

# ACUV-D Series Air Cooled Condensing Units

Range 8 TR to 140 TR  
( 28 kW to 480 kW )



Bulletin # 058/2011

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ISO 9001  
BUREAU VERITAS  
Certification



R-134a

# SKM Air Cooled Condensing Units

## ACUV Series - R134a

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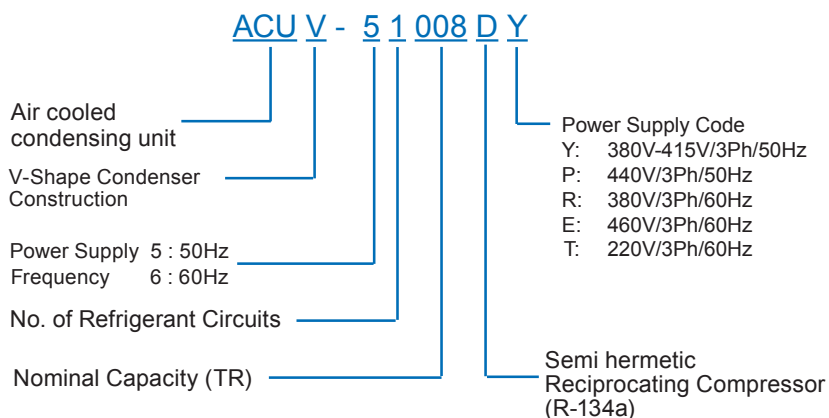
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### Legend

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 .... Rotations 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 **ACUV** 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 **ACUV** units are manufactured to meet the requirements of the gulf severe climatic conditions.

SKM **ACUV** Air Cooled Condensing unit are ideal for warehouses, large halls, schools, mosques, or wherever the requirement calls for a heavy duty unit with a semi-hermetic compressor.

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

The **ACUV** Air Cooled Condensing unit are available in 30 different models from 8 to 120 TR (28 to 410 kW) in 50 Hz and 9 to 140 TR (32 to 480 kW) in 60Hz at nominal conditions in one, two, three or four refrigeration circuits.

SKM **ACUV** Air Cooled Condensing unit are rated in accordance with AHRI-365.

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 Air Conditioning Equipment,



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

# SKM Air Cooled Condensing Units

## ACUV Series - R134a

### General Features

The **ACUV** series is a modern, diversified and environment friendly series of air cooled condensing unit which use R - 134a as a refrigerant.

The complete **ACUV** 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 **ACUV** series the pride of SKM products is the use of :

- Semi Hermetic Reciprocating, heavy duty, energy efficient compressors.
- 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.

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

### Component Features

#### Compressor

Compressors used in **ACUV-D** series are fully accessible, semi-hermetic, reciprocating type. They are equipped with an oil sight glass, suction and discharge service valves and crankcase heater. All compressors are refrigerant gas cooled and equipped with an oil pressure lubrication system. The oil pump working in either direction is protected by an oil screen and a valve provided for the fitting of an oil pressure gauge.

For protection, all compressors are equipped with preset internal relief valve between suction and discharge sides.

The compressors are provided with vibration isolator springs underneath and therefore, external to **ACUV-D** series, AVM's may be necessary only for critical applications.

The compressor motors have inherent thermal protection. This is in addition to other standard safety and protection controls. Compressors conform to DIN standards.

#### Condensers

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

All coils are tested against leakage by air pressure of 450 psig (3100 kPa) under water. All standard coils are 2,3 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 **ACUV** 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 **ACUV** condensing unit perform efficiently and durably.

Condenser Coil



#### 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.



Condenser Fan

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

# SKM Air Cooled Condensing Units

## ACUV Series - R134a

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

### Casing/Structure

Designed for ease of handling and low cost to install. The ACUV Air cooled condensing Units are factory assembled and mounted on a rigid base. The unit casing used in ACUV 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 maintainance

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

### Refrigerant Charge

ACUV Air Cooled Condensing units are shipped with nitrogen holding charge only. Actual charging with refrigerant R-134A should be done at site.

### Unit Controller

SKM ACUV-D units are provided with an intelligent and compact electronic controller to maintain the operation of the unit, as a standard feature. This controller, with expansion modules, has a maximum of 24 digital inputs, 8 analog inputs, 16 digital outputs, and 2 analog outputs. It is programmed and factory tested to maintain the trouble free operation of compressor and condenser fans. It manages heat/cool, anti short cycling of compressors, automatic restart after power failure, real time clock, pumpdown of each circuits and unit alarms. The controller comes with built-in display and function buttons. Display is 4 lines of 12 character and backlit.

### Piping connections

ACUV 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 ACUV 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.

whether or not, these options are include, installation of solenoid valve in the liquid line near the evaporator is mandatory for proper operation of the unit since the unit will switch off only after a pump down cycle. Solenoid valve is to interlocked with controller as per terminals in the wiring diagram.

# SKM Air Cooled Condensing Units ACUV Series - R134a

## Room Temperature Transmitter

Remote wall mounted digital temperature transmitter provides the signal to the unit controller for start or stop the unit. The provision allows to set the space temperature and LCD continuously shows the current space temperature selectable in °F / °C.

Duct mounted type temperature sensor can be supplied as an option, if required.



MASTER MODULE



EXPANSION MODULES



ROOM TEMPERATURE TRANSMITTER

## Optional Controller for Special Applications

### Micro PLC

A microprogrammable logic controller along with Human Machine Interface (HMI) touch panel and remote mounted transmitter provides a powerful controller to operate where ACUV units requires special applications or additional functionality. The CPU combines a microprocessor, an integrated power supply, input and output circuits housed in a compact body. The controller has status LED's for system fault/diagnostic, Run/Stop, mode selector switch, expansion port, communication port and terminal connectors. The microprocessor contains down loaded programme logic required to monitor and control the input and output devices to suit the operation of ACUV units.

The HMI touch panel displays soft buttons tailored to suite applications for proper operating and monitoring functions. A remote mounted temperature transmitter provides the signal to the controller for start or stop the unit.

A memory cartridge, real time clock and battery can be provided with the controller, if so specified.

Optional BMS interface with communication protocols LON, Modbus RTU & Profibus with separate gateways supports the controller. *(Please consult SKM for further details).*



MICRO PLC



HMI

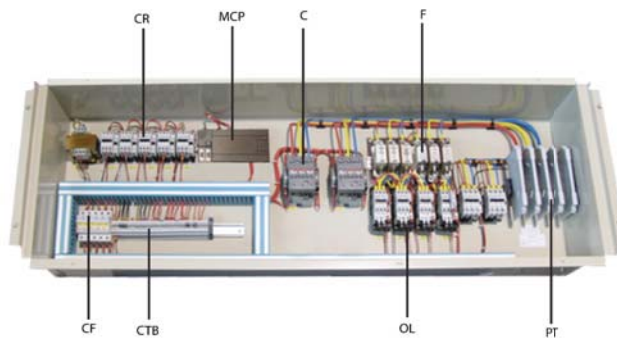
# SKM Air Cooled Condensing Units

## ACUV Series - R134a

### Electrical Control Panel

The unit mounted IP-54 control panel enclosure comprises all starting, operating, and safety controls. For models up to ACUV-52061D & 62070D are with dead front panel cover screwed onto the enclosure. All other models are provided with external panels having hinged door and key fastener provided for access and security.

All wirings are sized as per NEC regulations. Wiring is fully ferruled enabling ease of proper identification. The control panel is factory wired for 220-240V/1 PH/ 50 & 60Hz control power supply. A Micro Automation logic controller is built-in to control the unit.



#### LEGEND :

- C Contactor
- CF Control Fuse
- CR Control Relay
- CTB Control Terminal Block
- F Power Circuit Fuse
- OL Overload Relay
- PTB Power Terminal Block
- MCP Controller Board

The following standard components are used in all **ACUV** Air Cooled Condensing units:

- Individual contactors for compressor, condenser fan motors.
- Individual over-current protection for condenser fan motors.
- Fuses for condenser fan motors as per NEC.
- Unit Controller/Micro PLC.
- Anti-recycle timer to prevent rapid cycling and short cycling of compressors thru the Micro Controller.
- Low pressure safety switch, one per refrigerant circuit.
- High pressure safety switch, one per compressor.
- Head pressure control by fan cycling for low ambient operation.
- Control disconnect toggle switch.
- Control circuit fuses.
- Power and control circuit terminal blocks.
- 13 Amps, 220Vac socket.

### 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.

#### Control Transformer **(CXT)**

This option is necessary and available for **ACUV** models rated for 440V/3PH/50Hz or 460V/3PH/60Hz only. When ordering for these voltages this option **must** be ordered.

#### 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.

#### IP-55 Control Panel **(ICP)**

IP55 enclosure for extra protection against elements.

#### Low Ambient Operation Kit **(LAO)**

For operation down to lower than normal Gulf ambients. It is also required for special applications.

#### Pressure Gauges **(SDG)**

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

#### Voltage Monitoring Module **(VMM)**

To prevent ACUV unit operation in the event of Phase loss, Phase reversal, and Under / Over voltage on the incoming line voltage.

#### Voltage Monitoring Module **(DVM)**

To meet DEWA Regulations, modified module with time delay relay. This option is available for Dubai, UAE only.

# SKM Air Cooled Condensing Units

## ACUV Series - R134a

### External Overload Protection (EOP)

For those electrical specification requires additional overload protection for the compressors.

### Circuit Breaker for Compressor (CBC)

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

### Unload Start Kit (USK)

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

### Star – Delta Starter (SDS)

To reduce the starting current of compressors using reduced voltage starting method. Compressors will be started in Star & after few seconds it will be changed over to Delta.

### Soft Starter (SSS)

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 .

### Main Isolator (Disconnect Switch) (ISO)

For the main Power Isolation.

### Part Winding Start (PWS)

Where specifically required by local codes, compressors may be with Part Winding Start to reduce the high inrush current at starting. (Not available for D 10 & D 15 Compressor at 380/3/60 Hz & 220/3/60 Hz). Refer to page 16 for more details.

### Marine Paint (MP)

To provide increased corrosion resistance coastal environments and offshore locations.

### Capacity Control Steps (CRS)

To provide additional capacity steps on the units. See Table 9 (Page 17) for optional steps available.

### Galvanized Frame And Base (GFB)

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

### Run Hour Meters (RHM)

To monitor operation hours of each compressor.

## 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 (CSDG)

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 (CXFV)

To fully isolate filter drier, an additional shut-off valve can be incorporated in the liquid line. Must be ordered, if required, with CRSP option.

### BMS Interface (BMSI)

*(Please consult SKM).*

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

## ACUV Series - R134a

### ENGINEERING SPECIFICATIONS - 50 Hz

Model	ACUV	51008-D	51010-D	51014-D	52015-D	52017-D	52019-D	51021-D	51022-D	
Cooling Capacity (1)	BTUH	88000	116000	162000	174000	196000	228000	236000	270000	
	W	25791	33998	47479	50996	57444	66823	69168	79132	
Cooling Capacity (2)	BTUH	76900	101400	141150	150800	170600	198600	204100	234400	
	W	22538	29719	41369	44197	50000	58206	59818	68699	
Compressor	Type	-	Semi-Hermetic Reciprocating 1450 RPM							
	Quantity	-	1	1	1	2	2	2	1	1
	Oil Charge(Polyol Ester) per Crkt (1/2/3/4)	US Gal	0.9	0.9	1.1	0.9/0.9	0.9/0.9	0.9/0.9	1.1	1.9
Liter		3.4	3.4	4.2	3.4/3.4	3.4/3.4	3.4/3.4	4.2	7.2	
Condenser Coil	Type	-	Air cooled 2, 3 or 4 rows 14 FPI (1.8 mm) fin spacing Cu tubes Al fins							
	Face Area	ft <sup>2</sup>	19.4	19.4	24.4	24.4	24.4	29.3	31.5	31.5
		m <sup>2</sup>	1.8	1.8	2.3	2.3	2.3	2.7	2.9	2.9
Condenser Fan	Type	-	Propeller direct drive 960 RPM							
	Code / Quantity	-	628/2	628/2	723/2	723/2	723/2	823/2	823/2	823/2
	Air Flow Rate	cfm	9240	8920	13240	13240	13240	17880	18180	18180
l/s		4361	4210	6249	6249	6249	8438	8580	8580	
Condenser Motor	Type	-	Totally enclosed, air over Class F insulation, 6-pole, IP-55							
	Size / Quantity	kW	0.37/2	0.37/2	0.75/2	0.75/2	0.75/2	1.5/2	1.5/2	1.5/2
Refrigerant (R - 134a) Operating Charge per Crkt (1/2/3/4) (3)	lbs	9.48	14.11	18.52	9/9	12.1/8.8	11/11	24.26	25.58	
	kg	4.3	6.4	8.4	4.2/4.2	5.5/4.0	5/5	11	11.6	
Number of Refrigerant Circuits	-	1	1	1	2	2	2	1	1	
Unit Operating Weight	lbs	957	988	1237	1519	1535	1612	1411	1458	
	kg	434	448	561	689	696	731	640	661	

Model	ACUV	52022-D	51028-D	52028-D	52030-D	51030-D	52034-D	52040-D	52045-D	
Cooling Capacity (1)	BTUH	268000	340000	320000	344000	390000	394000	460000	540000	
	W	78546	99648	93787	100821	114302	115475	134818	158265	
Cooling Capacity (2)	BTUH	231650	294500	277200	298300	337250	340200	396750	469600	
	W	67893	86313	81243	87427	98842	99707	116281	137632	
Compressor	Type	-	Semi-Hermetic Reciprocating 1450 RPM							
	Quantity	-	2	1	2	2	1	2	2	2
	Oil Charge(Polyol Ester) per Crkt (1/2/3/4)	US Gal	1.1/0.9	2.0	1.1/1.1	1.1/0.9	2.0	1.1/1.1	1.1/1.1	1.9/1.9
Liter		4.2/3.4	7.6	4.2/4.2	4.2/3.4	7.6	4.2/4.2	4.2/4.2	7.2/7.2	
Condenser Coil	Type	-	Air cooled 2, 3 or 4 rows 14 FPI (1.8 mm) fin spacing Cu tubes Al fins							
	Face Area	ft <sup>2</sup>	31.5	40.0	40.0	40.0	40.0	53.3	53.3	64.0
		m <sup>2</sup>	2.9	3.7	3.7	3.7	3.7	5.0	5.0	5.9
Condenser Fan	Type	-	Propeller direct drive 960 RPM							
	Code / Qty.	-	823/2	823/3	823/3	823/3	823/3	823/3	829/3	823/4
	Air Flow Rate	cfm	18180	26160	26160	26160	26160	27900	32040	36480
l/s		8580	12346	12346	12346	12346	13167	15121	17217	
Condenser Motor	Type	-	Totally enclosed, air over Class F insulation, 6-pole, IP-55							
	Size / Qty.	kW	1.5/2	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3	1.5/4
Refrigerant (R - 134a) Operating Charge per Crkt (1/2/3/4) (3)	lbs	15.7/11	31.5315	14.7/14.7	22.1/11	31.5315	24.7/16.8	20.4/20.4	24.4/24.4	
	kg	7.1/5.0	14.3	6.7/6.7	10/5	14.3	11.2/7.6	9.25/9.25	11.1/11.1	
Number of Refrigerant Circuits	-	2	1	2	2	1	2	2	2	
Unit Operating Weight	lbs	1749	1749	1969	1954	1753	2156	2236	3164	
	kg	793	793	893	886	795	978	1014	1435	

Table 2

- 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

## ACUV Series - R134a

### ENGINEERING SPECIFICATIONS - 50 Hz

Model	ACUV	52049-D	52053-D	52058-D	52060-D	53064-D	53068-D	53070-D	
Cooling Capacity (1)	BTUH	600000	660000	730000	780000	745000	815000	865000	
	W	175850	193435	213951	228605	218347	238863	253517	
Cooling Capacity (2)	BTUH	520150	571600	632600	674550	645350	705750	749150	
	W	152447	167526	185404	197699	189141	206843	219563	
Compressor	Type	-	Semi-Hermetic Reciprocating Discus 1450 RPM						
	Quantity	-	2	2	2	2	3	3	3
	Oil Charge(Polyol Ester) per Crkt (1/2/3/4)	US Gal	7.6/7.2	7.6/7.6	7.6/7.6	7.6/7.6	7.2/4.2/4.2	7.2/7.2/7.2	7.6/7.2/7.2
		Liter	2/1.9	2/2	2/2	2/2	1.9/1.1/1.1	1.9/1.9/1.9	2/1.9/1.9
Condenser Coil	Type	-	Air cooled 2, 3 or 4 rows 14 FPI (1.8 mm) fin spacing Cu tubes Al fins						
	Face Area	ft <sup>2</sup>	72.0	72.0	72.0	72.0	97.5	97.5	97.5
		m <sup>2</sup>	6.7	6.7	6.7	6.7	9.1	9.1	9.1
Condenser Fan	Type	-	Propeller direct drive 960 RPM						
	Code / Quantity	-	823/4	829/4	829/4	829/4	823/6	823/6	823/6
	Air Flow Rate	cfm	37280	42880	40920	40920	54900	54900	54900
		l/s	17594	20237	19312	19312	25910	25910	25910
Condenser Motor	Type	-	Totally enclosed, air over Class F insulation, 6-pole, IP-55						
	Size / Quantity	kW	1.5/4	1.5/4	1.5/4	1.5/4	1.5/6	1.5/6	1.5/6
Refrigerant (R - 134a) Operating Charge per Crkt (1/2/3/4) (3)	lbs	30.4/24.5	26/26	38.1/31.5	33.2/33.2	27.1/27.1/27.1	28.5/28.5/25.8	28.5/28.5/28.5	
	kg	13.8/11.1	11.9/11.9	17.3/14.3	15.1/15.1	12.3/12.3/12.3	12.9/12.9/12.9	12.9/12.9/12.9	
Number of Refrigerant Circuits	-	2	2	2	2	3	3	3	
Unit Operating Weight	lbs	3411	3572	3832	3826	5971	6059	6465	
	kg	1547	1620	1738	1735	2708	2748	2932	

