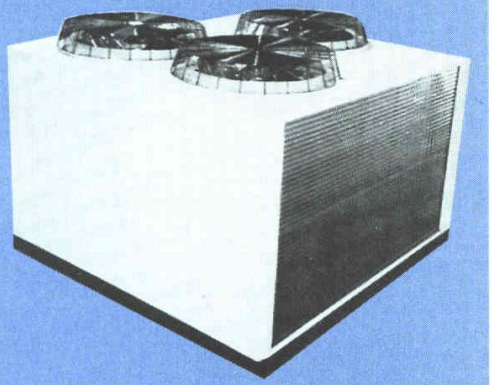
ARC Series
Air Cooled Remote Condensers



AIR-CONDITIONING
EQUIPMENT

Bulletin # 011/2005
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CE

Certified ISO 9001 by BVQI
ANSI • RAB QMS ACCREDITED

AIR-CONDITIONING EQUIPMENT

Contents

Legends

The following legends are used throughout this manual:

BHP ..... Brake Horse power
CFM .... Cubic feet per minute
FLA ..... Full Load Amperes
Hz ..... Hertz
ITD ..... Initial temperature difference
kg ..... Kilogram
KPa ..... Kilo Pascals
KW ..... Kilowatts
lbs ..... Pounds weight (British units)
LRA ..... Locked Rotor Amperes
L/S ..... Liters per second
MBH .... BTUH x 1000
Ph ..... Phase
psig ..... Pounds per sq.inch gauge
rpm ..... Rotations per minute
THR ..... Total Heat Rejection
V ..... Volts

Nomenclature

A R C - 5 0 2 4 Y

- A R C: Air Cooled Remote Condenser
- 5 = 50 Hz, 6 = 60 Hz
- 0 2 4: Approx. Heat Rejection in 10 MBH
- Y: Power Supply Code
  - Y: 380-415V/3Ph/50Hz
  - P: 440V/3Ph/50Hz
  - R: 380V/3Ph/60Hz
  - E: 460V/3Ph/60Hz
  - T: 220V/3Ph/60Hz

Introduction

SKM's ARC series Air Cooled Remote Condensers are designed and manufactured for systems requiring remote condenser installation in Air Conditioning and Refrigeration applications.

ARC series covers a wide range of heat rejection and is available in 64 sizes (32 for 50 Hz and 32 for 60 Hz power supply) to cover the heat rejection range of 30 to 1700 MBH (9 to 500 kW) in a single enclosure. ARC series are available in single and double refrigeration circuits. For other circuiting please consult SKM.

As most ARC models are unique to the application, specific requirement data should be provided to SKM for correct sizing, selection and dimensional details.

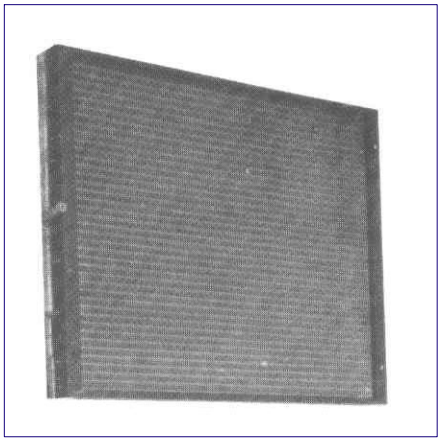
Specifically designed for outdoor installation in the extreme climatic conditions of the Gulf, the ARC series air cooled condensers are designed to resist all climatic conditions and corrosion while retaining a like-new appearance year after year.

SKM's ARC series Air Cooled Condensers are rated in accordance with ARI - 460.

Component Features

Condenser Coils

Air cooled condenser coils made of seamless copper tubes expanded into aluminium fins to ensure optimum heat transfer are SKM standard supply. All standard coils are 3 or 4 rows/12 FPI, (2.1 mm) fins spacing, 3/8" (9.5 mm) O.D. tubes. An integral sub cooling circuit can be provided to increase the system capacity.



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

- Pre-coated Aluminum fins
- Copper fins
- Copper fins electro-tinned after manufacture
- Copper (or aluminium fins) with Acra-Clad® coating factory applied

All condenser coils are factory tested prior to assembly to 450 psig (3100 kPa) by pressurizing the air in the coils under water.

The corrugated wavy fins design creates air turbulence which reduces air boundary film and air side thermal resistance at minimum air side pressure loss.

The headers are brazed onto the coils using 95/5 silver solder, fully minimizing possibility of leakages.

SKM can make special condensers, with other than catalogued data, with different circuitings, splits, fin spacing, etc. to meet a wide range of requirements. Please consult SKM for any heat rejection requirements not covered in this catalog.

Condenser Fans/Motors

The condenser fans are propeller type direct driven by TEAO Class "F" insulated electric motors suitable for outdoor applications. Motors are 6 pole IP55 protected.

The fan blades are made of heavy gauge aluminium alloy, highly resistant to environmental corrosion and each fan is statically and dynamically balanced at the factory.

An acrylic coated heavy duty fan guard is provided for each assembly.

For applications requiring installation in a hazardous environment, the following options are available:

- Spark resistant fan blades
- Explosion proof motor

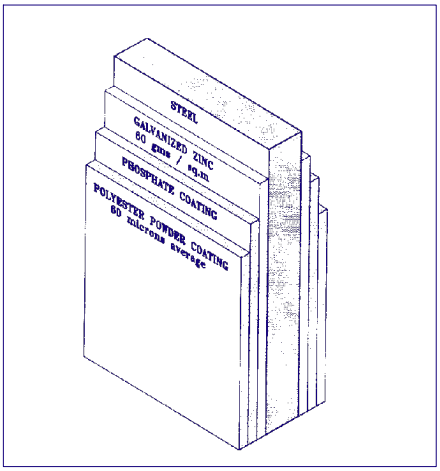
Please specify area classification (Class, Div and environment) for correct selection by SKM.

Unit Casing

The unit casing used in ***ARC*** series is made of zinc coated galvanized steel sheets conforming to JIS-G 3302 and ASTM A635 which is phosphatized and baked after an electrostatic powder coat of approximately 60 microns.

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

Access panels are provided for ensuring ease of inspection and maintenance.



Refrigerants

All ***ARC*** series condensers are suitable and applicable to work using refrigerant R-22. For other refrigerants please consult SKM.

Options

Control Panel **ICS/ICP**

All ***ARC*** units come standard with a terminal box to which leads must be connected for user supplied & installed contactors/starters and/or controls as necessary to operate the motors.

All units can be supplied with unit mounted control panel, IP55 enclosure containing contactor and overload for each motor.

When ordering please specify option ICP for IP55 enclosure. Contactors and overloads for each motor come factory wired with this option.

For hazardous duty, all internal wiring, conduiting and panel is offered with explosion proof components to suit application requirements.

AIR-CONDITIONING EQUIPMENT

Sub Cooling Coil SCC

All models can be provided with an independent, unpiped sub cooling coil circuit located at the bottom of each condenser coil. Sub cooling coils can be sized for providing 5°F (2.8°C) to 20°F (11.1°C) of sub cooling. Specify at order write up.

For factory piped sub-cooling circuit or piping, state on order write up.

Alternative Unit Casing UAL/USS

Specify UAL option for Aluminium or USS option for stainless steel unit casings.

Interior Partitions ISP

Desirable in multi circuited condensers with multiple fans when used in applications having wide variance of load or where required for better head pressure control.

Condenser Coil Guards CGP/CGG

Coil wire mesh guard, in painted or galvanized finish. Recommended wherever installation is at ground level or where access by possible vandals is feared.

Alternative Fin Materials

All *ARC* models can be supplied in alternative fin material like copper and additional factory applied protective coating like ACRA-CLAD®. Specify at order write up.

Alternative FPI / Circuiting /Rows

Alternative fin spacing and/or different circuits and/or rows depth is possible providing a very wide range of thermal heat rejection capacity as well as usage for most kinds of heat rejection applications. Consult SKM with details of your requirements.

Low Ambient Operation LAO

Fan cycling is available for low ambient operations down to 50°F (10°C). For temperatures down to 25°F (-4°C), head pressure control system can be provided.

Liquid Receiver RLR

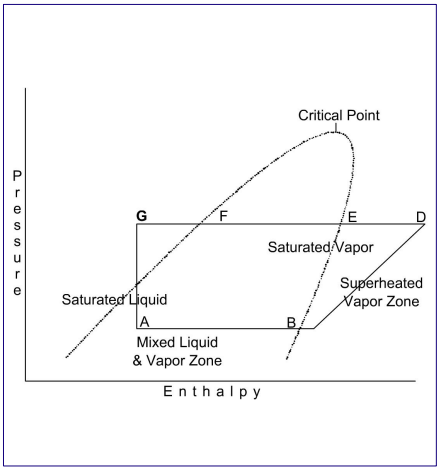
To maintain head pressure at low ambient conditions it is necessary to use a liquid receiver to hold excess refrigerant charge (head pressure control).

