		
	50	10	94.2	27.6	5.6	88	25.8	6.4	81.4	23.9	7.3	75	22	8.2		
51009-C	35	1.7	92.2	27	6.9	85.8	25.2	7.9	78.9	23.1	9.1	71.9	21.1	10.2		
	40	4.4	101.7	29.8	7.1	94.8	27.8	8.1	87.4	25.6	9.2	80.1	23.5	10.3		
	45	7.2	111.9	32.8	7.3	104.4	30.6	8.3	96.4	28.3	9.4	88.7	26	10.5		
	50	10	122.6	35.9	7.4	114.6	33.6	8.5	106.3	31.1	9.6	98.2	28.8	10.7		
51012-C	35	1.7	104.5	30.6	8.1	96.3	28.2	9.3	87.2	25.6	10.6	78.3	22.9	11.8		
	40	4.4	115	33.7	8.3	106.5	31.2	9.5	97.5	28.6	10.8	88.8	26	12		
	45	7.2	126.1	37	8.5	117.2	34.4	9.7	108	31.6	11	99.2	29.1	12.2		
	50	10	137.8	40.4	8.8	128.3	37.6	10	118.5	34.7	11.2	109.3	32	12.4		
52010-C	35	1.7	90.7	26.6	7.7	83.5	24.5	9	75.5	22.1	10.4	67.5	19.8	11.8		
	40	4.4	103.4	30.3	8	95.5	28	9.2	87.2	25.5	10.7	78.9	23.1	12.1		
	45	7.2	116.7	34.2	8.2	108.3	31.8	9.5	99.6	29.2	11	91.1	26.7	12.3		
	50	10	130.9	38.4	8.5	121.9	35.7	9.9	112.6	33	11.3	103.8	30.4	12.6		
52013-C	35	1.7	115.2	33.8	8.8	107.1	31.4	10.1	98.5	28.9	11.7	89.8	26.3	13.3		
	40	4.4	127.6	37.4	9.1	118.8	34.8	10.4	109.4	32.1	11.9	100.1	29.3	13.4		
	45	7.2	140.8	41.3	9.3	131.3	38.5	10.6	121.2	35.5	12.1	111.1	32.6	13.6		
	50	10	155	45.4	9.6	144.6	42.4	10.9	133.8	39.2	12.4	123.1	36.1	13.8		
52015-C	35	1.7	140.3	41.1	11	129.9	38.1	12.6	117.9	34.5	14.4	106	31.1	16.2		
	40	4.4	154.6	45.3	11.2	143.5	42.1	12.8	131.3	38.5	14.6	119.4	35	16.4		
	45	7.2	169.7	49.7	11.4	158	46.3	13.1	145.4	42.6	14.9	133.4	39.1	16.6		
	50	10	185.5	54.4	11.6	172.9	50.7	13.3	159.8	46.8	15.1	147.5	43.2	16.7		
52019-C	35	1.7	179.9	52.7	14.6	166.8	48.9	16.6	152.9	44.8	18.9	139.5	40.9	21.1		
	40	4.4	198.1	58.1	14.9	184	53.9	17.1	169.2	49.6	19.3	155.1	45.5	21.4		
	45	7.2	217.5	63.7	15.4	202.2	59.3	17.5	186.5	54.7	19.7	171.7	50.3	21.8		
	50	10	237.9	69.7	15.8	221.7	65	18	205.4	60.2	20.2	190.1	55.7	22.2		
52024-C	35	1.7	206.4	60.5	16.6	189.8	55.6	18.9	171.5	50.3	21.5	154.1	45.2	24		
	40	4.4	227	66.5	17	209.9	61.5	19.4	191.9	56.3	22	174.9	51.3	24.4		
	45	7.2	248.9	72.9	17.5	231	67.7	19.9	212.6	62.3	22.5	195.4	57.3	24.8		
	50	10	271.7	79.6	18	252.5	74	20.5	233.2	68.4	23	215.3	63.1	25.1		

Table 5

Notes :

* Power input mentioned in this page should not be used for cable or fuse selection. MCA and MFA values given in the electrical data pages (22-24) should be referred for the same.

Computer Print outs for matched ratings with SKM Air Handling Units are available.

SKM Air Cooled Condensing Units ACUS Series - R-22 & R-407C

CAPACITY RATINGS - 50 Hz (R407C)

Model ACUS	SST		Condenser Entering Air Temperature											
			95°F (35°C)			105°F (40.6°C)			115°F (46.1°C)			125°F (51.7°C)		
	°F	°C	Total Capacity MBh	kW	PI*	Total Capacity MBh	kW	PI*	Total Capacity MBh	kW	PI*	Total Capacity MBh	kW	PI*
52025-C	35	1.7	225.3	66	18.1	207.3	60.7	20.7	188.6	55.3	23.6	170.1	49.8	26.5
	40	4.4	250.5	73.4	18.6	231.1	67.7	21.2	211.3	61.9	24	191.7	56.2	26.8
	45	7.2	277.5	81.3	19.1	256.6	75.2	21.7	235.4	69	24.5	214.5	62.9	27.2
	50	10	306.3	89.8	19.7	284	83.2	22.3	261.5	76.7	25	239.5	70.2	27.5
52028-C	35	1.7	263.2	77.1	22.2	243.3	71.3	25.2	222.1	65.1	28.6	201.3	59	31.8
	40	4.4	290.2	85.1	22.7	268.8	78.8	25.8	246.4	72.2	29.2	224.7	65.9	32.3
	45	7.2	319	93.5	23.3	295.8	86.7	26.5	272	79.7	29.8	249.3	73.1	32.8
	50	10	349.5	102.4	24.1	324.8	95.2	27.2	299.8	87.9	30.4	276.4	81	33.2
52034-C	35	1.7	304.7	89.3	25.8	282.3	82.7	29.5	259	75.9	33.4	236.2	69.2	37.2
	40	4.4	335.7	98.4	26.5	311.5	91.3	30.2	286.6	84	34.1	262.5	76.9	37.8
	45	7.2	368.6	108	27.4	342.5	100.4	31.1	316	92.6	34.9	290.5	85.1	38.4
	50	10	403.5	118.3	28.3	375.9	110.2	32	348.1	102	35.8	321.7	94.3	39.1
52039-C	35	1.7	347.4	101.8	29.3	322.6	94.6	33.5	297.2	87.1	38	272.2	79.8	42.4
	40	4.4	382.6	112.1	30.2	355.8	104.3	34.4	328.4	96.3	38.9	301.7	88.4	43.1
	45	7.2	420	123.1	31.2	391	114.6	35.4	361.6	106	39.9	333.2	97.7	43.9
	50	10	459.6	134.7	32.3	428.9	125.7	36.6	398.2	116.7	41	368.5	108	44.9
52045-C	35	1.7	392.5	115	32.5	363.6	106.6	37.1	334	97.9	42.3	304.8	89.3	47.2
	40	4.4	433	126.9	33.5	401.7	117.7	38.2	369.7	108.4	43.2	338.3	99.1	47.9
	45	7.2	476.1	139.5	34.6	442.1	129.6	39.2	407.6	119.5	44.1	373.9	109.6	48.6
	50	10	521.4	152.8	35.8	485.3	142.3	40.4	449	131.6	45.2	413.6	121.2	49.6
52049-C	35	1.7	437.9	128.3	35.8	404.7	118.6	40.7	371.1	108.8	46.5	337.6	99	52
	40	4.4	483.8	141.8	36.9	447.9	131.3	41.9	411.4	120.6	47.4	375.2	110	52.6
	45	7.2	532.6	156.1	38.1	493.6	144.7	43	454	133.1	48.4	415.1	121.7	53.3
	50	10	583.8	171.1	39.2	542.2	158.9	44.3	500.3	146.6	49.5	459.2	134.6	54.2
52051-C	35	1.7	488.6	143.2	40.3	450.7	132.1	45.9	410.9	120.4	52.1	371.5	108.9	58.2
	40	4.4	540.9	158.5	41.2	500.2	146.6	46.9	457.9	134.2	53.2	416.5	122.1	59.1
	45	7.2	596.6	174.9	42.4	552.7	162	48.1	507.6	148.8	54.2	463.9	136	59.9
	50	10	655.9	192.3	43.8	609.1	178.5	49.5	561.6	164.6	55.3	516.1	151.3	60.7
52055-C	35	1.7	523.6	153.5	44.8	483.5	141.7	50.9	441.1	129.3	57.6	400	117.2	64
	40	4.4	577.2	169.2	45.9	534.1	156.5	52.1	489.4	143.4	58.8	446.4	130.8	65
	45	7.2	634	185.8	47.2	587.6	172.2	53.5	540.2	158.3	60.1	495.3	145.2	66
	50	10	694.4	203.5	48.8	645	189.1	55	595.3	174.5	61.3	549.1	160.9	66.8
52065-C	35	1.7	612.5	179.5	51.2	567.8	166.4	58.4	521.2	152.8	66.3	475.3	139.3	73.9
	40	4.4	675.1	197.9	52.6	626.8	183.7	59.8	577	169.1	67.7	528.4	154.9	75.1
	45	7.2	741.6	217.4	54.1	689.5	202.1	61.5	636.2	186.5	69.2	584.8	171.4	76.4
	50	10	812.1	238	56	756.8	221.8	63.4	700.9	205.4	70.9	647.6	189.8	77.8
52075-C	35	1.7	694.5	203.6	58.7	645	189.1	67	594.2	174.2	76.1	544.1	159.5	84.8
	40	4.4	764.8	224.2	60.4	711.2	208.5	68.9	656.5	192.4	77.9	603.1	176.8	86.3
	45	7.2	839.6	246.1	62.4	781.6	229.1	70.9	722.8	211.9	79.8	666	195.2	87.9
	50	10	918.7	269.3	64.6	857.5	251.3	73.3	796	233.3	82	736.7	215.9	89.9
52080-C	35	1.7	748.2	219.3	60.6	694.6	203.6	69.1	639.6	187.5	78.8	584.8	171.4	88.3
	40	4.4	825.4	241.9	62.3	767.4	224.9	71	707.8	207.5	80.5	649	190.2	89.6
	45	7.2	907.6	266	64.2	844.7	247.6	73	780.4	228.7	82.3	717.4	210.3	91.1
	50	10	994.4	291.5	66.3	927.6	271.9	75.2	859.9	252	84.5	793.8	232.7	93
52085-C	35	1.7	785.9	230.4	64.9	728.1	213.4	74.1	669.1	196.1	84.4	610.4	178.9	94.3
	40	4.4	867.2	254.2	66.9	804.5	235.8	76.1	740.6	217.1	86.1	677.6	198.6	95.6
	45	7.2	953.5	279.5	69.1	885.6	259.6	78.3	816.5	239.3	88	749	219.5	97
	50	10	1044.5	306.1	71.3	972.3	285	80.7	899.5	263.7	90.3	828.6	242.9	99
52090-C	35	1.7	829.7	243.2	68.38	767.65	225.0	77.97	704.53	206.5	88.85	641.76	188.1	99.32
	40	4.4	916.04	268.5	70.51	848.79	248.8	80.14	780.4	228.7	90.63	712.79	208.9	100.54
	45	7.2	1007.74	295.4	72.79	934.75	274.0	82.41	860.71	252.3	92.57	788.14	231.0	101.97
	50	10	1104.23	323.6	75.11	1026.53	300.9	84.83	948.33	277.9	94.86	871.86	255.5	103.85
52095-C	35	1.7	873.5	256	71.8	807.2	236.6	81.9	740	216.9	93.3	673.1	197.3	104.4
	40	4.4	964.9	282.8	74.1	893.1	261.8	84.2	820.2	240.4	95.1	748	219.2	105.5
	45	7.2	1061.9	311.3	76.5	983.9	288.4	86.5	904.9	265.2	97.1	827.3	242.5	106.9
	50	10	1163.9	341.1	78.9	1080.8	316.8	89	997.1	292.3	99.4	915.1	268.2	108.8

Table 5 ends

Notes :

* Power input mentioned in this page should not be used for cable or fuse selection. MCA and MFA values given in the electrical data pages ((22-24) should be referred for the same.

Computer Print outs for matched ratings with SKM Air Handling Units are available.