Model	ACUV	53080-D	53084-D	53086-D	54095-D	54106-D	54114-D	54120-D	
Cooling Capacity (1)	BTUH	1005000	1055000	1105000	1205000	1345000	1445000	1540000	
	W	294549	309203	323857	353165	394197	423505	451348	
Cooling Capacity (2)	BTUH	872850	915600	957150	1041500	1163850	1248700	1330000	
	W	255818	268347	280525	305246	341105	365973	389801	
Compressor	Type	-	Semi-Hermetic Reciprocating Discus 1450 RPM						
	Quantity	-	3	3	3	4	4	4	4
	Oil Charge(Polyol Ester) per Crkt (1/2/3/4)	US Gal	7.6/7.6/7.6	7.6/7.6/7.6	7.6/7.6/7.6	7.6/7.6/7.2/7.2	7.6/7.6/7.6/7.6	7.6/7.6/7.6/7.6	7.6/7.6/7.6/7.6
		Liter	2/2/2	2/2/2	2/2/2	2/2/1.9/1.9	2/2/2/2	2/2/2/2	2/2/2/2
Condenser Coil	Type	-	Air cooled 2, 3 or 4 rows 14 FPI (1.8 mm) fin spacing Cu tubes Al fins						
	Face Area	ft <sup>2</sup>	97.5	97.5	97.5	130.0	130.0	130.0	130.0
		m <sup>2</sup>	9.1	9.1	9.1	12.1	12.1	12.1	12.1
Condenser Fan	Type	-	Propeller direct drive 960 RPM						
	Code / Qty.	-	829/6	829/6	829/6	829/8	829/8	829/8	829/8
	Air Flow Rate	cfm	59340	59340	59340	83360	79120	79120	79120
		l/s	28005	28005	28005	39342	37340	37340	37340
Condenser Motor	Type	-	Totally enclosed, air over Class F insulation, 6-pole, IP-55						
	Size / Qty.	kW	1.5/6	1.5/6	1.5/6	1.5/8	1.5/8	1.5/8	1.5/8
Refrigerant (R - 134a) Operating Charge per Crkt (1/2/3/4) (3)	lbs	35.8/35.8/35.8	35.9/35.9/35.9	35.9/35.9/35.9	29.3/29.3/29.3/29.3	36.6/36.6/36.6/36.6	36.6/36.6/36.6/36.6	36.6/36.6/36.6/36.6	
	kg	16.2/16.2/16.2	16.3/16.3/16.3	16.3/16.3/16.3	13.3/13.3/13.3/13.3	16.6/16.6/16.6/16.6	16.6/16.6/16.6/16.6	16.6/16.6/16.6/16.6	
Number of Refrigerant Circuits	-	3	3	3	4	4	4	4	
Unit Operating Weight	lbs	7016	7021	7025	7962	8584	8591	8600	
	kg	3182	3184	3186	3611	3893	3896	3900	

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

## ACUV Series - R134a

### ENGINEERING SPECIFICATIONS - 60 Hz

Model	ACUV	61009-D	61011-D	61016-D	62018-D	62020-D	62022-D	61024-D	61026-D	
Cooling Capacity (1)	BTUH	104000	136000	190000	202000	228000	266000	274000	314000	
	W	30481	39859	55686	59203	66823	77960	80305	92028	
Cooling Capacity (2)	BTUH	89600	118500	164200	175100	197850	231100	237350	271850	
	W	26260	34730	48124	51319	57987	67732	69563	79675	
Compressor	Type	-	Semi-Hermetic Reciprocating 1750 RPM							
	Quantity	-	1	1	1	2	2	2	1	1
	Oil Charge(Polyol Ester) per Crkt (1/2/3/4)	US Gal	0.9	0.9	1.1	0.9/0.9	0.9/0.9	0.9/0.9	1.1	1.9
Liter		3.4	3.4	4.2	3.4/3.4	3.4/3.4	3.4/3.4	4.2	7.2	
Condenser Coil	Type	-	Air cooled 2, 3 or 4 rows 14 FPI (1.8 mm) fin spacing Cu tubes Al fins							
	Face Area	ft <sup>2</sup>	19.4	19.4	24.4	24.4	24.4	29.3	31.5	31.5
		m <sup>2</sup>	1.8	1.8	2.3	2.3	2.3	2.7	2.9	2.9
Condenser Fan	Type	-	Propeller direct drive 1150 RPM							
	Code / Quantity	-	628/2	628/2	723/2	723/2	723/2	823/2	823/2	823/2
	Air Flow Rate	cfm	11200	10820	15660	15660	15660	21760	22120	22120
		l/s	5286	5106	7391	7391	7391	10270	10439	10439
Condenser Motor	Type	-	Totally enclosed, air over Class F insulation, 6-pole, IP-55							
	Size / Quantity	kW	0.55/2	0.55/2	1.1/2	1.1/2	1.1/2	2.2/2	2.2/2	2.2/2
Refrigerant (R - 134a) Operating Charge per Crkt (1/2/3/4) (3)	lbs	9.5	14.3	18.7	9.4/9.4	12.1/8.8	11.1/11.1	25.8	26.0	
	kg	4.3	6.5	8.5	4.25/4.25	5.5/4.0	5.05/5.05	11.7	11.8	
Number of Refrigerant Circuits	-	1	1	1	2	2	2	1	1	
Unit Operating Weight	lbs	964	994	1246	1530	1548	1638	1442	1477	
	kg	437	451	565	694	702	743	654	670	

Model	ACUV	62026-D	61032-D	62032-D	62034-D	61036-D	62040-D	62046-D	62052-D	
Cooling Capacity (1)	BTUH	310000	394000	372000	400000	450000	460000	535000	630000	
	W	90856	115475	109027	117233	131887	134818	156800	184642	
Cooling Capacity (2)	BTUH	269050	342000	322150	346150	390550	396000	459800	545000	
	W	78854	100234	94417	101451	114464	116061	134760	159730	
Compressor	Type	-	Semi-Hermetic Reciprocating 1750 RPM							
	Quantity	-	2	1	2	2	1	2	2	2
	Oil Charge(Polyol Ester) per Crkt (1/2/3/4)	US Gal	1.1/0.9	2	1.1/1.1	1.1/0.9	2	1.1/1.1	1.1/1.1	1.9/1.9
Liter		4.2/3.4	7.6	4.2/4.2	4.2/3.4	7.6	4.2/4.2	4.2/4.2	7.2/7.2	
Condenser Coil	Type	-	Air cooled 2, 3 or 4 rows 14 FPI (1.8 mm) fin spacing Cu tubes Al fins							
	Face Area	ft <sup>2</sup>	31.5	40.0	40.0	40.0	40.0	53.3	53.3	64.0
		m <sup>2</sup>	2.9	3.7	3.7	3.7	3.7	5.0	5.0	5.9
Condenser Fan	Type	-	Propeller direct drive 1150 RPM							
	Code / Qty.	-	823/2	823/3	823/3	823/3	823/3	823/3	829/3	823/4
	Air Flow Rate	cfm	22120	31860	31860	31860	31860	33990	38700	44400
		l/s	10439	15036	15036	15036	15036	16041	18264	20954
Condenser Motor	Type	-	Totally enclosed, air over Class F insulation, 6-pole, IP-55							
	Size / Qty.	kW	2.2/2	2.2/3	2.2/3	2.2/3	2.2/3	2.2/3	2.2/3	2.2/4
Refrigerant (R - 134a) Operating Charge per Crkt (1/2/3/4) (3)	lbs	15.7/11	31.9725	16/16	23.2/11.9	35.0595	26.9/16.8	21.8/21.8	24.4/24.4	
	kg	7.1/5.0	14.5	7.3/7.3	10.5/5.4	15.9	12.2/7.6	9.9/9.9	11.1/11.1	
Number of Refrigerant Circuits	-	2	1	2	2	1	2	2	2	
Unit Operating Weight	lbs	1748	1784	2004	1993	1788	2194	2300	3213	
	kg	804	809	909	904	811	995	1043	1457	

Table 3

- 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

## ACUV Series - R134a

### ENGINEERING SPECIFICATIONS - 60 Hz

Model	ACUV	62058-D	62062-D	62067-D	62071-D	63074-D	63078-D	63082-D	
Cooling Capacity (1)	BTUH	700000	765000	850000	905000	870000	945000	1005000	
	W	205158	224209	249121	265240	254982	276964	294549	
Cooling Capacity (2)	BTUH	604350	662150	736650	784650	750350	819350	868900	
	W	177125	194065	215900	229968	219915	240138	254660	
Compressor	Type	-	Semi-Hermetic Reciprocating 1750 RPM						
	Quantity	-	2	2	2	2	3	3	3
	Oil Charge(Polyol Ester) per Crkt (1/2/3/4)	US Gal	7.6/7.2	7.6/7.6	7.6/7.6	7.6/7.6	7.2/4.2/4.2	7.2/7.2/7.2	7.6/7.2/7.2
Liter		2/1.9	2/2	2/2	2/2	1.9/1.1/1.1	1.9/1.9/1.9	2/1.9/1.9	
Condenser Coil	Type	-	Air cooled 2, 3 or 4 rows 14 FPI (1.8 mm) fin spacing Cu tubes Al fins						
	Face Area	ft <sup>2</sup>	72.0	72.0	72.0	72.0	97.5	97.5	97.5
		m <sup>2</sup>	6.7	6.7	6.7	6.7	9.1	9.1	9.1
Condenser Fan	Type	-	Propeller direct drive 1150 RPM						
	Code / Quantity	-	823/4	829/4	829/4	829/4	823/6	823/6	823/6
	Air Flow Rate	cfm	45400	51760	49560	49560	66840	66840	66840
		l/s	21426	24428	23390	23390	31545	31545	31545
Condenser Motor	Type	-	Totally enclosed, air over Class F insulation, 6-pole, IP-55						
	Size / Quantity	kW	2.2/4	2.2/4	2.2/4	2.2/4	2.2/6	2.2/6	2.2/6
Refrigerant (R - 134a) Operating Charge per Crkt (1/2/3/4) (3)	lbs	30.4/24.6	26.9/26.9	38.1/31.5	34/34	28.5/28.5/28.5	28.5/28.5/28.5	28.5/28.5/28.5	
	kg	13.8/11.2	12.2/12.2	17.3/14.3	15.45/15.45	12.9/12.9/12.9	12.9/12.9/12.9	12.9/12.9/12.9	
Number of Refrigerant Circuits	-	2	2	2	2	3	3	3	
Unit Operating Weight	lbs	3457	3625	3879	3881	6053	6132	6538	
	kg	1568	1644	1759	1760	2745	2781	2965	

Model	ACUV	63094-D	63098-D	63100-D	64113-D	64124-D	64132-D	64140-D	
Cooling Capacity (1)	BTUH	1175000	1230000	1290000	1395000	1565000	1680000	1790000	
	W	344373	360492	378077	408851	458675	492380	524619	
Cooling Capacity (2)	BTUH	1016050	1064950	1112350	1206150	1354750	1451750	1544450	
	W	297787	312119	326011	353502	397055	425484	452652	
Compressor	Type	-	Semi-Hermetic Reciprocating 1750 RPM						
	Quantity	-	3	3	3	4	4	4	
	Oil Charge(Polyol Ester) per Crkt (1/2/3/4)	US Gal	7.6/7.6/7.6	7.6/7.6/7.6	7.6/7.6/7.6	7.6/7.6/7.2/7.2	7.6/7.6/7.6/7.6	7.6/7.6/7.6/7.6	7.6/7.6/7.6/7.6
Liter		2/2/2	2/2/2	2/2/2	2/2/1.9/1.9	2/2/2/2	2/2/2/2	2/2/2/2	
Condenser Coil	Type	-	Air cooled 2, 3 or 4 rows 14 FPI (1.8 mm) fin spacing Cu tubes Al fins						
	Face Area	ft <sup>2</sup>	97.5	97.5	97.5	130.0	130.0	130.0	130.0
		m <sup>2</sup>	9.1	9.1	9.1	12.1	12.1	12.1	12.1
Condenser Fan	Type	-	Propeller direct drive 1150 RPM						
	Code / Qty.	-	829/6	829/6	829/6	829/8	829/8	829/8	829/8
	Air Flow Rate	cfm	72000	72000	72000	100880	96000	96000	96000
		l/s	33980	33980	33980	47610	45307	45307	45307
Condenser Motor	Type	-	Totally enclosed, air over Class F insulation, 6-pole, IP-55						
	Size / Qty.	kW	2.2/6	2.2/6	2.2/6	2.2/8	2.2/8	2.2/8	2.2/8
Refrigerant (R - 134a) Operating Charge per Crkt (1/2/3/4) (3)	lbs	35.9/35.9/35.9	35.9/35.9/35.9	35.9/35.9/35.9	29.3/29.3/29.3/29.3	36.6/36.6/36.6/36.6	36.6/36.6/36.6/36.6	36.6/36.6/36.6/36.6	
	kg	16.3/16.3/16.3	16.3/16.3/16.3	16.3/16.3/16.3	13.3/13.3/13.3/13.3	16.6/16.6/16.6/16.6	16.6/16.6/16.6/16.6	16.6/16.6/16.6/16.6	
Number of Refrigerant Circuits	-	3	3	3	4	4	4	4	
Unit Operating Weight	lbs	7089	7091	7093	8061	8681	8685	8690	
	kg	3215	3216	3217	3656	3937	3939	3941	

Table 3 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

## ACUV Series - R134a

### CAPACITY RATINGS - 50 Hz

Model ACUV-D	SST		Condenser Entering Air Temperature °F (40°C)											
			95°F (35°C)			105°F (40°C)			115°F (46°C)		125°F (52°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*	
51008-D	35	1.7	71.9	21.1	5.5	66.9	19.6	5.9	61.7	18.1	6.2	56.5	16.6	6.5
	40	4.4	80.3	23.5	5.7	74.7	21.9	6.1	68.9	20.2	6.5	63.2	18.5	6.9
	45	7.2	89.1	26.1	6	83	24.3	6.4	76.7	22.5	6.8	70.4	20.6	7.2
	50	10	98.4	28.8	6.2	91.7	26.9	6.6	84.9	24.9	7.1	78.2	22.9	7.6
51010-D	35	1.7	95	27.8	7.6	88.6	26	8.1	82.1	24.1	8.5	75.6	22.2	9
	40	4.4	105.4	30.9	7.9	98.5	28.9	8.5	91.3	26.8	9	84.2	24.7	9.5
	45	7.2	116.4	34.1	8.2	108.8	31.9	8.8	101.1	29.6	9.4	93.4	27.4	10
	50	10	127.9	37.5	8.5	119.8	35.1	9.2	111.5	32.7	9.8	103.4	30.3	10.5
51014-D	35	1.7	132.9	39	11	123.5	36.2	11.7	113.9	33.4	12.3	104.4	30.6	12.9
	40	4.4	147.5	43.2	11.5	137.3	40.2	12.2	126.9	37.2	12.9	116.6	34.2	13.6
	45	7.2	163.1	47.8	11.9	152	44.5	12.8	140.8	41.3	13.6	129.6	38	14.4
	50	10	179.6	52.6	12.4	167.5	49.1	13.3	155.4	45.6	14.2	143.4	42	15.2
52015-D	35	1.7	141.7	41.5	11.2	131.6	38.6	11.9	121.3	35.5	12.5	111	32.5	13.1
	40	4.4	157.9	46.3	11.7	146.8	43	12.5	135.4	39.7	13.2	124.2	36.4	13.9
	45	7.2	175.1	51.3	12.2	162.8	47.7	13	150.3	44.1	13.8	138.2	40.5	14.7
	50	10	193	56.6	12.6	179.7	52.7	13.5	166.2	48.7	14.5	153.2	44.9	15.5
52017-D	35	1.7	161.2	47.2	13.6	149.9	43.9	14.3	138.4	40.6	15.1	127.1	37.2	15.8
	40	4.4	178.8	52.4	14.2	166.3	48.8	15.1	153.7	45.1	15.9	141.5	41.5	16.8
	45	7.2	197.4	57.9	14.8	183.7	53.8	15.8	170	49.8	16.7	156.9	46	17.8
	50	10	216.7	63.5	15.4	202	59.2	16.5	187.5	55	17.6	173.4	50.8	18.8
52019-D	35	1.7	186.8	54.8	15.5	174.1	51	16.4	161.2	47.3	17.2	148.4	43.5	18.1
	40	4.4	207.1	60.7	16.2	193.2	56.6	17.2	179	52.5	18.2	165.1	48.4	19.2
	45	7.2	228.5	67	16.8	213.3	62.5	18	197.9	58	19.1	183	53.6	20.2
	50	10	250.7	73.5	17.5	234.4	68.7	18.7	218.2	64	20	202.4	59.3	21.3
51021-D	35	1.7	192.8	56.5	16.6	179	52.5	17.4	165	48.4	18.2	151.1	44.3	19
	40	4.4	213.9	62.7	17.4	198.8	58.3	18.3	183.6	53.8	19.2	168.5	49.4	20.1
	45	7.2	236.4	69.3	18.2	220	64.5	19.2	203.5	59.6	20.2	187.1	54.8	21.2
	50	10	260.3	76.3	18.9	242.5	71.1	20.1	224.6	65.8	21.2	207	60.7	22.4
51022-D	35	1.7	223.3	65.4	20.6	207.9	60.9	21.7	192.5	56.4	22.7	177.1	51.9	23.7
	40	4.4	246.2	72.2	21.9	229.4	67.2	23	212.6	62.3	24.1	195.6	57.3	25.3
	45	7.2	270.6	79.3	23.1	252.2	73.9	24.4	233.8	68.5	25.6	215.1	63.1	26.9
	50	10	296.3	86.9	24.4	276.3	81	25.7	256.2	75.1	27.1	235.7	69.1	28.6
52022-D	35	1.7	219.6	64.4	19.2	204	59.8	20.3	188.3	55.2	21.3	172.8	50.6	22.4
	40	4.4	243.1	71.2	20.1	226.1	66.3	21.3	209	61.3	22.5	192.3	56.4	23.8
	45	7.2	267.8	78.5	21.1	249.4	73.1	22.4	231	67.7	23.8	213	62.4	25.2
	50	10	293.7	86.1	22	273.9	80.3	23.5	254.3	74.5	25.1	235	68.9	26.7
51028-D	35	1.7	276.3	81	23.9	257	75.3	25.3	237.7	69.7	26.6	218.4	64	28
	40	4.4	306.9	89.9	25	285.9	83.8	26.5	264.8	77.6	28	243.9	71.5	29.6
	45	7.2	339.4	99.5	26.1	316.5	92.8	27.7	293.6	86.1	29.4	271	79.4	31.2
	50	10	373.6	109.5	27.2	348.9	102.3	29	324.2	95	30.8	299.6	87.8	32.8
52028-D	35	1.7	261.9	76.8	22.3	243.2	71.3	23.6	224.3	65.7	24.8	205.4	60.2	26
	40	4.4	290.4	85.1	23.3	270.1	79.2	24.7	249.6	73.1	26.1	229.2	67.2	27.6
	45	7.2	320.7	94	24.3	298.6	87.5	25.9	276.5	81	27.5	254.5	74.6	29.2
	50	10	352.6	103.3	25.3	328.7	96.3	27.1	304.8	89.3	29	281.2	82.4	30.9
51030-D	35	1.7	319.4	93.6	29.2	296.8	87	30.8	274.2	80.4	32.4	251.6	73.8	34
	40	4.4	353.2	103.5	30.7	328.7	96.3	32.5	304.2	89.2	34.3	279.6	82	36.1
	45	7.2	389.2	114.1	32.3	362.8	106.3	34.2	336.2	98.6	36.2	309.5	90.7	38.3
	50	10	427.7	125.4	33.9	399	117	36	370.3	108.5	38.2	341.6	100.1	40.5
52030-D	35	1.7	282.3	82.7	24.6	262.2	76.9	25.9	242	70.9	27	221.9	65	28.2
	40	4.4	312.8	91.7	25.8	290.8	85.2	27.2	268.8	78.8	28.5	247	72.4	30
	45	7.2	345.1	101.1	27	321.2	94.1	28.5	297.3	87.1	30.1	273.9	80.3	31.7
	50	10	379.1	111.1	28.1	353.4	103.6	29.9	327.8	96.1	31.6	302.6	88.7	33.5
52034-D	35	1.7	321.9	94.3	27.9	298.7	87.5	29.3	275.4	80.7	30.7	252.1	73.9	32.1
	40	4.4	356.8	104.6	29.2	331.6	97.2	30.8	306.3	89.8	32.4	281.1	82.4	34
	45	7.2	394	115.5	30.5	366.6	107.5	32.3	339.2	99.4	34.1	312	91.5	36
	50	10	433.4	127	31.8	403.7	118.3	33.8	374.1	109.6	35.9	344.8	101.1	38
52040-D	35	1.7	376.9	110.5	33.8	349.5	102.4	35.3	322	94.4	36.8	294.6	86.4	38.4
	40	4.4	417.3	122.3	35.5	387.5	113.6	37.2	357.6	104.8	39	328	96.1	40.8
	45	7.2	460.4	134.9	37.2	428	125.4	39.1	395.6	115.9	41.1	363.7	106.6	43.2
	50	10	505.9	148.3	38.8	470.8	138	41	435.9	127.8	43.2	401.6	117.7	45.6