Selection Procedure

SKM **ARC** *series air cooled condensers are designed for use in standard commercial and industrial refrigeration and air conditioning systems.* **ARC** *condensers are used to reject heat from the refrigerant to the ambient air environment by first desuperheating the refrigerant and then condensing the same from a vapor to liquid form.*

ARC *condensers should be selected for the total heat rejection which is the net refrigeration capacity at the evaporator plus the heat of compression added to the refrigerant gas by the compressor.*

On a Pressure-Enthalpy diagram of a refrigerant this can be easily shown as below.



The **ARC** *condenser should be sized for removing the enthalpy indicated from point D to point G which includes the desuperheating at entry to* **ARC** *condenser (Pts D to E), constant pressure/temperature condensing in* **ARC** *(Pts E to F) and sub cooling of the liquid refrigerant (Pts F to G).*

If the evaporator load or heat input is known as desired, the ***ARC*** *capacity; i.e. total heat rejection (THR) in MBH can be calculated as follows;*

1. *For open drive compressors THR = Compressor Capacity (in MBH) + (motor BHP x 2.545)*

2. *For semi-hermetic, or hermetic compressors, suction gas cooled THR = Compressor capacity (in MBH) + (Input kw x 3.413)*

For single stage systems, in many cases the compressor input power is not known. In such cases the particular compressor manufacturers performance curves for the particular compressor should be used to directly obtain the cooling capacity and the corresponding THR can be determined from those curves.

If the figures are not available from the compressor manufacturer, the following tables 1 & 2 may be used to estimate THR by using the factor from Tables 1 or 2 in the formula :

THR = Cooling capacity x Factor (Tables 1 & 2). The following information should be known to select **ARC** *Condenser:*

1. *Refrigerant*
2. *Power supply and frequency*
3. *Total heat rejection from compressor data or from formula above.*
4. *Ambient design temperature*
5. *Condensing temperature (saturated discharge temperature minus discharge line loss).*
6. *Circuiting*

Example

Given:

1. *Refrigerant - R-22*
2. *Power supply - 415V/3PH/50Hz.*
3. *Evaporator Load 413 MBH(121 KW)*
4. *Semi-hermetic compressor.*
5. *Ambient temp. 110 °F (43.3 °C)*
6. *Desired condensing temp. 135 °F (57.2°C)*
7. *Evaporator temp. 40°F (4.4°C)*

(1). Calculate THR by selecting factor of 1.33 from Table 1 and multiplying

by evaporator load, THR = 549.3 MBH (160.9 kW).

(2). Calculate ITD (condensing temperature minus ambient temp.) = 25°F (13.9°C)

(3). Enter capacity ratings table; select ARC 5046.

(4). The system will match at new ITD = (549.3/566.7) x 25
= 24.2°F (13.4°C)
The matching condensing temp. 110 + 24.2 = 134.2°F (56.7°C)

Correction Factors

Altitude

The condenser ratings must be multiplied by the following factors at different altitudes :

Alternatively, for given condenser THR at a specified altitude, ***ARC*** capacity at sea level can be calculated by dividing the capacity required at specified altitude by approximate factors from Table. 3 and using the value for selecting ***ARC*** condenser matching this capacity at sea level from Capacity Ratings on Page 10.

Altitude above sea level		Correction Factor
Ft.	m	
0	0	1
2000	610	0.95
4000	1220	0.91
6000	1830	0.87
8000	2440	0.83

Table 3 - Altitude Correction Factors

Fin Material

ARC unit ratings are based on copper tubes and aluminium fins. For alternative fins material the following factors in Table 4.

Tubes / Fins	THR Capacity Multiplier
Copper / Pre-coated Aluminum	1.03
Copper / Aluminum + Acra Clad	0.93
Copper / Copper + Acra Clad	0.93

Table4 - Fin Material Correction Factor

Evaporator Temperature		Condensing Temperature °F (°C)					
° F	°C	90 (32)	100 (38)	110(43)	120(49)	130(54)	140(60)
-40	-40	1.66	1.73	1.8	2	*	*
-30	-34.4	1.57	1.62	1.68	1.8	*	*
-20	-28.9	1.49	1.53	1.58	1.65	*	*
-10	-23.3	1.42	1.46	1.5	1.57	1.64	*
0	-17.8	1.36	1.4	1.44	1.5	1.56	1.62
5	-15	1.33	1.37	1.41	1.46	1.52	1.59
10	-12.2	1.31	1.34	1.38	1.43	1.49	1.55
15	-9.4	1.28	1.32	1.35	1.4	1.46	1.52
20	-6.7	1.26	1.29	1.33	1.37	1.43	1.49
25	-3.9	1.24	1.27	1.31	1.35	1.4	1.45
30	-1.1	1.22	1.25	1.28	1.32	1.37	1.42
40	4.4	1.18	1.21	1.24	1.27	1.31	1.35
50	10	1.14	1.17	1.2	1.23	1.26	1.29

Table 1 - Suction Cooled Hermetic Compressors - THR Factors

Evaporator Temperature		Condensing Temperature °F (°C)					
-40	-40	1.43	1.48	1.54	*	*	*
-30	-34.4	1.37	1.42	1.47	*	*	*
-20	-28.9	1.33	1.37	1.42	1.47	*	*
-10	-23.3	1.28	1.32	1.37	1.42	1.47	*
0	-17.8	1.24	1.28	1.32	1.37	1.41	1.47
10	-12.2	1.21	1.24	1.28	1.32	1.36	1.42
20	-6.7	1.17	1.2	1.24	1.28	1.32	1.37
30	-1.1	1.14	1.17	1.2	1.24	1.27	1.32
40	4.4	1.12	1.15	1.17	1.2	1.23	1.28
50	10	1.09	1.12	1.14	1.17	1.2	1.24

Table 2 - Open Compressors - THR Factors

*Tables 1 and 2 are valid approximations for systems within the normal limits of single stage compressor applications. Altitude, fin material and sub-cooling are other major factors which affect condenser capacity. See correction factors in Tables 3, 4 & 5 for correcting THR capacity of **ARC** condensers as affected by these factors.*

* Outside normal pressure ratio and discharge temperature limits for single stage compressors.

Sub cooling

If part of the ***ARC*** condenser capacity is booked for sub-cooling, net heat rejection capacity will be reduced while the system capacity will increase. The following factors in Table 5 must be applied on condenser capacity ratings.

Sub Cooling Degree		Factor
°F	°C	
5	2.8	0.972
10	5.6	0.945
15	8.4	0.920
20	11.1	0.890

Table 5 - Sub Cooling Correction Factors

System capacity will increase 1% approximately, each 2°F (1.0°C) sub cooling.

Recommended Design ITD's

Application	ITD	
Low Temp. Refrig.	15°F	8.33°C
Hi & Med. Temp. Refrig.	20°F	11.1°C
Air Conditioning	20°F	11.1°C

Table 6 - Design Temperature Difference

Working & Test Pressures

The ***ARC*** series condensers has heat rejection coils designed for the following working and test pressures:

Design Working Pressure	300 psig
	2068 KPa
Test Pressure	450 psig
	3100 Kpa
Maxm Discharge Gas Temp. (Depends on compressor oil used)	270°F-300°F
	135°C-149°C

Table 7 - Working & Test Pressures

Electrical Data

Power Supply V/Ph/Hz	Condenser Fan Motor (kw)											
	0.37		0.55		0.75		1.1		1.5		2.2	
	FLA	LRA	FLA	LRA	FLA	LRA	FLA	LRA	FLA	LRA	FLA	LRA
380-415/3/50	1.4	4.4	-	-	2.3	9	2.9	12	4.4	18	-	-
440/30/50	1.3	3.8	-	-	2.2	8.3	2.8	11	3.9	16	-	-
220/3/60	-	-	3.2	13	-	-	5.6	21	7.8	33	11	66
380/3/90	-	-	1.9	7	-	-	3.2	12	4.5	19	5.8	34
460/3/60	-	-	1.6	6.4	-	-	2.8	12	4	18	5.1	32

Table 8 - Motor Current

Power Supply V/Ph/Hz	Voltage Tolerance	
	Minimum	Maximum
380-415/3/50	357	440
440/30/50	400	466
220/3/60	198	242
380/3/90	342	418
460/3/60	414	506

Table 9 - Voltage Tolerances

Circuiting

The ***ARC*** series models have the advantage of availability with various coil splits in one compact single unit.

All ***ARC*** series models have 1 or 2 refrigeration circuits. Each circuit is capable of handling a separate cooling system. Each separate circuit may have its own sub cooler coil or circuit. Alternatively, each circuit may have its own receiver (see options available).