SKM Air Cooled Condensing Units

ACUS Series - R-22 & R-407C

CAPACITY RATINGS - 60 Hz (R407C)

Model ACUS	SST		Condenser Entering Air Temperature											
			95°F (35°C)			105°F (40.6°C)			115°F (46.1°C)			125°F (51.7°C)		
			Total Capacity		PI*	Total Capacity		PI*	Total Capacity		PI*	Total Capacity		PI*
°F	°C	MBh	kW	kW	MBh	kW	kW	MBh	kW	kW	MBh	kW	kW	
61006-C	35	1.7	53.9	15.8	4.7	49.5	14.5	5.5	44.7	13.1	6.3	39.9	11.7	7.2
	40	4.4	61.4	18	4.9	56.6	16.6	5.7	51.6	15.1	6.5	46.7	13.7	7.3
	45	7.2	69.3	20.3	5.1	64.2	18.8	5.9	59	17.3	6.7	54	15.8	7.5
	50	10	77.6	22.7	5.2	72.2	21.2	6.1	66.7	19.5	6.9	61.5	18	7.7
61008-C	35	1.7	68.4	20	5.4	63.5	18.6	6.2	58.3	17.1	7.2	53.2	15.6	8.1
	40	4.4	75.7	22.2	5.6	70.4	20.6	6.4	64.8	19	7.3	59.2	17.3	8.2
	45	7.2	83.5	24.5	5.7	77.7	22.8	6.5	71.7	21	7.4	65.7	19.3	8.3
	50	10	91.8	26.9	5.9	85.5	25.1	6.7	79.1	23.2	7.6	72.8	21.3	8.4
61009-C	35	1.7	84.4	24.7	6.6	78.2	22.9	7.5	71	20.8	8.6	63.9	18.7	9.7
	40	4.4	93	27.3	6.7	86.5	25.3	7.6	79.1	23.2	8.7	71.9	21.1	9.8
	45	7.2	102.1	29.9	6.8	95.1	27.9	7.8	87.6	25.7	8.9	80.4	23.6	9.9
	50	10	111.7	32.7	6.9	104.2	30.5	7.9	96.3	28.2	9	88.8	26	10
61011-C	35	1.7	110	32.3	8.8	102.9	30.2	9.9	95.6	28	11.1	88.2	25.9	12.3
	40	4.4	121.4	35.6	9	113.6	33.3	10.1	105.5	30.9	11.3	97.5	28.6	12.5
	45	7.2	133.6	39.1	9.2	124.9	36.6	10.3	116	34	11.6	107.2	31.4	12.7
	50	10	146.4	42.9	9.4	136.9	40.1	10.6	127.2	37.3	11.8	117.9	34.5	12.9
61014-C	35	1.7	123.9	36.3	10.2	114.3	33.5	11.5	104.1	30.5	12.9	94.2	27.6	14.3
	40	4.4	136.2	39.9	10.5	126.5	37.1	11.8	116.5	34.1	13.2	106.8	31.3	14.6
	45	7.2	149.6	43.8	10.8	139.4	40.9	12.2	129.1	37.8	13.5	119.2	34.9	14.8
	50	10	163.7	48	11.1	152.7	44.8	12.5	141.6	41.5	13.8	131.2	38.4	15
62011-C	35	1.7	107.3	31.4	9.5	98.4	28.8	11.1	88.8	26	12.8	79.3	23.3	14.5
	40	4.4	122.1	35.8	9.9	112.5	33	11.4	102.5	30.1	13.1	92.8	27.2	14.8
	45	7.2	137.7	40.4	10.2	127.6	37.4	11.8	117.2	34.4	13.5	107.2	31.4	15.1
	50	10	154.2	45.2	10.6	143.4	42	12.3	132.4	38.8	14	122.1	35.8	15.4
62014-C	35	1.7	136.8	40.1	10.8	127	37.2	12.4	116.7	34.2	14.3	106.3	31.2	16.2
	40	4.4	151.4	44.4	11.1	140.8	41.3	12.7	129.5	38	14.6	118.4	34.7	16.4
	45	7.2	167	48.9	11.4	155.4	45.6	13.1	143.3	42	14.9	131.4	38.5	16.6
	50	10	183.6	53.8	11.8	171.1	50.1	13.4	158.1	46.3	15.2	145.5	42.7	16.9
62018-C	35	1.7	166.4	48.8	13.5	153.5	45	15.5	139.1	40.8	17.7	125.1	36.7	19.8
	40	4.4	183.2	53.7	13.8	169.6	49.7	15.8	154.9	45.4	18	141	41.3	20
	45	7.2	200.9	58.9	14.1	186.6	54.7	16.1	171.6	50.3	18.3	157.7	46.2	20.3
	50	10	219.4	64.3	14.4	204.2	59.8	16.4	188.6	55.3	18.5	174.2	51.1	20.4
62023-C	35	1.7	213.9	62.7	18.4	199.5	58.5	20.8	185	54.2	23.2	170.7	50	25.5
	40	4.4	235.4	69	19	219.7	64.4	21.3	203.7	59.7	23.8	188.2	55.2	26
	45	7.2	258.2	75.7	19.5	240.8	70.6	21.9	223.4	65.5	24.3	206.6	60.6	26.4
	50	10	282.2	82.7	20.1	263.3	77.2	22.5	244.6	71.7	24.8	235.5	69	25.8
62028-C	35	1.7	244.4	71.6	20.9	225	66	23.5	204.6	60	26.4	185.3	54.3	29
	40	4.4	268.7	78.8	21.5	249.2	73	24.2	229.2	67.2	27	210.4	61.7	29.6
	45	7.2	294.8	86.4	22.2	274.5	80.4	24.9	254	74.5	27.6	234.8	68.8	30.1
	50	10	322.3	94.5	22.9	300.3	88	25.6	278.6	81.6	28.2	268.1	78.6	29.4

Table 6

Notes :

* Power input mentioned in this page should not be used for cable or fuse selection. MCA and MFA values given in the electrical data pages (22-24) should be referred for the same.

Computer Print outs for matched ratings with SKM Air Handling Units are available.

SKM Air Cooled Condensing Units ACUS Series - R-22 & R-407C

CAPACITY RATINGS - 60 Hz (R407C)

Model ACUS	SST		Condenser Entering Air Temperature											
			95°F (35°C)			105°F (40.6°C)			115°F (46.1°C)			125°F (51.7°C)		
			Total Capacity		PI*	Total Capacity		PI*	Total Capacity		PI*	Total Capacity		PI*
°F	°C	MBh	kW	kW	MBh	kW	kW	MBh	kW	kW	MBh	kW	kW	
62030-C	35	1.7	267.7	78.5	22.7	247.6	72.6	25.7	227	66.5	29	206.6	60.5	32.2
	40	4.4	296.2	86.8	23.3	274.4	80.4	26.4	252.2	73.9	29.6	230.4	67.5	32.7
	45	7.2	326.6	95.7	24.1	303	88.8	27.1	279	81.8	30.3	255.7	75	33.2
	50	10	359	105.2	24.9	333.7	97.8	28	308.2	90.3	31	283.8	83.2	33.8
62034-C	35	1.7	311.1	91.2	28	288.7	84.6	31.4	265.7	77.9	35	243.2	71.3	38.5
	40	4.4	343.4	100.6	28.9	318.9	93.5	32.3	294	86.2	35.9	269.9	79.1	39.1
	45	7.2	377.6	110.7	29.9	350.8	102.8	33.3	323.8	94.9	36.7	298	87.4	39.8
	50	10	413.6	121.2	30.9	384.9	112.8	34.3	356.2	104.4	37.6	342.4	100.4	39.2
62040-C	35	1.7	361.6	106	32	335.9	98.5	36.2	309.8	90.8	40.7	284.2	83.3	44.9
	40	4.4	398.4	116.8	33.1	370.5	108.6	37.3	342.2	100.3	41.7	314.7	92.2	45.7
	45	7.2	437.4	128.2	34.3	406.9	119.3	38.5	376.3	110.3	42.7	346.9	101.7	46.5
	50	10	478.6	140.3	35.6	446.1	130.7	39.7	413.7	121.2	43.8	397.9	116.6	45.7
62046-C	35	1.7	411.7	120.7	36.1	382.9	112.2	41.1	353.6	103.7	46.5	324.9	95.2	51.4
	40	4.4	453	132.8	37.4	421.7	123.6	42.4	390	114.3	47.7	359.1	105.3	52.3
	45	7.2	496.8	145.6	38.8	462.7	135.6	43.8	428.4	125.6	48.8	395.4	115.9	53.2
	50	10	543.1	159.2	40.2	506.8	148.5	45.2	470.6	137.9	50	453	132.8	52.2
62053-C	35	1.7	463.1	135.7	40.7	430.4	126.2	46.1	397.1	116.4	52.1	364.3	106.8	57.6
	40	4.4	510.6	149.6	42	474.9	139.2	47.5	438.7	128.6	53.3	403.4	118.2	58.6
	45	7.2	560.8	164.4	43.5	521.8	153	49	482.6	141.4	54.6	444.8	130.4	59.6
	50	10	613.6	179.8	45	572.1	167.7	50.4	530.7	155.5	55.9	510.5	149.6	58.4
62060-C	35	1.7	513.9	150.6	45.3	477.4	139.9	51.3	439.9	128.9	57.7	403	118.1	63.9
	40	4.4	567.4	166.3	46.8	527.4	154.6	52.8	486.7	142.6	59.1	447	131	65
	45	7.2	623.9	182.9	48.3	580.2	170.1	54.3	536	157.1	60.4	493.4	144.6	66
	50	10	683.1	200.2	49.9	636.5	186.6	55.8	589.8	172.9	61.8	545	159.7	67.1
62062-C	35	1.7	580.7	170.2	50.4	538.2	157.8	56.8	494.5	144.9	63.7	451.5	132.3	70.4
	40	4.4	641.8	188.1	52	595.6	174.6	58.4	548.4	160.7	65.2	502.3	147.2	71.5
	45	7.2	706.8	207.2	53.7	656.4	192.4	60.1	605.3	177.4	66.7	556	163	72.8
	50	10	775.8	227.4	55.5	721.6	211.5	61.9	667.3	195.6	68.4	615.5	180.4	74.1
62065-C	35	1.7	620.5	181.9	56.2	575.6	168.7	63	529.7	155.3	70.4	484.8	142.1	77.2
	40	4.4	684.6	200.7	58.1	635.7	186.3	64.9	586	171.8	72	538	157.7	78.5
	45	7.2	752.6	220.6	60.1	699.1	204.9	66.9	645.3	189.1	73.7	594	174.1	79.8
	50	10	824.3	241.6	62.2	766.9	224.8	69	709.8	208	75.6	682.3	200	78.6
62080-C	35	1.7	728.6	213.5	63.3	677.3	198.5	71.5	625	183.2	80.5	573.4	168.1	89
	40	4.4	803.2	235.4	65.4	747.4	219.1	73.7	690.6	202.4	82.5	635.1	186.2	90.6
	45	7.2	882.5	258.7	67.7	821.5	240.8	75.9	759.9	222.7	84.5	700.4	205.3	92.2
	50	10	966.1	283.2	70	900.9	264	78.3	835.6	244.9	86.6	772.9	226.5	93.9
62090-C	35	1.7	828.4	242.8	71.5	770.8	225.9	81.3	712.2	208.8	92.1	654.5	191.8	102
	40	4.4	912.1	267.3	74	849.3	248.9	83.9	785.8	230.3	94.4	723.6	212.1	103.8
	45	7.2	1000.8	293.3	76.6	932.4	273.3	86.6	863.6	253.1	96.7	796.9	233.6	105.7
	50	10	1094.4	320.8	79.4	1021.6	299.4	89.3	948.9	278.1	99.1	913.3	267.7	103.6
62095-C	35	1.7	885.7	259.6	75.2	824.4	241.6	85.3	761.5	223.2	96.6	699.4	205	107.3
	40	4.4	976.6	286.3	77.6	909.6	266.6	87.8	841.3	246.6	98.9	774.3	226.9	109.2
	45	7.2	1073.1	314.5	80.2	999.9	293.1	90.5	925.8	271.3	101.3	853.7	250.2	111.1
	50	10	1174.6	344.3	82.9	1096.6	321.4	93.2	1018.1	298.4	103.7	942.1	276.1	113.1
62100-C	35	1.7	927.6	271.9	81.2	862.3	252.7	92	795.5	233.2	103.9	729.8	213.9	115
	40	4.4	1022.8	299.8	83.8	951.4	278.9	94.8	878.9	257.6	106.3	808.2	236.9	117
	45	7.2	1123.5	329.3	86.7	1045.6	306.5	97.6	967	283.4	108.9	891.2	261.2	118.9
	50	10	1229.4	360.3	89.7	1146.4	336	100.6	1063.4	311.7	111.5	983.6	288.3	121
62105-C	35	1.7	978.16	286.7	85.87	908.98	266.4	97.22	838.07	245.6	109.57	768.38	225.2	121.32
	40	4.4	1079.32	316.3	88.59	1003.69	294.2	100.07	926.6	271.6	112.19	851.56	249.6	123.39
	45	7.2	1186.24	347.7	91.6	1103.68	323.5	102.97	1020.13	299.0	114.73	939.6	275.4	125.45
	50	10	1298.6	380.6	94.58	1210.49	354.8	106.03	1122.27	328.9	117.43	1037.45	304.1	127.51
62110-C	35	1.7	1028.7	301.5	90.5	955.8	280.1	102.4	880.7	258.1	115.3	807	236.5	127.6
	40	4.4	1135.8	332.9	93.4	1056	309.5	105.3	974.4	285.6	118	894.9	262.3	129.8
	45	7.2	1249.1	366.1	96.4	1161.8	340.5	108.3	1073.3	314.6	120.7	988	289.6	131.9
	50	10	1367.8	400.9	99.6	1274.6	373.6	111.5	1181.1	346.2	123.5	1091.3	319.9	134

Table 6 ends

Notes :

* Power input mentioned in this page should not be used for cable or fuse selection. MCA and MFA values given in the electrical data pages (22-24) should be referred for the same.