Note :

Table 4

\* Power Input mentioned in these pages should not be used for Cable/Fuse selection. MCA & MFA Values given in the electrical data (Pages 19 to 23) should be referred for the same.

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

# SKM Air Cooled Condensing Units

## ACUV Series - R134a

### CAPACITY RATINGS - 50 Hz

Model ACUV-D	SST		Condenser Entering Air Temperature °F (40°C)											
			95°F (35°C)			105°F (40°C)			115°F (46°C)			125° (52°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*	
52045-D	35	1.7	447.2	131.1	41.3	416.4	122	43.3	385.6	113	45.3	354.7	104	47.4
	40	4.4	493.2	144.6	43.7	459.5	134.7	46	425.8	124.8	48.2	391.8	114.8	50.5
	45	7.2	542.1	158.9	46.2	505.3	148.1	48.7	468.4	137.3	51.1	431.1	126.3	53.8
	50	10	593.8	174	48.7	553.7	162.3	51.4	513.4	150.5	54.2	472.4	138.4	57.2
52049-D	35	1.7	492.9	144.5	45	458.5	134.4	47.4	424.1	124.3	49.7	389.8	114.2	52.2
	40	4.4	545.2	159.8	47.4	507.6	148.8	50	470.1	137.8	52.6	432.6	126.8	55.4
	45	7.2	600.5	176	49.9	559.7	164	52.7	518.8	152.1	55.6	477.9	140.1	58.8
	50	10	658.8	193.1	52.4	614.5	180.1	55.5	570.2	167.1	58.7	525.6	154.1	62.2
52053-D	35	1.7	539.4	158.1	48.7	501.3	146.9	51.5	463.2	135.8	54.1	425.5	124.7	56.9
	40	4.4	598	175.3	51.1	556.5	163.1	54.1	515.1	151	57.1	474.1	139	60.3
	45	7.2	660	193.4	53.5	615	180.2	56.8	570.1	167.1	60.1	525.8	154.1	63.7
	50	10	725.1	212.5	55.9	676.5	198.3	59.5	628.1	184.1	63.1	580.1	170	67.2
52058-D	35	1.7	596.4	174.8	53	554.5	162.5	56	512.5	150.2	59	470.7	138	62
	40	4.4	660.9	193.7	55.6	615.3	180.3	58.9	569.7	167	62.2	524.3	153.7	65.7
	45	7.2	729.5	213.8	58.3	680.1	199.3	61.9	630.7	184.9	65.5	581.4	170.4	69.4
	50	10	802.3	235.2	60.9	748.9	219.5	64.9	695.5	203.8	68.9	642.3	188.2	73.2
52060-D	35	1.7	638.9	187.3	58.4	593.7	174	61.6	548.4	160.7	64.7	503.3	147.5	68.1
	40	4.4	706.4	207	61.4	657.4	192.7	65	608.4	178.3	68.5	559.3	163.9	72.3
	45	7.2	778.4	228.2	64.6	725.5	212.7	68.5	672.5	197.1	72.4	619.1	181.4	76.5
	50	10	853.3	250.7	67.7	798	233.9	72	740.7	217.1	76.4	683.2	200.3	80.9
53064-D	35	1.7	611	179.1	53.8	567.8	166.4	56.4	524.4	153.7	58.9	481.1	141	61.5
	40	4.4	676.5	198.3	56.6	629.3	184.5	59.5	582	170.6	62.3	534.8	156.8	65.3
	45	7.2	746.4	218.8	59.3	694.9	203.7	62.6	643.5	188.6	65.8	592.2	173.6	69.2
	50	10	820.6	240.5	62	764.6	224.1	65.6	708.7	207.7	69.2	653.1	191.4	73.1
53068-D	35	1.7	671.8	196.9	61.8	625.5	183.3	64.9	579.3	169.8	67.9	532.9	156.2	71
	40	4.4	741.1	217.2	65.5	690.4	202.4	68.9	639.9	187.5	72.2	588.8	172.6	75.7
	45	7.2	814.6	238.8	69.2	759.3	222.6	72.9	704	206.3	76.6	647.9	189.9	80.6
	50	10	892.4	261.6	73	832.2	243.9	77	771.6	226.2	81.2	710.1	208.1	85.7
53070-D	35	1.7	712.1	208.7	65.9	662.5	194.2	69.3	612.9	179.6	72.7	563.3	165.1	76.2
	40	4.4	786.6	230.5	69.7	732.4	214.7	73.4	678.2	198.8	77.1	623.9	182.9	81
	45	7.2	865.4	253.6	73.4	806.4	236.4	77.5	747.3	219	81.6	688	201.6	86.1
	50	10	948.4	278	77.2	884.4	259.2	81.7	820.1	240.4	86.3	755.3	221.4	91.4
53080-D	35	1.7	820.8	240.6	72.2	763.4	223.8	76.4	705.7	206.8	80.4	648.4	190	84.6
	40	4.4	911.1	267	75.6	848.4	248.7	80.2	785.5	230.2	84.7	723.3	212	89.4
	45	7.2	1006.7	295.1	79	938.6	275.1	84	870.4	255.1	89	803.1	235.4	94.3
	50	10	1107.4	324.6	82.5	1033.7	303	87.8	960.2	281.4	93.3	887.2	260	99.3
53084-D	35	1.7	864	253.2	77.5	803.1	235.4	81.9	742.1	217.5	86.1	681.6	199.8	90.6
	40	4.4	957.3	280.6	81.4	891.1	261.2	86.2	824.9	241.8	90.9	759.1	222.5	96
	45	7.2	1056.5	309.6	85.3	984.7	288.6	90.5	913	267.6	95.8	841.7	246.7	101.4
	50	10	1161.3	340.4	89.2	1083.8	317.6	94.9	1006.3	294.9	100.7	929.2	272.4	107
53086-D	35	1.7	906.1	265.6	82.9	842	246.8	87.5	777.7	228	92	713.9	209.2	96.7
	40	4.4	1002.5	293.8	87.2	932.9	273.4	92.2	863.3	253	97.3	793.8	232.7	102.6
	45	7.2	1105	323.9	91.6	1029.7	301.8	97.1	954.4	279.7	102.7	878.9	257.6	108.6
	50	10	1213.8	355.8	96	1132.4	331.9	102	1051	308.1	108.2	969.8	284.2	114.8
54095-D	35	1.7	986.8	289.2	90	917.9	269	94.7	849.1	248.9	99.4	780.3	228.7	104.3
	40	4.4	1091.5	319.9	94.8	1016.3	297.9	100	941.2	275.9	105.2	866.1	253.9	110.8
	45	7.2	1202.4	352.4	99.7	1120.6	328.4	105.4	1038.8	304.5	111.2	957	280.5	117.5
	50	10	1319.3	386.7	104.6	1230.6	360.7	110.8	1141.8	334.7	117.3	1052.6	308.5	124.3
54106-D	35	1.7	1094.4	320.8	96.3	1017.9	298.3	101.8	940.9	275.8	107.2	864.5	253.4	112.8
	40	4.4	1214.8	356.1	100.8	1131.2	331.5	106.9	1047.4	307	112.9	964.4	282.7	119.2
	45	7.2	1342.3	393.4	105.4	1251.4	366.8	112	1160.6	340.2	118.6	1070.8	313.8	125.7
	50	10	1476.6	432.8	109.9	1378.3	404	117.1	1280.3	375.2	124.4	1183	346.7	132.3
54114-D	35	1.7	1180.2	345.9	107	1096.9	321.5	112.9	1013.4	297	118.7	930.4	272.7	124.9
	40	4.4	1306.7	383	112.4	1216.2	356.5	118.9	1125.6	329.9	125.5	1035.4	303.5	132.4
	45	7.2	1441.1	422.4	117.9	1343.1	393.7	125	1245.1	364.9	132.3	1147.3	336.3	140
	50	10	1583.7	464.2	123.4	1477.7	433.1	131.2	1371.8	402.1	139.3	1266.2	371.1	147.9
54120-D	35	1.7	1263.1	370.2	117.8	1173.2	343.9	124.1	1083.3	317.5	130.5	993.8	291.3	137.1
	40	4.4	1395.3	409	124.2	1298.2	380.5	131.2	1200.9	352	138.3	1103.2	323.4	145.7
	45	7.2	1536.3	450.3	130.6	1431.4	419.5	138.4	1326.1	388.7	146.3	1219.8	357.5	154.5
50	10	1686.5	494.3	137.2	1572.9	461	145.8	1459.1	427.7	154.5	1345.2	394.3	163.6	

Note :

Table 4 ends

\* Power Input mentioned in these pages should not be used for Cable/Fuse selection. MCA & MFA Values given in the electrical data (Pages 19 to 32) should be referred for the same.

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



You name it.....We cool it

# SKM Air Cooled Condensing Units

## ACUV Series - R134a

### CAPACITY RATINGS - 60 Hz

Model ACUV-D	SST		Condenser Entering Air Temperature °F (40°C)											
			95°F (35°C)			105°F (40°C)			115°F (46°C)			125° (52°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*	
61009-D	35	1.7	84	24.6	6.7	78.1	22.9	7.1	72	21.1	7.5	65.9	19.3	7.9
	40	4.4	93.5	27.4	7	87	25.5	7.4	80.4	23.6	7.9	73.8	21.6	8.3
	45	7.2	103.6	30.4	7.2	96.5	28.3	7.7	89.3	26.2	8.2	82.2	24.1	8.8
	50	10	114.6	33.6	7.5	106.7	31.3	8.1	98.8	28.9	8.6	91	26.7	9.2
61011-D	35	1.7	111.3	32.6	9.2	103.8	30.4	9.7	96.1	28.2	10.3	88.4	25.9	10.8
	40	4.4	123.4	36.2	9.6	115.2	33.8	10.2	106.8	31.3	10.8	98.6	28.9	11.4
	45	7.2	136.2	39.9	10	127.2	37.3	10.7	118.2	34.6	11.4	109.4	32.1	12.1
	50	10	149.6	43.8	10.4	139.9	41	11.1	130.2	38.2	11.9	120.7	35.4	12.7
61016-D	35	1.7	155	45.4	13.3	143.9	42.2	14.1	132.9	38.9	14.8	121.8	35.7	15.6
	40	4.4	171.7	50.3	13.9	159.8	46.8	14.8	147.8	43.3	15.7	135.9	39.8	16.6
	45	7.2	189.6	55.6	14.5	176.7	51.8	15.5	163.7	48	16.5	150.8	44.2	17.6
	50	10	208.6	61.2	15.1	194.6	57	16.2	180.6	52.9	17.4	166.6	48.8	18.5
62018-D	35	1.7	165.1	48.4	13.6	153.3	44.9	14.4	141.2	41.4	15.1	129.3	37.9	15.9
	40	4.4	183.4	53.8	14.2	170.5	50	15.1	157.4	46.1	15.9	144.6	42.4	16.9
	45	7.2	203	59.5	14.8	188.9	55.4	15.8	174.7	51.2	16.8	160.7	47.1	17.8
	50	10	224	65.7	15.4	208.4	61.1	16.5	192.8	56.5	17.6	177.6	52.1	18.8
62020-D	35	1.7	187.7	55	16.5	174.3	51.1	17.4	160.9	47.2	18.2	147.7	43.3	19.2
	40	4.4	207.7	60.9	17.2	193.2	56.6	18.3	178.7	52.4	19.3	164.6	48.2	20.4
	45	7.2	228.8	67.1	18	213.1	62.5	19.2	197.4	57.9	20.4	182.3	53.4	21.6
	50	10	251.1	73.6	18.9	234	68.6	20.2	217	63.6	21.5	200.8	58.8	23
62022-D	35	1.7	218.2	63.9	18.7	203.2	59.6	19.8	188	55.1	20.8	173	50.7	21.9
	40	4.4	241.5	70.8	19.6	225.2	66	20.8	208.7	61.2	22	192.6	56.5	23.2
	45	7.2	266	78	20.4	248.3	72.8	21.8	230.5	67.6	23.2	213.4	62.5	24.6
	50	10	291.7	85.5	21.3	272.6	79.9	22.9	253.5	74.3	24.4	235.1	68.9	26
61024-D	35	1.7	225	66	20.1	208.8	61.2	21.1	192.4	56.4	22	176.1	51.6	22.9
	40	4.4	249.3	73.1	21.1	231.6	67.9	22.1	213.8	62.7	23.2	196.2	57.5	24.3
	45	7.2	275.1	80.6	22	255.9	75	23.2	236.6	69.4	24.4	217.6	63.8	25.7
	50	10	302.6	88.7	23	281.7	82.6	24.4	260.9	76.5	25.7	240.1	70.4	27.2
61026-D	35	1.7	260	76.2	25	241.9	70.9	26.2	223.8	65.6	27.4	205.6	60.3	28.6
	40	4.4	286.5	84	26.5	266.7	78.2	27.8	246.8	72.4	29.2	226.9	66.5	30.6
	45	7.2	314.4	92.1	28.1	292.8	85.8	29.6	271.2	79.5	31.1	249.5	73.1	32.7
	50	10	343.7	100.7	29.7	320.4	93.9	31.3	296.9	87	33	273.2	80.1	34.9
62026-D	35	1.7	255.8	75	23.3	237.6	69.6	24.5	219.3	64.3	25.8	201.2	59	27.1
	40	4.4	282.7	82.9	24.5	262.9	77.1	25.9	243.2	71.3	27.3	223.8	65.6	28.9
	45	7.2	311.1	91.2	25.7	289.7	84.9	27.3	268.5	78.7	28.9	247.6	72.6	30.7
	50	10	340.9	99.9	26.9	317.9	93.2	28.7	294.9	86.4	30.6	272.5	79.9	32.6
61032-D	35	1.7	322	94.4	28.9	299.4	87.7	30.6	276.7	81.1	32.2	254.1	74.5	33.9
	40	4.4	357.3	104.7	30.3	332.5	97.5	32.1	307.7	90.2	33.9	283.1	83	35.8
	45	7.2	394.8	115.7	31.7	367.8	107.8	33.7	340.8	99.9	35.6	314.2	92.1	37.8
	50	10	434.3	127.3	33	405.2	118.8	35.3	376.3	110.3	37.5	347.8	101.9	39.9
62032-D	35	1.7	305.2	89.4	27	283.3	83	28.5	261.4	76.6	29.9	239.5	70.2	31.5
	40	4.4	337.8	99	28.3	314.1	92.1	30	290.4	85.1	31.7	266.8	78.2	33.5
	45	7.2	372.6	109.2	29.6	346.9	101.7	31.6	321.3	94.2	33.5	295.8	86.7	35.6
	50	10	409.4	120	30.9	381.7	111.9	33.1	353.9	103.7	35.3	326.3	95.6	37.7
62034-D	35	1.7	328.9	96.4	29.8	305.3	89.5	31.3	281.6	82.5	32.7	258.2	75.7	34.1
	40	4.4	363.8	106.6	31.3	338.2	99.1	32.9	312.5	91.6	34.5	287.2	84.2	36.3
	45	7.2	400.8	117.5	32.7	373	109.3	34.6	345.3	101.2	36.5	318	93.2	38.5
	50	10	439.8	128.9	34.3	409.7	120.1	36.4	379.8	111.3	38.5	350.3	102.7	40.8
61036-D	35	1.7	371.1	108.8	35.4	344.6	101	37.3	318	93.2	39.3	291.6	85.5	41.3
	40	4.4	410.7	120.4	37.3	381.5	111.8	39.4	352.4	103.3	41.6	324.1	95	43.9
	45	7.2	452.1	132.5	39.3	420.5	123.2	41.6	389.2	114.1	44	359.1	105.2	46.5
	50	10	495.3	145.2	41.4	462	135.4	43.9	428.7	125.6	46.6	395.3	115.9	49.3
62040-D	35	1.7	375.7	110.1	33.8	348.6	102.2	35.4	321.4	94.2	37	294.2	86.2	38.7
	40	4.4	415.9	121.9	35.4	386.5	113.3	37.3	357	104.6	39.2	327.7	96	41.2
	45	7.2	458.7	134.5	37	426.8	125.1	39.2	394.9	115.7	41.4	363.2	106.4	43.7
	50	10	504.2	147.8	38.7	469.6	137.6	41.1	435	127.5	43.6	400.6	117.4	46.2
62046-D	35	1.7	438.6	128.6	41	406.5	119.1	42.7	374.3	109.7	44.5	342.5	100.4	46.3
	40	4.4	484.9	142.1	43	450	131.9	45	415.2	121.7	47.1	380.8	111.6	49.3
	45	7.2	534.1	156.5	45.1	496.3	145.5	47.4	458.6	134.4	49.8	421.3	123.5	52.4
	50	10	586.1	171.8	47.3	545.2	159.8	49.9	504.4	147.8	52.6	463.9	136	55.6