Depending upon the number of compressors being used and the ***ARC*** model, the available coil split selections are as shown.

Different circuits may be used giving flexibility of usage and saving of space.

For any percentage other than those specified, please consult SKM.

ARC Models		Percent Capacity per Circuit			
		1	2	3	4
5006	6007				
5007	6008				
5008	6009				
5009	6010				
5010	6011				
5011	6012	100			
5012	6013				
5014	6015				
5015	6016				
5016	6017				
5023	6026				
5032	6035				
5013	6014				
5017	6019				
5018	6020				
5022	6024	50	50		
5024	6027	100			
5025	6028				
5027	6030				
5028	6031				
5031	6034				
5036	6040	50	33	17	
		50	50		
		67	33		
		100			
5040	6043	50	33	17	
		50	50		
		62	38		
		100			
5046	6050	50	28	22	
		50	50		
		72	28		
		78	22		
		100			
5053	6058	50	30	20	
		50	50		
		70	30		
		80	20		
		100			
5062	6068	50	38	12	
		50	50		
		62	38		
		100			
5069	6075	50	44	6	
		50	50		
		56	44		
		100			
5077	6084	50	35	15	
		50	50		
		65	35		
		100			
5086	6095	50	35	15	
		50	50		
		65	35		
		54	46		
		100			
5092	6101	50	50		
		100			
5098	6108	25	25	25	25
		50	50		
5107	6116	75	25		
		54	46		

Table 10 - Std. & Optional Circuiting

Circuits marked ▭ are standard circuits from SKM. Others are optional circuits available.

AIR-CONDITIONING EQUIPMENT

Space & Location Requirements

ARC Series Air Cooled Condensers should be located on a flat base, either on the ground or on a roof top, which is strong enough to hold the operating weight of the unit.

The most important consideration when deciding upon the location of air cooled equipment is the provision for supply of ambient air to the condenser and removal of heated air from condenser. ARC models are designed for vertical air flow discharge, and no obstruction should be on top of units.

ARC models for indoor installation are available. Consult SKM.

Where these essential requirements are not adhered to, it will result in a higher condensing temperature which causes poor operation and eventual failure of the equipment. Units should not be located in the vicinity of steam, hot air or fume exhausts.

DO NOT DUCT EXHAUST OF FANS AND DO NOT PLACE ANY OBSTRUCTION ON ANY FAN OUTLET

FIG.	MODEL ARC-		A	B
1	5006	6007	48 (1219)	30 (762)
	5007	6008		
	5008	6009		
	5009	6010		
	5010	6011		
	5011	6012		
	5012	6013		
3	5013	6014		
1	5014	6015		
	5015	6016		
2	5016	6017		
3	5017	6019		
	5018	6020		
	5022	6024		
2	5023	6026	54 (1372)	
3	5024	6027	48 (1219)	
	5025	6028		
	5027	6030		

FIG.	MODEL ARC-		A	B
4	5028	6031	48 (1219)	36 (914)
	5031	6034		
2	5032	6035	64 (1626)	30 (762)
4	5036	6040	48 (1219)	36 (914)
	5040	6043	64 (1626)	
5	5046	6050		
	5053	6058	72 (1829)	
	5062	6068		
6	5069	6075		
	5077	6084	60 (1524)	
	5086	6095	72 (1829)	
	5092	6101	80 (2032)	
7	5098	6108		
	5107	6116		

SPACING FOR SERVICE

SPACING FOR AIR FLOW

ALL DIMENSIONS IN INCHES (MM)

FIG. 1

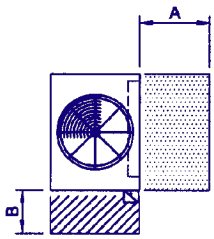


FIG. 2

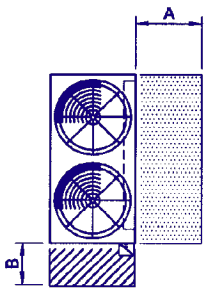


FIG. 3

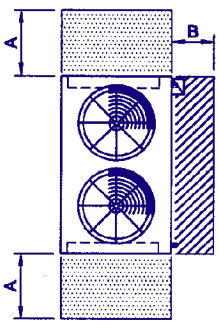


FIG. 4

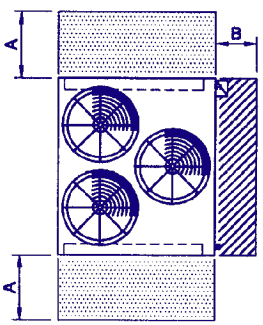


FIG. 5

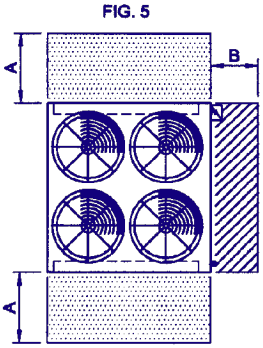


FIG. 6

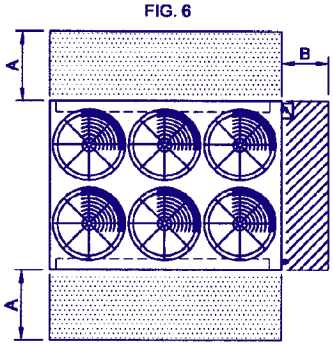
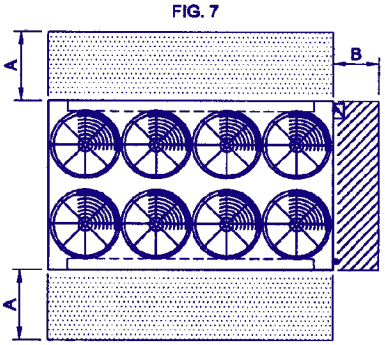


FIG. 7



AIR-CONDITIONING EQUIPMENT

Technical Specifications

50 Hz

Model		ARC	5006	5007	5008	5009	5010	5011	5012	5013	5014	5015	5016	5017	5018	5022	5023	5024
Nominal Capacity (1)		MBH	61.1	70.2	84.2	88.7	100.1	107.6	117.8	122.3	126.1	137.6	151.9	168.4	177.4	215.1	235.5	235.5
		KW	17.9	20.6	24.7	26	29.4	31.5	34.5	35.8	36.9	40.3	44.5	49.4	52	63	69	69
Standard CapacitySteps		%	100-0	100-0	100-0	100-0	100-0	100-0	100-0	50-50	100-0	100-0	100-0	50-50	50-50	50-50	100-0	50-50
Fan	Type	-	Propeller Direct Drive, 960 rpm															
	Code / quantity	-	628/1	628/1	723/1	729/1	823/1	823/1	823/1	628/2	823/1	823/1	723/2	723/2	729/2	823/2	823/2	823/2
	Air Flow Rate	CFM	4530	4390	6720	7450	8910	9140	8500	9060	8790	9130	11140	13440	14900	18280	17000	17000
		L/S	2138	2072	3171	3516	4205	4313	4011	4275	4148	4308	5257	6342	7031	8626	8022	8022
Motor	Type	-	Totally Enclosed, Air-Over, Class-F insulation, 6-Pole, IP-55 protection															
	Total Power Input	KW	0.37	0.37	0.75	1.1	1.5	1.5	1.5	0.74	1.5	1.5	1.5	1.5	2.2	3	3	3
Coil	Type	-	Air-Cooled, 3 or 4 Rows, 12 FPI (2.1mm), 3/8"" (9.5 mm) O.D. Copper tube, Aluminum Fins															
	Area	ft²	9.7	9.7	12.2	12.2	13.1	14.7	13.1	19.4	14.7	17.2	16.6	24.4	24.4	29.3	26.3	26.3
		m²	0.9	0.9	1.1	1.1	1.2	1.4	1.2	1.8	1.4	1.6	1.5	2.3	2.3	2.7	2.4	2.4
Refrigerant Charge, R - 22		lbs	4.3	5.7	5.3	5.3	5.7	6.4	7.6	8.6	8.5	9.9	9.5	10.6	10.6	12.7	14.8	15.2
		kg	2	2.6	2.4	2.4	2.6	2.9	3.5	3.9	3.9	4.5	4.3	4.8	4.8	5.8	6.7	6.9
Storage Capacity, R - 22		lbs	16.3	21.8	20.2	20.2	21.6	24.2	28.9	32.6	32.3	37.5	36.1	40.4	40.4	48.4	56.4	57.7
		kg	7.4	9.9	9.2	9.2	9.8	11	13.1	14.8	14.7	17.1	16.4	18.3	18.3	22	25.7	26.2
Operating Weight, (approx.)		lbs	308	342	370	388	448	466	470	530	500	542	566	630	664	790	810	820
		kg	140	156	168	176	204	212	214	240	228	246	258	256	302	360	368	374