Computer Print outs for matched ratings with SKM Air Handling Units are available.

SKM Air Cooled Condensing Units

ACUS Series - R-22 & R-407C

Capacity Control Steps

The Standard Capacity Control Steps are shown below.

ACUS		Standard	Number of steps
51005	61006	100-0	1
51007	61008	100-0	1
51008	61009	100-0	1
51009	61011	100-0	1
52010	62011	100-50-0	2
51012	61014	100-0	1
52013	62014	100-50-0	2
52015	62018	100-50-0	2
52019	62023	100-50-0	2
52024	62028	100-50-0	2
52025	62030	100-50-0	2
52028	62034	100-50-0	2
52034	62040	100-57-0	2
52039	62046	100-50-0	2
52045	62053	100-56-0	2
52049	62060	100-50-0	2
52051	62062	100-77-50-27-0	4
52055	62065	100-75-50-25-0	4
52065	62080	100-79-50-29-0	4
52075	62090	100-75-50-25-0	4
52080	62095	100-77-53-29-0	4
52085	62100	100-77-50-27-0	4
52090	62105	100-79-53-26-0	4
52095	62110	100-75-50-25-0	4

Table 7

Selection Procedure

Example

The following information should be determined:

1. Required total capacity = 445 MBh (130.4 kW)
2. Saturated suction temperature = 50°F (10°C)
3. Condenser entering air temperature = 115°F (46°C)
4. Power Supply (V/Ph/Hz) = 380/3/50
5. Refrigerant R407C.

Enter capacity ratings from Table 5 at 115°F (46°C) condenser entering air temperature and select model **ACUS 52045** having a cooling capacity of 449 MBh (131.6 kW) at 50°F (10°C) saturated suction temperature, compressor motor power input is 45.2 kW. For further details refer to physical data and specifications sheets.

Capacity ratings are based on sea level operation. Above sea level, apply the following corrections method.

Actual capacity (at level) = Sea level capacity x altitude correction factor (from Table 8).

Altitude Correction Factors

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

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

Table 8

SKM Air Cooled Condensing Units

ACUS Series - R-22 & R-407C

Field Connections

ACUS series self-contained heavy duty air cooled condensing units are designed for minimum field interaction.

Power hook-ups for AHU starter and fan interlock and control wiring of room unit as per Electrical hook-up diagram is all that is required to electrically connect any model of ACUS series .

Every ACUS series condensing unit requires, at most, field installed fused disconnect switches or circuit breakers, and room unit.

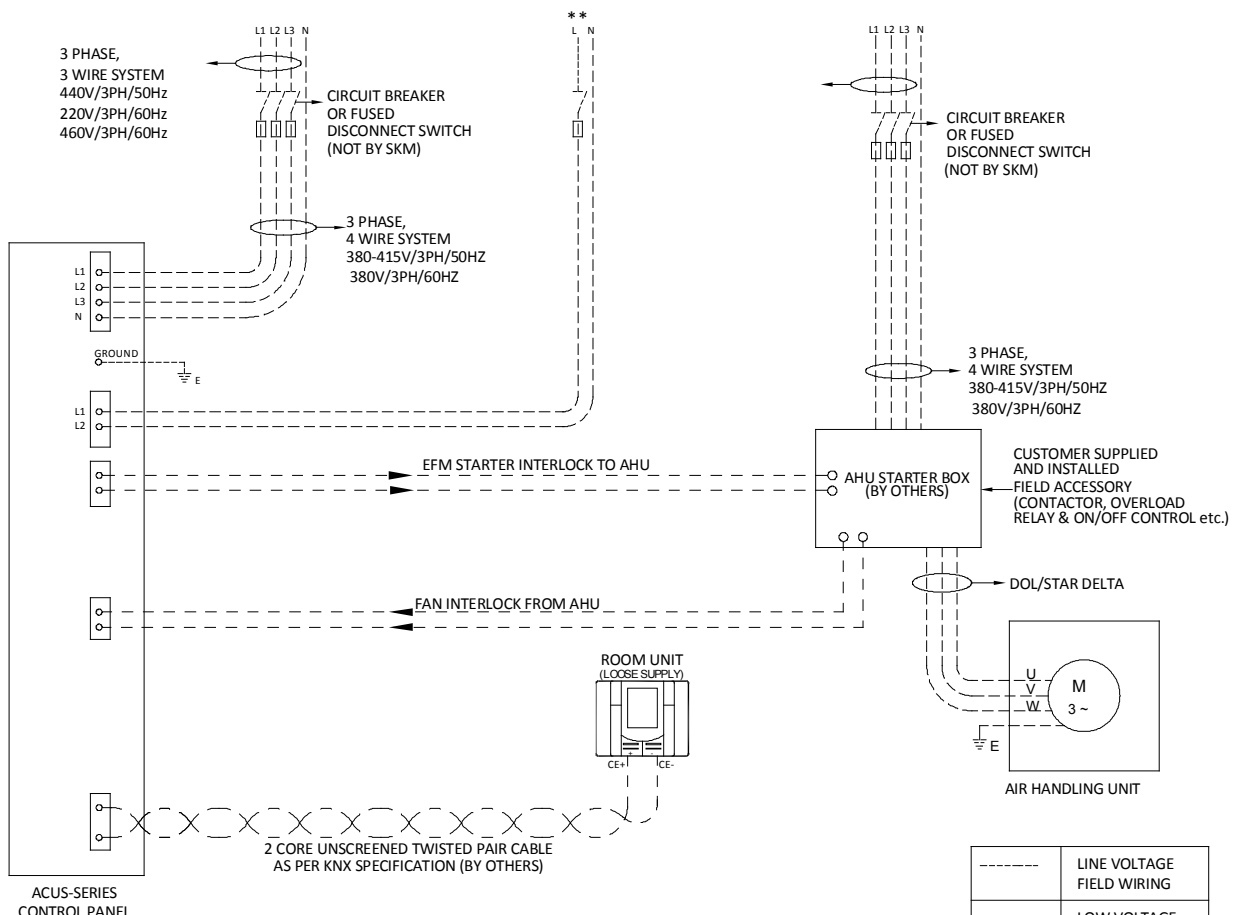
Refer below for a schematic representation of required field electrical hook-ups for a standard ACUS series condensing unit.

All field wiring must be done in accordance with applicable local and national codes.

For maximum recommended fuse sizes and minimum circuit amps for cable sizing, see Page 22~24 of this bulletin.

The ACUS series is then ready to provide cooling, on demand.

Field Wiring Requirement Schematic



REFER ACTUAL WIRING DIAGRAM FURNISHED WITH THE UNIT FOR EXACT IDENTIFICATION OF WIRE NUMBERS.

** ACUS SERIES UNITS RATED FOR 440V/3PH/50HZ, 460V/3PH/60HZ, OR POWER SUPPLIES WITH OUT NEUTRAL REQUIRE SEPARATE SOURCE OF CONTROL POWER SUPPLY THRU FIELD SUPPLIED & INSTALLED 15A/220V FUSED CONTROL DISCONNECT SWITCH OR ORDER WITH FACTORY BUILT IN OPTION 'CXT'.

SKM Air Cooled Condensing Units ACUS Series - R-22 & R-407C

ELECTRICAL DATA

POWER SUPPLY 380-415V/3PH/50Hz

Model ACUS	Unit Characteristic			Compressor			Condenser Fan Motor		
	MFA	MCA	ICF	QTY	RLA	LRA	QTY	FLA	LRA
51005	25	14	78	1	10	74	1	1.1	3.9
51007	32	17	110	1	12	101	1	2.4	8.9
51008	40	22	100	1	16	95	2	1.1	3.9
51009	50	26	123	1	19	118	2	1.1	3.9
52010	40	25	89	1 + 1	10 + 10	74 + 74	2	1.1	3.9
51012	63	30	123	1	22	118	2	1.1	3.9
52013	50	32	124	1 + 1	12 + 12	101 + 101	2	2.4	8.9
52015	63	41	122	1 + 1	16 + 16	95 + 95	2	2.4	8.9
52019	80	51	158	1 + 1	19 + 19	118 + 118	2	3.9	17.2
52024	80	57	161	1 + 1	22 + 22	118 + 118	2	3.9	17.2
52025	100	68	190	1 + 1	25 + 25	140 + 140	3	3.9	17.2
52028	125	79	229	1 + 1	30 + 30	174 + 174	3	3.9	17.2
52034	160	89	280	1 + 1	38 + 30	225 + 174	3	3.9	17.2
52039	160	97	288	1 + 1	38 + 38	225 + 225	3	3.9	17.2
52045	160	109	339	1 + 1	44 + 38	272 + 225	4	3.9	17.2
52049	160	115	345	1 + 1	44 + 44	272 + 272	4	3.9	17.2
52051	200	133	283	2 + 2	30 + 25	174 + 140	4	3.9	17.2
52055	200	143	293	2 + 2	30 + 30	174 + 174	4	3.9	17.2
52065	200	161	352	2 + 2	38 + 30	225 + 174	4	3.9	17.2
52075	25	177	368	2 + 2	38 + 38	225 + 225	4	3.9	17.2
52080	250	200	431	1 + 3	44 + 38	272 + 225	8	3.9	17.2
52085	250	206	437	2 + 2	44 + 38	272 + 225	8	3.9	17.2
52090	315	212	443	3 + 1	44 + 38	272 + 225	8	3.9	17.2
52095	315	218	449	2 + 2	44 + 44	272 + 272	8	3.9	17.2