Note :

Table 5

\* Power Input mentioned in these pages should not be used for Cable/Fuse selection. MCA & MFA Values given in the electrical data (Pages 19 to 23) should be referred for the same.

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

# SKM Air Cooled Condensing Units

## ACUV Series - R134a

### CAPACITY RATINGS - 60 Hz

Model ACUV-D	SST		Condenser Entering Air Temperature °F (40°C)											
			95°F (35°C)			105°F (40°C)			115°F (46°C)			125°F (52°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*	
62052-D	35	1.7	521	152.7	50	484.7	142.1	52.4	448.4	131.4	54.7	412	120.7	57.2
	40	4.4	574	168.2	53	534.4	156.6	55.6	494.7	145	58.3	454.8	133.3	61.1
	45	7.2	630	184.7	56.1	586.9	172	59	543.6	159.3	62.1	500.1	146.6	65.3
	50	10	688.9	201.9	59.4	642.2	188.2	62.6	595.3	174.5	66	547.7	160.5	69.7
62058-D	35	1.7	574.8	168.5	54.5	534.3	156.6	57.3	493.8	144.7	60	453.4	132.9	63
	40	4.4	635.1	186.1	57.5	590.8	173.2	60.5	546.5	160.2	63.7	502.5	147.3	67
	45	7.2	698.7	204.8	60.5	650.6	190.7	63.9	602.6	176.6	67.5	554.8	162.6	71.3
	50	10	765.8	224.5	63.7	714	209.3	67.5	662.2	194.1	71.5	610.5	179	75.7
62062-D	35	1.7	627.3	183.9	59.1	582.7	170.8	62.3	538	157.7	65.5	493.8	144.7	68.9
	40	4.4	694.6	203.6	62.1	645.8	189.3	65.6	597	175	69.1	549	160.9	73
	45	7.2	765.7	224.4	65.1	712.7	208.9	69	660	193.4	73	608.1	178.2	77.4
	50	10	840.7	246.4	68.2	783.8	229.7	72.6	727.3	213.2	77.1	671.9	196.9	81.9
62067-D	35	1.7	696.3	204.1	64.1	647	189.6	67.7	597.6	175.2	71.2	548.5	160.8	74.9
	40	4.4	771.9	226.3	67.3	717.7	210.4	71.3	663.6	194.5	75.2	610.3	178.9	79.4
	45	7.2	851.4	249.5	70.6	792.6	232.3	75	734.1	215.2	79.4	676.9	198.4	84
	50	10	934.6	273.9	74	872.1	255.6	78.8	809.7	237.3	83.7	747.8	219.2	88.8
62071-D	35	1.7	744.9	218.3	70.7	691.7	202.8	74.5	638.6	187.2	78.3	585.6	171.6	82.4
	40	4.4	824.7	241.7	74.4	766.1	224.6	78.7	707.8	207.5	83	651	190.8	87.5
	45	7.2	908.1	266.2	78.3	844.6	247.6	83	782	229.2	87.8	721.3	211.4	92.8
	50	10	995	291.6	82.4	928.2	272.1	87.5	861.5	252.5	92.8	794.5	232.9	98.3
63074-D	35	1.7	712.9	209	65.1	662.1	194.1	68.1	611.2	179.1	71.1	560.4	164.2	74.1
	40	4.4	788.4	231.1	68.4	733	214.9	71.9	677.6	198.6	75.3	622.4	182.4	78.9
	45	7.2	868.6	254.6	71.8	808.4	237	75.7	748.3	219.3	79.7	688.3	201.7	83.8
	50	10	953.6	279.5	75.4	888.4	260.4	79.7	823.1	241.3	84.1	757.9	222.1	88.9
63078-D	35	1.7	782.9	229.5	74.9	728.4	213.5	78.4	673.9	197.5	82	619.2	181.5	85.7
	40	4.4	862.7	252.9	79.3	803.1	235.4	83.3	743.6	217.9	87.3	683.6	200.4	91.6
	45	7.2	947	277.6	84	882.2	258.6	88.4	817.3	239.5	93	751.9	220.4	97.8
	50	10	1035.7	303.6	88.9	965.5	283	93.7	895.1	262.3	98.8	823.6	241.4	104.4
63082-D	35	1.7	829.2	243	79.9	770.8	225.9	83.8	712.4	208.8	87.8	654.1	191.7	91.9
	40	4.4	914.9	268.1	84.4	851	249.4	88.8	787.2	230.7	93.3	723.6	212.1	98.1
	45	7.2	1005.2	294.6	89.2	935.9	274.3	94	866.6	254	99.1	797.3	233.7	104.5
	50	10	1100.2	322.5	94.1	1025.5	300.6	99.5	950.6	278.6	105.2	875.5	256.6	111.4
63094-D	35	1.7	958.5	280.9	87.4	890.9	261.1	92.2	823	241.2	97	755.8	221.5	102.1
	40	4.4	1063	311.6	91.6	988.8	289.8	96.9	914.7	268.1	102.3	841.4	246.6	108
	45	7.2	1173.5	344	95.8	1093	320.3	101.7	1012.6	296.8	107.7	933.4	273.6	114.2
	50	10	1290.3	378.2	100.1	1203.6	352.8	106.8	1117.4	327.5	113.5	1032.6	302.7	120.6
63098-D	35	1.7	1007.8	295.4	93.8	936.3	274.4	99	864.6	253.4	104.1	793.6	232.6	109.5
	40	4.4	1116.7	327.3	98.6	1038.1	304.3	104.2	959.7	281.3	109.9	882.7	258.7	116
	45	7.2	1231.2	360.9	103.4	1146	335.9	109.7	1061.3	311.1	116.1	978.4	286.8	122.9
	50	10	1351.5	396.1	108.4	1260.6	369.5	115.4	1170.2	343	122.5	1080.6	316.7	130.1
63100-D	35	1.7	1056	309.5	100.4	980.6	287.4	105.8	905.2	265.3	111.2	830.3	243.4	117
	40	4.4	1168.9	342.6	105.7	1086	318.3	111.7	1003.5	294.1	117.7	922.9	270.5	124.2
	45	7.2	1287.2	377.3	111.1	1197.5	351	117.7	1108.6	324.9	124.5	1022.3	299.6	131.7
	50	10	1411.1	413.6	116.8	1316	385.7	124.1	1221.2	357.9	131.7	1126.8	330.3	139.6
64113-D	35	1.7	1147.6	336.4	109.1	1066.7	312.6	114.7	985.7	288.9	120.2	905.1	265.3	126.1
	40	4.4	1267.8	371.6	115.1	1179.3	345.7	121.2	1090.9	319.7	127.5	1002.9	294	134.2
	45	7.2	1394.7	408.8	121.2	1298.6	380.6	128.1	1202.6	352.5	135.1	1107.2	324.5	142.7
	50	10	1528.4	448	127.7	1424.8	417.6	135.3	1321.4	387.3	143.1	1218.3	357.1	151.7
64124-D	35	1.7	1278	374.6	116.5	1187.8	348.2	123	1097.4	321.6	129.4	1007.8	295.4	136.1
	40	4.4	1417.3	415.4	122.1	1318.5	386.4	129.2	1219.6	357.5	136.3	1121.9	328.8	144
	45	7.2	1564.7	458.6	127.8	1457.3	427.1	135.6	1350.2	395.7	143.6	1244.6	364.8	152.2
	50	10	1720.3	504.2	133.5	1604.8	470.4	142.3	1489.9	436.7	151.3	1376.9	403.6	160.8
64132-D	35	1.7	1376.1	403.3	129.5	1278.1	374.6	136.5	1180.1	345.9	143.5	1082.8	317.4	150.9
	40	4.4	1524	446.7	136.2	1416.3	415.1	143.9	1309	383.7	151.8	1203.9	352.8	160.2
	45	7.2	1679.2	492.2	143	1562.6	458	151.6	1446.8	424.1	160.4	1334	391	169.8
	50	10	1842	539.9	150.1	1718.1	503.6	159.7	1594.5	467.4	169.4	1471.9	431.4	179.7
64140-D	35	1.7	1470.6	431	142.7	1365.1	400.1	150.3	1259.6	369.2	158	1154.6	338.4	166
	40	4.4	1626.3	476.7	150.5	1510	442.6	158.9	1394.8	408.8	167.5	1282.8	376	176.6
	45	7.2	1788.8	524.3	158.6	1663.2	487.5	167.9	1539.5	451.2	177.5	1420.4	416.3	187.6
	50	10	1958.7	574.1	167.2	1826.5	535.3	177.4	1694.1	496.5	187.9	1561.4	457.6	199

Note :

Table 5 ends

\* Power Input mentioned in these pages should not be used for Cable/Fuse selection. MCA & MFA Values given in the electrical data (Pages 19 to 23) should be referred for the same.

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



You name it.....We cool it

# SKM Air Cooled Condensing Units

## ACUV Series - R134a

### Compressor Starting

The ACUV Units standard mode of compressor starting is given as per Table No. 6.

Maximum Instantaneous Current Flow (ICF) as shown in Electrical Specifications, Pages 19 to 23, must be used in determining the need for part winding start for models with DOL as standard.

If part winding start is required, please specify option PWS at enquiry/order, available only for the models shown with PWS as option in Table 6.

MODEL		380-415/3/50,440/3/50,460/3/60		380/3/60		220/3/60					
		STANDARD	OPTION	STANDARD	OPTION	STANDARD	OPTION				
ACUV-51008-D	ACUV-61009-D	DOL	PWS	DOL	-	DOL	-				
ACUV-51010-D	ACUV-61011-D					DOL	-				
ACUV-51014-D	ACUV-61016-D					PWS	PWS				
ACUV-52015-D	ACUV-62018-D				DOL	PWS	DOL	-	DOL	-	
ACUV-52017-D	ACUV-62020-D								DOL	-	
ACUV-52019-D	ACUV-62022-D								DOL	-	
ACUV-51021-D	ACUV-61024-D							PWS	-	PWS	-
ACUV-51022-D	ACUV-61026-D									PWS	-
ACUV-52022-D	ACUV-62026-D									DOL	PWS*
ACUV-51028-D	ACUV-61032-D				PWS	-	PWS	-	PWS	-	
ACUV-52028-D	ACUV-62032-D	DOL	PWS	DOL	PWS	DOL	PWS*				
ACUV-52030-D	ACUV-62034-D										
ACUV-51030-D	ACUV-61036-D	PWS	-	PWS	-	PWS	-				
ACUV-52034-D	ACUV-62040-D	DOL	PWS	DOL	PWS	DOL	PWS				
ACUV-52040-D	ACUV-62046-D				PWS						
ACUV-52045-D	ACUV-62052-D										
ACUV-52049-D	ACUV-62058-D										
ACUV-52053-D	ACUV-62062-D	PWS	-	PWS	-	PWS	-				
ACUV-52058-D	ACUV-62067-D										
ACUV-52060-D	ACUV-62071-D										
ACUV-53064-D	ACUV-63074-D	DOL	PWS	DOL	PWS						
ACUV-53068-D	ACUV-63078-D										
ACUV-53070-D	ACUV-63082-D										
ACUV-53080-D	ACUV-63094-D	PWS	-	PWS	-						
ACUV-53084-D	ACUV-63098-D										
ACUV-53086-D	ACUV-63100-D										
ACUV-54095-D	ACUV-64113-D	DOL	PWS	DOL	PWS						
ACUV-54106-D	ACUV-64124-D	PWS	-	PWS	-						
ACUV-54114-D	ACUV-64132-D										
ACUV-54120-D	ACUV-64140-D										

Table 6

# SKM Air Cooled Condensing Units ACUV Series - R134a

## Capacity Control Steps

The Standard Capacity Control Steps are shown below.

ACUV		Standard	Number of Steps	Optional	Number of Steps
51008-D	61009-D	100 - 0	1	100 - 67 - 0	2
51010-D	61011-D	100 - 0	1	100 - 67 - 0	2
51014-D	61016-D	100 - 0	1	100 - 50 - 0	2
52015-D	62018-D	100 - 50 - 0	2	100 - 84 - 50 - 34 - 0	4
52017-D	62020-D	100 - 57 - 0	2	100 - 86 - 57 - 38 - 0	4
52019-D	62022-D	100 - 50 - 0	2	100 - 84 - 50 - 34 - 0	4
51021-D	61024-D	100 - 0	1	100 - 67 - 0	2
51022-D	61026-D	100 - 0	1	100 - 67 - 0	2
52022-D	62026-D	100 - 62 - 0	2	100 - 86 - 58 - 29 - 0	4
51028-D	61032-D	100 - 0	1	100 - 75 - 0	2
52028-D	62032-D	100 - 50 - 0	2	100 - 75 - 50 - 25 - 0	4
52030-D	62034-D	100 - 68 - 0	2	100 - 89 - 67 - 45 - 0	4
51030-D	61036-D	100 - 0	1	100 - 75 - 0	2
52034-D	62040-D	100 - 58 - 0	2	100 - 80 - 60 - 40 - 0	4
52040-D	62046-D	100 - 50 - 0	2	100 - 84 - 50 - 34 - 0	4
52045-D	62052-D	100 - 50 - 0	2	100 - 84 - 50 - 34 - 0	4
52049-D	62058-D	100 - 55 - 0	2	100 - 85 - 55 - 41 - 0	4
52053-D	62062-D	100 - 50 - 0	2	100 - 88 - 50 - 38 - 0	4
52058-D	62067-D	100 - 54 - 0	2	100 - 89 - 54 - 41 - 0	4
52060-D	62071-D	100 - 50 - 0	2	100 - 88 - 50 - 38 - 0	4
53064-D	63074-D	100 - 69 - 37 - 0	3	100 - 89 - 68 - 58 - 37 - 25 - 0	6
53068-D	63078-D	100 - 67 - 33 - 0	3	100 - 89 - 67 - 55 - 33 - 22 - 0	6
53070-D	63082-D	100 - 69 - 38 - 0	3	100 - 90 - 69 - 59 - 38 - 29 - 0	6
53080-D	63094-D	100 - 66 - 33 - 0	3	100 - 91 - 66 - 58 - 33 - 25 - 0	6
53084-D	63098-D	100 - 68 - 37 - 0	3	100 - 91 - 68 - 60 - 37 - 28 - 0	6
53086-D	63100-D	100 - 70 - 35 - 0	3	100 - 93 - 70 - 61 - 35 - 26 - 0	6
54095-D	64113-D	100 - 78 - 56 - 28 - 0	4	100 - 92 - 78 - 69 - 54 - 49 - 28 - 21 - 0	8
54106-D	64124-D	100 - 75 - 50 - 25 - 0	4	100 - 94 - 75 - 69 - 50 - 44 - 25 - 19 - 0	8
54114-D	64132-D	100 - 77 - 54 - 27 - 0	4	100 - 94 - 77 - 71 - 54 - 47 - 27 - 20 - 0	8
54120-D	64140-D	100 - 75 - 50 - 25 - 0	4	100 - 94 - 75 - 69 - 50 - 44 - 25 - 19 - 0	8