Model		ARC	5025	5027	5028	5031	5032	5036	5040	5046	5053	5062	5069	5077	5086	5092	5098	5107
Nominal Capacity (1)		MBH	252.1	275.2	280.3	303.5	304.1	356.8	388.6	453.4	522.1	610.6	680.1	755.4	852.6	909.1	970.6	1046.4
		KW	73.9	80.7	82.2	89	89.1	104.6	113.9	132.9	153	179	199.3	221.4	249.9	266.5	284.5	306.7
Standard CapacitySteps		%	50-50	50-50	50-50	50-50	100-0	50-50	50-50	50-50	50-50	50-50	50-50	50-50	50-50	50-50	50-50	50-50
Fan	Type	-	Propeller Direct Drive, 960 rpm															
	Code / quantity	-	823/2	823/2	823/3	823/3	829/2	823/3	829/3	823/4	829/4	829/4	823/6	829/6	829/6	829/6	823/8	829/8
	Air Flow Rate	CFM	17580	18260	25980	26820	21040	25620	32790	37160	43840	42160	55740	57060	61020	63000	75760	87760
		L/S	8296	8617	12260	12656	9929	12090	15474	17536	20688	19895	26304	26927	28795	29730	35751	41414
Motor	Type	-	Totally Enclosed, Air-Over, Class-F insulation, 6-Pole, IP-55 protection															
	Total Power Input	KW	3	3	4.5	4.5	3	4.5	4.5	4.4	6	6	6.6	9	9	9	8.8	12
Coil	Type	-	Air-Cooled, 3 or 4 Rows, 12 FPI (2.1mm), 3/8"" (9.5 mm) O.D. Copper tube, Aluminum Fins															
	Area	ft²	29.3	34.4	35.6	40	35.8	40	53.3	64	72	72	96	80	96	106.7	144.4	144.4
		m²	2.7	3.2	3.3	3.7	3.3	3.7	5	5.9	6.7	6.7	8.9	7.4	8.9	9.9	13.4	13.4
Refrigerant Charge, R - 22		lbs	17	19.7	15.1	17	20.1	22.7	22.7	27.1	30.5	40.7	40.3	44.7	53.7	59.6	60.1	60.1
		kg	7.7	9	6.9	7.7	9.1	10.3	10.3	12.3	13.9	18.5	18.3	20.3	24.4	27.1	27.3	27.3
Storage Capacity, R - 22		lbs	64.6	75	57.5	64.7	76.5	86.3	86.3	103.1	116	154.6	153.1	170.1	204.1	226.8	228.5	228.5
		kg	29.4	34.1	26.2	29.4	34.8	39.2	39.2	46.9	52.7	70.3	69.6	77.3	92.8	103.1	103.9	103.9
Operating Weight, (approx.)		lbs	870	946	1018	1080	1032	1160	1270	1420	1580	1740	2076	2180	2376	2526	2900	2900
		kg	396	430	464	492	470	528	578	646	718	790	944	992	1080	1148	1318	1318

(1) Nominal capacity is based on 20°F (11.1°C) Initial Temperature Difference (ITD) and using R-22 refrigerant

(2) Storage capacity is the internal volume x refrigerant liquid density

AIR-CONDITIONING EQUIPMENT

Technical Specifications

60 Hz

Model		ARC	6007	6008	6009	6010	6011	6012	6013	6014	6015	6016	6017	6019	6020	6024	6026	6027
Nominal Capacity (1)		MBH	68	79.3	91.6	95.9	109.2	117.5	130.4	135.9	140.1	154.1	163.3	183.1	191.9	235	260.8	260.8
		KW	19.9	23.2	26.8	28.1	32	34.4	38.2	39.8	41.1	45.2	47.9	53.7	56.2	68.9	76.4	76.4
Standard CapacitySteps		%	100-0	100-0	100-0	100-0	100-0	100-0	100-0	50-50	100-0	100-0	100-0	50-50	50-50	50-50	100-0	50-50
Fan	Type	-	Propeller Direct Drive, 1150 rpm															
	Code / quantity	-	628/1	628/1	723/1	729/1	823/1	823/1	823/1	628/2	823/1	823/1	723/2	723/2	729/2	823/2	823/2	823/2
	Air Flow Rate	CFM	5500	5330	7970	8840	10850	11120	10360	11000	10700	11110	12820	15940	17680	22240	20720	20720
		L/S	2595	2515	3761	4172	5120	5248	4889	5191	5049	5243	6050	7522	8343	10495	9778	9778
Motor	Type	-	Totally Enclosed, Air-Over, Class-F insulation, 6-Pole, IP-55 Protectio															
	Total Power Input	KW	0.55	0.55	1.1	1.5	2.2	2.2	2.2	1.5	2.2	2.2	2.2	2.2	3	4.4	4.4	4.4
Coil	Type	-	Air-Cooled, 3 or 4 Rows, 12 FPI (2.1mm), 3/8"" (9.5 mm) O.D. Copper tube, Aluminum Fins															
	Area	ft²	9.7	9.7	12.2	12.2	13.1	14.7	13.1	19.4	14.7	17.2	16.6	24.4	24.4	29.3	26.3	26.3
		m²	0.9	0.9	1.1	1.1	1.2	1.4	1.2	1.8	1.4	1.6	1.5	2.3	2.3	2.7	2.4	2.4
Refrigerant Charge, R - 22		lbs	4.3	5.7	5.3	5.3	5.7	6.4	7.6	8.6	8.5	9.9	9.5	10.6	10.6	12.7	14.8	15.2
		kg	2	2.6	2.4	2.4	2.6	2.9	3.5	3.9	3.9	4.5	4.3	4.8	4.8	5.8	6.7	6.9
Storage Capacity, R - 22		lbs	16.3	21.8	20.2	20.2	21.6	24.2	28.9	32.6	32.3	37.5	36.1	40.4	40.4	48.4	56.4	57.7
		kg	7.4	9.9	9.2	9.2	9.8	11	13.1	14.8	14.7	17.1	16.4	18.3	18.3	22	25.7	26.2
Operating Weight, (approx.		lbs	308	342	370	388	448	466	470	530	500	542	566	630	664	790	810	820
		kg	140	156	168	176	204	212	214	240	228	246	258	286	302	360	368	374

Model		ARC	6028	6030	6031	6034	6035	6040	6043	6050	6058	6068	6075	6084	6095	6101	6108	6116
Nominal Capacity (1)		MBH	280.2	308.2	305.7	331	337.4	395.3	423.7	497.3	569.7	677.7	745.9	834.1	943.6	1008.8	1072	1141.7
		KW	82.1	90.3	89.6	97	98.9	115.8	124.2	145.8	167	198.6	218.6	244.5	276.6	295.7	314.2	334.6
Standard CapacitySteps		%	50-50	50-50	50-50	50-50	100-0	50-50	50-50	50-50	50-50	50-50	50-50	50-50	50-50	50-50	50-50	50-50
Fan	Type	-	Propeller Direct Drive, 1150 rpm															
	Code / quantity	-	823/2	823/2	823/3	823/3	829/2	823/3	829/3	823/4	829/4	829/4	823/6	829/6	829/6	829/6	823/8	829/8
	Air Flow Rate	CFM	21400	22220	31680	62670	25480	31230	39660	45240	53040	51040	67860	69780	74160	76320	92320	106160
		L/S	10099	10486	14950	15417	12024	14737	18716	21349	25030	24086	32023	32929	34496	36015	43566	50097
Motor	Type	-	Totally Enclosed, Air-Over, Class-F insulation, 6-Pole, IP-55 Protection															
	Total Power Input	KW	4.4	4.4	6.6	6.6	4.4	6.6	6.6	6	8.8	8.8	9	13.2	13.2	13.2	12	17.6
Coil	Type	-	Air-Cooled, 3 or 4 Rows, 12 FPI (2.1mm), 3/8"" (9.5 mm) O.D. Copper tube, Aluminum Fins															
	Area	ft²	29.3	34.4	35.6	40	35.8	40	53.3	64	72	72	96	80	96	106.7	144.4	144.4
		m²	2.7	3.2	3.3	3.7	3.3	3.7	5	5.9	6.7	6.7	8.9	7.4	8.9	9.9	13.4	13.4
Refrigerant Charge, R - 22		lbs	17	19.7	15.1	17	20.1	22.7	22.7	27.1	30.5	40.7	40.3	44.7	53.7	59.6	60.1	60.1
		kg	7.7	9	6.9	7.7	9.1	10.3	10.3	12.3	13.9	18.5	18.3	20.3	24.4	27.1	27.3	27.3
Storage Capacity, R - 22		lbs	64.6	75	57.5	64.7	76.5	86.3	86.3	103.1	116	154.6	153.1	170.1	204.1	226.8	228.5	228.5
		kg	29.4	34.1	26.2	29.4	34.8	39.2	39.2	46.9	52.7	70.3	69.6	77.3	92.8	103.1	103.9	103.9
Operating Weight, (approx.		lbs	870	946	1018	1080	1032	1160	1270	1420	1580	1740	2076	2180	2376	2526	2900	2900
		kg	396	430	464	492	470	528	578	646	718	790	944	992	1080	1148	1318	1318