Table 9

POWER SUPPLY 440V/3PH/50Hz

Model ACUS	Unit Characteristic			Compressor			Condenser Fan Motor		
	MFA	MCA	ICF	QTY	RLA	LRA	QTY	FLA	LRA
51005	25	13	77	1	10	74	1	0.95	3.4
51007	32	17	109	1	12	101	1	2.1	7.6
51008	40	22	99	1	16	95	2	0.95	3.4
51009	50	26	122	1	19	118	2	0.95	3.4
52010	40	24	88	1 + 1	10 + 10	74 + 74	2	0.95	3.4
51012	63	29	122	1	22	118	2	0.95	3.4
52013	50	31	123	1 + 1	12 + 12	101 + 101	2	2.1	7.6
52015	63	40	121	1 + 1	16 + 16	95 + 95	2	2.1	7.6
52019	80	50	155	1 + 1	19 + 19	118 + 118	2	3.5	14.7
52024	80	57	158	1 + 1	22 + 22	118 + 118	2	3.5	14.7
52025	100	67	187	1 + 1	25 + 25	140 + 140	3	3.5	14.7
52028	125	78	226	1 + 1	30 + 30	174 + 174	3	3.5	14.7
52034	160	88	277	1 + 1	38 + 30	225 + 174	3	3.5	14.7
52039	160	96	285	1 + 1	38 + 38	225 + 225	3	3.5	14.7
52045	160	107	335	1 + 1	44 + 38	272 + 225	4	3.5	14.7
52049	160	113	341	1 + 1	44 + 44	272 + 272	4	3.5	14.7
52051	200	132	279	2 + 2	30 + 25	174 + 140	4	3.5	14.7
52055	200	142	289	2 + 2	30 + 30	174 + 174	4	3.5	14.7
52065	200	160	348	2 + 2	38 + 30	225 + 174	4	3.5	14.7
52075	250	176	364	2 + 2	38 + 38	225 + 225	4	3.5	14.7
52080	250	197	425	1 + 3	44 + 38	272 + 225	8	3.5	14.7
52085	250	203	431	2 + 2	44 + 38	272 + 225	8	3.5	14.7
52090	315	209	437	3 + 1	44 + 38	272 + 225	8	3.5	14.7
52095	315	215	443	2 + 2	44 + 44	272 + 272	8	3.5	14.7

Table 10

SKM Air Cooled Condensing Units

ACUS Series - R-22 & R-407C

ELECTRICAL DATA

POWER SUPPLY 380V/3PH/60Hz

Model ACUS	Unit Characteristic			Compressor			Condenser Fan Motor		
	MFA	MCA	ICF	QTY	RLA	LRA	QTY	FLA	LRA
61006	32	15	75	1	11	70	1	1.5	4.5
61008	32	18	110	1	12	100	1	3.1	9.6
61009	50	24	129	1	17	123	2	1.5	4.5
61011	63	33	151	1	24	145	2	1.5	4.5
62011	40	28	87	1 + 1	11 + 11	70 + 70	2	1.5	4.5
61014	63	33	151	1	24	145	2	1.5	4.5
62014	50	33	125	1 + 1	12 + 12	100 + 100	2	3.1	9.6
62018	63	44	153	1 + 1	17 + 17	123 + 123	2	3.1	9.6
62023	100	65	192	1 + 1	24 + 24	145 + 145	2	5.3	17.5
62028	100	65	192	1 + 1	24 + 24	145 + 145	2	5.3	17.5
62030	125	86	198	1 + 1	31 + 31	139 + 139	3	5.3	17.5
62034	160	99	261	1 + 1	37 + 37	196 + 196	3	5.3	17.5
62040	160	105	345	1 + 1	42 + 37	280 + 196	3	5.3	17.5
62046	160	110	350	1 + 1	42 + 42	280 + 280	3	5.3	17.5
62053	200	133	428	1 + 1	56 + 42	353 + 280	4	5.3	17.5
62060	250	147	442	1 + 1	56 + 56	353 + 353	4	5.3	17.5
62062	250	166	328	2 + 2	37 + 31	196 + 139	4	5.3	17.5
62065	250	178	340	2 + 2	37 + 37	196 + 196	4	5.3	17.5
62080	250	190	429	2 + 2	42 + 37	280 + 196	4	5.3	17.5
62090	250	200	439	2 + 2	42 + 42	280 + 280	4	5.3	17.5
62095	315	238	534	1 + 3	56 + 42	353 + 280	8	5.3	17.5
62100	315	252	548	2 + 2	56 + 42	353 + 280	8	5.3	17.5
62105	400	266	562	3 + 1	56 + 42	353 + 280	8	5.3	17.5
62110	400	280	576	2 + 2	56 + 56	353 + 353	8	5.3	17.5

Table 11

POWER SUPPLY 460V/3PH/60Hz

Model ACUS	Unit Characteristic			Compressor			Condenser Fan Motor		
	MFA	MCA	ICF	QTY	RLA	LRA	QTY	FLA	LRA
61006	25	14	80	1	10	75	1	1.3	5.2
61008	32	18	112	1	12	100	1	3.1	11.8
61009	40	23	102	1	16	95	2	1.3	5.2
61011	50	26	132	1	19	125	2	1.3	5.2
62011	40	25	92	1 + 1	10 + 10	75 + 75	2	1.3	5.2
61014	50	29	132	1	21	125	2	1.3	5.2
62014	50	33	127	1 + 1	12 + 12	100 + 100	2	3.1	11.8
62018	63	42	126	1 + 1	16 + 16	95 + 95	2	3.1	11.8
62023	80	53	170	1 + 1	19 + 19	125 + 125	2	5	21.0
62028	80	57	172	1 + 1	21 + 21	125 + 125	2	5	21.0
62030	100	71	206	1 + 1	25 + 25	150 + 150	3	5	21.0
62034	125	78	238	1 + 1	28 + 28	179 + 179	3	5	21.0
62040	160	91	284	1 + 1	38 + 28	225 + 179	3	5	21.0
62046	160	101	294	1 + 1	38 + 38	225 + 225	3	5	21.0
62053	160	113	346	1 + 1	44 + 38	272 + 225	4	5	21.0
62060	200	119	352	1 + 1	44 + 44	272 + 272	4	5	21.0
62062	200	133	293	2 + 2	28 + 25	179 + 150	4	5	21.0
62065	200	139	299	2 + 2	28 + 28	179 + 179	4	5	21.0
62080	200	162	355	2 + 2	38 + 28	225 + 179	4	5	21.0
62090	250	182	375	2 + 2	38 + 38	225 + 225	4	5	21.0
62095	315	209	442	1 + 3	44 + 38	272 + 225	8	5	21.0
62100	315	215	448	2 + 2	44 + 38	272 + 225	8	5	21.0
62105	315	221	454	3 + 1	44 + 38	272 + 225	8	5	21.0
62110	315	227	460	2 + 2	44 + 44	272 + 272	8	5	21.0

Table 12

SKM Air Cooled Condensing Units

ACUS Series - R-22 & R-407C

ELECTRICAL DATA

POWER SUPPLY 220V/3PH/60Hz

Model ACUS	Unit Characteristic			Compressor			Condenser Fan Motor		
	MFA	MCA	ICF	QTY	RLA	LRA	QTY	FLA	LRA
61006	50	29	164	1	21	156	1	2.5	7.5
61008	63	37	181	1	25	164	1	5.4	16.7
61009	80	45	205	1	32	195	2	2.5	7.5
61011	100	56	249	1	41	239	2	2.5	7.5
62011	80	52	187	1 + 1	21 + 21	156 + 156	2	2.5	7.5
61014	125	64	255	1	47	245	2	2.5	7.5
62014	100	67	211	1 + 1	25 + 25	164 + 164	2	5.4	16.7
62018	125	83	249	1 + 1	32 + 32	195 + 195	2	5.4	16.7
62023	160	110	319	1 + 1	41 + 41	239 + 239	2	9	29.7
62028	200	124	331	1 + 1	47 + 47	245 + 245	2	9	29.7
62030	250	151	403	1 + 1	55 + 55	300 + 300	3	9	29.7
62034	250	162	448	1 + 1	60 + 60	340 + 340	3	9	29.7
62040	315	188	613	1 + 1	81 + 60	505 + 340	3	9	29.7
62046	315	209	634	1 + 1	81 + 81	505 + 505	3	9	29.7
62053	315	226	743	1 + 1	87 + 81	605 + 505	4	9	29.7
62060	400	232	749	1 + 1	87 + 87	605 + 605	4	9	29.7
62062	400	281	567	2 + 2	60 + 55	340 + 300	4	9	29.7
62065	400	291	577	2 + 2	60 + 60	340 + 340	4	9	29.7
62080	500	338	763	2 + 2	81 + 60	505 + 340	4	9	29.7
62090	500	380	805	2 + 2	81 + 81	505 + 505	4	9	29.7
62095	630	424	941	1 + 3	87 + 81	605 + 505	8	9	29.7
62100	630	430	947	2 + 2	87 + 81	605 + 505	8	9	29.7
62105	630	436	953	3 + 1	87 + 81	605 + 505	8	9	29.7
62110	630	442	959	2 + 2	87 + 87	605 + 605	8	9	29.7

Table 13

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.
- ICF** Maximum Instantaneous Current Flow.
- DOL** Direct On-Line Start .

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

Note :

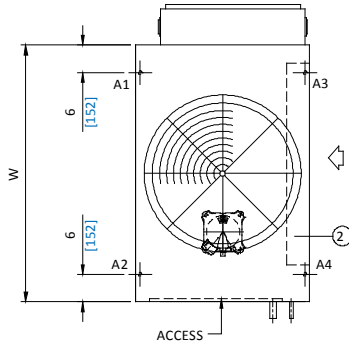
Voltage imbalance not to exceed $\pm 2\%$ of the rated voltage.

SKM Air Cooled Condensing Units

ACUS Series - R-22 & R-407C

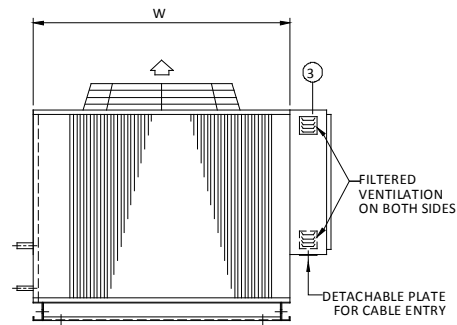
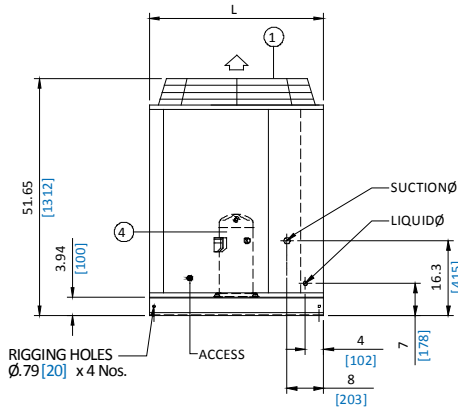
Dimensional Data

ACUS Models: 51005, 51007 & 61006, 61008



MODEL ACUS-	DIMENSIONS		LEGEND
	L	W	
51005	34	45	① CONDENSER FAN ② CONDENSER COIL ③ CONTROL PANEL ④ COMPRESSOR
61006	[864]	[1143]	
51007	38	56	
61008	[965]	[1422]	

FOR LINE SIZES REFER TO PAGE NO:- (32-33)
ALL DIMENSIONS ARE IN INCHES [mm]

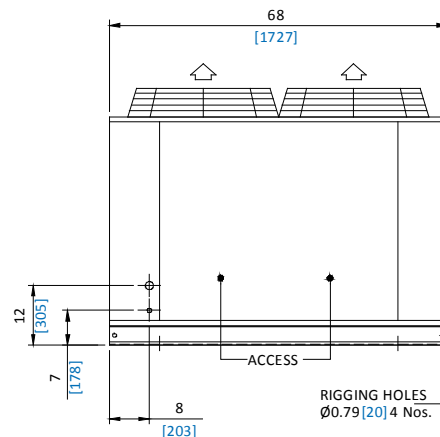
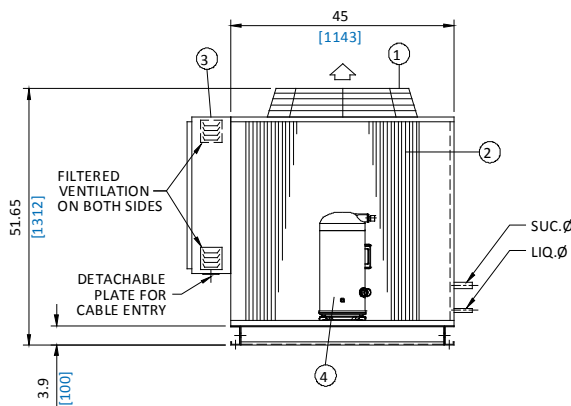
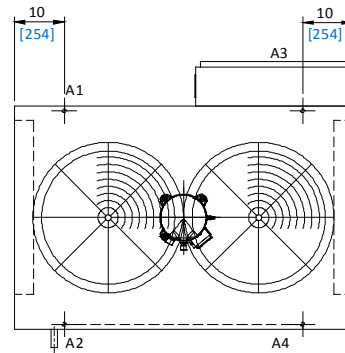