Table 7

## Selection Procedure

### Example

The following information should be determined:

1. Required total capacity = 430 MBh (126 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

Enter capacity ratings from Table 4 at 115°F (46°C) condenser entering air temperature and select model ACUV 52040-D having a cooling capacity of 435.9 MBh (127.8 kW) at 50°F (10°C) saturated suction temperature, compressor motor power input is 43.2 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 ACUV Series - R134a

## ELECTRICAL DATA

POWER SUPPLY : 380-415V /3Ph / 50Hz

MODEL ACUV-D	UNIT CHARACTERISTIC				COMPRESSOR					CONDENSER FAN MOTOR		
	MFA	MCA	ICF		QTY	MOC	RLA	LRA	QTY	FLA	LRA	
			DOL	PWS								
ACUV-51008-D	63	22	130	100	1	21	16	121	2	1.1	4.7	
ACUV-51010-D	63	30	138	106	1	29	22	129	2	1.1	4.7	
ACUV-51014-D	100	44	216	167	1	42	32	199	2	2.1	8.7	
ACUV-52015-D	63	40	148	118	2	21	16	121	2	2.1	8.7	
ACUV-52017-D	100	48	156	124	1 + 1	29 + 21	22 + 16	129 + 121	2	2.1	18.7	
ACUV-52019-D	100	58	174	142	2	29	22	129	2	4.3	18.7	
ACUV-51021-D	125	66	341	265	1	64	46	304	2	4.3	18.7	
ACUV-51022-D	160	79	341	265	1	83	56	304	2	4.3	18.7	
ACUV-52022-D	125	71	244	194	1 + 1	42 + 29	32 + 22	199 + 129	2	4.3	18.7	
ACUV-51028-D	200	102	-	445	1	88	71	458	3	4.3	18.7	
ACUV-52028-D	160	85	258	209	2	42	32	199	3	4.3	18.7	
ACUV-52030-D	160	92	353	277	1 + 1	64 + 29	46 + 22	304 + 129	3	4.3	18.7	
ACUV-51030-D	250	113	-	461	1	108	80	476	3	4.3	18.7	
ACUV-52034-D	200	102	363	287	1 + 1	64 + 42	46 + 32	304 + 199	3	4.3	18.7	
ACUV-52040-D	200	116	377	301	2	64	46	304	3	4.3	18.7	
ACUV-52045-D	250	143	406	330	2	83	56	304	4	4.3	18.7	
ACUV-52049-D	315	162	560	491	1 + 1	88 + 83	71 + 56	458 + 304	4	4.3	18.7	
ACUV-52053-D	315	177	-	506	2	88	71	458	4	4.3	18.7	
ACUV-52058-D	315	188	-	522	1 + 1	108 + 88	80 + 71	476 + 458	4	4.3	18.7	
ACUV-52060-D	315	197	-	531	2	108	80	476	4	4.3	18.7	
ACUV-53064-D	315	188	451	375	1 + 2	83 + 64	56 + 46	304 + 304	6	4.3	18.7	
ACUV-53068-D	315	208	471	395	3	83	56	304	6	4.3	18.7	
ACUV-53070-D	400	227	625	556	1 + 2	88 + 83	71 + 56	458 + 304	6	4.3	18.7	
ACUV-53080-D	400	257	-	586	3	88	71	458	6	4.3	18.7	
ACUV-53084-D	400	268	-	601	1 + 2	108 + 88	80 + 71	476 + 458	6	4.3	18.7	
ACUV-53086-D	400	277	-	610	2 + 1	108 + 88	80 + 71	476 + 458	6	4.3	18.7	
ACUV-54095-D	500	306	704	636	2 + 2	88 + 83	71 + 56	458 + 304	8	4.3	18.7	
ACUV-54106-D	500	336	-	666	4	88	71	458	8	4.3	18.7	
ACUV-54114-D	500	356	-	690	2 + 2	108 + 88	80 + 71	476 + 458	8	4.3	18.7	
ACUV-54120-D	500	374	-	708	4	108	80	476	8	4.3	18.7	

Table 9

Voltage imbalance between phases to be < 2%

LEGEND :

- |            |                                                                          |            |                           |
|------------|--------------------------------------------------------------------------|------------|---------------------------|
| <b>MFA</b> | Maximum Fuse Ampere (For Fuse sizing) as per NEC Article 440-22 & 430-52 | <b>DOL</b> | Direct On Line Start      |
| <b>MCA</b> | Minimum Circuit Ampere (For Wire sizing), as per NEC Article 440-33      | <b>PWS</b> | Part Winding Start        |
| <b>RLA</b> | Rated Load Ampere at Worst Condition.                                    | <b>LRA</b> | Locked Rotor Ampere (DOL) |
| <b>MOC</b> | Maximum Operating Current                                                | <b>FLA</b> | Full Load Ampere          |
| <b>ICF</b> | Instantaneous Current Flow                                               |            |                           |



# SKM Air Cooled Condensing Units

## ACUV Series - R134a

### ELECTRICAL DATA

POWER SUPPLY : 440V /3Ph/50Hz

MODEL ACUV-D	UNIT CHARACTERISTIC				COMPRESSOR				CONDENSER FAN MOTOR		
	MFA	MCA	ICF		QTY	MOC	RLA	LRA	QTY	FLA	LRA
			DOL	PWS							
ACUV-51008-D	63	22	130	99	1	21	16	121	2	1.1	4.3
ACUV-51010-D	63	30	138	105	1	29	22	129	2	1.1	4.3
ACUV-51014-D	100	44	215	165	1	42	32	199	2	1.8	7.9
ACUV-52015-D	63	40	147	116	2	21	16	121	2	1.8	7.9
ACUV-52017-D	100	47	155	122	1 + 1	29 + 21	22 + 16	129 + 121	2	1.8	16
ACUV-52019-D	100	57	171	138	2	29	22	129	2	3.6	16
ACUV-51021-D	125	65	336	260	1	64	46	304	2	3.6	16
ACUV-51022-D	160	77	336	260	1	83	56	304	2	3.6	16
ACUV-52022-D	125	69	241	191	1 + 1	42 + 29	32 + 22	199 + 129	2	3.6	16
ACUV-51028-D	200	100	-	437	1	88	71	458	3	3.6	16
ACUV-52028-D	125	83	254	204	2	42	32	199	3	3.6	16
ACUV-52030-D	160	90	349	273	1 + 1	64 + 29	46 + 22	304 + 129	3	3.6	16
ACUV-51030-D	250	111	-	453	1	108	80	476	3	3.6	16
ACUV-52034-D	160	100	359	283	1 + 1	64 + 42	46 + 32	304 + 199	3	3.6	16
ACUV-52040-D	200	114	373	297	2	64	46	304	3	3.6	16
ACUV-52045-D	250	140	399	323	2	83	56	304	4	3.6	16
ACUV-52049-D	250	159	553	485	1 + 1	88 + 83	71 + 56	458 + 304	4	3.6	16
ACUV-52053-D	315	174	-	500	2	88	71	458	4	3.6	16
ACUV-52058-D	315	185	-	515	1 + 1	108 + 88	80 + 71	476 + 458	4	3.6	16
ACUV-52060-D	315	194	-	524	2	108	80	476	4	3.6	16
ACUV-53064-D	315	184	442	366	1 + 2	83 + 64	56 + 46	304 + 304	6	3.6	16
ACUV-53068-D	315	204	462	386	3	83	56	304	6	3.6	16
ACUV-53070-D	400	222	616	548	1 + 2	88 + 83	71 + 56	458 + 304	6	3.6	16
ACUV-53080-D	400	252	-	578	3	88	71	458	6	3.6	16
ACUV-53084-D	400	264	-	593	1 + 2	108 + 88	80 + 71	476 + 458	6	3.6	16
ACUV-53086-D	400	273	-	602	2 + 1	108 + 88	80 + 71	476 + 458	6	3.6	16
ACUV-54095-D	500	301	695	626	2 + 2	88 + 83	71 + 56	458 + 304	8	3.6	16
ACUV-54106-D	500	331	-	656	4	88	71	458	8	3.6	16
ACUV-54114-D	500	351	-	680	2 + 2	108 + 88	80 + 71	476 + 458	8	3.6	16
ACUV-54120-D	500	369	-	698	4	108	80	476	8	3.6	16

Table 10

Voltage imbalance between phases to be < 2%

**LEGEND :**

**MFA** Maximum Fuse Ampere (For Fuse sizing) as per NEC Article 440-22 & 430-52  
**MCA** Minimum Circuit Ampere (For Wire sizing), as per NEC Article 440-33  
**RLA** Rated Load Ampere at Worst Condition.  
**MOC** Maximum Operating Current  
**ICF** Instantaneous Current Flow

**DOL** Direct On Line Start  
**PWS** Part Winding Start  
**LRA** Locked Rotor Ampere (DOL)  
**FLA** Full Load Ampere



# SKM Air Cooled Condensing Units

## ACUV Series - R134a

### ELECTRICAL DATA

POWER SUPPLY : 380V /3Ph / 60Hz

MODEL ACUV-D	UNIT CHARACTERISTIC				COMPRESSOR				CONDENSER FAN MOTOR		
	MFA	MCA	ICF		QTY	MOC	RLA	LRA	QTY	FLA	LRA
			DOL	PWS							
ACUV-61009-D	63	28	169	-	1	26	20	158	2	1.7	5.6
ACUV-61011-D	100	38	163	-	1	35	28	152	2	1.7	5.6
ACUV-61016-D	100	56	252	195	1	50	40	228	2	3.2	12.2
ACUV-62018-D	100	51	193	-	2	26	20	158	2	3.2	12.2
ACUV-62020-D	100	61	187	-	1 + 1	35.2 + 26	28 + 20	152 + 158	2	3.2	27.5
ACUV-62022-D	100	71	210	-	2	35.2	28	152	2	5.4	27.5
ACUV-61024-D	160	83	387	304	1	76	58	332	2	5.4	27.5
ACUV-61026-D	200	100	387	304	1	99.6	71	332	2	5.4	27.5
ACUV-62026-D	160	89	289	232	1 + 1	50 + 35	40 + 28	228 + 152	2	5.4	27.5
ACUV-61032-D	250	127	-	512	1	106	89	505	3	5.4	27.5
ACUV-62032-D	160	106	306	249	2	50	40	228	3	5.4	27.5
ACUV-62034-D	200	117	398	315	1 + 1	76 + 35	58 + 28	332 + 152	3	5.4	27.5
ACUV-61036-D	250	142	-	575	1	130	101	579	3	5.4	27.5
ACUV-62040-D	200	129	410	327	1 + 1	76 + 50	58 + 40	332 + 228	3	5.4	27.5
ACUV-62046-D	250	147	428	345	2	76	58	332	3	5.4	27.5
ACUV-62052-D	315	181	469	386	2	99.6	71	332	4	5.4	27.5
ACUV-62058-D	315	204	642	566	1 + 1	106 + 100	89 + 71	505 + 332	4	5.4	27.5
ACUV-62062-D	315	222	-	584	2	106	89	505	4	5.4	27.5
ACUV-62067-D	400	237	-	647	1 + 1	130 + 106	101 + 89	579 + 505	4	5.4	27.5
ACUV-62071-D	400	249	-	659	2	130	101	579	4	5.4	27.5
ACUV-63074-D	315	237	525	442	1 + 2	99.6 + 76	71 + 58	332 + 332	6	5.4	27.5
ACUV-63078-D	400	263	551	468	3	99.6	71	332	6	5.4	27.5
ACUV-63082-D	400	286	724	648	1 + 2	106 + 100	89 + 71	505 + 332	6	5.4	27.5
ACUV-63094-D	400	307	-	675	3	106	84	505	6	5.4	27.5
ACUV-63098-D	500	337	-	747	1 + 2	130 + 106	101 + 89	579 + 505	6	5.4	27.5
ACUV-63100-D	500	349	-	759	2 + 1	130 + 106	101 + 89	579 + 505	6	5.4	27.5
ACUV-64113-D	500	385	823	748	2 + 2	106 + 100	89 + 71	505 + 332	8	5.4	27.5
ACUV-64124-D	630	421	-	784	4	106	89	505	8	5.4	27.5
ACUV-64132-D	630	448	-	859	2 + 2	130 + 106	101 + 89	579 + 505	8	5.4	27.5
ACUV-64140-D	630	472	-	883	4	130	101	579	8	5.4	27.5

Table 11

Voltage imbalance between phases to be < 2%

LEGEND :

- MFA** Maximum Fuse Ampere (For Fuse sizing) as per NEC Article 440-22 & 430-52
- MCA** Minimum Circuit Ampere (For Wire sizing), as per NEC Article 440-33
- RLA** Rated Load Ampere at Worst Condition.
- MOC** Maximum Operating Current
- ICF** Instantaneous Current Flow
- DOL** Direct On Line Start
- PWS** Part Winding Start
- LRA** Locked Rotor Ampere (DOL)
- FLA** Full Load Ampere



# SKM Air Cooled Condensing Units

## ACUV Series - R134a

### ELECTRICAL DATA

POWER SUPPLY : 460V /3Ph/ 60Hz

MODEL ACUV-D	UNIT CHARACTERISTIC				COMPRESSOR					CONDENSER FAN MOTOR		
	MFA	MCA	ICF		QTY	MOC	RLA	LRA	QTY	FLA	LRA	
			DOL	PWS								
ACUV-61009-D	63	23	126	98	1	21	16	113	2	1.7	6.6	
ACUV-61011-D	63	31	136	105	1	29	22	123	2	1.7	6.6	
ACUV-61016-D	100	45	229	179	1	42	32	200	2	2.6	14.4	
ACUV-62018-D	63	41	146	118	2	21	16	113	2	2.6	14.4	
ACUV-62020-D	80	49	156	125	1 + 1	29 + 21	22 + 16	123 + 113	2	2.6	31.5	
ACUV-62022-D	100	60	182	151	2	29.3	22	123	2	5	31.5	
ACUV-61024-D	125	68	355	282	1	64	46	292	2	5	31.5	
ACUV-61026-D	160	80	355	282	1	83	56	292	2	5	31.5	
ACUV-62026-D	125	72	259	209	1 + 1	42 + 29	32 + 22	200 + 123	2	5	31.5	
ACUV-61032-D	200	104	-	484	1	88	71	458	3	5	31.5	
ACUV-62032-D	160	87	274	224	2	42	32	200	3	5	31.5	
ACUV-62034-D	160	95	356	283	1 + 1	64 + 29	46 + 22	292 + 123	3	5	31.5	
ACUV-61036-D	250	115	-	501	1	108	80	478	3	5	31.5	
ACUV-62040-D	200	105	366	293	1 + 1	64 + 42	46 + 32	292 + 200	3	5	31.5	
ACUV-62046-D	200	119	380	307	2	64	46	292	3	5	31.5	
ACUV-62052-D	250	146	421	348	2	83	56	292	4	5	31.5	
ACUV-62058-D	315	165	587	518	1 + 1	88 + 83	71 + 56	458 + 292	4	5	31.5	
ACUV-62062-D	315	180	-	533	2	88	71	458	4	5	31.5	
ACUV-62067-D	315	191	-	550	1 + 1	108 + 88	80 + 71	478 + 458	4	5	31.5	
ACUV-62071-D	315	200	-	559	2	108	80	478	4	5	31.5	
ACUV-63074-D	315	192	467	394	1 + 2	83 + 64	56 + 46	292 + 292	6	5	31.5	
ACUV-63078-D	315	212	487	414	3	83	56	292	6	5	31.5	
ACUV-63082-D	400	231	653	584	1 + 2	88 + 83	71 + 56	458 + 292	6	5	31.5	
ACUV-63094-D	400	261	-	614	3	88	71	458	6	5	31.5	
ACUV-63098-D	400	272	-	631	1 + 2	108 + 88	80 + 71	478 + 458	6	5	31.5	
ACUV-63100-D	400	281	-	640	2 + 1	108 + 88	80 + 71	478 + 458	6	5	31.5	
ACUV-64113-D	500	312	734	665	2 + 2	88 + 83	71 + 56	458 + 292	8	5	31.5	
ACUV-64124-D	500	342	-	695	4	88	71	458	8	5	31.5	
ACUV-64132-D	500	362	-	721	2 + 2	108 + 88	80 + 71	478 + 458	8	5	31.5	
ACUV-64140-D	500	380	-	739	4	108	80	478	8	5	31.5	

Table 12

Voltage imbalance between phases to be < 2%

**LEGEND :**

**MFA** Maximum Fuse Ampere (For Fuse sizing) as per NEC Article 440-22 & 430-52  
**MCA** Minimum Circuit Ampere (For Wire sizing), as per NEC Article 440-33  
**RLA** Rated Load Ampere at Worst Condition.  
**MOC** Maximum Operating Current  
**ICF** Instantaneous Current Flow

