

AUMR-G1 + CADX-AG1 Series

Split Air Conditioners



50Hz

R-410A
REFRIGERANT



Range 4.6 TR to 21.7 TR
(16 kW to 76.2 kW)



CE

Contents

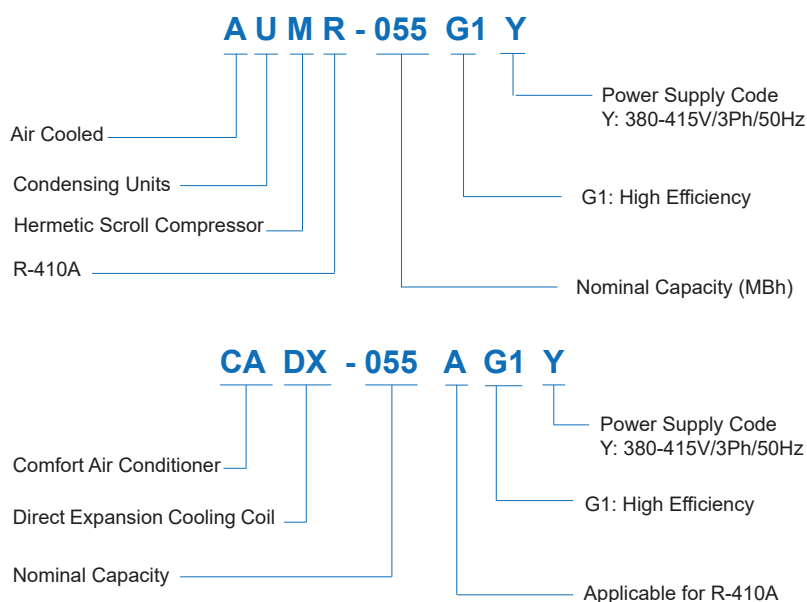
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Legend

The following legends are used throughout this manual:

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

Nomenclature



Introduction

The series of SKM air cooled split system air conditioner has been developed to satisfy the needs in air conditioning practices, meet high quality of job requirements every time and to deliver the best in split system performance. SKM air cooled split air conditioners consist of ceiling suspended indoor air handler (**CADX-AG1**) matched with floor mounted outdoor air cooled condensing unit (**AUMR-G1**) series.

SKM split units are internally wired and all that is required to be done on site is ducting, refrigerant piping, main power supply connections, thermostat wiring, control wiring between AUMRG1 & CADXAG1 units.

Unit power supply for AUMRG1 units and CADXAG1 units is being separated and two independent refrigeration circuits are provided when two compressors are used.

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 LLC

You name it.....We cool it



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



GENERAL FEATURES

SKM split system air conditioners incorporate many features and benefits in both the air handler and condensing units, which together provides a heavy duty, robust and long lasting commercial unit's application.

SKM split air conditioners combined high efficiency components to provide an extremely rugged and energy efficient split system that will provide cooling with higher efficiency for a long and extended period of time.

SKM split system is **AUMR-G1+ CADX-AG1** is yet another model in the top class range of SKM products which uses the following basic components:

- High efficiency totally sealed hermetic scroll compressors utilizing the most current state of the art technology and provides smooth, efficient and quiet operation.
- Totally enclosed, Class F insulated, condenser and evaporator fan motors.
- Heavy duty condenser and evaporator coils optimized and designed for a long life maintenance free operation.
- Cabinet construction specifically for gulf climate condition.
- Electronic control board for the unit operation.
- Factory matched performance and reliable output to minimize field decisions.
- Many standard features which are not included in residential domestic type split systems.
- Typically, much heavier gauge tubing and thicker fins for ruggedness and long life.
- Standard Factory Installed Suction & Liquid Service valves.

COMPONENT FEATURES

AUMR-G1 CONDENSING UNIT

Compressor

Compressors used in the **AUMR-G1** series condensing units are hermetically sealed, hi-efficiency, low noise, and compact scroll with the following features:

- High efficiency.
- Quiet operation, low sound levels.
- Better debris handling.
- Self compensating of wear ("wear-in vs. wear-out").
- 70% fewer moving parts than comparably sized reciprocating compressors.
- Internal motor protection / Advanced scroll temperature protection.
- Suction gas motor cooling.
- Suction screen.
- Disc type check valve.
- Centrifugal force for oil lubrication.
- Brazed fittings as standard, rotalock as an option.

Condenser Coils

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

Condenser Fans

Condenser fans are propeller type with aluminum alloy blades and are directly driven by electric motors. Motors are Totally Enclosed Air Over (TEAO), six pole or four pole with Class F insulation and IP54/55 protection depending on models. Complete fan assembly is provided with fan guard.

Motors are wired to the control panel to control the operation of these motors along with the compressors.

Control Panel

The **AUMR-G1** condensing are provided with IP-54 control panel enclosure comprising all starting, operating and safety controls. The panel is factory wired in accordance with NEC 430 & 440, labelled, tagged and features 220V / 240V controls.

- Starting contactors for compressors and motors.
- Internal overload protection for compressors.
- Internal overload protection for the motors (either wired internally inside the motor or with brought-out terminals connected to control circuit, depending on models)
- Electronic control board for unit operation.
- Diagnostic LEDs on the control board for easy troubleshooting .
- Compressor short cycling protection.
- Control switch for unit on/off.
- Control circuit breaker.
- Power and control circuit terminal blocks.
- High pressure protection.
- Low pressure protection.

Unit Casing

The unit casing used in the **AUMR-G1** condensing unit is made of zinc coated galvanised steel sheets conforming to JIS-G 3302 and ASTM A653 which is phosphatized and baked after an electrostatic powder coating in RAL7032 color scheme 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.

CADX-AG1 AIR HANDLING UNIT

Evaporator Coils

All evaporator coils are made of inner grooved copper tubes mechanically bonded into corrugated aluminum fins to ensure optimum heat transfer. Coils conform to AHRI-410. All evaporator coils are tested against leakage by air pressure of 450 psig (3102 kPa) under water. Each evaporator coil is supplied with a factory sized and matched thermostatic expansion valves and 4 mounting holes for ceiling suspension.

Evaporator Fan & Drive

Evaporator fans are forward curved centrifugal double inlet, double width, statically and dynamically balanced. Bearings used in the fans are self aligning and lubricated for life. Evaporator fans are belt driven and use "V" belts with an adjustable variable pitch motor pulley resulting in an accurate fan air flow adjustment.

Fans are driven by Totally Enclosed, IP55 Protected, 4 Pole Class F insulated electric motors which conform to relevant IEC standards.

Filter

All CADX-AG1 units are supplied as standard with 1" (25mm) thick permanent washable expanded aluminum flat filter having average dust arrestance 54% according to ASHRAE standard 52-76.