ACUS Models: 51008, 51009, 51012 & 61009, 61011, 61014

LEGEND
① CONDENSER FAN
② CONDENSER COIL
③ CONTROL PANEL
④ COMPRESSOR

CERTIFIED DRAWINGS ARE AVAILABLE ON REQUEST

FOR LINE SIZES REFER TO PAGE NO:- (32-33)
ALL DIMENSIONS ARE IN INCHES [mm]



SKM Air Cooled Condensing Units ACUS Series - R-22 & R-407C

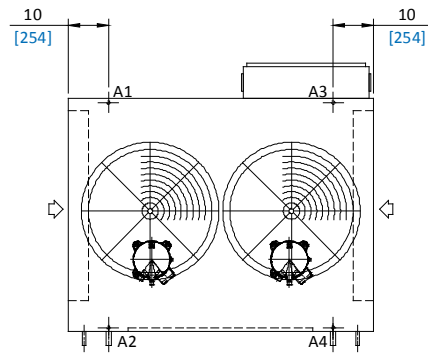
Dimensional Data

ACUS Models: 52010, 52013, 52015, 52019, 52024 & 62011, 62014, 62018, 62023, 62028

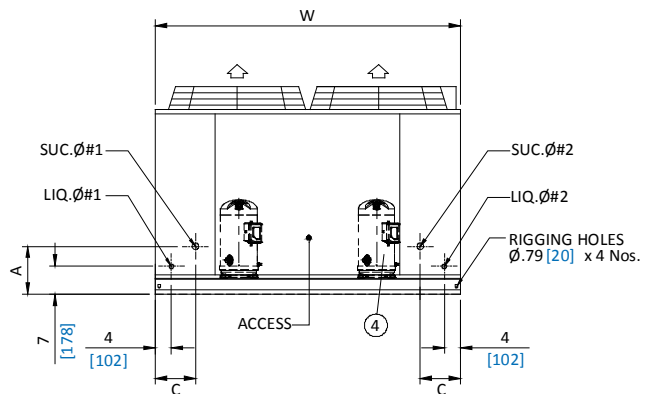
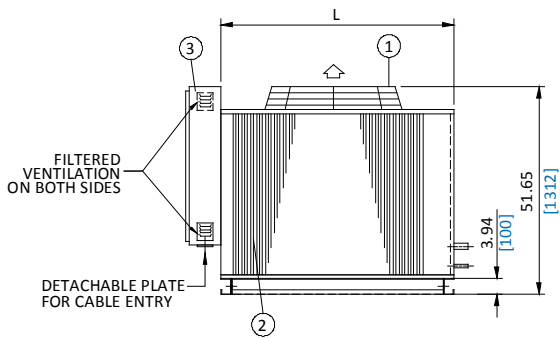
MODEL ACUS-	DIMENSIONS			
	L	W	A	C
52010 62011	45 [1143]	68 [1727]	16.3 [415]	8 [203]
52013 62014	58 [1473]	76 [1930]	16.3 [415]	10 [254]
52015 62018	58 [1473]	76 [1930]	12 [305]	10 [254]
52019 62023	58 [1473]	84 [2133]	12 [305]	10 [254]
52024 62028	58 [1473]	84 [2133]	12 [305]	10 [254]

CERTIFIED DRAWINGS ARE AVAILABLE ON REQUEST

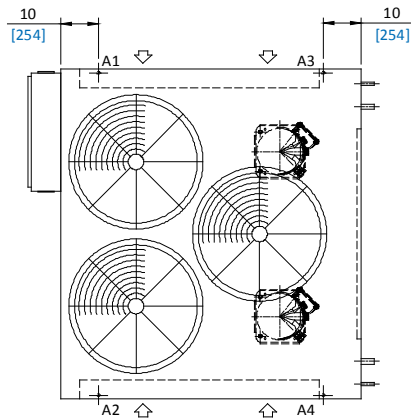
- LEGEND
- ① CONDENSER FAN
 - ② CONDENSER COIL
 - ③ CONTROL PANEL
 - ④ COMPRESSOR



FOR LINE SIZES REFER TO PAGE NO.-(32-33)
ALL DIMENSIONS ARE IN INCHES [mm]

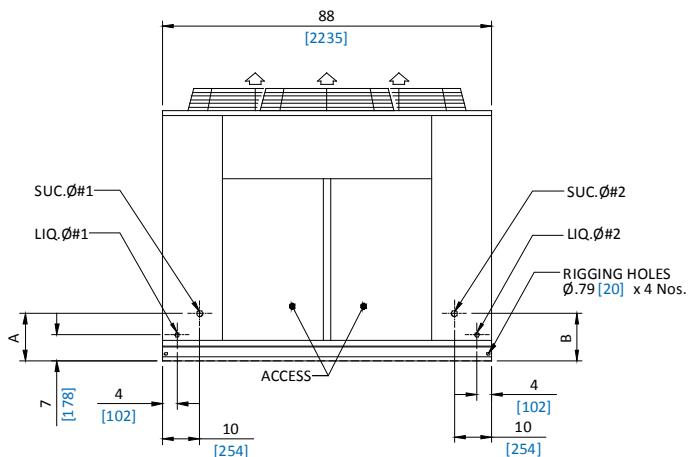
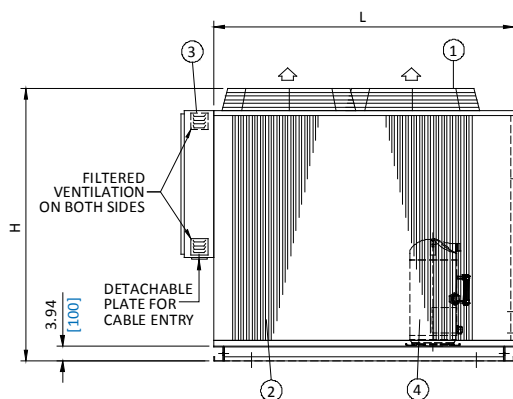


ACUS Models: 52025, 52028, 52034, 52039 & 62030, 62034, 62040, 62046



MODEL ACUS-	DIMENSIONS			
	L	H	A	B
52025 62030	80 [2032]	52.65 [1337]	12 [305]	12 [305]
52028 62034	76 [1930]	60.65 [1540]	12 [305]	12 [305]
52034 62040	76 [1930]	60.65 [1540]	12.71 [323]	12 [305]
52039 62046	80 [2032]	72.65 [1845]	12.71 [323]	12.71 [323]

FOR LINE SIZES REFER TO PAGE NO.-(32-33)
ALL DIMENSIONS ARE IN INCHES [mm]