(1) Nominal capacity is based on 20°F (11.1°C) Initial Temperature Difference (ITD) and using R-22 refrigerant

(2) Storage capacity is the internal volume x refrigerant liquid density

AIR-CONDITIONING EQUIPMENT

Capacity Ratings R-22

50 Hz

ARC Size	ITD - Initial Temperature Difference °F (°C)									
	10 (5.5)		15 (8.3)		20 (11.1)		25 (13.9)		30 (16.7)	
	MBH	KW	MBH	KW	MBH	KW	MBH	KW	MBH	KW
5006	30.6	9	45.8	13.4	61.1	17.9	76.4	22.4	91.7	26.9
5007	35.1	10.3	52.6	15.4	70.2	20.6	87.7	25.7	105.2	30.8
5008	42.1	12.3	63.2	18.5	84.2	24.7	105.3	30.8	126.3	37
5009	44.3	13	66.5	19.5	88.7	26	110.8	32.5	133	39
5010	50.1	14.7	75.1	22	100.1	29.4	125.2	36.7	150.2	44
5011	53.8	15.8	80.7	23.6	107.6	31.5	134.4	39.4	161.3	47.3
5012	58.9	17.3	88.3	25.9	117.8	34.5	147.2	43.1	176.7	51.8
5013	61.1	17.9	91.7	26.9	122.3	35.8	152.8	44.8	183.4	53.8
5014	63	18.5	94.5	27.7	126.1	36.9	157.6	46.2	189.1	55.4
5015	68.8	20.2	103.2	30.3	137.6	40.3	172	50.4	206.4	60.5
5016	76	22.3	113.9	33.4	151.9	44.5	189.9	55.7	227.9	66.8
5017	84.2	24.7	126.3	37	168.4	49.4	210.5	61.7	252.6	74
5018	88.7	26	133	39	177.4	52	221.7	65	266	78
5022	107.6	31.5	161.3	47.3	215.1	63	268.9	78.8	322.7	94.6
5023	117.8	34.5	176.7	51.8	235.5	69	294.4	86.3	353.3	103.6
5024	117.8	34.5	176.7	51.8	235.5	69	294.4	86.3	353.3	103.6
5025	126.1	36.9	189.1	55.4	252.1	73.9	315.1	92.4	378.2	110.8
5027	137.6	40.3	206.4	60.5	275.2	80.7	344	100.8	412.8	121
5028	140.2	41.1	210.2	61.6	280.3	82.2	350.4	102.7	420.5	123.2
5031	151.8	44.5	227.6	66.7	303.5	89	379.4	111.2	455.3	133.4
5032	152	44.6	228.1	66.8	304.1	89.1	380.1	111.4	456.1	133.7
5036	178.4	52.3	267.6	78.4	356.8	104.6	445.9	130.7	535.1	156.8
5040	194.3	56.9	291.4	85.4	388.6	113.9	485.7	142.4	582.9	170.8
5046	226.7	66.4	340	99.7	453.4	132.9	566.7	166.1	680.1	199.3
5053	261.1	76.5	391.6	114.8	522.1	153	652.7	191.3	783.2	229.6
5062	305.3	89.5	458	134.2	610.6	179	763.3	223.7	915.9	268.5
5069	340	99.7	510	149.5	680.1	199.3	850.1	249.2	1020.1	299
5077	377.7	110.7	566.5	166	755.4	221.4	944.2	276.7	1133.1	332.1
5086	426.3	125	639.5	187.4	852.6	249.9	1065.8	312.4	1279	374.9
5092	454.6	133.2	681.8	199.8	909.1	266.5	1136.4	333.1	1363.7	399.7
5098	485.3	142.2	727.9	213.4	970.6	284.5	1213.2	355.6	1455.9	426.7
5107	523.2	153.3	784.8	230	1046.4	306.7	1308	383.4	1569.6	460

- **ITD** : Initial Temperature Difference = Condensing temperature - Condenser entering air temperature
- Capacities shown do **NOT** include sub-cooling

AIR-CONDITIONING EQUIPMENT

Capacity Ratings R-22

60 Hz

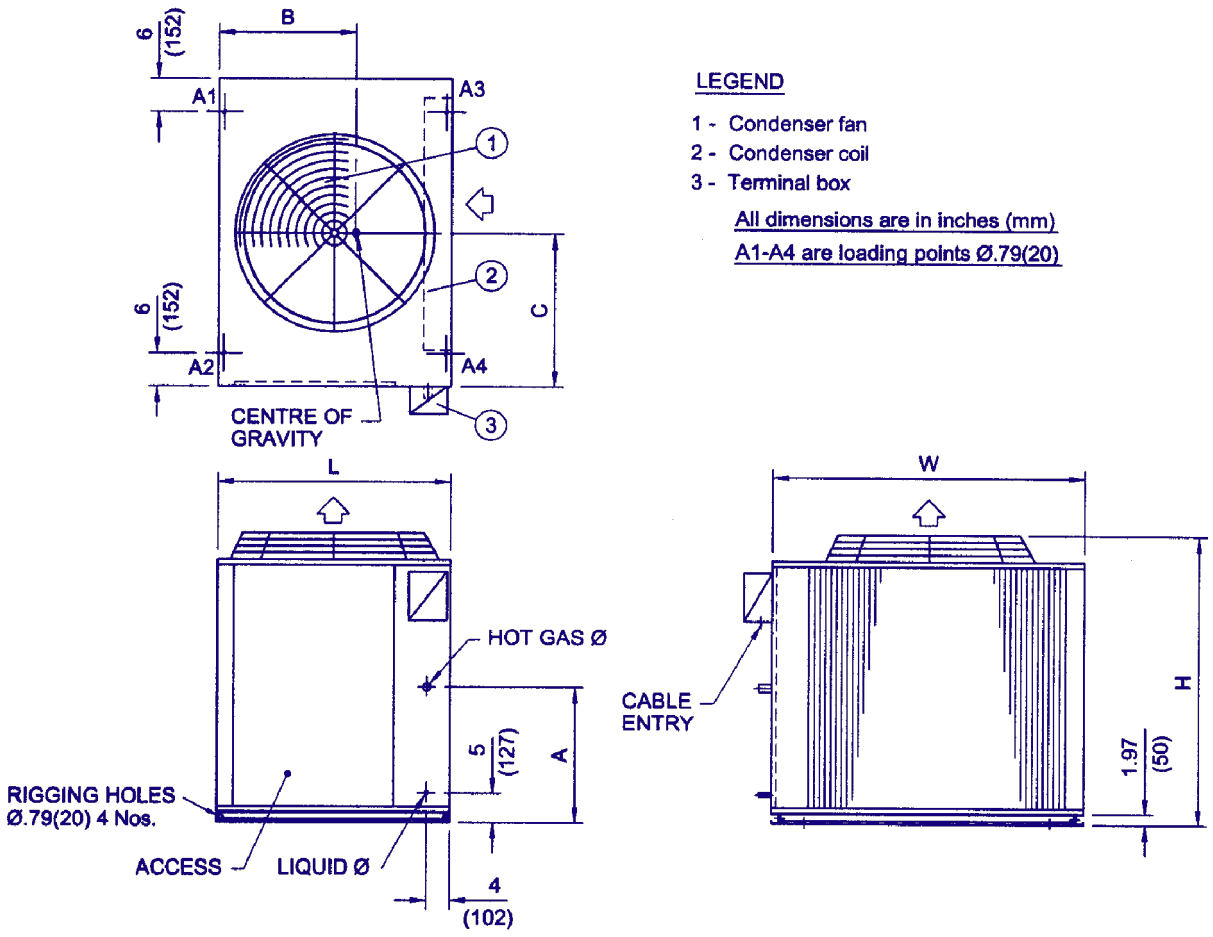
ARC Size	ITD - Initial Temperature Difference °F (°C)									
	10 (5.5)		15 (8.3)		20 (11.1)		25 (13.9)		30 (16.7)	
	MBH	KW	MBH	KW	MBH	KW	MBH	KW	MBH	KW
6007	34	10	51	14.9	68	19.9	85	24.9	102	29.9
6008	39.7	11.6	59.5	17.4	79.3	23.2	99.2	29.1	119	34.9
6009	45.8	13.4	68.7	20.1	91.6	26.8	114.4	33.5	137.3	40.3
6010	48	14.1	71.9	21.1	95.9	28.1	119.9	35.1	143.9	42.2
6011	54.6	16	81.9	24	109.2	32	136.5	40	163.7	48
6012	58.8	17.2	88.1	25.8	117.5	34.4	146.9	43.1	176.3	51.7
6013	65.2	19.1	97.8	28.7	130.4	38.2	163	47.8	195.6	57.3
6014	68	19.9	102	29.9	135.9	39.8	169.9	49.8	203.9	59.8
6015	70	20.5	105.1	30.8	140.1	41.1	175.1	51.3	210.1	61.6
6016	77.1	22.6	115.6	33.9	154.1	45.2	192.6	56.5	231.2	67.8
6017	81.6	23.9	122.5	35.9	163.3	47.9	204.1	59.8	244.9	71.8
6019	91.6	26.8	137.3	40.3	183.1	53.7	228.9	67.1	274.7	80.5
6020	95.9	28.1	143.9	42.2	191.9	56.2	239.8	70.3	287.8	84.4
6024	117.5	34.4	176.3	51.7	235	68.9	293.8	86.1	352.5	103.3
6026	130.4	38.2	195.6	57.3	260.8	76.4	326	95.5	391.2	114.7
6027	130.4	38.2	195.6	57.3	260.8	76.4	326	95.5	391.2	114.7
6028	140.1	41.1	210.1	61.6	280.2	82.1	350.2	102.7	420.3	123.2
6030	154.1	45.2	231.2	67.8	308.2	90.3	385.3	112.9	462.3	135.5
6031	152.8	44.8	229.3	67.2	305.7	89.6	382.1	112	458.5	134.4
6034	165.5	48.5	248.2	72.8	331	97	413.7	121.3	496.4	145.5
6035	168.7	49.5	253.1	74.2	337.4	98.9	421.8	123.6	506.1	148.4
6040	197.6	57.9	296.4	86.9	395.3	115.8	494.1	144.8	592.9	173.8
6043	211.9	62.1	317.8	93.1	423.7	124.2	529.6	155.2	635.6	186.3
6050	248.6	72.9	373	109.3	497.3	145.8	621.6	182.2	745.9	218.6
6058	284.8	83.5	427.3	125.2	569.7	167	712.1	208.7	854.5	250.5
6068	338.8	99.3	508.3	149	677.7	198.6	847.1	248.3	1016.5	297.9
6075	373	109.3	559.4	164	745.9	218.6	932.4	273.3	1118.9	327.9
6084	417.1	122.2	625.6	183.4	834.1	244.5	1042.6	305.6	1251.2	366.7
6095	471.8	138.3	707.7	207.4	943.6	276.6	1179.6	345.7	1415.5	414.9
6101	504.4	147.8	756.6	221.8	1008.8	295.7	1261	369.6	1513.2	443.5
6108	536	157.1	804	235.6	1072	314.2	1340	392.7	1608	471.3
6116	570.9	167.3	856.3	251	1141.7	334.6	1427.1	418.3	1712.6	502