Casing \ Structure (CADX-AG1):

The unit casing for CADX-AG1 is made of zinc coated galvanized steel sheets conforming to JIS-G3302 and ASTM A653 which is phosphatized and baked after an electrostatic powder coating in RAL7032 color scheme of approximately 60 microns. This finish and coating can pass a 1000 hour in 5% salt spray testing at 95°F (35°C) and 95% relative humidity as per ASTM B117. Panels and casing are insulated with 1" thick fiberglass (with BGT coating) thermal and acoustic insulation having density of 2 lb/ft³. (32 kg/m³) and thermal conductivity of 0.23 BTU.in/ft²°Fh (0.033 W/m²°K). Insulation meets the requirements of NFPA 90A and 90B for fire resistance.

Refrigerant R- 410A

Why 410A?

R-410A has a higher volumetric cooling capacity compared to R-22 and has better thermal exchange properties. This results in overall performance gains in terms of system efficiency. The greater density of the vapour in R-410A permits higher system velocities, reduces pressure drop losses and allows smaller diameter tubing to be used. In other words a smaller unit can be developed using a smaller displacement compressor, less coil and less refrigerant while maintaining system efficiencies comparable to current day R-22 equipment.

Benefits

- **No ozone depletion potential or phase-out date**

Using chlorine-free R-410A with zero Ozone Depletion Potential (ODP) helps protect both the environment and your investment. That's because new equipment using R-410A faces no mandated phase-out date over a 20 to 30 year equipment life expectancy.

- **Reduced service costs**

R-410A refrigerant has no significant "glide." If a leak occurs, only the lost refrigerant must be replaced.

Attention points

- Pressure level: 1.6 times of R-22.
- Lubricating oil: Ester Oil absorb moisture easily (Never mix with mineral oil).
- Tools exclusive for R-410A.
- Never mix R410A with other refrigerant.
- Driers, valves and even copper tube must be approved for use with R-410A.
- Never allow refrigerant cylinders to exceed (60°C).

OPTIONAL FEATURES

As with all SKM air conditioning units, a wide range of options are available with SKM Split Units on request.

Alternative Condenser Material

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

- For Pre Coated aluminum fins, specify (FAP).
- For Aluminum Fins with Aeris Coat Protection, specify (FAA).
- For Copper Fins, specify (FC).
- For Copper Fins with Aeris Coat Protection, specify (FCA).

Alternative Evaporator Material

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

- For Copper Fins specify (EFC)*.
- For Precoated Aluminum Fins, specify (EFAP)*.
- For Aluminum Fins with Aeris Coat Protection, specify (EFAA)*.
- For Copper Fins with Aeris Coat Protection, specify (EFCA)*.

2" (50mm) Flat Filter Section*

(FSIP2)

For heavy filtration need a section can be provided without or with aluminium cleanable filter.



External Overload Protection (EOP)

For those electrical specification which requires additional overload protection for the compressors.
(Not required with CBC option)

Voltage Monitoring Module (VMM)

Provides protection in the event of:

- Phase burn-out.
- Phase reversal.
- Under / over voltage on the incoming line voltage.

Pressure Gauges (SDG1)

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

Liquid Line Controls (CRSP)

Refrigeration specialties comprising solenoid valve, filter drier, sight glass and Ball valve. Factory sizing and selection ensures correctly sized and selected components to complete the field installation.

Rotalock Valves on compressors (RVC)

For additional facilitation of maintenance of unit.

Circuit Breaker for compressor (CBC)

For those electrical specification which requires additional short circuit and overload protection for the compressors.

Condenser Coil Guard (CGP)

Wire mesh guard, in painted finish, for condenser coils. Recommended on ground level installation where coil needs to be protected against vandalism.

BMS Interface Volt Free Contacts (BMVF)

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

Anti-Freeze Thermostat* (AFT)

For evaporator coil freeze -up protection.

Manual Reset Type High Pressure Switch (MHP)

To replace standard auto reset, capsule type pressure switch.

Compressor Run Hour Meter (RHM)

To monitor operating hours of each compressor.

Stainless Steel Drain Pan (Grade 304)* (SDP-304)

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

Stainless Steel Drain Pan* (SDP-316)

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

Extra Ball Valve (XFV)

Extra Ball valve can be incorporated in the liquid line.

Electric Heating* (HTR1)

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

Heater batteries when ordered comes with stage contactors, primary auto reset thermal safety cut-out, secondary manual reset thermal safety cut-out and air flow switch. Power fuses / circuit breaker are provided for heaters with total ampere exceeding 48 amperes. For smaller heaters, power fuses can be provided if specified.

Following are the optional kW ratings for electric heater. Ratings other than those specified here can be supplied on request. Consult SKM for details

AUMR	CADX	Heater kW	No. of Stages
055G1	055AG1	4.5	1
070G1	070AG1		
080G1	080AG1		
090G1	090AG1	9	
100G1	100AG1	12	
120G1	120AG1		
130G1	130AG1		
150G1	150AG1	15	2
180G1	180AG1	18	
200G1	200AG1	24	
230G1	230AG1		
260G1	260AG1		

Table 1

Pressure relief valve (PRV)

To protect the unit from being over - pressurized.

Double Skin Insulation* (DSI)

Inner skin in the evaporator section is provided with foam board insulation.

IP 55 Control Panel (ICP)

Control Panel for special applications to meet IP55 requirements.

Main Isolator (without door interlock) (ISO)

For main power isolation. (Consult SKM)

Western make scroll compressor (WMSC)

Western make scroll compressor.

Hot Gas Bypass System (GBP)

With solenoid to enable operation of a large sized unit at very low loads, during low load demand due to application requirements or where unit is selected to work on 100% fresh air applications.

Advanced Micro processor control system (AMCS)

An advanced microprocessor based controller can be provided for the units as option, in case required. This controller will be with built-in display keypad and has many features.

For this feature, additional options can be provided and to be specified during time of order:

- **DTS – Duct Temperature Sensor ****

(In order to control the unit based on return/supply air duct temperature.) **(This is not required with CHTS option).**

- **BMSP – BMS Protocol ****

(For interfacing the units with major BMS protocols such as BACnet, Modbus or LON. An extra hardware may be required depending on the protocol).

Circuit Breaker for Motors* (CBM)**

For those electrical specification which requires additional short circuit and overload protection for the fan motors. (Applicable for both AUMR-G1 & CADX-AG1)

Voltage Monitoring Module as per DEWA (DVM)

Under voltage relay as per DEWA regulations. This option is available for Dubai, UAE only. **(VMM option is not required if this option is opted)**

Up Size Evaporator Motor* (USM)**

Unit with one up size evaporator motor.