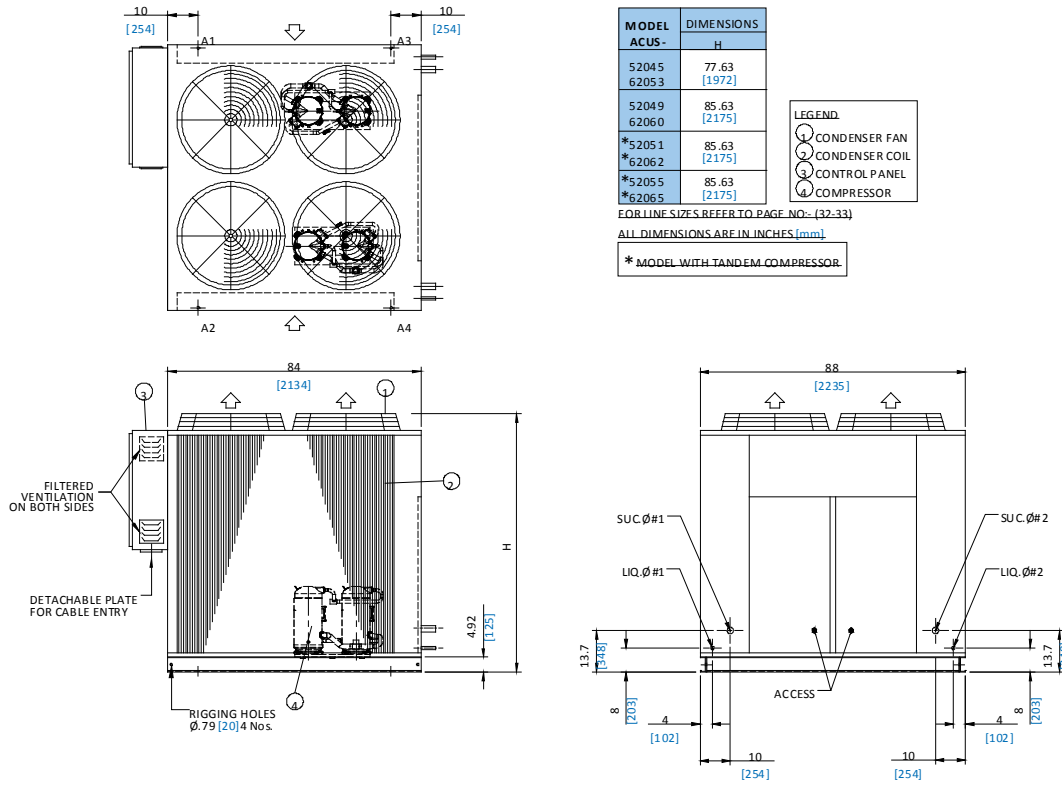


SKM Air Cooled Condensing Units

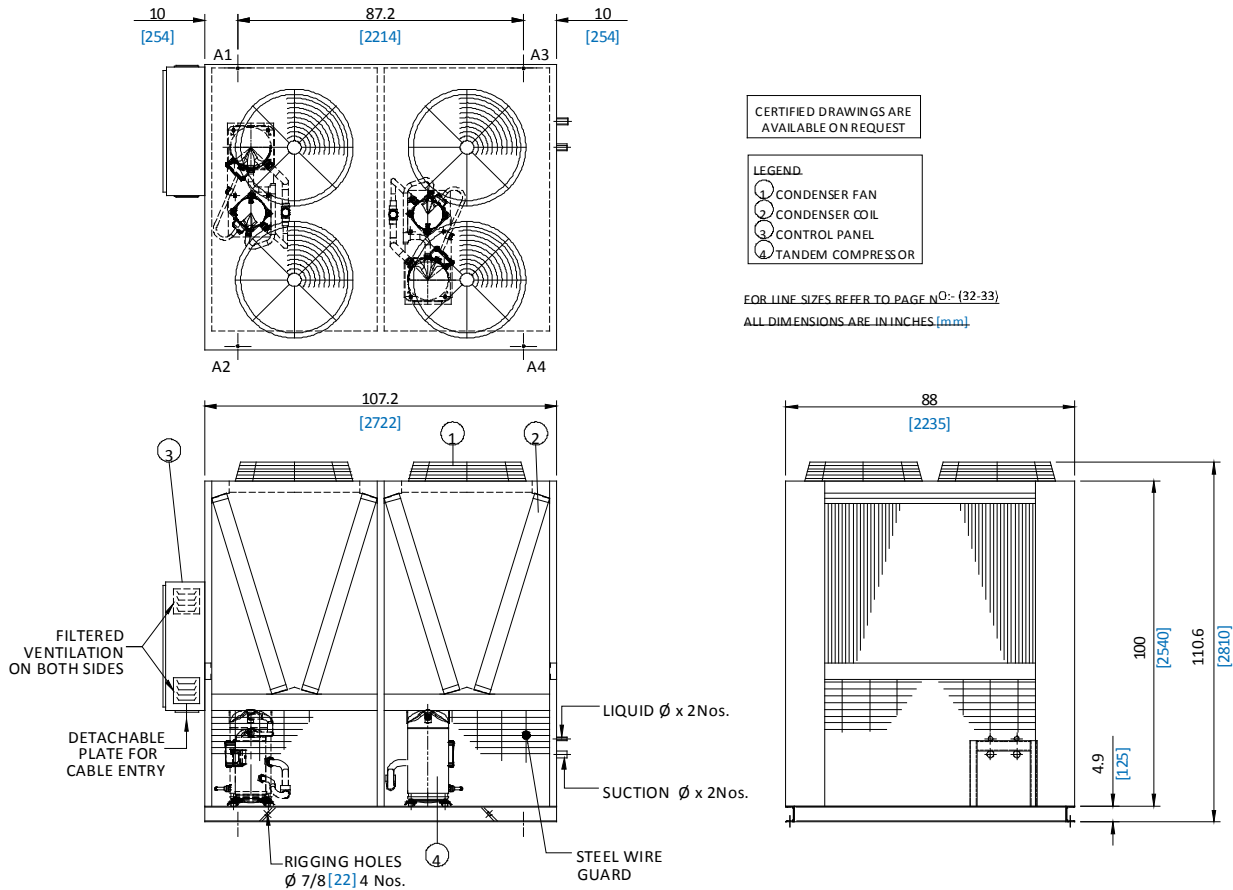
ACUS Series - R-22 & R-407C

Dimensional Data

ACUS Models: 52045, 52049, 52051, 52055 & 62053, 62060, 62062, 62065



ACUS Models: 52065, 52075 & 62080, 62090

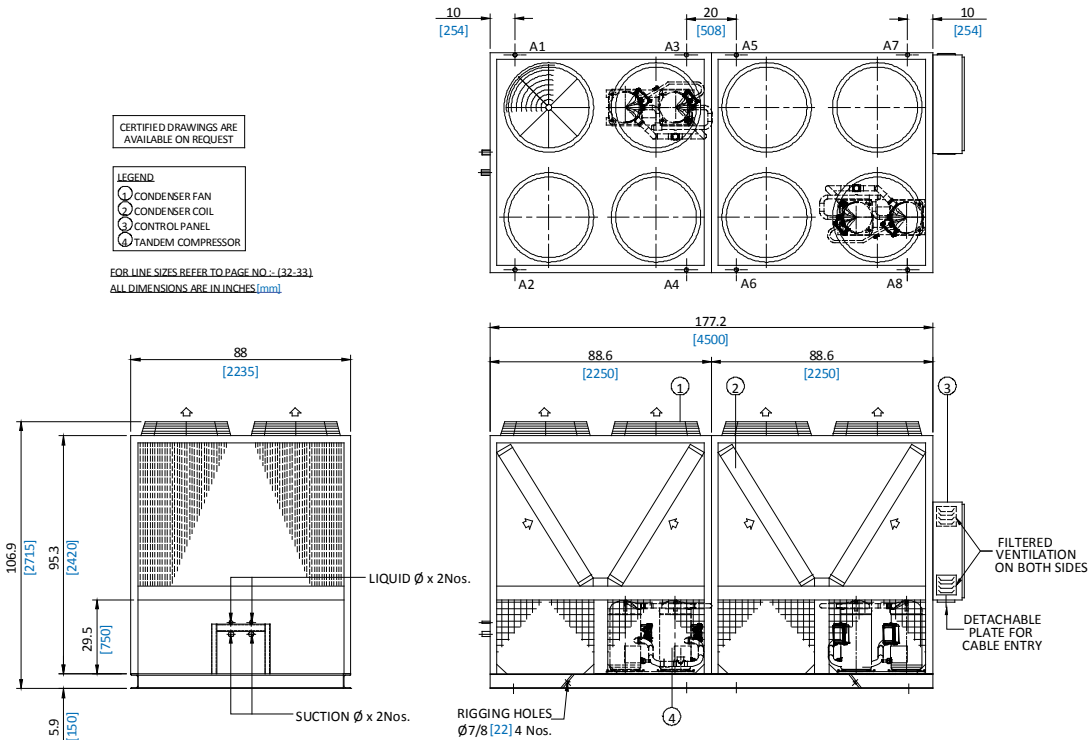


SKM Air Cooled Condensing Units

ACUS Series - R-22 & R-407C

Dimensional Data

ACUS Models: 52080 to 52095 & 62095 to 62110



LOADING POINTS - 50Hz

ACUS	UNIT	LOADING POINTS								TOTAL WEIGHT
		A1	A2	A3	A4	A5	A6	A7	A8	
51005	lb.	108	130	145	154	-	-	-	-	537
	Kg.	49	59	66	70	-	-	-	-	244
51007	lb.	114	125	167	170	-	-	-	-	577
	Kg.	52	57	76	77	-	-	-	-	262
51008	lb.	163	154	181	154	-	-	-	-	653
	Kg.	74	70	82	70	-	-	-	-	296
51009	lb.	190	179	205	179	-	-	-	-	753
	Kg.	86	81	93	81	-	-	-	-	341
52010	lb.	199	190	216	190	-	-	-	-	795
	Kg.	90	86	98	86	-	-	-	-	360
51012	lb.	188	181	207	181	-	-	-	-	757
	Kg.	85	82	94	82	-	-	-	-	343
52013	lb.	232	221	247	221	-	-	-	-	919
	Kg.	105	100	112	100	-	-	-	-	417
52015	lb.	251	287	276	287	-	-	-	-	1100
	Kg.	114	130	125	130	-	-	-	-	499
52019	lb.	284	320	309	320	-	-	-	-	1233
	Kg.	129	145	140	145	-	-	-	-	559
52024	lb.	297	335	324	335	-	-	-	-	1291
	Kg.	135	152	147	152	-	-	-	-	586
52025	lb.	366	333	377	377	-	-	-	-	1454
	Kg.	166	151	171	171	-	-	-	-	659
52028	lb.	458	426	463	463	-	-	-	-	1809
	Kg.	208	193	210	210	-	-	-	-	821
52034	lb.	487	476	509	593	-	-	-	-	2066
	Kg.	221	216	231	269	-	-	-	-	937
52039	lb.	539	507	664	664	-	-	-	-	2374
	Kg.	245	230	301	301	-	-	-	-	1077
52045	lb.	633	591	686	706	-	-	-	-	2615
	Kg.	287	268	311	320	-	-	-	-	1186
52049	lb.	664	615	721	721	-	-	-	-	2721
	Kg.	301	279	327	327	-	-	-	-	1234
52051	lb.	703	653	717	717	-	-	-	-	2789
	Kg.	319	296	325	325	-	-	-	-	1265
52055	lb.	704	657	719	719	-	-	-	-	2799
	Kg.	320	298	326	326	-	-	-	-	1270
52065	lb.	1568	1354	1125	1160	-	-	-	-	5206
	Kg.	711	614	510	526	-	-	-	-	2361
52075	lb.	1757	1532	1246	1294	-	-	-	-	5830
	Kg.	797	695	565	587	-	-	-	-	2644
52080	lb.	778	701	1061	785	703	787	955	1252	7022
	Kg.	353	318	481	356	319	357	433	568	3185
52085	lb.	787	706	1089	794	706	787	955	1252	7075
	Kg.	357	320	494	360	320	357	433	568	3209
52090	lb.	820	736	1122	825	739	827	997	1310	7376
	Kg.	372	334	509	374	335	375	452	594	3345
52095	lb.	829	741	1151	836	741	829	999	1314	7439
	Kg.	376	336	522	379	336	376	453	596	3374

Table 14

LOADING POINTS - 60Hz

ACUS	UNIT	LOADING POINTS								TOTAL WEIGHT
		A1	A2	A3	A4	A5	A6	A7	A8	
61006	lb.	108	130	145	156	-	-	-	-	540
	Kg.	49	59	66	71	-	-	-	-	245
61008	lb.	117	128	167	169	-	-	-	-	581
	Kg.	53	58	76	77	-	-	-	-	264
61009	lb.	165	154	183	157	-	-	-	-	659
	Kg.	75	70	83	71	-	-	-	-	299
61011	lb.	190	181	207	181	-	-	-	-	759
	Kg.	86	82	94	82	-	-	-	-	344
62011	lb.	201	192	216	192	-	-	-	-	801
	Kg.	91	87	98	87	-	-	-	-	363
61014	lb.	190	183	207	183	-	-	-	-	763
	Kg.	86	83	94	83	-	-	-	-	346
62014	lb.	232	223	249	223	-	-	-	-	927
	Kg.	105	101	113	101	-	-	-	-	420
62018	lb.	254	287	280	287	-	-	-	-	1108
	Kg.	115	130	127	130	-	-	-	-	502
62023	lb.	287	326	313	326	-	-	-	-	1253
	Kg.	130	148	142	148	-	-	-	-	568
62028	lb.	302	340	329	340	-	-	-	-	1311
	Kg.	137	154	149	154	-	-	-	-	594
62030	lb.	375	340	384	384	-	-	-	-	1483
	Kg.	170	154	174	174	-	-	-	-	672
62034	lb.	469	434	467	467	-	-	-	-	1838
	Kg.	213	197	212	212	-	-	-	-	834
62040	lb.	496	485	514	600	-	-	-	-	2095
	Kg.	225	220	233	272	-	-	-	-	950
62046	lb.	549	514	670	670	-	-	-	-	2403
	Kg.	249	233	304	304	-	-	-	-	1090
62053	lb.	641	602	694	716	-	-	-	-	2654
	Kg.	291	273	315	325	-	-	-	-	1204
62060	lb.	675	624	730	730	-	-	-	-	2759
	Kg.	306	283	331	331	-	-	-	-	1251
62062	lb.	712	664	725	725	-	-	-	-	2827
	Kg.	323	301	329	329	-	-	-	-	1282
62065	lb.	714	664	730	730	-	-	-	-	2838
	Kg.	324	301	331	331	-	-	-	-	1287
62080	lb.	1577	1363	1133	1171	-	-	-	-	5244
	Kg.	715	618	514	531	-	-	-	-	2378
62090	lb.	1766	1541	1255	1305	-	-	-	-	5868
	Kg.	801	699	569	592	-	-	-	-	2661
62095	lb.	787	712	1072	794	714	796	964	1261	7100
	Kg.	357	323	486	360	324	361	437	572	3220
62100	lb.	798	714	1098	803	714	798	966	1261	7153
	Kg.	362	324	498	364	324	362	438	572	3244
62105	lb.	829	745	1131	833	750	838	1005	1321	7453
	Kg.	376	338	513	378	340	380	456	599	3380
62110	lb.	840	750	1162	845	750	840	1008	1323	7517
	Kg.	381	340	527	383	340	381	457	600	3409

Table 15

SKM Air Cooled Condensing Units

ACUS Series - R-22 & R-407C

Location and Space Requirements

Due to the vertical air flow discharge condenser design, it is recommended that certain precautions are to be taken before installation. There should be no obstruction on the air flow.

Orient the unit so that prevailing winds blow parallel to the unit length thus minimizing the effects on condensing pressure. If it is not practical to orient the unit in this manner, a wind deflecting shield should be considered.

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

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

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

The isolators must be designed for the operating weight of the unit. For operating load points refer to Loading Points Data (page No.28). Correct selection of types of isolators depends upon application and structure.

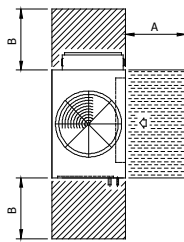
Location and Space Requirements

ACUS		A	B	C	
51005	61006	40	42	60	
51007	61008		50		
51008	61009		42		
51009	61011		50		
52010	62011				
51012	61014		54		
52013	62014				
52015	62018		70		
52019	62023				
52024	62028		48		66
52028	62034	70			
52034	62040	90			
52039	62046	96			
52045	62053	78			
52049	62060				
52051	62062	84			
52055	62065				
52065	62080	52		90	
52075	62090				
52080	62095				
52085	62100				
52090	62105				
52095	62100				