- **ITD** : Initial Temperature Difference = Condensing temperature - Condenser entering air temperature
- Capacities shown do **NOT** include sub-cooling

AIR-CONDITIONING EQUIPMENT

Dimensional Data

MODEL ARC-	L	W	H	A	B	C	HOT GAS Ø	LIQUID Ø	LOAD AT EACH POINT Lbs/kg				TOTAL WEIGHT
									A1	A2	A3	A4	Lbs/Kg
5006 6007	34 (864)	45 (1143)	50.98 (1295)	23 (584)	21 (533)	23 (584)	7/8 (22)	5/8 (16)	66 30	66 30	88 40	88 40	308 140
5007 6008	34 (864)	45 (1143)	50.98 (1295)	23 (584)	20 (508)	23 (584)	7/8 (22)	5/8 (16)	72 33	72 33	99 45	99 45	342 156
5008 6009	38 (965)	56 (1422)	49.80 (1265)	23 (584)	22 (559)	27 (686)	7/8 (22)	5/8 (16)	80 36	80 36	105 48	105 48	370 168
5009 6010	38 (965)	56 (1422)	49.80 (1265)	23 (584)	22 (559)	27 (686)	7/8 (22)	5/8 (16)	84 38	84 38	110 50	110 50	388 176
5010 6011	44 (1118)	58 (1473)	49.80 (1265)	23 (584)	27 (686)	29 (737)	1 1/8 (28)	7/8 (22)	99 45	99 45	125 57	125 57	448 204
5011 6012	42 (1067)	56 (1422)	57.79 (1468)	27 (686)	26 (660)	28 (711)	1 1/8 (28)	7/8 (22)	103 47	103 47	130 59	130 59	466 212
5012 6013	44 (1118)	58 (1473)	49.80 (1265)	23 (584)	27 (686)	29 (737)	1 1/8 (28)	7/8 (22)	100 46	100 46	135 61	135 61	470 214
5014 6015	42 (1067)	56 (1422)	57.79 (1468)	27 (686)	26 (660)	28 (711)	1 1/8 (28)	7/8 (22)	105 48	105 48	145 66	145 66	500 228
5015 6016	42 (1067)	62 (1575)	57.79 (1468)	27 (686)	26 (660)	31 (787)	1 1/8 (28)	7/8 (22)	111 50	111 50	160 73	160 73	542 246



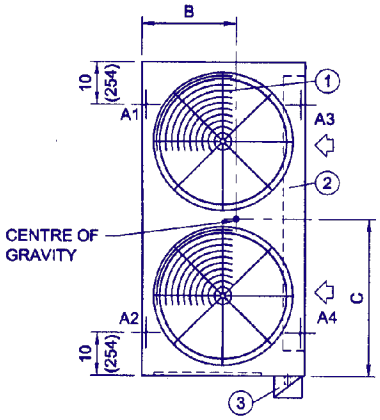
LEGEND

1 - Condenser fan
2 - Condenser coil
3 - Terminal box

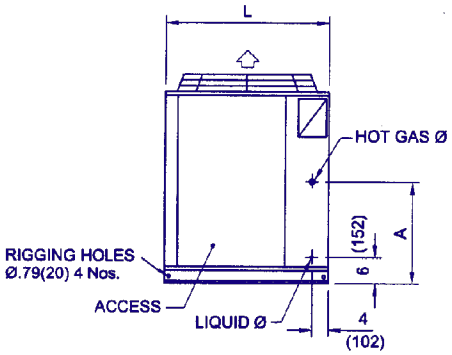
All dimensions are in inches (mm)

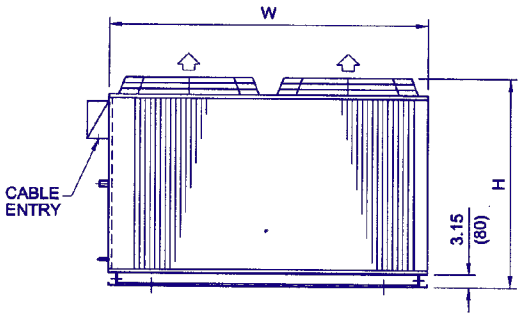
A1-A4 are loading points Ø.79(20)

Dimensional Data



MODEL ARC-	L	W	H	A	B	C	HOT GAS Ø	LIQUID Ø	LOAD AT EACH POINT Lbs/kg				TOTAL WEIGHT
									A1	A2	A3	A4	Lbs/Kg
5016 6017	44 (1118)	70 (1778)	50.98 (1295)	24 (610)	27 (686)	35 (889)	1 1/8 (28)	7/8 (22)	118 54	118 54	165 75	165 75	566 258
5023 6026	42 (1067)	80 (2032)	64.96 (1650)	31 (787)	26 (660)	40 (1016)	1 1/8 (28)	7/8 (22)	162 74	162 74	243 110	243 110	810 368
5032 6035	48 (1219)	88 (2235)	76.97 (1955)	37 (940)	29 (737)	44 (1118)	1 3/8 (35)	1 1/8 (28)	215 98	215 98	301 137	301 137	1032 470



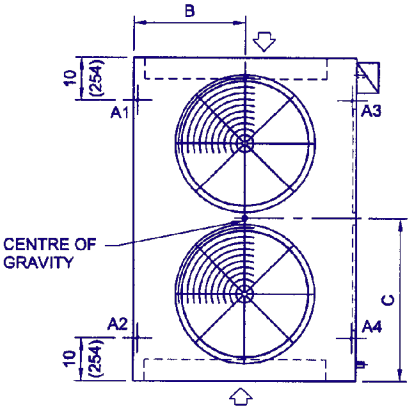


LEGEND

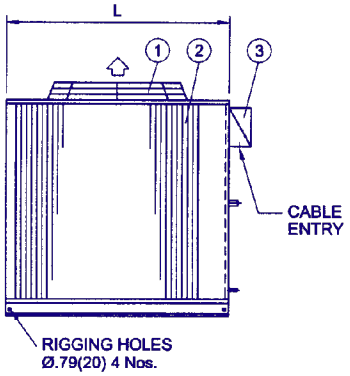
1 - Condenser fan
2 - Condenser coil
3 - Terminal box