Fire Alarm Interlock (VFC-F)

To provide provision for fire alarm interlock.

Marine Paint (MP)

To provide increased corrosion resistance for coastal environments and offshore location.

Options for Field Installation**Anti-vibration mounts (CAVM)**

Recommended for roof mounted units or other location in the vicinity of occupied spaces. where noise may be objectionable.

Low voltage thermostats (CHTS)

For wall mounting and for cooling /heating operation with 1 or 2 stages as per model. Applicable for units with one or two compressor. **(Not required with AMCS option).**

- **DTS-TH – Duct Temperature Sensor for 24V Thermostat ****

(In order to control the unit based on return/supply air duct temperature.) **(This is not required with AMCS options)**

Pump Down Facility with Solenoid valve (PDS)

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

Note:

1. Options without (*) marking is applicable in AUMR-G1 units
2. Option marked with (*) is applicable in CADX-AG1 units.
3. Whenever multiple options related to unit control are required, please consult SKM for the drawings, as the size of the control panel might change.

- ** DTS and BMSP options are only available along with AMCS Option .

- **DTS-TH option is only available along with CHTS option.

- *** If CBM combined with USM option please consult SKM as component might changed.



CONDENSING UNIT SPECIFICATIONS

Condensing Unit	AUMR	055G1	070G1	080G1	090G1	100G1	120G1
Matched Air Handling Unit	CADX	055AG1	070AG1	080AG1	090AG1	100AG1	120AG1
Cooling Capacity (1)	MBh	46.66	58.81	67.26	72.39	82.32	96.31
	kW	13.67	17.23	19.71	21.21	24.12	28.22
	EER	8.50	8.33	8.50	8.35	8.31	8.50
Refrigerant Type		R410A					
Compressor	Type	Hermetic Scroll					
	Quantity	1	1	1	1	1	1
Outdoor Coil	Type	Hi-X tubes					
	Quantity	1	1	1	1	1	1
	Face Area	ft ²	13.50	13.50	20.00	20.00	24.00
		m ²	1.25	1.25	1.86	1.86	2.23
Outdoor Fan	Type	Propeller Direct Drive					
	Code/Qty.	630 / 1	630 / 1	710 / 1	710 / 1	710 / 1	710 / 1
Motor	Type	Totally Enclosed Air Over, Class F insulation, 6-pole, IP-54/55 Protected					
Connections (2)	Liquid	in.	1/2	1/2	1/2	1/2	5/8
	Suction	in.	7/8	7/8	7/8	1 1/8	1 1/8
Refrigerant Operating Charge (3)	lbs	17.53	17.77	18.79	18.94	20.95	30.80
	kg	7.95	8.06	8.52	8.59	9.50	13.97
Number of Refrigerant Circuits		1	1	1	1	1	1
Approximate Operating Weight	lbs	378	386	489	531	576	633
	kg	172	175	222	241	261	287

Condensing Unit	AUMR	130G1	150G1	180G1	200G1	230G1	260G1
Matched Air Handling Unit	CADX	130AG1	150AG1	180AG1	200AG1	230AG1	260AG1
Cooling Capacity (1)	MBh	105.96	121.13	142.13	164.24	189.75	218.84
	kW	31.05	35.49	41.64	48.12	55.60	64.12
	EER	8.32	8.36	8.20	8.13	8.30	8.10
Refrigerant Type		R410A					
Compressor	Type	Hermetic Scroll					
	Quantity	2	2	2	2	2	2
Outdoor Coil	Type	Hi-X tubes					
	Quantity	2	2	2	2	2	2
	Face Area	ft ²	26.25	40	40	48	48
		m ²					
Outdoor Fan	Type	Propeller Direct Drive					
	Code/Qty.	630 / 2	710 / 2	710 / 2	710 / 2	710 / 2	800 / 2
Motor	Type	Totally Enclosed Air Over, Class F insulation, 6-pole, IP-54/55 Protected					
Connections (2)	Liquid	in.	1/2 x 2	1/2 x 2	1/2 x 2	5/8 x 2	5/8 x 2
	Suction	in.	7/8 x 2	7/8 x 2	1 1/8 x 2	1 1/8 x 2	1 1/8 x 2
Refrigerant Operating Charge (3)	lbs	17.18 x 2	17.58 x 2	18.43 x 2	20.5 x 2	29.35 x 2	29.35 x 2
	kg	7.79 x 2	7.97 x 2	8.36 x 2	9.3 x 2	13.31 x 2	13.31 x 2
Number of Refrigerant Circuits		2	2	2	2	2	2
Approximate Operating Weight	lbs	716	904	988	1064	1174	1226
	kg	324	410	448	482	532	554

Notes:

Table 2

- (1) Evaporator entering air conditions of 84.2°/66.2°F (29°/19°C) dry bulb/wet bulb and condenser entering air temperature of 114.8°F (46°C) dry bulb.(Net Capacity)
- (2) Connections are based on 25 ft maximum linear distance between the outdoor & indoor unit and 66 ft maximum lift.
- (3) Refrigerant operating charge is for combined condensing unit with the matching air handling unit and 25 ft (7.6m) of interconnecting refrigerant lines.

AIR HANDLING UNIT SPECIFICATIONS

Air Handling Unit			CADX	055AG1	070AG1	080AG1	090AG1	100AG1	120AG1
Matched Condensing Unit			AUMR	055G1	070G1	080G1	090G1	100G1	120G1
Cooling Capacity (1)			MBh	46.66	58.81	67.26	72.39	82.32	96.31
			kW	13.67	17.23	19.71	21.21	24.12	28.22
			EER	8.50	8.33	8.50	8.35	8.31	8.50
Indoor Coil	Type		Hi-X tubes						
	Face Area	ft ²	5.80	6.30	8.00	8.00	8.00	10.40	
		m ²	0.54	0.59	0.74	0.74	0.74	0.97	
Refrigerant Controls			Expansion Valve(s)						
Connections (2)	Liquid	in.	1/2	1/2	1/2	1/2	1/2	5/8	
	Suction	in.	7/8	7/8	7/8	1 1/8	1 1/8	1 1/8	
Indoor Fan	Type		Centrifugal double inlet double width belt drive						
	Code		10/10	12/12	12/12	12/12	12/12	15/15	
	Airflow	cfm	1700	1900	2400	2500	2900	3500	
		l/s	802	897	1133	1180	1369	1652	
Motor	Type	-	Totally Enclosed Fan Cooled, Class F insulation, 4-pole IP55 Protected						
	Size / Qty.	kW	0.55 / 1	0.55 / 1	0.55 / 1	0.75 / 1	1.1 / 1	1.1 / 1	
Operating Weight Approximate			lbs	236	313	324	324	324	446
			kg	107	142	147	147	147	202