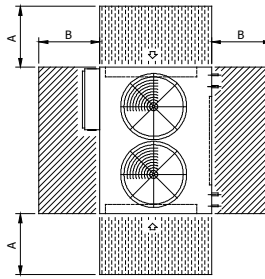
Table 16

SINGLE UNIT INSTALLATION

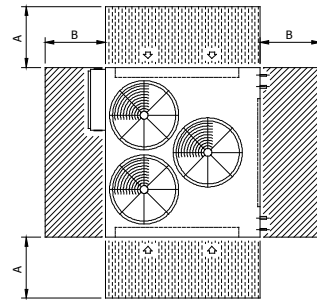
ACUS-51005, 51007 & 61006, 61008



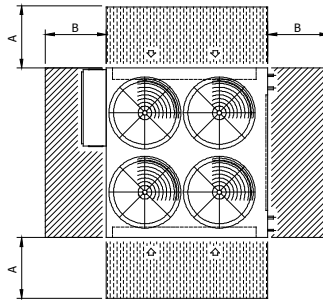
ACUS-51008 to 52024 & 61009 to 62028



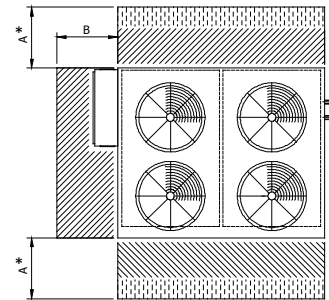
ACUS-52025 to 52039 & 62030 to 62046



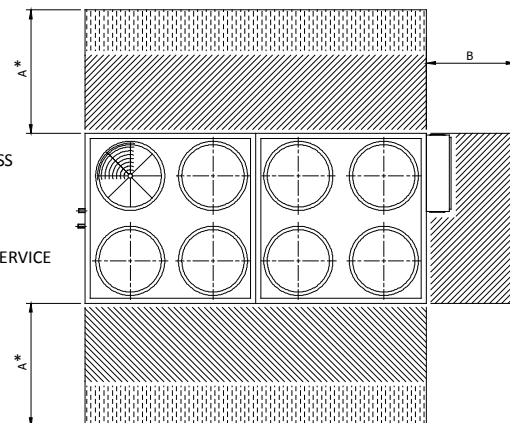
ACUS-52045 to 52055 & 62053 to 62065



ACUS-52065, 52075 & 62080, 62090



ACUS-52080 to 52095 & 62095 to 62110



SPACING FOR SERVICE AND ACCESS

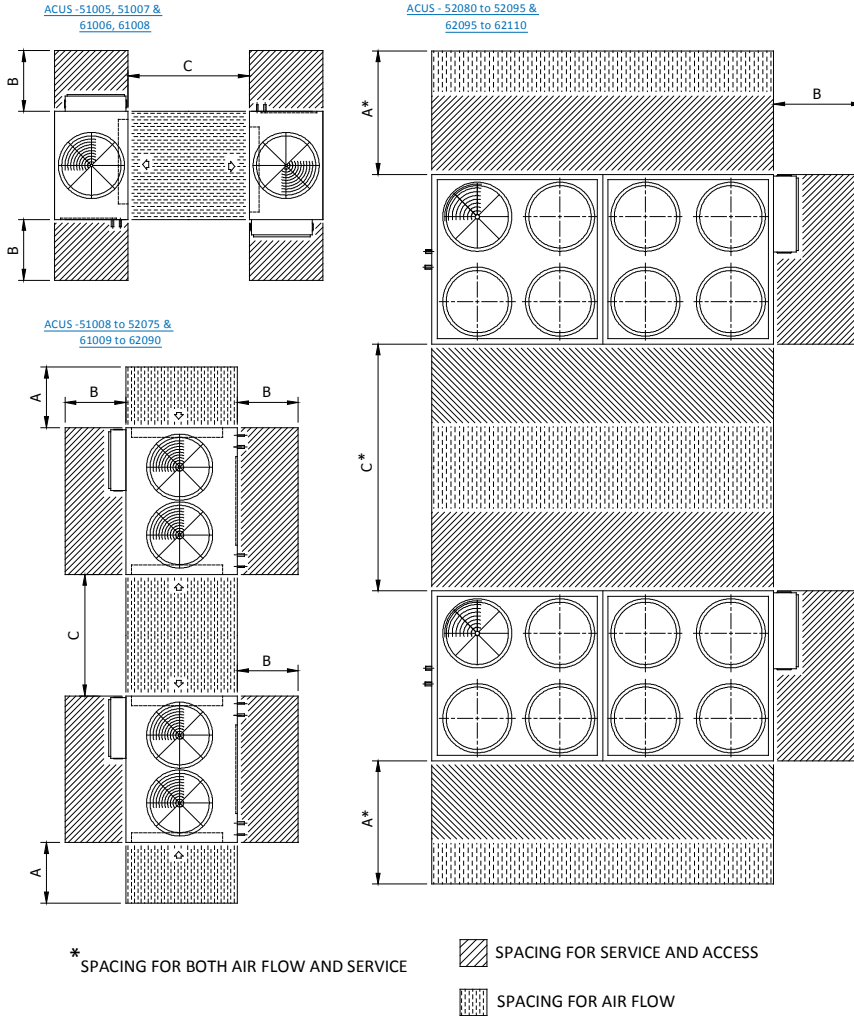
SPACING FOR AIR FLOW

* SPACING FOR BOTH AIR FLOW AND SERVICE

SKM Air Cooled Condensing Units ACUS Series - R-22 & R-407C

Location and Space Requirements

MULTIPLE UNIT INSTALLATION

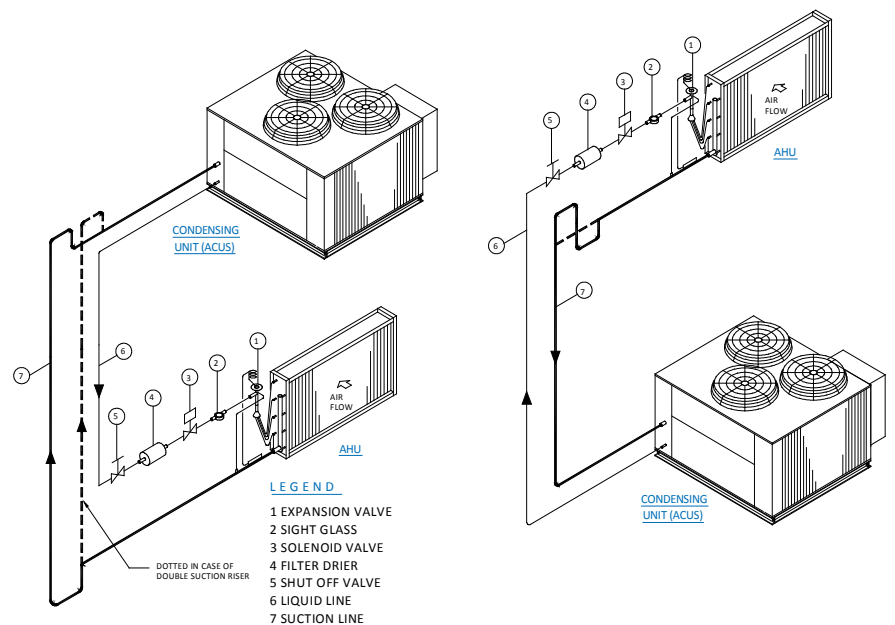


Typical Refrigeration Piping

Legend

1. Expansion Valve
2. Sight Glass
3. Solenoid Valve
4. Filter Drier
5. Shut Off Valve
6. Liquid Line
7. Suction Line

Single Circuit Unit Shown. For Dual circuit units, piping of second circuit is similar.



SKM Air Cooled Condensing Units

ACUS Series - R-22 & R-407C

Refrigerant Piping

Correct design and size of refrigerant piping is necessary for proper operation. The refrigerant piping generally should be designed to accomplish the following:

- a. To ensure proper refrigerant feed to the evaporator.
- b. To provide practical refrigerant line sizes without excessive pressure drop.
- c. To maintain uniform return of lubricating oil to the compressor.
- d. To prevent refrigerant from entering the compressor and causing compressor damage due to "slugging".

Field Expansion Valve Selection

The following recommendations should be taken into consideration when selecting expansion valves in field.

1. Expansion valves should be installed as close to the evaporator as possible, mounted directly to the distributor.
2. The following possible sources of pressure drop to be considered:
 - a. Friction losses through refrigerant lines.
 - b. Pressure drop across valves and controls.
 - c. Pressure drop due to vertical lift of liquid line for R-22 1°F (0.55°C) sub cooling must be allowed for each 5.5 ft (1.7m) vertical rise in order to avoid flash gas forming due to the weight of the column of liquid refrigerant.

SKM **ACUS** Series units are designed with a sub cooling circuit enough to sub cool the liquid 12°F (6.6 °C), which gives the liquid maximum 66 ft. (20m) lift without additional sub cooling. Liquid suction heat exchanger can be used for additional sub cooling in order to avoid flash gas forming.

Matching DX Coil Selection

For single circuit **ACUS** Series, the DX coil selection in a MAH or other air handler from SKM should be based on total capacity. For dual circuit **ACUS** Series, extra care should be exercised and correspondingly split, by face area or number of rows to correspond and match the capacity split available in the dual circuited **ACUS** Series selected. For optimum matching the DX coil should be ordered from SKM as well.

SKM provides correct no. of feeds and circuits and properly sized distribution to ensure the correct split on the DX coil is made available to match the particular selected **ACUS** Series model.

SKM Air Cooled Condensing Units

ACUS Series - R-22 & R-407C

Recommended Refrigerant Line Sizes - 50 Hz

Model ACUS	Liquid Line Size, inches								Suction Line Size, inches							
	Circuit 1				Circuit 2				Circuit 1				Circuit 2			
	25 ft	50 ft	75 ft	100 ft	25 ft	50 ft	75 ft	100 ft	25 ft	50 ft	75 ft	100 ft	25 ft	50 ft	75 ft	100 ft
51005	1/2	1/2	1/2	5/8	-	-	-	-	7/8	1 1/8	1 1/8	1 1/8	-	-	-	-
51007	1/2	1/2	1/2	5/8	-	-	-	-	7/8	1 1/8	1 1/8	1 3/8	-	-	-	-
51008	1/2	1/2	5/8	5/8	-	-	-	-	1 1/8	1 1/8	1 3/8	1 3/8	-	-	-	-
51009	1/2	5/8	5/8	5/8	-	-	-	-	1 1/8	1 3/8	1 3/8	1 3/8	-	-	-	-
52010	1/2	1/2	1/2	5/8	1/2	1/2	1/2	5/8	7/8	1 1/8	1 1/8	1 1/8	7/8	1 1/8	1 1/8	1 1/8
51012	1/2	5/8	5/8	7/8	-	-	-	-	1 1/8	1 3/8	1 3/8	1 5/8	-	-	-	-
52013	1/2	1/2	1/2	5/8	1/2	1/2	1/2	5/8	7/8	1 1/8	1 1/8	1 3/8	7/8	1 1/8	1 1/8	1 3/8
52015	1/2	1/2	5/8	5/8	1/2	1/2	5/8	5/8	1 1/8	1 1/8	1 3/8	1 3/8	1 1/8	1 1/8	1 3/8	1 3/8
52019	1/2	5/8	5/8	5/8	1/2	5/8	5/8	5/8	1 1/8	1 3/8	1 3/8	1 3/8	1 1/8	1 3/8	1 3/8	1 3/8
52024	1/2	5/8	5/8	7/8	1/2	5/8	5/8	7/8	1 1/8	1 3/8	1 3/8	1 5/8	1 1/8	1 3/8	1 3/8	1 5/8
52025	5/8	5/8	7/8	7/8	5/8	5/8	7/8	7/8	1 1/8	1 3/8	1 3/8	1 5/8	1 1/8	1 3/8	1 3/8	1 5/8
52028	5/8	5/8	7/8	7/8	5/8	5/8	7/8	7/8	1 3/8	1 3/8	1 5/8	1 5/8	1 3/8	1 3/8	1 5/8	1 5/8
52034	5/8	7/8	7/8	7/8	5/8	5/8	7/8	7/8	1 3/8	1 5/8	1 5/8	2 1/8	1 3/8	1 3/8	1 5/8	1 5/8
52039	5/8	7/8	7/8	7/8	5/8	7/8	7/8	7/8	1 3/8	1 5/8	1 5/8	2 1/8	1 3/8	1 5/8	1 5/8	2 1/8
52045	7/8	7/8	7/8	7/8	5/8	7/8	7/8	7/8	1 5/8	1 5/8	2 1/8	2 1/8	1 3/8	1 5/8	1 5/8	2 1/8
52049	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	1 5/8	1 5/8	2 1/8	2 1/8	1 5/8	1 5/8	2 1/8	2 1/8
52051	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	1 5/8	2 1/8	2 1/8	2 1/8	1 5/8	2 1/8	2 1/8	2 1/8
52055	7/8	7/8	7/8	1 1/8	7/8	7/8	7/8	1 1/8	1 5/8	2 1/8	2 1/8	2 1/8	1 5/8	2 1/8	2 1/8	2 1/8
52065	7/8	7/8	1 1/8	1 1/8	7/8	7/8	1 1/8	1 1/8	1 5/8	2 1/8	2 1/8	2 1/8	1 5/8	2 1/8	2 1/8	2 1/8
52075	7/8	7/8	1 1/8	1 1/8	7/8	7/8	1 1/8	1 1/8	2 1/8	2 1/8	2 1/8	2 5/8	2 1/8	2 1/8	2 1/8	2 5/8
52080	7/8	1 1/8	1 1/8	1 1/8	7/8	7/8	1 1/8	1 1/8	2 1/8	2 1/8	2 5/8	2 5/8	2 1/8	2 1/8	2 1/8	2 5/8
52085	7/8	1 1/8	1 1/8	1 1/8	7/8	1 1/8	1 1/8	1 1/8	2 1/8	2 1/8	2 5/8	2 5/8	2 1/8	2 1/8	2 5/8	2 5/8
52090	7/8	1 1/8	1 1/8	1 1/8	7/8	1 1/8	1 1/8	1 1/8	2 1/8	2 1/8	2 5/8	2 5/8	2 1/8	2 1/8	2 5/8	2 5/8
52095	7/8	1 1/8	1 1/8	1 1/8	7/8	1 1/8	1 1/8	1 1/8	2 1/8	2 1/8	2 5/8	2 5/8	2 1/8	2 1/8	2 5/8	2 5/8

Table 17

SKM ACUS Series Condensing Units are designed for satisfactory operation with single suction line.