**DOL** Direct On Line Start  
**PWS** Part Winding Start  
**LRA** Locked Rotor Ampere (DOL)  
**FLA** Full Load Ampere

# SKM Air Cooled Condensing Units

## ACUV Series - R134a

### ELECTRICAL DATA

POWER SUPPLY : 220V /3Ph/ 60Hz

MODEL ACUV-D	UNIT CHARACTERISTIC				COMPRESSOR				CONDENSER FAN MOTOR		
	MFA	MCA	ICF		QTY	MOC	RLA	LRA	QTY	FLA	LRA
			DOL	PWS							
ACUV-61009-D	100	46	293	-	1	43	32	274	2	2.9	9.7
ACUV-61011-D	125	61	282	-	1	61	44	263	2	2.9	9.7
ACUV-61016-D	200	95	461	357	1	91	68	419	2	4.8	21.2
ACUV-62018-D	125	82	332	-	2	43	32	274	2	4.8	21.2
ACUV-62020-D	200	97	321	-	1 + 1	61 + 43	44 + 32	263 + 274	2	4.8	47.6
ACUV-62022-D	200	118	364	-	2	61	44	263	2	9.4	47.6
ACUV-61024-D	315	145	-	553	1	139	101	611	2	9.4	47.6
ACUV-61026-D	315	173	-	748	1	177	123	870	2	9.4	47.6
ACUV-62026-D	250	148	520	415	1 + 1	91 + 61	68 + 44	419 + 263	2	9.4	47.6
ACUV-61032-D	400	223	-	959	1	193	156	960	3	9.4	47.6
ACUV-62032-D	315	181	553	449	2	91	68	419	3	9.4	47.6
ACUV-62034-D	400	198	721	569	1 + 1	139 + 61	101 + 44	611 + 263	3	9.4	47.6
ACUV-61036-D	500	244	-	995	1	237	173	1002	3	9.4	47.6
ACUV-62040-D	400	222	745	593	1 + 1	139 + 91	101 + 68	611 + 419	3	9.4	47.6
ACUV-62046-D	400	255	-	626	2	139	101	611	3	9.4	47.6
ACUV-62052-D	500	314	-	890	2	177	123	870	4	9.4	47.6
ACUV-62058-D	630	356	-	1053	1 + 1	193 + 177	156 + 123	960 + 870	4	9.4	47.6
ACUV-62062-D	630	389	-	1086	2	193	156	960	4	9.4	47.6
ACUV-62067-D	630	410	-	1122	1 + 1	237 + 193	173 + 156	1002 + 960	4	9.4	47.6
ACUV-62071-D	800	427	-	1139	2	237	173	1002	4	9.4	47.6
ACUV-63074-D	630	412	-	987	1 + 2	177 + 139	123 + 101	870 + 611	6	9.4	47.6
ACUV-63078-D	630	456	-	1031	3	177	123	870	6	9.4	47.6
ACUV-63082-D	800	497	-	1195	1 + 2	193 + 177	156 + 123	960 + 870	6	9.4	47.6
ACUV-63094-D	800	563	-	1261	3	193	156	960	6	9.4	47.6
ACUV-63098-D	800	585	-	1297	1 + 2	237 + 193	173 + 156	1002 + 960	6	9.4	47.6
ACUV-63100-D	1000	602	-	1314	2 + 1	237 + 193	173 + 156	1002 + 960	6	9.4	47.6
ACUV-64113-D	1000	672	-	1370	2 + 2	193 + 177	156 + 123	960 + 870	8	9.4	47.6
ACUV-64124-D	1000	738	-	1436	4	193	156	960	8	9.4	47.6
ACUV-64132-D	1250	776	-	1488	2 + 2	237 + 193	173 + 156	1002 + 960	8	9.4	47.6
ACUV-64140-D	1250	810	-	1522	4	237	173	1002	8	9.4	47.6

Note: See Pages 19-22 for Legend.

Table 13

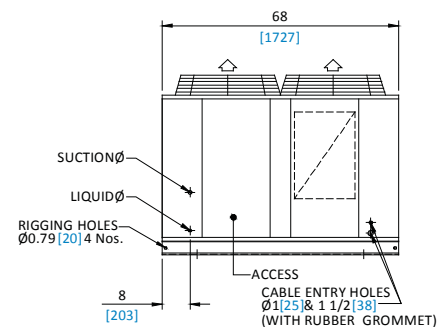
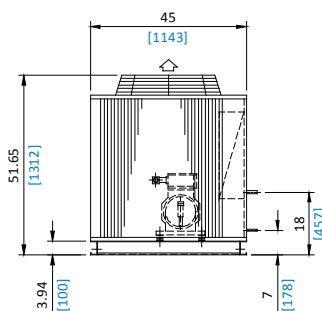
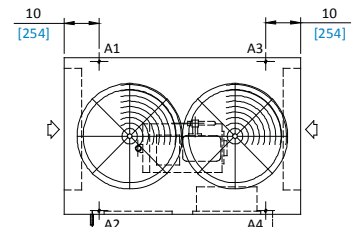
### Dimensional Data

#### ACUV Models- 51008D to 51010D & 61009 to 61011D

MODEL ACUV-	CONNECTIONS	
	SUC.Ø	LIQ.Ø
51008D	1 5/8[41]	5/8[16]
61009D	1 5/8[41]	7/8[22]
51010D	1 5/8[41]	7/8[22]
61011D	2 1/8[54]	7/8[22]

LINE SIZES ARE BASED ON 100F EQUIVALENT LENGTH  
ALL DIMENSIONS ARE IN INCHES[mm]

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

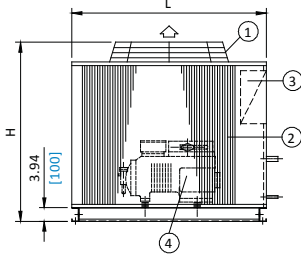
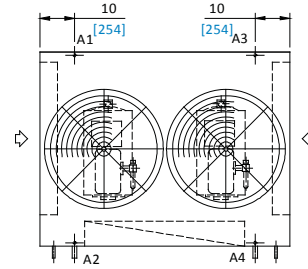


# SKM Air Cooled Condensing Units ACUV Series - R134a

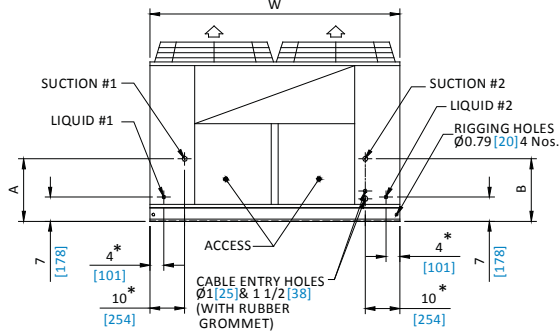
## Dimensional Data

### ACUV Models-51014D to 52022D & 61016D to 62026D

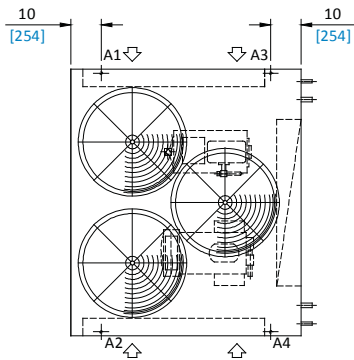
MODEL ACUV-	DIMENSIONS					CONNECTION SIZES, $\phi$			
	L	W	H	A	B	CIRCUIT-1		CIRCUIT-2	
						SUC.#1	LIQ.#1	SUC.#2	LIQ.#2
*51014D	56	74	51.65	20.67	-	2 1/8[54]	7/8[22]	-	-
*61016D	[1422]	[1880]	[1312]	[525]	-	2 1/8[54]	7/8[22]	-	-
52015D	56	74	51.65	18	18	1 5/8[41]	5/8[16]	1 5/8[41]	5/8[16]
62018D	[1422]	[1880]	[1312]	[457]	[457]	1 5/8[41]	7/8[22]	1 5/8[41]	5/8[16]
52017D	56	76	51.65	18	18	1 5/8[41]	7/8[22]	1 5/8[41]	5/8[16]
62020D	[1422]	[1930]	[1312]	[457]	[457]	2 1/8[54]	7/8[22]	1 5/8[41]	7/8[22]
52019D	56	84	59.65	18	18	1 5/8[41]	7/8[22]	1 5/8[41]	7/8[22]
62022D	[1422]	[2134]	[1515]	[457]	[457]	2 1/8[54]	7/8[22]	2 1/8[54]	7/8[22]
*51021D	58	84	59.65	20.67	-	2 1/8[54]	7/8[22]	-	-
*61024D	[1473]	[2134]	[1515]	[525]	-	2 5/8[67]	1 1/8[29]	-	-
*51022D	58	84	59.65	22.72	-	2 5/8[67]	1 1/8[29]	-	-
*61026D	[1473]	[2134]	[1515]	[577]	-	2 5/8[67]	1 1/8[29]	-	-
52022D	58	84	59.65	20.67	18	2 1/8[54]	7/8[22]	1 5/8[41]	7/8[22]
62026D	[1473]	[2134]	[1515]	[525]	[457]	2 1/8[54]	7/8[22]	2 1/8[54]	7/8[22]



\* MODEL WITH ONE COMPRESSOR  
DIM.12" INSTEAD OF 10" & 4" FOR ONE COMPRESSOR MODEL  
LINE SIZES ARE BASED ON 100F EQUIVALENT LENGTH  
ALL DIMENSIONS ARE IN INCHES [mm]

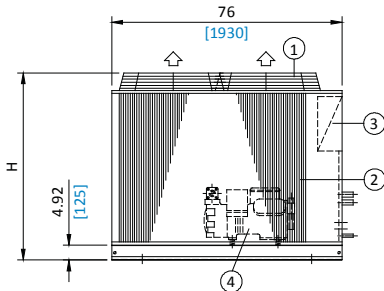


### ACUV Models- 51028D to 52040D & 61032D to 62046D



MODEL ACUV-	DIMENSIONS			CONNECTION SIZES, $\phi$			
	H	A	B	CIRCUIT-1		CIRCUIT-2	
				SUC.#1	LIQ.#1	SUC.#2	LIQ.#2
*51028D	60.63	25.79	-	2 5/8[67]	1 1/8[29]	-	-
*61032D	[1540]	[655]	-	2 5/8[67]	1 1/8[29]	-	-
52028D	60.63	21.65	21.65	2 1/8[54]	7/8[22]	2 1/8[54]	7/8[22]
62032D	[1540]	[550]	[550]	2 1/8[54]	7/8[22]	2 1/8[54]	7/8[22]
52030D	60.63	21.65	19	2 1/8[54]	1 1/8[29]	1 5/8[41]	7/8[22]
62034D	[1540]	[550]	[482]	2 5/8[67]	1 1/8[29]	2 1/8[54]	7/8[22]
*51030D	60.63	25.79	-	2 5/8[67]	1 1/8[29]	-	-
*61036D	[1540]	[655]	-	2 5/8[67]	1 1/8[29]	-	-
52034D	77.63	21.65	21.65	2 1/8[54]	7/8[22]	2 1/8[54]	7/8[22]
62040D	[1972]	[550]	[550]	2 5/8[67]	1 1/8[29]	2 1/8[54]	7/8[22]
52040D	77.63	21.65	21.65	2 1/8[54]	7/8[22]	2 1/8[54]	7/8[22]
62046D	[1972]	[550]	[550]	2 5/8[67]	1 1/8[29]	2 5/8[67]	1 1/8[29]

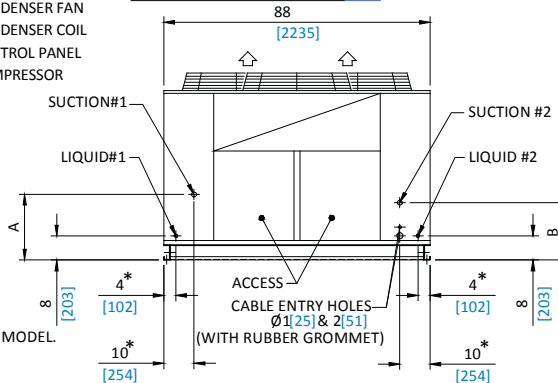
LINE SIZES ARE BASED ON 100F EQUIVALENT LENGTH  
ALL DIMENSIONS ARE IN INCHES [mm]



\* MODEL WITH ONE COMPRESSOR  
DIM.12" INSTEAD OF 10" & 4" FOR ONE COMPRESSOR MODEL.

#### LEGEND

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

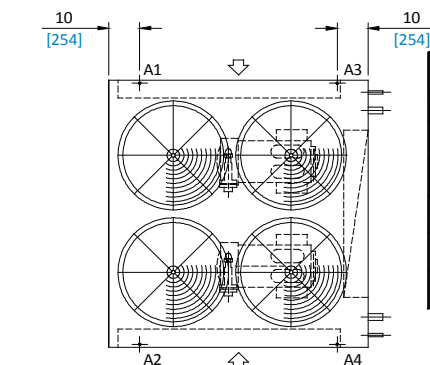


# SKM Air Cooled Condensing Units

## ACUV Series - R134a

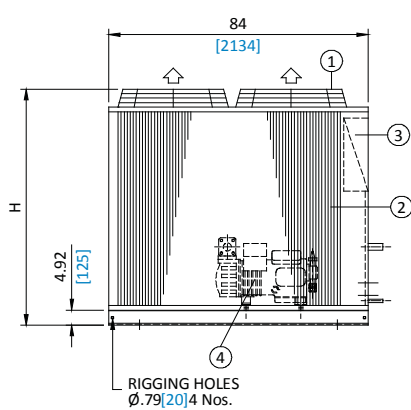
### Dimensional Data

#### ACUV Models- 52045D to 52060D & 62052 to 62071D



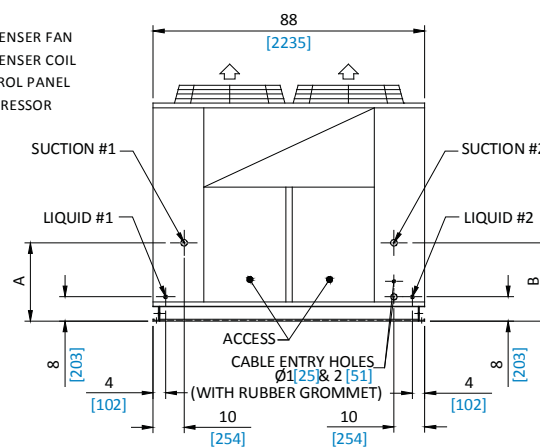
MODEL ACUV-	DIMENSIONS			CONNECTION SIZE, $\phi$			
	H	A	B	CIRCUIT-1		CIRCUIT-2	
				SUC.#1	LIQ.#1	SUC.#2	LIQ.#2
52045D 62052D	77.63 [1972]	23.7 [602]	23.7 [602]	2 5/8 [67]	1 1/8 [29]	2 5/8 [67]	1 1/8 [29]
52049D 62058D	85.63 [2175]	25.79 [655]	23.7 [602]	2 5/8 [67]	1 1/8 [29]	2 5/8 [67]	1 1/8 [29]
52053D 62062D	85.63 [2175]	25.79 [655]	25.79 [655]	2 5/8 [67]	1 1/8 [29]	2 5/8 [67]	1 1/8 [29]
52058D 62067D	85.63 [2175]	25.79 [655]	25.79 [655]	2 5/8 [67]	1 1/8 [29]	2 5/8 [67]	1 1/8 [29]
52060D 52071D	85.63 [2175]	25.79 [655]	25.79 [655]	2 5/8 [67]	1 1/8 [29]	2 5/8 [67]	1 1/8 [29]

LINE SIZES ARE BASED ON 100F EQUIVALENT LENGTH  
ALL DIMENSIONS ARE IN INCHES [mm]



#### LEGEND

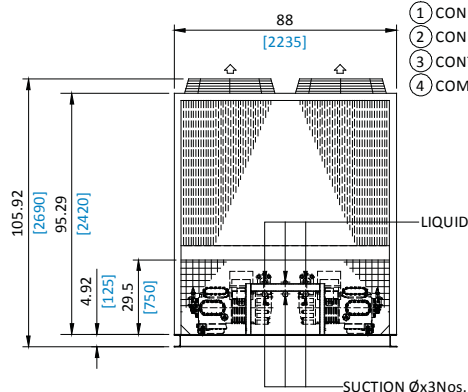
- ① CONDENSER FAN
- ② CONDENSER COIL
- ③ CONTROL PANEL
- ④ COMPRESSOR



#### ACUV Models- 53064D to 53086D & 63074 to 63100D

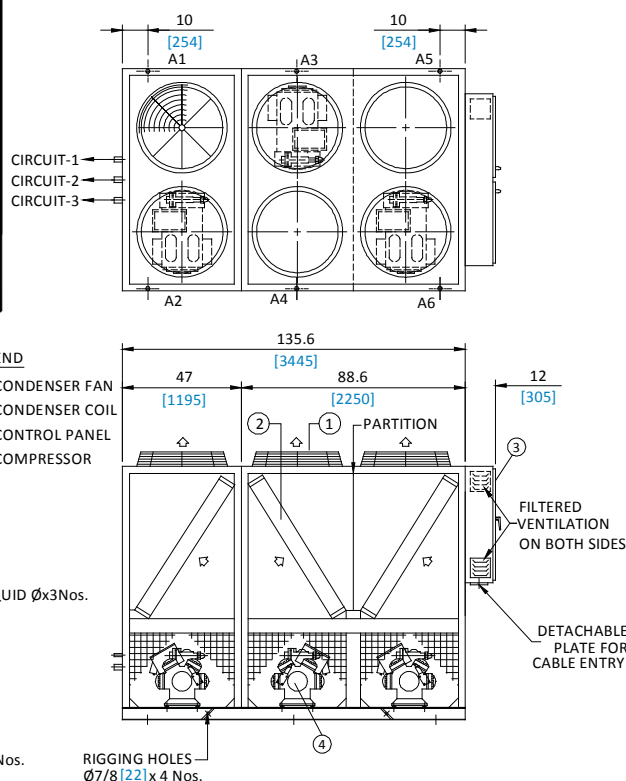
MODEL ACUV-	CONNECTION SIZES, $\phi$					
	CIRCUIT-1		CIRCUIT-2		CIRCUIT-3	
	SUC.#1	LIQ.#1	SUC.#2	LIQ.#2	SUC.#3	LIQ.#3
53064D	2 5/8 [67]	1 1/8 [29]	2 1/8 [54]	7/8 [22]	2 1/8 [54]	7/8 [22]
63074D	2 5/8 [67]	1 1/8 [29]	2 5/8 [67]	1 1/8 [29]	2 5/8 [67]	1 1/8 [29]
53068D 63078D	2 5/8 [67]	1 1/8 [29]	2 5/8 [67]	1 1/8 [29]	2 5/8 [67]	1 1/8 [29]
53070D 63082D	2 5/8 [67]	1 1/8 [29]	2 5/8 [67]	1 1/8 [29]	2 5/8 [67]	1 1/8 [29]
53080D 63094D	2 5/8 [67]	1 1/8 [29]	2 5/8 [67]	1 1/8 [29]	2 5/8 [67]	1 1/8 [29]
53084D 63098D	2 5/8 [67]	1 1/8 [29]	2 5/8 [67]	1 1/8 [29]	2 5/8 [67]	1 1/8 [29]
53086D 63100D	2 5/8 [67]	1 1/8 [29]	2 5/8 [67]	1 1/8 [29]	2 5/8 [67]	1 1/8 [29]