Air Handling Unit			CADX	130AG1	150AG1	180AG1	200AG1	230AG1	260AG1
Matched Condensing Unit			AUMR	130G1	150G1	180G1	200G1	230G1	260G1
Cooling Capacity (1)			MBh	105.96	121.13	142.13	164.24	189.75	218.84
			kW	31.05	35.49	41.64	48.12	55.60	64.12
			EER	8.32	8.36	8.20	8.13	8.30	8.10
Indoor Coil	Type		Hi-X tubes						
	Face Area	ft ²	12.50	14.20	16.50	16.50	19.40	19.40	
		m ²	1.16	1.32	1.53	1.53	1.80	1.80	
Refrigerant Controls			Expansion Valve(s)						
Connections (2)	Liquid	in.	1/2 x 2	1/2 x 2	1/2 x 2	1/2 x 2	5/8 x 2	5/8 x 2	
	Suction	in.	7/8 x 2	7/8 x 2	1 1/8 x 2	1 1/8 x 2	1 1/8 x 2	1 1/8 x 2	
Indoor Fan	Type		Centrifugal double inlet double width belt drive						
	Code		15/15	12/12R2	12/12R2	12/12R2	15/15R2	15/15R2	
	Airflow	cfm	4000	4500	5200	6200	7200	8000	
		l/s	1888	2124	2454	2926	3398	3775	
Motor	Type	-	Totally Enclosed Fan Cooled, Class F insulation, 4-pole IP55 Protected						
	Size / Qty.	kW	1.1 / 1	1.1 / 1	1.5 / 1	2.2 / 1	2.2 / 1	3 / 1	
Operating Weight Approximate			lbs	476	502	572	572	659	659
			kg	216	227	259	259	299	299

Table 3

Notes:

- (1) Evaporator entering air conditions of 84.2°/66.2°F (29°/19°C) dry bulb/wet bulb and condenser entering air temperature of 114.8°F (46°C) dry bulb.(Net Capacity)
- (2) Connections are based on 25 ft maximum linear distance between the outdoor & indoor unit and 66 ft maximum lift.