1. Suction Line sizing selection recommendation in Table 17 is based on 2°F temperature drop.
2. Double suction risers, for applications with systems having large variations in capacity, are recommended to ensure proper oil flow up and return to compressor.
3. Liquid line sizing selection recommendation in table 17 is based on 2°F temperature drop.
4. Recommended line sizes in Table 17 are for guidance only. For detailed proper piping, consult recognized piping references like ASHRAE Guide and Data Book for assistance.
5. Suction and liquid line sizes are based on equivalent lengths.

SKM is not responsible for faulty or improper design or sizing of refrigerant lines. The above recommendations do not incorporate necessary slopes, etc. that may be required on horizontal risers, etc.

SKM Air Cooled Condensing Units

ACUS Series - R-22 & R-407C

Recommended Refrigerant Line Sizes - 60 Hz

Model ACUS	Liquid Line Size, inches								Suction Line Size, inches							
	Circuit 1				Circuit 2				Circuit 1				Circuit 2			
	25 ft	50 ft	75 ft	100 ft	25 ft	50 ft	75 ft	100 ft	25 ft	50 ft	75 ft	100 ft	25 ft	50 ft	75 ft	100 ft
61006	1/2	1/2	5/8	5/8	-	-	-	-	1 1/8	1 1/8	1 3/8	1 3/8	-	-	-	-
61008	1/2	1/2	5/8	5/8	-	-	-	-	1 1/8	1 1/8	1 3/8	1 3/8	-	-	-	-
61009	1/2	5/8	5/8	5/8	-	-	-	-	1 1/8	1 3/8	1 3/8	1 3/8	-	-	-	-
61011	1/2	5/8	5/8	7/8	-	-	-	-	1 1/8	1 3/8	1 3/8	1 5/8	-	-	-	-
62011	1/2	1/2	5/8	5/8	1/2	1/2	5/8	5/8	1 1/8	1 1/8	1 3/8	1 3/8	1 1/8	1 1/8	1 3/8	1 3/8
61014	5/8	5/8	7/8	7/8	-	-	-	-	1 3/8	1 3/8	1 5/8	1 5/8	-	-	-	-
62014	1/2	1/2	5/8	5/8	1/2	1/2	5/8	5/8	1 1/8	1 1/8	1 3/8	1 3/8	1 1/8	1 1/8	1 3/8	1 3/8
62018	1/2	5/8	5/8	5/8	1/2	5/8	5/8	5/8	1 1/8	1 3/8	1 3/8	1 3/8	1 1/8	1 3/8	1 3/8	1 3/8
62023	1/2	5/8	5/8	7/8	1/2	5/8	5/8	7/8	1 1/8	1 3/8	1 3/8	1 5/8	1 1/8	1 3/8	1 3/8	1 5/8
62028	5/8	5/8	7/8	7/8	5/8	5/8	7/8	7/8	1 3/8	1 3/8	1 5/8	1 5/8	1 3/8	1 3/8	1 5/8	1 5/8
62030	5/8	5/8	7/8	7/8	5/8	5/8	7/8	7/8	1 3/8	1 3/8	1 5/8	1 5/8	1 3/8	1 3/8	1 5/8	1 5/8
62034	5/8	7/8	7/8	7/8	5/8	7/8	7/8	7/8	1 3/8	1 5/8	1 5/8	2 1/8	1 3/8	1 5/8	1 5/8	2 1/8
62040	7/8	7/8	7/8	7/8	5/8	7/8	7/8	7/8	1 5/8	1 5/8	2 1/8	2 1/8	1 3/8	1 5/8	1 5/8	2 1/8
62046	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	1 5/8	1 5/8	2 1/8	2 1/8	1 5/8	1 5/8	2 1/8	2 1/8
62053	7/8	7/8	7/8	1 1/8	7/8	7/8	7/8	7/8	1 5/8	2 1/8	2 1/8	2 1/8	1 5/8	1 5/8	2 1/8	2 1/8
62060	7/8	7/8	7/8	1 1/8	7/8	7/8	7/8	1 1/8	1 5/8	2 1/8	2 1/8	2 1/8	1 5/8	2 1/8	2 1/8	2 1/8
62062	7/8	7/8	7/8	1 1/8	7/8	7/8	7/8	1 1/8	1 5/8	2 1/8	2 1/8	2 1/8	1 5/8	2 1/8	2 1/8	2 1/8
62065	7/8	7/8	1 1/8	1 1/8	7/8	7/8	1 1/8	1 1/8	1 5/8	2 1/8	2 1/8	2 5/8	1 5/8	2 1/8	2 1/8	2 5/8
62080	7/8	1 1/8	1 1/8	1 1/8	7/8	1 1/8	1 1/8	1 1/8	2 1/8	2 1/8	2 5/8	2 5/8	2 1/8	2 1/8	2 5/8	2 5/8
62090	7/8	1 1/8	1 1/8	1 1/8	7/8	1 1/8	1 1/8	1 1/8	2 1/8	2 1/8	2 5/8	2 5/8	2 1/8	2 1/8	2 5/8	2 5/8
62095	7/8	1 1/8	1 1/8	1 1/8	7/8	1 1/8	1 1/8	1 1/8	2 1/8	2 5/8	2 5/8	2 5/8	2 1/8	2 1/8	2 5/8	2 5/8
62100	7/8	1 1/8	1 1/8	1 1/8	7/8	1 1/8	1 1/8	1 1/8	2 1/8	2 5/8	2 5/8	2 5/8	2 1/8	2 5/8	2 5/8	2 5/8
62105	7/8	1 1/8	1 1/8	1 3/8	7/8	1 1/8	1 1/8	1 1/8	2 1/8	2 5/8	2 5/8	2 5/8	2 1/8	2 5/8	2 5/8	2 5/8
62110	7/8	1 1/8	1 1/8	1 3/8	7/8	1 1/8	1 1/8	1 3/8	2 1/8	2 5/8	2 5/8	2 5/8	2 1/8	2 5/8	2 5/8	2 5/8

Table 18

SKM ACUS Series Condensing Units are designed for satisfactory operation with single suction line.

1. Suction Line sizing selection recommendation in Table 18 is based on 2°F temperature drop.
2. Double suction risers, for applications with systems having large variations in capacity, are recommended to ensure proper oil flow up and return to compressor.
3. Liquid line sizing selection recommendation in table 18 is based on 2°F temperature drop.
4. Recommended line sizes in Table 18 are for guidance only. For detailed proper piping, consult recognized piping references like ASHRAE Guide and Data Book for assistance.
5. Suction and liquid line sizes are based on equivalent lengths.

SKM is not responsible for faulty or improper design or sizing of refrigerant lines. The above recommendations do not incorporate necessary slopes, etc. that may be required on horizontal risers, etc.

SKM Air Cooled Condensing Units ACUS Series - R-22 & R-407C

GUIDE SPECIFICATIONS

GENERAL FEATURES

Condensing units shall be composed of compressor(s), fan(s), Coil(s), refrigerant piping, electrical components & enclosing cabinet in one piece.

Unit shall be factory assembled, internally wired, piping connections terminated with sealed and soldered copper pipe ends. Unit shall be shipped with nitrogen holding charge (actual charging with refrigerant R-22 & R-407C should be done at site). Unit shall be capable to operate from 50°F (10°C) to 120°F (48.9°C) ambient temperature and shall be rated in accordance with AHRI-365 standard.

COIL(S)

Coil shall be air cooled with integral sub-cooling circuit, constructed of seamless copper tubes 3/8" OD mechanically bonded to wavy Aluminium (Copper) fins with maximum 14 FPI (1.8 mm) spacing. Coil shall be tested against leakage by pressurizing air at 450 psig (3100 kPa) in coil, under water, cleaned and dehydrated at the factory.

COMPRESSOR(S)

Compressor shall be hermetic scroll, refrigerant gas cooled furnished with internal overload protection device, crankcase heater, and shall be mounted on rubber isolators.

CONDENSER FAN(S) & MOTOR(S)

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

Motors shall be Totally Enclosed Air Over (TEAO), 6 poles, with class 'F' insulation, minimum IP-55 protection and factory wired to unit control panel.

REFRIGERANT PIPING

The refrigerant circuit piping shall be fabricated from ACR grade copper piping, with 1 or 2, refrigeration circuits. The piping connections shall be terminated with sealed & soldered copper pipe ends, which give much simplicity & ease to the installation.

CASING

Unit casing shall be made of zinc coated galvanized steel sheets conforming to JIS-G3302 and ASTM A653 which shall be phosphatized and then electrostatically dry powder coated of approx. 60 microns to provide an extremely tough, scratch resistance, excellent anti-corrosive protection that can pass 1000 hrs in 5% salt spray testing at 95°F (35°C) and 95% relative humidity as per ASTM B117.

Unit casing shall be provided with access panels for easy service and maintenance of all units parts.

CONTROL PANEL

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

- All compressors shall be with DOL starting.
- Individual compressor and condenser fan motor contactors.
- Motor protector circuit breaker for condenser fan motors.
- Voltage monitoring module for protection against under voltage, over voltage, phase loss, phase reversal and phase unbalance of the incoming voltage.
- Control circuit breaker.
- Control circuit on/off switch.
- Microprocessor control boards.
- Control Relays.
- Power and control terminal blocks.

GUIDE SPECIFICATIONS

MICROPROCESSOR CONTROLLER

Condensing units shall be equipped with a full function microprocessor based controller as a standard feature. The controller shall be factory programmed for the control of AHU fan motor, compressors and condenser fans. The controller shall come with a built in keypad and display for simple but meaningful man machine interface. This controller shall provide complete operational control for the unit and shall have built-in auto diagnostic capability that can signal normal operation or alarm conditions as well as shutting down the unit or system if necessary.

The controller shall come with a loose supplied sleek and elegant design room unit for installing in the conditioned space. Communication between unit controller and room unit shall be through two wire interface. The communication cable shall be 2 core, twisted pair, unshielded with stranded conductors. Maximum distance between room unit and controller shall be 700 meters. The room unit shall have a built in sensor for measuring the room temperature. It shall transmit room temperature, set point, unit operating mode, operating schedule etc. to the unit controller. Control of the compressors shall be based on room temperature and the set point, as standard. Control based on duct temperature shall be available if required.

The Main Features of the controller shall be as follows:

- Built in LCD display with back light.
- Built in keypad.
- Battery backed up built in real time clock.
- Multiple authorization level to provide tight security for the control system.
- Capacity control based on room temperature or return air temperature.
- Alarm history.
- A sleek & elegant design room unit.

DISPLAY INFORMATION

Condensing units shall offer an LCD display which will allow the operator to access different parameters of the unit. Operator shall be able to view and change the unit parameters. The display information shall include:

- Status
- Outputs
- Inputs
- Alarms
- Set points
- Password

The intelligent microprocessor based controller shall monitor all the safeties related to the unit and makes the necessary protections, by shutting down the entire unit or the effected circuit. The protections shall include:

- Low suction pressure.
- High discharge pressure.
- High compressor motor temperature.
- Compressor short cycling.

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

In addition, the unit microprocessor shall be able to support the major BMS protocols such as BACnet, Modbus & LON as option



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