LINE SIZES ARE BASED ON 100F EQUIVALENT LENGTH  
ALL DIMENSIONS ARE IN INCHES [mm]



#### LEGEND

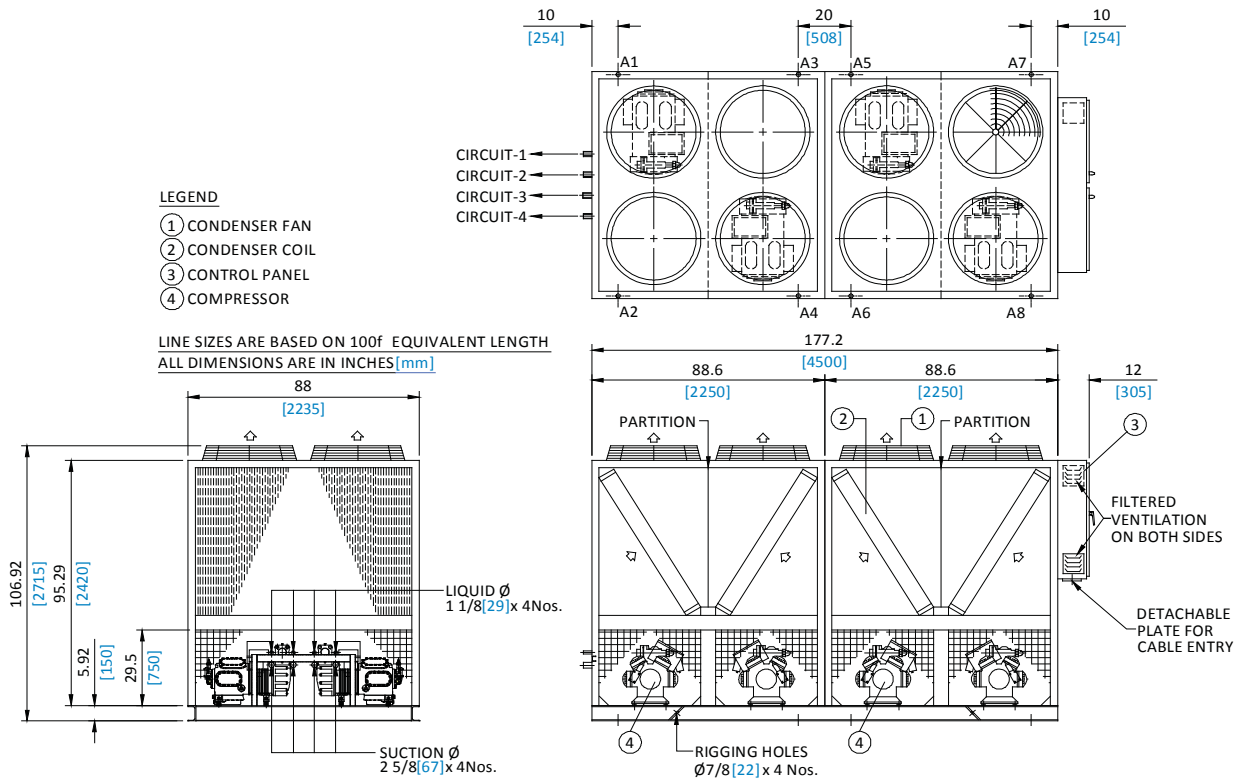
- ① CONDENSER FAN
- ② CONDENSER COIL
- ③ CONTROL PANEL
- ④ COMPRESSOR



# SKM Air Cooled Condensing Units ACUV Series - R134a

## Dimensional Data

ACUV Models- 54095D to 54120D & 64113 to 64140D



## LOADING POINTS - 50Hz

ACUV-	UNIT	LOADING POINTS				TOTAL WEIGHT
		A1	A2	A3	A4	
51008-D	lb.	231	247	231	247	956
	Kg.	105	112	105	112	434
51010-D	lb.	239	255	239	255	987
	Kg.	108	116	108	116	448
51014-D	lb.	295	323	295	323	1236
	Kg.	134	146	134	146	561
52015-D	lb.	362	398	362	398	1520
	Kg.	164	181	164	181	689
52017-D	lb.	366	403	364	401	1535
	Kg.	166	183	165	182	696
52019-D	lb.	385	421	385	421	1612
	Kg.	175	191	175	191	731
51021-D	lb.	272	434	272	434	1411
	Kg.	123	197	123	197	640
51022-D	lb.	351	378	351	378	1457
	Kg.	159	171	159	171	661
52022-D	lb.	435	473	402	438	1748
	Kg.	197	215	182	199	793
51028-D	lb.	359	358	515	517	1748
	Kg.	163	162	233	234	793
52028-D	lb.	420	420	564	564	1968
	Kg.	190	190	256	256	893
52030-D	lb.	404	431	536	582	1953
	Kg.	183	196	243	264	886
51030-D	lb.	360	359	516	519	1754
	Kg.	163	163	234	235	795
52034-D	lb.	456	468	606	626	2156
	Kg.	207	212	275	284	978
52040-D	lb.	477	477	641	641	2236
	Kg.	216	216	291	291	1014
52045-D	lb.	610	610	972	972	3165
	Kg.	277	277	441	441	1435
52049-D	lb.	643	658	1030	1081	3412
	Kg.	291	299	467	490	1547
52053-D	lb.	668	668	1119	1119	3573
	Kg.	303	303	507	507	1620
52058-D	lb.	712	713	1203	1204	3833
	Kg.	323	323	546	546	1738
52060-D	lb.	710	710	1202	1202	3826
	Kg.	322	322	545	545	1735

## LOADING POINTS - 60Hz

ACUV-	UNIT	LOADING POINTS				TOTAL WEIGHT
		A1	A2	A3	A4	
61009-D	lb.	232	249	232	249	963
	Kg.	105	113	105	113	437
61011-D	lb.	240	257	240	257	994
	Kg.	109	116	109	116	451
61016-D	lb.	298	325	298	325	1246
	Kg.	135	147	135	147	565
62018-D	lb.	364	401	364	401	1530
	Kg.	165	182	165	182	694
62020-D	lb.	369	406	367	404	1547
	Kg.	168	184	167	183	702
62022-D	lb.	392	428	392	428	1639
	Kg.	178	194	178	194	743
61024-D	lb.	347	374	347	374	1442
	Kg.	157	170	157	170	654
61026-D	lb.	356	383	356	383	1477
	Kg.	161	174	161	174	670
62026-D	lb.	441	480	408	444	1773
	Kg.	200	218	185	201	804
61032-D	lb.	370	369	522	524	1785
	Kg.	168	167	237	238	809
62032-D	lb.	431	431	571	571	2003
	Kg.	195	195	259	259	909
62034-D	lb.	416	443	544	590	1993
	Kg.	188	201	247	268	904
61036-D	lb.	370	370	523	525	1787
	Kg.	168	168	237	238	811
62040-D	lb.	467	479	613	634	2193
	Kg.	212	217	278	287	995
62046-D	lb.	490	490	650	650	2280
	Kg.	222	222	295	295	1034
62052-D	lb.	623	623	984	984	3214
	Kg.	283	283	446	446	1457
62058-D	lb.	655	670	1041	1092	3458
	Kg.	297	304	472	495	1568
62062-D	lb.	681	681	1131	1131	3625
	Kg.	309	309	513	513	1644
62067-D	lb.	725	725	1215	1215	3880
	Kg.	329	329	551	551	1759
62071-D	lb.	725	725	1216	1216	3882
	Kg.	329	329	551	551	1760

# SKM Air Cooled Condensing Units

## ACUV Series - R134a

### LOADING POINTS - 50Hz

ACUV-	UNIT	LOADING POINTS								TOTAL WEIGHT
		A1	A2	A3	A4	A5	A6	A7	A8	
53064-D	lb.	701	933	1109	944	1015	1269	-	-	5972
	Kg.	318	423	503	428	460	575	-	-	2708
53068-D	lb.	711	956	1140	962	1018	1272	-	-	6059
	Kg.	322	434	517	436	462	577	-	-	2748
53070-D	lb.	782	1094	1190	1031	1057	1311	-	-	6465
	Kg.	355	496	539	468	480	594	-	-	2932
53080-D	lb.	817	1128	1362	1136	1126	1447	-	-	7016
	Kg.	371	512	618	515	511	656	-	-	3182
53084-D	lb.	818	1130	1362	1136	1126	1447	-	-	7020
	Kg.	371	513	618	515	511	656	-	-	3184
53086-D	lb.	818	1129	1364	1137	1127	1449	-	-	7024
	Kg.	371	512	619	516	511	657	-	-	3186
54095-D	lb.	1087	809	795	987	1087	809	1098	1290	7962
	Kg.	493	367	361	448	493	367	498	585	3611
54106-D	lb.	1129	866	865	1128	1129	866	1168	1431	8581
	Kg.	512	393	392	511	512	393	530	649	3892
54114-D	lb.	1131	867	866	1128	1131	867	1169	1431	8590
	Kg.	513	393	393	512	513	393	530	649	3896
54120-D	lb.	1131	868	867	1130	1131	868	1170	1433	8598
	Kg.	513	394	393	513	513	394	531	650	3900

### LOADING POINTS - 60Hz

ACUV-	UNIT	LOADING POINTS								TOTAL WEIGHT
		A1	A2	A3	A4	A5	A6	A7	A8	
63074-D	lb.	715	947	1123	958	1029	1282	-	-	6053
	Kg.	324	429	509	434	467	581	-	-	2745
63078-D	lb.	723	968	1153	974	1030	1284	-	-	6132
	Kg.	328	439	523	442	467	582	-	-	2781
63082-D	lb.	795	1106	1202	1044	1070	1323	-	-	6538
	Kg.	360	502	545	473	485	600	-	-	2965
63094-D	lb.	829	1141	1374	1148	1138	1459	-	-	7090
	Kg.	376	517	623	521	516	662	-	-	3215
63098-D	lb.	829	1141	1374	1148	1139	1461	-	-	7092
	Kg.	376	517	623	521	516	662	-	-	3216
63100-D	lb.	829	1141	1376	1149	1139	1461	-	-	7094
	Kg.	376	517	624	521	516	662	-	-	3217
64113-D	lb.	1099	821	808	1000	1099	821	1111	1303	8061
	Kg.	498	372	366	453	498	372	504	591	3656
64124-D	lb.	1141	878	878	1140	1141	878	1181	1443	8680
	Kg.	517	398	398	517	517	398	535	655	3937
64132-D	lb.	1141	879	878	1142	1141	879	1181	1445	8685
	Kg.	517	399	398	518	517	399	536	655	3939
64140-D	lb.	1142	879	878	1142	1142	879	1181	1445	8690
	Kg.	518	399	398	518	518	399	536	655	3941

# SKM Air Cooled Condensing Units ACUV Series - R134a

## 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.26 & 27). Correct selection of types of isolators depends upon application and structure.

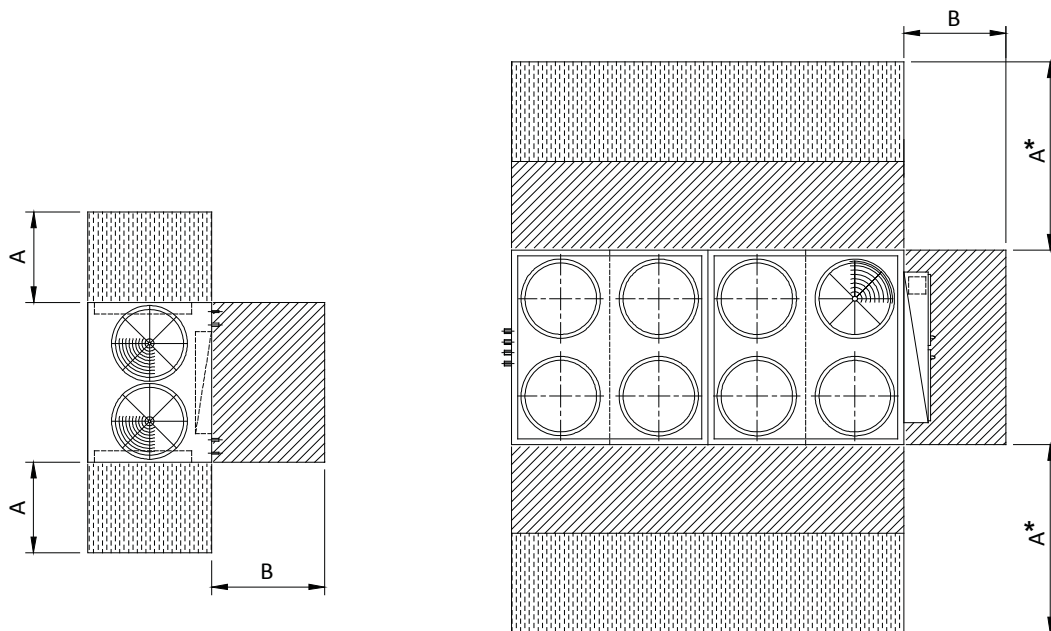
ACUV		A	B	C
51008-D	61009-D	40	42	60
51010-D	61011-D			
51014-D	61016-D			
52015-D	62018-D	48	50	72
52017-D	62020-D			
52019-D	62022-D			
51021-D	61024-D			
51022-D	61026-D			
52022-D	62026-D			
51028-D	61032-D			
52028-D	62032-D	64	66	96
52030-D	62034-D			
51030-D	61036-D			
52034-D	62040-D	72		108
52040-D	62046-D			
52045-D	62052-D			
52049-D	62058-D			
52053-D	62062-D			
52058-D	62067-D			
52060-D	62071-D			
53064-D	63074-D	84	78	90
53068-D	63078-D			
53070-D	63082-D			
53080-D	63094-D			
53084-D	63098-D			
53086-D	63100-D			
54095-D	64113-D			
54106-D	64124-D			
54114-D	64132-D			
54120-D	64140-D			

Table 14

## Single Unit Installation

 SPACING FOR AIR FLOW

 SPACING FOR SERVICE AND ACCESS




ACUV-51008D to 52060D  
ACUV-61009D to 62071D


ACUV-53064D to 54120D  
ACUV-63074D to 64140D

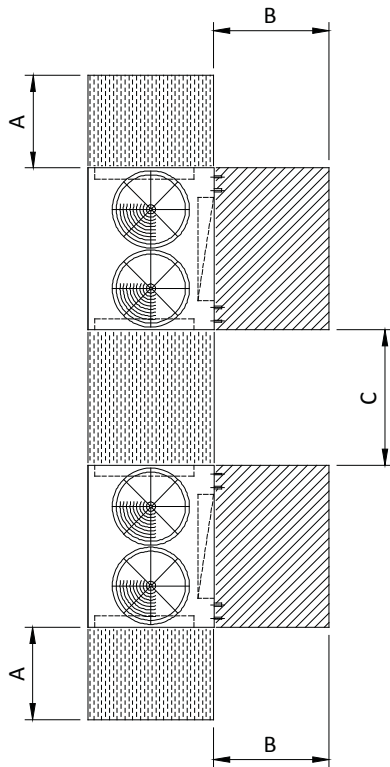
\* SPACING FOR AIRFLOW & SERVICE

# SKM Air Cooled Condensing Units ACUV Series - R134a

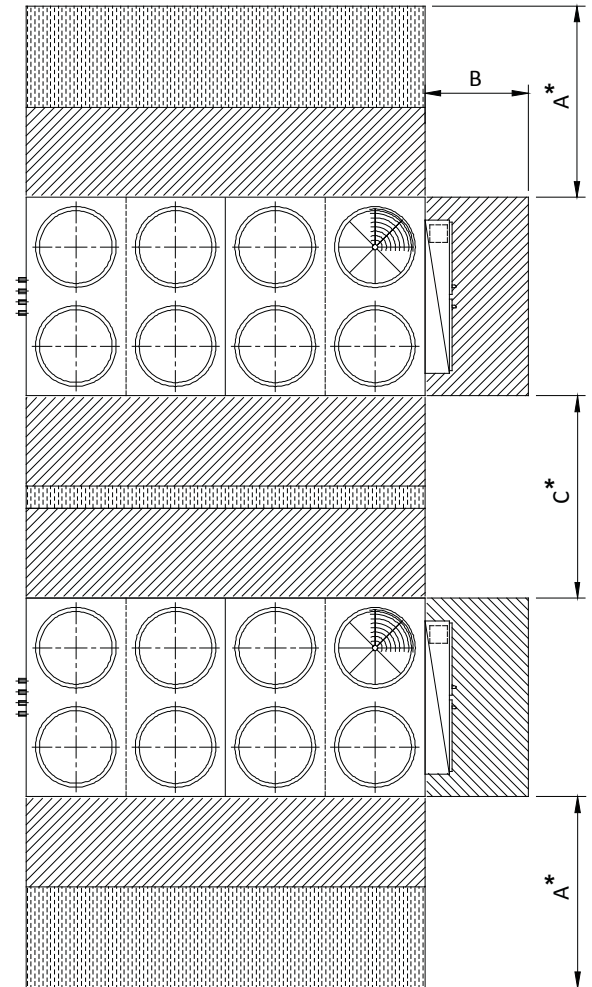
## Multiple Units Installation

 SPACING FOR AIR FLOW

 SPACING FOR SERVICE AND ACCESS



ACUV-51008D to 52060D  
ACUV-61009D to 62071D



ACUV-53064D to 54120D  
ACUV-63074D to 64140D

\* SPACING FOR AIRFLOW & SERVICE

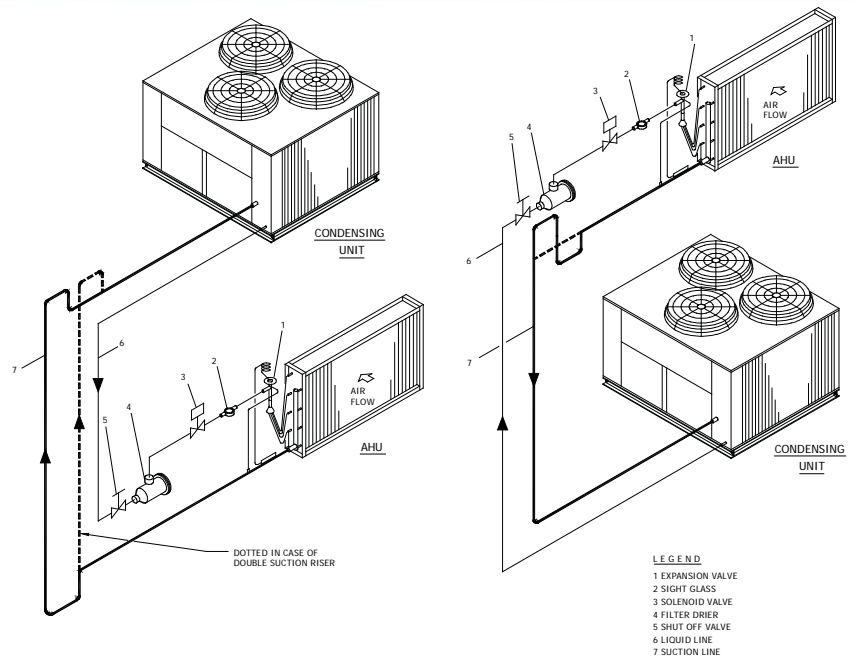
# SKM Air Cooled Condensing Units ACUV Series - R134a

## 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.**



## 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-134a 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 ACUV 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 ACUV Series, the DX coil selection in a MAH or other air handler from SKM should be based on total capacity. For dual circuit ACUV 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 ACUV 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 ACUV Series model.