CAPACITY RATINGS

Model AUMR + CADXA	AFR		EWB	Condenser Entering Air Temperature																													
	cfm	I/s		95°F (35°C)						105°F (40.6°C)						114.8°F (46°C)						118.4°F (48°C)						125.6°F (52°C)					
				Total Capacity		Sensible Capacity		PI	Total Capacity		Sensible Capacity		PI	Total Capacity		Sensible Capacity		PI	Total Capacity		Sensible Capacity		PI	Total Capacity		Sensible Capacity		PI					
				(BPF)	°F	MBh	kW	MBh	kW	kW	MBh	kW	MBh	kW	kW	MBh	kW	MBh	kW	kW	MBh	kW	MBh	kW	kW	MBh	kW	MBh	kW	kW			
				055G1 + 055G1	1600	62	49.6	14.5	49.6	14.5	3.4	46.9	13.7	46.9	13.7	3.9	43.9	12.9	43.9	12.9	4.4	44.8	13.1	44.8	13.1	4.7	42.5	12.5	42.5	12.5	5.1		
755	66.2	53.7	15.7		47.5	13.9	3.4	50.7	14.8	46.3	13.6	3.9	47.4	13.9	45.1	13.2	4.5	46.2	13.6	44.7	13.1	4.7	43.8	12.8	43.8	12.8	5.1						
0.09	72	60.2	17.6		37.9	11.1	3.4	56.7	16.6	36.7	10.8	4	52.5	15.4	35.3	10.4	4.6	50.9	14.9	34.8	10.2	4.8	47.8	14	33.8	9.9	5.3						
1700	62	50.2	14.7		50.2	14.7	3.4	47.3	13.9	47.3	13.9	3.9	46.4	13.6	46.4	13.6	4.5	45.2	13.3	45.2	13.3	4.7	42.8	12.6	42.8	12.6	5.1						
802	66.2	54.2	15.9		49.2	14.4	3.4	51.1	15	48	14.1	3.9	47.9	14	46.8	13.7	4.5	46.6	13.7	46.4	13.6	4.7	44.2	13	44.2	13	5.1						
0.09	72	60.7	17.8		39.1	11.4	3.4	57	16.7	37.8	11.1	4	52.7	15.5	36.4	10.7	4.6	51.2	15	35.9	10.5	4.8	48	14.1	34.9	10.2	5.3						
2600	62	55.6	16.3		55.6	16.3	3.4	52.3	15.3	52.3	15.3	3.9	48.8	14.3	48.8	14.3	4.5	47.5	13.9	47.5	13.9	4.7	44.9	13.1	44.9	13.1	5.1						
070G1 + 070G1	1227	66.2	57.4	16.8	57.4	16.8	3.4	54	15.8	54	15.8	3.9	50.5	14.8	50.5	14.8	4.5	49.1	14.4	49.1	14.4	4.8	46.4	13.6	46.4	13.6	5.2						
	0.13	72	63.1	18.5	48.5	14.2	3.4	59	17.3	47.3	13.8	4	54.5	16	45.9	13.4	4.7	-	-	-	-	-	-	-	-	-	-	-					
	1800	62	62.7	18.4	62.7	18.4	4.8	59.2	17.3	59.2	17.3	5.5	55.5	16.3	55.5	16.3	6.2	54.2	15.9	54.2	15.9	6.5	51.5	15.1	51.5	15.1	6.9						
	850	66.2	68.8	20.2	56.6	16.6	4.9	64.4	18.9	54.9	16.1	5.6	60.1	17.6	53.2	15.6	6.3	58.6	17.2	52.6	15.4	6.6	55.6	16.3	51.5	15.1	7						
	0.09	72	75.8	22.2	45.4	13.3	5.1	71.6	21	43.9	12.9	5.8	67.2	19.7	42.4	12.4	6.4	65.6	19.2	41.8	12.3	6.7	62.3	18.3	40.7	11.9	7.1						
	1900	62	63.3	18.6	63.3	18.6	4.8	59.8	17.5	59.8	17.5	5.5	56.1	16.4	56.1	16.4	6.2	54.7	16	54.7	16	6.5	52	15.2	52	15.2	7						
	897	66.2	69.2	20.3	58.2	17.1	4.9	64.8	19	56.5	16.6	5.6	60.6	17.8	54.9	16.1	6.3	59	17.3	54.3	15.9	6.6	56	16.4	53.2	15.6	7						
080G1 + 080G1	0.1	72	76.6	22.4	46.6	13.7	5.1	72.3	21.2	45.1	13.2	5.8	67.8	19.9	43.5	12.8	6.5	66.1	19.4	43	12.6	6.7	62.6	18.4	41.8	12.3	7.1						
	2800	62	67.4	19.8	67.4	19.8	4.9	63.5	18.6	63.5	18.6	5.6	61.9	18.1	61.9	18.1	6.3	60.3	17.7	60.3	17.7	6.6	57.1	16.7	57.1	16.7	7						
	1321	66.2	72.6	21.3	72.4	21.2	5	68.2	20	68.2	20	5.7	63.7	18.7	63.7	18.7	6.4	62.1	18.2	62.1	18.2	6.6	59	17.3	59	17.3	7.1						
	0.13	72	81	23.8	56.5	16.5	5.2	75.6	22.1	54.7	16	5.8	70.2	20.6	53	15.5	6.5	68.3	20	52.4	15.4	6.7	64.6	18.9	51.2	15	7.1						
	2200	62	71.9	21.1	71.9	21.1	5.2	68.1	20	68.1	20	5.9	64.2	18.8	64.2	18.8	6.7	62.6	18.4	62.6	18.4	7	62.4	18.3	62.4	18.3	7.6						
	1038	66.2	78	22.9	67	19.6	5.3	73.6	21.6	65.3	19.1	6	69.3	20.3	63.6	18.6	6.8	67.6	19.8	63	18.5	7.1	64.4	18.9	61.8	18.1	7.6						
	0.09	72	87	25.5	53.6	15.7	5.4	82.5	24.2	52	15.3	6.2	77.8	22.8	50.5	14.8	7	76.1	22.3	49.9	14.6	7.3	72.3	21.2	48.6	14.2	7.8						