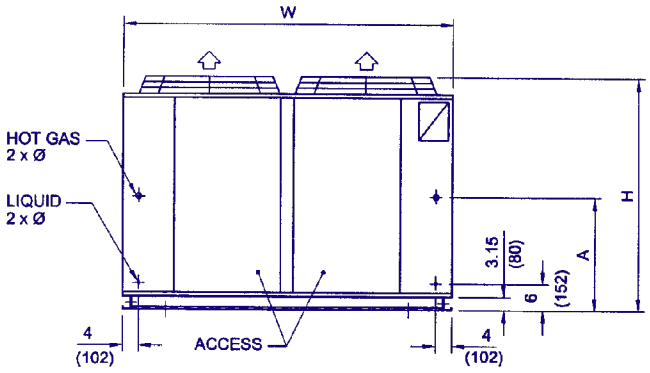
All dimensions are in inches (mm)

A1-A4 are loading points Ø.79(20)



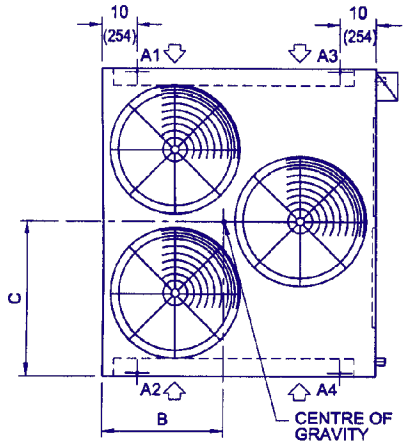
MODEL ARC-	L	W	H	A	B	C	HOT GAS Ø	LIQUID Ø	LOAD AT EACH POINT Lbs/kg				TOTAL WEIGHT
									A1	A2	A3	A4	Lbs/Kg
5013 6014	45 (1143)	68 (1727)	52.17 (1325)	24 (610)	23 (584)	34 (864)	2x 7/8 (22)	2x 5/8 (16)	135 61	135 61	130 59	130 59	530 240
5017 6019	56 (1422)	76 (1930)	50.98 (1295)	24 (610)	28 (711)	38 (965)	2x 7/8 (22)	2x 5/8 (16)	160 73	160 73	155 70	155 70	630 286
5018 6020	56 (1422)	76 (1930)	50.98 (1295)	24 (610)	28 (711)	38 (965)	2x 7/8 (22)	2x 5/8 (16)	169 77	169 77	163 74	163 74	664 302
5022 6024	56 (1422)	84 (2134)	58.98 (1498)	28 (711)	28 (711)	42 (1067)	2x 1 1/8 (28)	2x 7/8 (22)	200 91	200 91	195 89	195 89	790 360
5024 6027	58 (1473)	84 (2134)	51.97 (1320)	24.5 (622)	29 (737)	42 (1067)	2x 1 1/8 (28)	2x 7/8 (22)	208 95	208 95	202 92	202 92	820 374
5025 6028	56 (1422)	84 (2134)	58.98 (1498)	28 (711)	28 (711)	42 (1067)	2x 1 1/8 (28)	2x 7/8 (22)	220 100	220 100	215 98	215 98	870 396
5027 6030	62 (1575)	84 (2134)	58.98 (1498)	28 (711)	31 (787)	42 (1067)	2x 1 1/8 (28)	2x 7/8 (22)	240 109	240 109	233 106	233 106	946 430



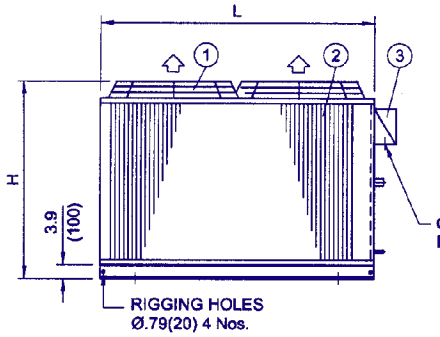


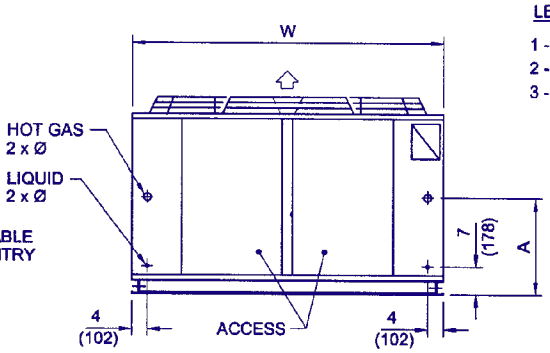
AIR-CONDITIONING EQUIPMENT

Dimensional Data



MODEL ARC-	L	W	H	A	B	C	HOT GAS Ø	LIQUID Ø	LOAD AT EACH POINT Lbs/kg				TOTAL WEIGHT
									A1	A2	A3	A4	Lbs/Kg
5028 6031	80 (2032)	88 (2235)	52.76 (1340)	25.5 (648)	36 (914)	44 (1118)	2x 1 1/8 (28)	2x 7/8 (22)	274 125	274 125	235 107	235 107	1018 464
5031 6034	76 (1930)	88 (2235)	60.75 (1543)	29.5 (749)	34 (864)	44 (1118)	2x 1 1/8 (28)	2x 7/8 (22)	290 132	290 132	250 114	250 114	1080 492
5036 6040									310 141	310 141	270 123	270 123	1160 528
5040 6043	80 (2032)	88 (2235)	72.76 (1848)	35.5 (902)	36 (914)	44 (1118)	2x 1 1/8 (28)	2x 7/8 (22)	340 155	340 155	295 134	295 134	1270 578



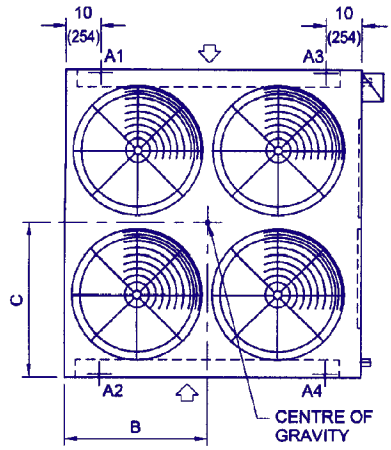


LEGEND

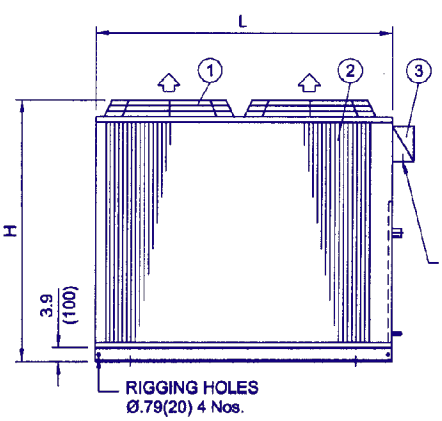
1 - Condenser fan
2 - Condenser coil
3 - Terminal box

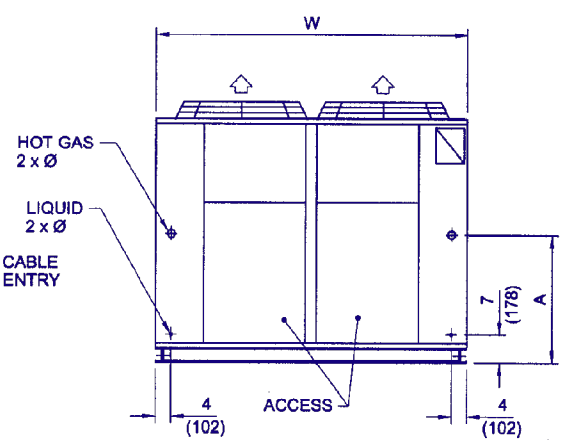
All dimensions are in inches (mm)

A1-A4 are loading points Ø.79(20)