# SKM Air Cooled Condensing Units

## ACUV Series - R134a

### Recommended Refrigerant Line Sizes - 50 Hz

Model ACUV	Liquid Line, Inches																Suction Line, Inches																			
	Circuit 1				Circuit 2				Circuit 3				Circuit 4				Circuit 1				Circuit 2				Circuit 3				Circuit 4							
	25ft	50ft	75ft	100ft	25ft	50ft	75ft	100ft	25ft	50ft	75ft	100ft	25ft	50ft	75ft	100ft	25ft	50ft	75ft	100ft	25ft	50ft	75ft	100ft	25ft	50ft	75ft	100ft	25ft	50ft	75ft	100ft	25ft	50ft	75ft	100ft
51008-D	1/2	5/8	5/8	5/8	-	-	-	-	-	-	-	-	-	-	-	1 3/8	1 3/8	1 5/8	1 5/8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
51010-D	5/8	5/8	7/8	7/8	-	-	-	-	-	-	-	-	-	-	-	1 3/8	1 3/8	1 5/8	1 5/8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
51014-D	5/8	7/8	7/8	7/8	-	-	-	-	-	-	-	-	-	-	-	1 3/8	1 5/8	2 1/8	2 1/8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
52015-D	1/2	5/8	5/8	5/8	1/2	5/8	5/8	5/8	-	-	-	-	-	-	-	1 3/8	1 3/8	1 5/8	1 5/8	1 3/8	1 3/8	1 5/8	1 5/8	-	-	-	-	-	-	-	-	-	-	-		
52017-D	1/2	5/8	5/8	5/8	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	-	-	-	-	-	-	-	-	-	-	-		
52019-D	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	-	-	-	-	-	-	-	-	-	-	-		
51021-D	7/8	7/8	7/8	7/8	-	-	-	-	-	-	-	-	-	-	-	1 5/8	2 1/8	2 1/8	2 1/8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
51022-D	7/8	7/8	7/8	1 1/8	-	-	-	-	-	-	-	-	-	-	-	2 1/8	2 1/8	2 1/8	2 5/8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
52022-D	5/8	5/8	7/8	7/8	5/8	7/8	7/8	7/8	-	-	-	-	-	-	-	1 3/8	1 3/8	1 5/8	1 5/8	1 3/8	1 5/8	2 1/8	2 1/8	-	-	-	-	-	-	-	-	-	-	-		
51028-D	7/8	7/8	1 1/8	1 1/8	-	-	-	-	-	-	-	-	-	-	-	2 1/8	2 1/8	2 5/8	2 5/8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
52028-D	5/8	7/8	7/8	7/8	5/8	7/8	7/8	7/8	-	-	-	-	-	-	-	1 3/8	1 5/8	2 1/8	2 1/8	1 3/8	1 5/8	2 1/8	2 1/8	-	-	-	-	-	-	-	-	-	-	-		
52030-D	5/8	5/8	7/8	7/8	7/8	7/8	7/8	7/8	-	-	-	-	-	-	-	1 3/8	1 3/8	1 5/8	1 5/8	1 5/8	2 1/8	2 1/8	2 1/8	-	-	-	-	-	-	-	-	-	-	-		
51030-D	7/8	1 1/8	1 1/8	1 1/8	-	-	-	-	-	-	-	-	-	-	-	2 1/8	2 1/8	2 5/8	2 5/8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
52034-D	5/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	-	-	-	-	-	-	-	1 3/8	1 5/8	2 1/8	2 1/8	1 5/8	2 1/8	2 1/8	2 1/8	-	-	-	-	-	-	-	-	-	-	-		
52040-D	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	-	-	-	-	-	-	-	-	-	-	-		
52045-D	7/8	7/8	7/8	1 1/8	7/8	7/8	7/8	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	-	-	-	-	-	-	-	-	-	-	-		
52049-D	7/8	7/8	7/8	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 5/8	2 5/8	-	-	-	-	-	-	-	-	-	-	-		
52053-D	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 5/8	2 5/8	2 1/8	2 1/8	2 5/8	2 5/8	-	-	-	-	-	-	-	-	-	-	-		
52058-D	7/8	7/8	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	-	-	-	-	-	-	-	-	-	-	-		
52060-D	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	-	-	-	-	-	-	-	-	-	-	-		
53064-D	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	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	2 1/8	2 1/8	2 1/8	2 1/8	2 1/8	2 5/8	-	-	-	-	-		
53068-D	7/8	7/8	7/8	1 1/8	7/8	7/8	7/8	1 1/8	7/8	7/8	7/8	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	2 1/8	2 1/8	2 1/8	2 1/8	2 1/8	2 5/8	-	-	-	-	-		
53070-D	7/8	7/8	7/8	1 1/8	7/8	7/8	7/8	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	2 1/8	2 1/8	2 5/8	2 5/8	-	-	-	-	-	-			
53080-D	7/8	7/8	1 1/8	1 1/8	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 5/8	2 5/8	2 1/8	2 1/8	2 5/8	2 5/8	2 1/8	2 1/8	2 5/8	2 5/8	-	-	-	-	-	-	-		
53084-D	7/8	7/8	1 1/8	1 1/8	7/8	7/8	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	2 1/8	2 1/8	2 5/8	2 5/8	-	-	-	-	-	-	-		
53086-D	7/8	7/8	1 1/8	1 1/8	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	2 1/8	2 1/8	2 5/8	2 5/8	-	-	-	-	-	-	-		
54095-D	7/8	7/8	7/8	1 1/8	7/8	7/8	7/8	1 1/8	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	2 1/8	2 1/8	2 5/8	2 5/8	2 1/8	2 1/8	2 5/8	2 5/8	2 1/8	2 1/8	2 5/8	2 5/8
54106-D	7/8	7/8	1 1/8	1 1/8	7/8	7/8	1 1/8	1 1/8	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 5/8	2 5/8	2 1/8	2 1/8	2 5/8	2 5/8	2 1/8	2 1/8	2 5/8	2 5/8	2 1/8	2 1/8	2 5/8	2 5/8	2 1/8	2 1/8	2 5/8	2 5/8
54114-D	7/8	7/8	1 1/8	1 1/8	7/8	7/8	1 1/8	1 1/8	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	2 1/8	2 1/8	2 5/8	2 5/8	2 1/8	2 1/8	2 5/8	2 5/8	2 1/8	2 1/8	2 5/8	2 5/8
54120-D	7/8	1 1/8	1 1/8	1 1/8	7/8	1 1/8	1 1/8	1 1/8	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	2 1/8	2 1/8	2 5/8	2 5/8	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 15

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

1. Suction Line sizing selection recommendation in Table 15 & 16 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 15 & 16 is based on 2°F temperature drop.
4. Recommended line sizes in Table 15 & 16 are for guidance only. For detailed proper piping, consult recognized piping references like ASHRAE Guide and Data Book for assistance.
5. Equivalent suction and liquid line lengths are shown in table 15 & 16.

**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

## ACUV Series - R134a

### Recommended Refrigerant Line Sizes - 60 Hz

Model ACUV	Liquid Line, Inches																Suction Line, Inches																		
	Circuit 1				Circuit 2				Circuit 3				Circuit 4				Circuit 1				Circuit 2				Circuit 3				Circuit 4						
	25ft	50ft	75ft	100ft	25ft	50ft	75ft	100ft	25ft	50ft	75ft	100ft	25ft	50ft	75ft	100ft	25ft	50ft	75ft	100ft	25ft	50ft	75ft	100ft	25ft	50ft	75ft	100ft	25ft	50ft	75ft	100ft	25ft	50ft	75ft
61009-D	1/2	5/8	5/8	7/8	-	-	-	-	-	-	-	-	-	-	-	1 3/8	1 3/8	1 5/8	1 5/8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
61011-D	5/8	5/8	7/8	7/8	-	-	-	-	-	-	-	-	-	-	-	1 3/8	1 5/8	1 5/8	2 1/8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
61016-D	5/8	7/8	7/8	7/8	-	-	-	-	-	-	-	-	-	-	-	1 5/8	2 1/8	2 1/8	2 1/8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
62018-D	1/2	5/8	5/8	7/8	1/2	5/8	5/8	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	-	-	-	-	-	-	-	-	-	-	-	
62020-D	1/2	5/8	5/8	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 5/8	1 5/8	2 1/8	-	-	-	-	-	-	-	-	-	-	-	
61022-D	5/8	5/8	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 5/8	1 5/8	2 1/8	-	-	-	-	-	-	-	-	-	-	-	
61024-D	7/8	7/8	7/8	1 1/8	-	-	-	-	-	-	-	-	-	-	-	2 1/8	2 1/8	2 1/8	2 5/8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
61026-D	7/8	7/8	1 1/8	1 1/8	-	-	-	-	-	-	-	-	-	-	-	2 1/8	2 1/8	2 5/8	2 5/8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
62026-D	5/8	5/8	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 5/8	2 1/8	2 1/8	2 1/8	-	-	-	-	-	-	-	-	-	-	-	
61032-D	7/8	1 1/8	1 1/8	1 1/8	-	-	-	-	-	-	-	-	-	-	-	2 1/8	2 5/8	2 5/8	2 5/8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
62032-D	5/8	7/8	7/8	7/8	5/8	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	-	-	-	-	-	-	-	-	-	-	-	
62034-D	5/8	5/8	7/8	7/8	7/8	7/8	7/8	1 1/8	-	-	-	-	-	-	-	1 3/8	1 5/8	1 5/8	2 1/8	2 1/8	2 1/8	2 1/8	2 5/8	-	-	-	-	-	-	-	-	-	-	-	
61036-D	7/8	1 1/8	1 1/8	1 1/8	-	-	-	-	-	-	-	-	-	-	-	2 1/8	2 5/8	2 5/8	2 5/8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
62040-D	5/8	7/8	7/8	7/8	7/8	7/8	7/8	1 1/8	-	-	-	-	-	-	-	1 5/8	2 1/8	2 1/8	2 1/8	2 1/8	2 1/8	2 1/8	2 5/8	-	-	-	-	-	-	-	-	-	-	-	
62045-D	7/8	7/8	7/8	1 1/8	7/8	7/8	7/8	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	-	-	-	-	-	-	-	-	-	-	-	
62052-D	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 5/8	2 5/8	2 1/8	2 1/8	2 5/8	2 5/8	-	-	-	-	-	-	-	-	-	-	-	
62058-D	7/8	7/8	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 5/8	2 5/8	2 5/8	-	-	-	-	-	-	-	-	-	-	-	
62062-D	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	-	-	-	-	-	-	-	-	-	-	-	
62067-D	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	-	-	-	-	-	-	-	-	-	-	-	
62071-D	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	-	-	-	-	-	-	-	-	-	-	-	
63074-D	7/8	7/8	7/8	1 1/8	7/8	7/8	7/8	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	2 1/8	2 1/8	2 1/8	2 5/8	2 5/8	2 5/8	2 5/8	-	-	-	-	
63078-D	7/8	7/8	1 1/8	1 1/8	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 5/8	2 5/8	2 1/8	2 1/8	2 5/8	2 5/8	2 1/8	2 1/8	2 5/8	2 5/8	2 5/8	2 5/8	-	-	-	-	-	
63082-D	7/8	7/8	1 1/8	1 1/8	7/8	7/8	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	2 1/8	2 1/8	2 5/8	2 5/8	2 5/8	2 5/8	-	-	-	-	-	
63094-D	7/8	1 1/8	1 1/8	1 1/8	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	2 1/8	2 5/8	2 5/8	2 5/8	2 5/8	-	-	-	-	-		
63098-D	7/8	1 1/8	1 1/8	1 1/8	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	2 1/8	2 5/8	2 5/8	2 5/8	2 5/8	-	-	-	-	-	-	
63100-D	7/8	1 1/8	1 1/8	1 1/8	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	2 1/8	2 5/8	2 5/8	2 5/8	2 5/8	-	-	-	-	-	-	
64113-D	7/8	7/8	1 1/8	1 1/8	7/8	7/8	1 1/8	1 1/8	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	2 1/8	2 5/8	2 5/8	2 5/8	2 1/8	2 5/8	2 5/8	2 5/8	2 5/8	2 5/8	
64124-D	7/8	1 1/8	1 1/8	1 1/8	7/8	1 1/8	1 1/8	1 1/8	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	2 1/8	2 5/8	2 5/8	2 5/8	2 1/8	2 5/8	2 5/8	2 5/8	2 5/8	2 5/8	
64132-D	7/8	1 1/8	1 1/8	1 1/8	7/8	1 1/8	1 1/8	1 1/8	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	2 1/8	2 5/8	2 5/8	2 5/8	2 1/8	2 5/8	2 5/8	2 5/8	2 5/8	2 5/8	
64140-D	7/8	1 1/8	1 1/8	1 1/8	7/8	1 1/8	1 1/8	1 1/8	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	2 1/8	2 5/8	2 5/8	2 5/8	2 1/8	2 5/8	2 5/8	2 5/8	2 5/8	2 5/8	

Table 16

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

1. Suction Line sizing selection recommendation in Table 15 & 16 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 15 & 16 is based on 2°F temperature drop.
4. Recommended line sizes in Table 15 & 16 are for guidance only. For detailed proper piping, consult recognized piping references like ASHRAE Guide and Data Book for assistance.
5. Equivalent suction and liquid line lengths are shown in table 15 & 16.

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# SKM Air Cooled Condensing Units ACUV Series - R134a

## GUIDE SPECIFICATIONS

### GENERAL FEATURES

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

Unit shall be factory assembled, internally wired, with holding charge and thoroughly tested before delivery. Units should be capable to operate from 50°F (10°C) to 125°F (52°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 (1.8mm) 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 of high energy efficiency ratio, fully accessible, semi hermetic reciprocating type equipped with crankcase heater, oil pump, refrigerant gas cooled electric motor, preset internal relief valve, inherent thermistor motor protection, suction and discharge service valves, oil sight glass and shall be mounted on spring anti vibration mounts to minimize vibration transmissions. Compressors shall conform to DIN standards.

### 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, 2, 3, or 4 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 IP-54 control panel enclosure shall comprises all starting, operating, and safety controls. Control panels shall be with either dead front panel cover screwed onto the enclosure or with external panels with hinged door and key fastener provided for access and security.

All wiring shall be sized as per NEC regulations. Wiring shall be fully ferruled enabling ease of proper identification. The control panel shall be factory wired for 220-240V/1PH/50 & 60Hz control power supply.

### MICRO PROCESSOR

Unit with an intelligent and compact electronic controller shall be provided in the control panel to control the operation of the unit.

The controller shall have a maximum 24 digital inputs, 8 analog inputs, 16 digital outputs and 2 analog outputs.

The panel mounted controller shall provide an automatic control of compressor start/stop, anti-recycling timer and unit alarms. Automatic reset after power failure, Software stored in the memory and programmed set points retained by real time clock. Operator control and monitoring by means of a back-lit display with 4 lines of 12 character. One line display of set points and actual value. Keypad shall include function buttons. A remote mounted Temperature Transmitter shall give the signal to the controller for start or stop the unit.

Upon start-up the controller shall run through self diagnostic check to verify proper operation and sequence loading. The controller shall monitor the input from the room temperature transmitter and output and input points on the controller and maintain proper operation. The unit shall shut down in a troubled mode to prevent unit from damage. Effectuated safeties alarm shall be displayed on the screen by pressing up (Δ) key on the controller.