090G1 + 090G1	2400	62	73	21.4	73	21.4	5.2	69.1	20.3	69.1	20.3	5.9	65.1	19.1	65.1	19.1	6.7	63.6	18.6	63.6	18.6	7	63.2	18.5	63.2	18.5	7.6						
	1133	66.2	78.9	23.1	70.3	20.6	5.3	74.6	21.9	68.6	20.1	6	70.1	20.6	66.9	19.6	6.8	68.5	20.1	66.3	19.4	7.1	65.3	19.1	65.1	19.1	7.7						
	0.1	72	88.2	25.9	55.9	16.4	5.5	83.6	24.5	54.3	15.9	6.2	78.5	23	52.6	15.4	7	76.6	22.4	52	15.2	7.3	72.9	21.4	50.8	14.9	7.8						
	3600	62	80.9	23.7	80.9	23.7	5.3	76.3	22.4	76.3	22.4	6.1	71.6	21	71.6	21	6.9	69.8	20.5	69.8	20.5	7.1	66.4	19.5	66.4	19.5	7.7						
	1699	66.2	83.3	24.4	83.3	24.4	5.4	78.7	23.1	78.7	23.1	6.1	74	21.7	74	21.7	6.9	72.3	21.2	72.3	21.2	7.2	69	20.2	69	20.2	7.7						
	0.13	72	91.8	26.9	68.6	20.1	5.6	86.5	25.4	66.9	19.6	6.3	81.4	23.9	65.3	19.1	7	79.5	23.3	64.7	19	7.3	76	22.3	63.7	18.7	7.8						
	2200	62	76.4	22.4	76.4	22.4	5.6	72.1	21.1	72.1	21.1	6.4	67.6	19.8	67.6	19.8	7.4	66	19.3	66	19.3	7.7	62.7	18.4	62.7	18.4	8.3						
100G1 + 100G1	1038	66.2	83.3	24.4	69.1	20.2	5.7	78.1	22.9	67	19.6	6.6	73	21.4	65	19.1	7.5	71.2	20.9	64.3	18.8	7.8	67.6	19.8	63	18.5	8.4						
	0.09	72	91.9	26.9	55.3	16.2	6	86.9	25.5	53.6	15.7	6.8	81.8	24	51.8	15.2	7.5	79.9	23.4	51.2	15	7.8	76.1	22.3	49.9	14.6	8.3						
	2500	62	78.1	22.9	78.1	22.9	5.6	73.7	21.6	73.7	21.6	6.5	69.1	20.3	69.1	20.3	7.4	67.4	19.7	67.4	19.7	7.8	66.8	19.6	66.8	19.6	8.4						
	1180	66.2	84.5	24.8	73.9	21.7	5.8	79.4	23.3	72	21.1	6.6	74.4	21.8	70	20.5	7.5	72.5	21.3	69.3	20.3	7.8	68.9	20.2	68	19.9	8.3						
	0.1	72	93.9	27.5	58.8	17.2	6.1	88.7	26	57	16.7	6.9	83.4	24.4	55.3	16.2	7.5	81.2	23.8	54.5	16	7.8	76.9	22.5	53.1	15.6	8.3						
	3600	62	82.5	24.2	82.5	24.2	5.7	80.9	23.7	80.9	23.7	6.7	75.6	22.1	75.6	22.1	7.5	73.6	21.6	73.6	21.6	7.8	69.8	20.5	69.8	20.5	8.3						
	1699	66.2	88.5	25.9	88.5	25.9	5.9	83.2	24.4	83.2	24.4	6.7	78	22.8	78	22.8	7.5	76.1	22.3	76.1	22.3	7.8	72.3	21.2	72.3	21.2	8.3						
120G1 + 120G1	0.13	72	97.8	28.7	70.5	20.7	6.2	91.7	26.9	68.6	20.1	6.9	85.8	25.2	66.7	19.6	7.5	83.7	24.5	66	19.4	7.7	79.6	23.3	64.7	19	8.3						
	2200	62	85	24.9	82.3	24.1	6.4	80.2	23.5	80.1	23.5	7.3	75.2	22	75.2	22	8.3	73.4	21.5	73.4	21.5	8.6	69.9	20.5	69.9	20.5	9.3						
	1038	66.2	93.7	27.5	73.3	21.5	6.6	88.2	25.9	71.1	20.8	7.5	82.1	24.1	68.6	20.1	8.4	80	23.4	67.8	19.9	8.8	76	22.3	66.2	19.4	9.4						
	0.09	72	102	29.9	58.9	17.3	6.7	96.7	28.3	57	16.7	7.7	91.2	26.7	55.1	16.1	8.7	89.3	26.2	54	15.9	9	85.5	25	53.1	15.6	9.6						
	2900	62	89	26.1	89	26.1	6.5	84	24.6	84	24.6	7.4	78.9	23.1	78.9	23.1	8.4	77	22.6	77	22.6	8.7	73.3	21.5	73.3	21.5	9.4						
	1369	66.2	96.7	28.4	84.4	24.7	6.6	90.9	26.6	82.2	24.1	7.6	85.2	25	80	23.4	8.5	83.1	24.4	79.2	23.2	8.8	79.1	23.2	77.7	22.8	9.5						
	0.11	72	107	31.4	67	19.6	6.8	101.3	29.7	65.1	19.1	7.8	95.6	28	63.1	18.5	8.8	93.5	27.4	62.5	18.3	9.1	88.9	26.1	61	17.9	9.8						
120G1 + 120G1	3600	62	92	27	92	27	6.6	86.9	25.5	86.9	25.5	7.5	81.5	23.9	81.5	23.9	8.4	82.9	24.3	82.9	24.3	8.8	78.9	23.1	78.9	23.1	9.5						
	1699	66.2	99.1	29.1	95.2	27.9	6.7	93.4	27.4	93	27.3	7.6	87.6	25.7	87.6	25.7	8.6	85.5	25.1	85.5	25.1	8.9	81.4	23.9	81.4	23.9	9.5						
	0.13	72	110.3	32.3	74.5	21.8	6.9	104.3	30.6	72.6	21.3	7.9	97.6	28.6	70.4	20.6	8.9	95.2	27.9	69.7													