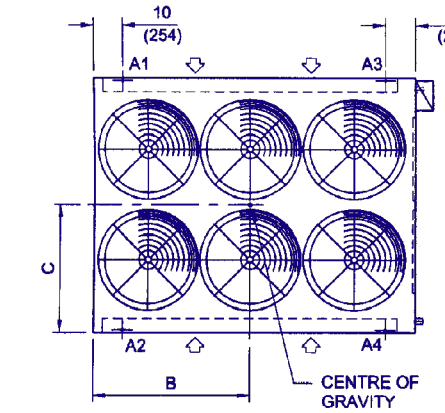
MODEL ARC-	L	W	H	A	B	C	HOT GAS Ø	LIQUID Ø	LOAD AT EACH POINT Lbs/kg				TOTAL WEIGHT
									A1	A2	A3	A4	Lbs/Kg
5046 6050	84 (2134)	88 (2235)	76.77 (1950)	37.5 (953)	42 (1067)	44 (1118)	2x 1 1/8 (28)	2x 7/8 (22)	360 164	360 164	350 159	350 159	1420 646
5053 6058	84 (2134)	88 (2235)	84.76 (2153)	41.5 (1054)	42 (1067)	44 (1118)	2x 1 3/8 (35)	2x 1 1/8 (28)	400 182	400 182	390 177	390 177	1580 718
5062 6068	84 (2134)	88 (2235)	84.76 (2153)	41.5 (1054)	42 (1067)	44 (1118)	2x 1 3/8 (35)	2x 1 1/8 (28)	440 200	440 200	430 195	430 195	1740 790



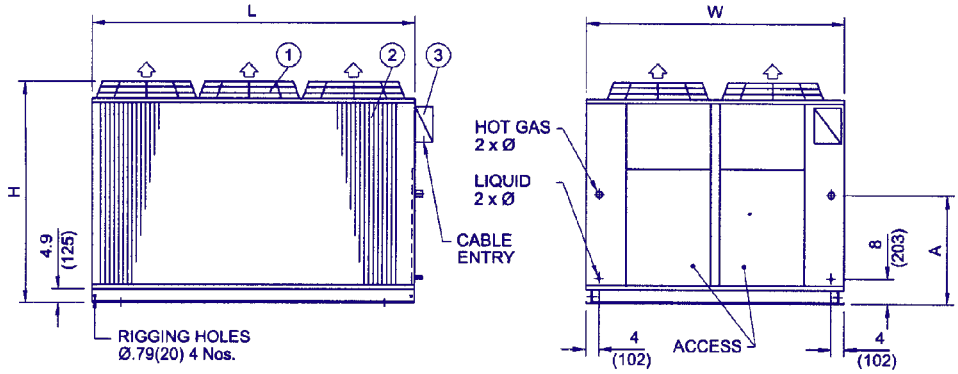


AIR-CONDITIONING EQUIPMENT

Dimensional Data



MODEL ARC-	L	W	H	A	B	C	HOT GAS Ø	LIQUID Ø	LOAD AT EACH POINT Lbs/kg A1	A2	A3	A4	TOTAL WEIGHT Lbs/Kg
5069 6075	110 (2794)	88 (2235)	85.75 (2178)	42.5 (1079)	55 (1397)	44 (1118)	2x 1 3/8 (35)	2x 1 1/8 (28)	525 239	525 239	513 233	513 233	2076 944
5086 6095									600 273	600 273	588 267	588 267	2376 1080
5077 6084	110 (2794)	88 (2235)	73.74 (1873)	36.5 (927)	55 (1397)	44 (1118)	2x 1 3/8 (35)	2x 1 1/8 (28)	552 251	552 251	538 245	538 245	2180 992
5092 6101	110 (2794)	88 (2235)	93.74 (2381)	46.5 (1181)	55 (1397)	44 (1118)	2x 1 5/8 (41)	2x 1 1/8 (28)	638 290	638 290	625 284	625 284	2526 1148

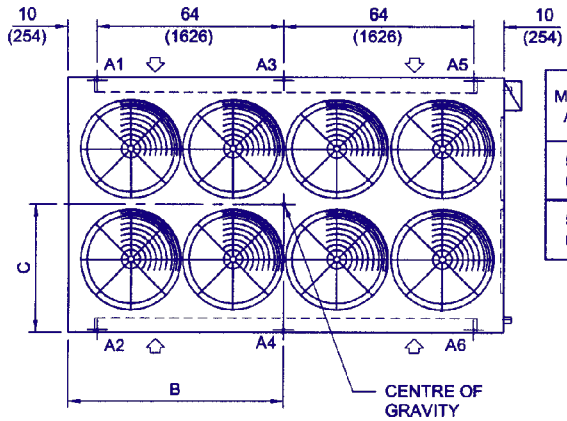


LEGEND

1 - Condenser fan
2 - Condenser coil
3 - Terminal box

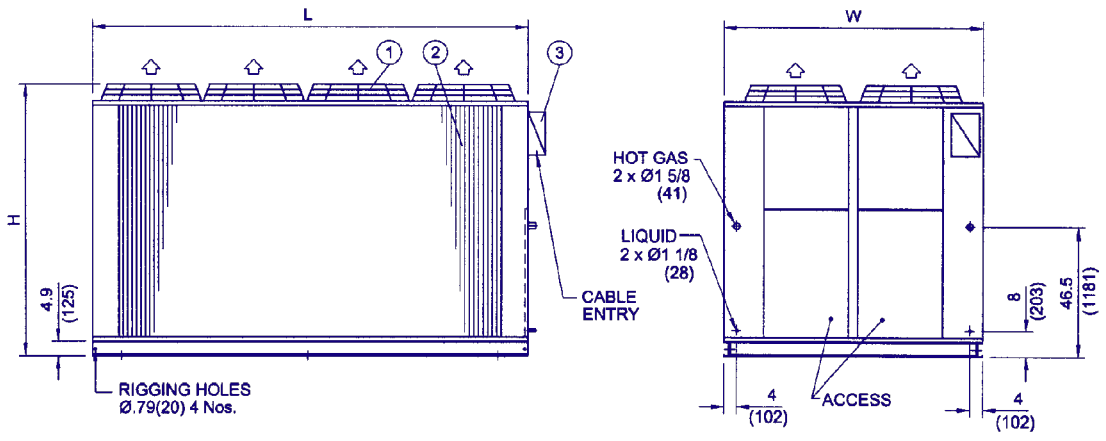
All dimensions are in inches (mm)

A1-A4 are loading points Ø.79(20)



MODEL ARC-	L	W	H	B	C	LOAD AT EACH POINT Lbs/kg A1	A2	A3	A4	A5	A6	TOTAL WEIGHT Lbs/Kg
5098 6108	148 (3759)	88 (2235)	93.74 (2381)	74 (1880)	44 (1118)	475 216	475 216	500 227	500 227	475 216	475 216	2900 1318
5107 6116	148 (3759)	88 (2235)	93.74 (2381)	74 (1880)	44 (1118)	475 216	475 216	500 227	500 227	475 216	475 216	2900 1318

A1-A6 are loading points Ø.79(20)



GUIDE SPECIFICATIONS

GENERAL

The contractor shall supply and install factory assembled air-cooled remote condensers, the number and capacity of which shall be as indicated in the capacity schedule shown on the drawings. Each machine shall consist of condenser coils, fans, fan motors, electrical junction box and interconnecting refrigerant piping. The machine shall be factory assembled and internally wired. Each machine shall be capable of operating satisfactorily in a wide range of ambient air temperatures ranging from 50°F (10°C) to 125°F (52 °C).

CASING

Machine casing shall be made of heavy gauge zinc coated galvanized steel sheets conforming to JIS-G 3302 and ASTM-A 635. To provide an extremely tough , scratch resistance , excellent anti-corrosive protection, fabricated steel shall be thoroughly de-greased and then phosphatized before application of an average 60 micron backed electrostatic polyester dry powder coating in RAL 7032 color scheme. This finish shall pass 1000-hour, 5% salt spray test at 95 F (35 °C) and 95% relative humidity (ASTM B 117/95).

Machine casing shall be provided with access doors for easy service and maintenance of all its parts.The machine shall be fully assembled on heavy gauge zinc coated galvanized steel frame.

CONDENSER COILS

Condenser coil shall be air cooled and shall be constructed of seamless copper tubes, maximum 4 rows deep, 3/8" (9.52 mm) O.D. and mechanically bonded to the wavy type aluminum fins . Fins spacing shall be maximum 12 FPI (2.1mm). Pre-coated Aluminum fins shall be used for saline and corrosive environment. Integral sub cooling circuit in each coil shall be provided to increase system capacity. Each coil shall be tested against leakage by air pressure of 450 psig (3100 Kpa) under water.

CONDENSER FANS / MOTORS

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

Condenser fan motor shall be Totally Enclosed Air Over (TEAO), 3-phase type, 6 poles with Class F insulation , Class B temperature rise and IP55 protection. Also, Motor shall be with permanently lubricated bearings and inherent corrosion resistance shaft. Junction box shall be provided with motor terminals brought out.

REFRIGERANT PIPING

Refrigerant circuit piping shall be fabricated from ACR grade copper pipes. The piping connections shall be terminated with sealed & soldered copper pipe ends, which give much protection to condenser coils, simplicity & ease to the installation.