CAPACITY RATINGS

Model AUMR + CADXA	AFR	EWB	Condenser Entering Air Temperature																													
	cfm		95°F (35°C)						105°F (40.6°C)						114.8°F (46°C)						118.4°F (48°C)						125.6°F (52°C)					
	I/s		Total Capacity			Sensible Capacity			PI	Total Capacity			Sensible Capacity			PI	Total Capacity			Sensible Capacity			PI	Total Capacity			Sensible Capacity			PI		
			(BPF)	°F	MBh	kW	MBh	kW	kW	MBh	kW	MBh	kW	kW	MBh	kW	MBh	kW	kW	MBh	kW	MBh	kW	kW	MBh	kW	MBh	kW	kW			
130G1 + 130G1	3500	62	112.72	33.036	112.72	33.04	8.37	106.29	31.15	106.29	31.15	9.54	99.4	29.13	99.4	29.13	10.77	96.89	28.40	96.89	28.40	11.23	95.95	28.12	95.95	28.12	12.2					
	1652	66.2	122.01	35.759	105.61	30.95	8.51	114.65	33.60	102.75	30.11	9.68	107.15	31.40	99.9	29.28	10.94	104.41	30.60	98.87	28.98	11.41	98.98	29.01	96.82	28.38	12.32					
	0.09	72	135.43	39.692	84.17	24.67	8.63	127.6	37.40	81.48	23.88	9.96	119.2	34.94	78.64	23.05	11.51	115.86	33.96	77.53	22.72	12.06	109.37	32.05	75.4	22.10	13.09					
	4000	62	115.37	33.813	115.37	33.81	8.42	108.66	31.85	108.66	31.85	9.58	105.95	31.05	105.95	31.05	10.91	103.23	30.25	103.23	30.25	11.37	97.72	28.64	97.72	28.64	12.27					
	1888	66.2	124.21	36.404	113.87	33.37	8.54	116.82	34.24	111.09	32.56	9.72	109.16	31.99	108.2	31.71	11	106.38	31.18	106.38	31.18	11.48	100.87	29.56	100.87	29.56	12.41					
	0.1	72	138.02	40.451	89.83	26.33	8.64	129.51	37.96	86.99	25.50	10.02	120.33	35.27	84	24.62	11.59	117.03	34.30	82.93	24.31	12.17	110.61	32.42	80.86	23.70	13.23					
	5300	62	125.11	36.668	125.11	36.67	8.55	117.52	34.44	117.52	34.44	9.73	109.59	32.12	109.59	32.12	11.02	106.67	31.26	106.67	31.26	11.49	100.9	29.57	100.9	29.57	12.41					
	2501	66.2	128.69	37.717	128.69	37.72	8.59	120.99	35.46	120.99	35.46	9.8	113.1	33.15	113.1	33.15	11.15	110.22	32.30	110.22	32.30	11.66	104.51	30.63	104.51	30.63	12.64					
	0.12	72	141.16	41.372	103.35	30.29	8.65	132.07	38.71	100.48	29.45	10.11	123.02	36.06	97.64	28.62	11.83	119.76	35.10	96.62	28.32	12.45	113.29	33.20	94.65	27.74	13.59					
150G1 + 150G1	4000	62	131.6	38.6	131.6	38.6	9.3	124.6	36.5	124.6	36.5	10.6	117.1	34.3	117.1	34.3	12	114.3	33.5	114.3	33.5	12.5	108.6	31.8	108.6	31.8	13.5					
	1888	66.2	143.3	42	122.2	35.8	9.5	134.9	39.5	118.9	34.8	10.8	126.4	37	115.6	33.9	12.2	123.2	36.1	114.4	33.5	12.7	116.9	34.3	112	32.8	13.6					
	0.09	72	159.8	46.8	97.9	28.7	9.7	151	44.3	94.9	27.8	11	141.7	41.5	91.7	26.9	12.4	138.2	40.5	90.5	26.5	12.9	130.3	38.2	87.9	25.8	13.8					
	4500	62	134.4	39.4	134.4	39.4	9.4	127.2	37.3	127.2	37.3	10.6	119.4	35	119.4	35	12	116.5	34.1	116.5	34.1	12.6	115.3	33.8	115.3	33.8	13.6					
	2124	66.2	145.6	42.7	130.4	38.2	9.5	137.3	40.2	127.2	37.3	10.8	128.6	37.7	124	36.3	12.2	125.3	36.7	122.7	36	12.7	118.9	34.9	118.9	34.9	13.7					
	0.1	72	162.9	47.8	103.7	30.4	9.8	153.7	45.1	100.6	29.5	11.1	143.3	42	97.1	28.5	12.4	139.4	40.9	95.8	28.1	12.9	131.6	38.6	93.3	27.4	13.8					
	6300	62	147.7	43.3	147.7	43.3	9.6	139.2	40.8	139.2	40.8	10.8	130	38.1	130	38.1	12.2	126.6	37.1	126.6	37.1	12.7	119.9	35.1	119.9	35.1	13.7					
	2973	66.2	152.3	44.6	152.3	44.6	9.6	143.4	42	143.4	42	10.9	134.3	39.4	134.3	39.4	12.3	130.9	38.4	130.9	38.4	12.8	124.2	36.4	124.2	36.4	13.7					
	0.12	72	168.9	49.5	122.8	36	9.9	158.1	46.3	119.3	35	11.2	147.3	43.2	116	34	12.5	143.4	42	114.7	33.6	13	135.7	39.8	112.4	32.9	13.9					
180G1 + 180G1	4600	62	154.5	45.3	154.5	45.3	11.2	145.8	42.7	145.8	42.7	12.9	136.7	40.1	136.7	40.1	14.8	133.4	39.1	133.4	39.1	15.5	126.7	37.1	126.7	37.1	16.7					
	2171	66.2	167.7	49.2	141.8	41.6	11.5	157.5	46.2	137.7	40.4	13.2	147.3	43.2	133.8	39.2	15	143.7	42.1	132.4	38.8	15.6	136.5	40	129.7	38	16.7					
	0.09	72	185.8	54.5	113.4	33.2	12.1	175.6	51.5	109.8	32.2	13.7	165.2	48.4	106.2	31.1	15.1	161.4	47.3	105	30.8	15.6	152.9	44.8	102.1	29.9	16.6					
	5200	62	157.7	46.2	157.7	46.2	11.3	148.9	43.6	148.9	43.6	13	139.4	40.9	139.4	40.9	14.9	136	39.9	136	39.9	15.5	134.8	39.5	134.8	39.5	16.7					
	2454	66.2	170.3	49.9	151.5	44.4	11.6	160.2	47	147.7	43.3	13.3	150	44	143.9	42.2	15	146.2	42.9	142.5	41.8	15.6	139	40.7	139	40.7	16.7					
	0.1	72	189.5	55.6	120.3	35.3	12.2	178.9	52.4	116.7	34.2	13.7	167.5	49.1	112.9	33.1	15.1	163.1	47.8	111.5	32.7	15.5	154.6	45.3	108.7	31.9	16.5					
	7400	62	173	50.7	173	50.7	11.7	162.7	47.7	162.7	47.7	13.4	152	44.5	152	44.5	15	148.1	43.4	148.1	43.4	15.6	140.5	41.2	140.5	41.2	16.7					
	3492	66.2	178	52.2	178	52.2	11.8	167.5	49.1	167.5	49.1	13.5	156.9	46	156.9	46	15.1	153.1	44.9	153.1	44.9	15.6	145.6	42.7	145.6	42.7	16.6					
	0.13	72	196.4	57.6	143.5	42	12.5	184.2	54	139.6	40.9	13.8	172.5	50.6	136	39.9	15	168.3	49.3	134.7	39.5	15.5	160	46.9	132.1	38.7	16.5					
200G1 + 200G1	4600	62	171.8	50.3	169.2	49.6	12.9	162.1	47.5	162.1	47.5	14.7	152.1	44.6	152.1	44.6	16.6	148.4	43.5	148.4	43.5	17.3	141.4	41.4	141.4	41.4	18.6					
	2171	66.2	189.8	55.6	150.7	44.2	13.2	177.5	52	145.7	42.7	15	165.5	48.5	140.9	41.3	16.9	161.3	47.3	139.2	40.8	17.6	153.3	44.9	136.1	39.9	18.8					
	0.09	72	206.5	60.5	120.7	35.4	13.5	195.6	57.3	116.8	34.2	15.4	184.6	54.1	113	33.1	17.4	180.6	52.9	111.6	32.7	18.1	172.8	50.6	108.9	31.9	19.4					
	6200	62	180.5	52.9	180.5	52.9	13.1	170.5	50	170.5	50	14.9	160.1	46.9	160.1	46.9	16.8	156.1	45.8	156.1	45.8	17.5	155.2	45.5	155.2	45.5	18.9					
	2926	66.2	195.4	57.3	175.6	51.5	13.3	183.9	53.9	171.3	50.2	15.1	172.4	50.5	167	48.9	17	168.3	49.3	165.4	48.5	17.7	160.2	47	160.2	47	19					
	0.11	72	217	63.6	139	40.7	13.7	205.2	60.1	135	39.6	15.7	193.6	56.7	131.2	38.5	17.7	188.7	55.3	129.6	38	18.4	179.1	52.5	126.5	37.1	19.6					
	7400	62	185.4	54.4	185.4	54.4	13.1	175	51.3	175	51.3	15	171.1	50.1	171.1	50.1	17	166.9	48.9	166.9	48.9	17.7	158.8	46.5	158.8	46.5	19					
	3492	66.2	199.6	58.5	194.2	56.9	13.4	188	55.1	188	55.1	15.2	176.3	51.7	176.3	51.7	17.1	172.1	50.4	172.1	50.4	17.8	164	48.1	164	48.1	19.1					
	0.13	72	222.1	65.1	151.8	44.5	13.8	209.3	61.3	147.6	43.3	15.8	196	57.4	143.3	42	17.8	191.2	56.1	141.8	41.6	18.5	181.8	53.3	138.9	40.7	19.7					
230G1 + 230G1	5400	62	202.7	59.4	199.1	58.4	14.7	190.7	55.9	190.7	55.9	17	178.5	52.3	178.5	52.3	19.4	174	51	174	51	20.3	165.3	48.4	165.3	48.4	21.9					
	2549	66.2	224.1	65.7	177.5	52	15	209.4	61.4	171.4	50.2	17.3	194.4	57	165.4	48.5	19.7	189.2	55.5	163.4	47.9	20.5	179.4	52.6	159.5	46.8	22.1					
	0.09	72	244.1	71.6	142.3	41.7	15.5	230.8	67.6	137.5	40.3	17.8	217	63.6	132.7	38.9	20.1	212.1	62.2	131	38.4	20.8	202.8	59.4	127.8	37.4	22.3					
	7200	62	212.7	62.3	212.7	62.3	14.9	200.4	58.7	200.4	58.7	17.1	187.7	55	187.7	55	19.6	182.8	53.6	182.8	53.6	20.4	181.4	53.2	181.4	53.2	22.1					
	3398	66.2	230.8	67.6	205.6	60.3	15.2	216.6	63.5	200.2	58.7	17.4	202.4	59.3	194.9	57.1	19.8	197.2	57.8	192.9	56.5	20.6	187.3	54.9	187.3	54.9	22.1					



Fan Performance

Model AUMR + CADX	AirFlowRate		Internal Static Pressure		External Static Pressure - in.wg (Pa)													
					0.2(50)		0.4(100)		0.5(125)		0.6(150)		0.8(200)		1(250)		1.2(300)	
	cfm	l/s	in.wg	Pa	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW
055G1 + 055G1	1600	755	0.28	70	653	0.19	756	0.24	805	0.26	852	0.29	945	0.34	1035	0.4	1125	0.47
	1700	802	0.31	78	678	0.22	777	0.27	823	0.3	868	0.32	957	0.38	1043	0.44	1128	0.51
	2600	1227	0.73	183	944	0.68	1015	0.76	1049	0.8	1083	0.84	1147	0.92	1209	1	1270	1.08
070G1 + 070G1	1800	849	0.3	75	-	-	673	0.26	718	0.29	763	0.32	849	0.39	932	0.47	-	-
	1900	897	0.33	83	-	-	688	0.28	732	0.32	775	0.35	857	0.42	937	0.5	-	-
	2800	1321	0.73	183	800	0.62	869	0.7	902	0.75	934	0.79	997	0.88	1057	0.98	1115	1.07
080G1 + 080G1	2200	1038	0.28	70	-	-	674	0.33	716	0.37	757	0.4	834	0.48	908	0.56	979	0.64
	2400	1133	0.33	81	616	0.33	702	0.4	742	0.44	780	0.48	854	0.56	924	0.64	991	0.72
	3600	1699	0.74	186	851	0.97	913	1.09	942	1.14	972	1.2	1028	1.31	1082	1.42	1135	1.54
090G1 + 090G1	2200	1038	0.28	70	-	-	674	0.33	716	0.37	757	0.4	834	0.48	908	0.56	979	0.64
	2500	1180	0.35	88	634	0.36	717	0.44	756	0.48	793	0.52	865	0.6	933	0.68	999	0.77
	3600	1699	0.74	186	851	0.97	913	1.09	942	1.14	972	1.2	1028	1.31	1082	1.42	1135	1.54
100G1 + 100G1	2200	1038	0.28	70	-	-	674	0.33	716	0.37	757	0.4	834	0.48	908	0.56	979	0.64
	2900	1369	0.47	118	708	0.54	782	0.63	818	0.67	852	0.72	917	0.81	980	0.9	1040	0.99
	3600	1699	0.74	186	851	0.97	913	1.09	942	1.14	972	1.2	1028	1.31	1082	1.42	1135	1.54
120G1 + 120G1	2900	1369	0.29	71	482	0.31	559	0.4	595	0.45	630	0.5	696	0.6	760	0.72	822	0.84
	3500	1652	0.4	100	545	0.5	613	0.6	645	0.66	676	0.71	736	0.83	792	0.95	846	1.08
	4600	2171	0.71	178	680	1.04	735	1.18	762	1.24	787	1.31	837	1.45	884	1.6	930	1.75
130G1 + 130G1	3500	1652	0.29	72	502	0.44	575	0.54	608	0.59	641	0.65	702	0.76	760	0.88	815	1
	4000	1888	0.37	91	550	0.62	616	0.73	647	0.79	677	0.85	734	0.97	788	1.1	839	1.23
	5300	2501	0.65	163	691	1.33	744	1.48	769	1.55	794	1.63	842	1.78	887	1.94	931	2.1
150G1 + 150G1	4000	1888	0.29	73	608	0.49	706	0.63	752	0.7	796	0.77	881	0.92	962	1.09	1042	1.28
	4500	2124	0.36	90	655	0.66	746	0.81	788	0.88	829	0.96	908	1.12	983	1.3	1056	1.48
	6300	2973	0.72	180	855	1.61	925	1.83	958	1.93	991	2.04	1053	2.25	1113	2.46	1172	2.68
180G1 + 180G1	4600	2171	0.29	71	621	0.62	714	0.78	758	0.85	799	0.93	879	1.09	954	1.26	1027	1.44
	5200	2454	0.36	88	673	0.84	759	1.02	799	1.1	838	1.19	912	1.37	983	1.55	1050	1.74
	7400	3492	0.73	183	897	2.19	961	2.44	993	2.57	1023	2.69	1082	2.94	1138	3.19	1193	3.43
200G1 + 200G1	4600	2171	0.29	71	621	0.62	714	0.78	758	0.85	799	0.93	879	1.09	954	1.26	1027	1.44
	6200	2926	0.5	126	771	1.34	846	1.55	881	1.65	916	1.76	982	1.97	1046	2.17	1106	2.39
	7400	3492	0.73	183	897	2.19	961	2.44	993	2.57	1023	2.69	1082	2.94	1138	3.19	1193	3.43
230G1 + 230G1	5400	2548	0.29	71	500	0.6	584	0.79	623	0.89	661	0.99	733	1.21	803	1.46	872	1.74
	7200	3398	0.5	123	609	1.23	678	1.46	710	1.58	741	1.71	801	1.96	858	2.23	914	2.52
	8700	4106	0.74	184	713	2.06	772	2.34	800	2.48	827	2.62	880	2.92	931	3.22	979	3.54
260G1 + 260G1	5400	2548	0.29	71	500	0.6	584	0.79	623	0.89	661	0.99	733	1.21	803	1.46	872	1.74
	8000	3775	0.62	154	664	1.64	727	1.89	757	2.02	786	2.16	841	2.43	895	2.72	947	3.02
	8700	4106	0.74	184	713	2.06	772	2.34	800	2.48	827	2.62	880	2.92	931	3.22	979	3.54

Table 6

Notes:

1. Areas shaded in blue indicate factory setting of RPM.
2. Areas shaded in grey indicate operating range outside the standard motor.
3. Internal static pressure is based on pressure drops through evaporator coil, fan casing and 1" flat filter.

ELECTRICAL DATA

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

Model AUMR	Unit Characteristic			Compressor			Condenser Fan Motor			Model CADX	Evaporator Fan Motor	
	MFA	MCA	ICF	QTY	RLA	LRA	QTY	FLA	LRA		FLA	LRA
055G1	32	17	79	1	11	74	1	1.2	3.6	055AG1	1.2	7.4
070G1	40	20	105	1	14	100	1	1.2	3.6	070AG1	1.2	7.4
080G1	40	20	106	1	14	101	1	1.2	3.6	080AG1	1.2	7.4
090G1	40	23	100	1	16	95	1	1.2	3.6	090AG1	1.7	10.2
100G1	50	28	117	1	19	111	1	1.2	3.6	100AG1	2.4	16.2
120G1	50	29	124	1	20	118	1	1.2	3.6	120AG1	2.4	16.2
130G1	50	32	93	2	12	74	2	1.2	3.6	130AG1	2.4	16.2
150G1	50	37	121	2	14	100	2	1.2	3.6	150AG1	2.4	16.2
180G1	63	42	119	2	16	95	2	1.2	3.6	180AG1	3.3	25.0
200G1	80	50	139	2	19	111	2	1.2	3.6	200AG1	4.5	32.4
230G1	80	52	147	2	20	118	2	1.2	3.6	230AG1	4.5	32.4
260G1	100	61	160	2	21	118	2	3.3	11.0	260AG1	6.2	44.6

Table 7

Legend

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

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

ICF Maximum Instantaneous Current Flow

RLA Rated Load Amps. (at worst operating condition)

LRA Locked Rotor Amps

FLA Full Load Amps

Note :

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

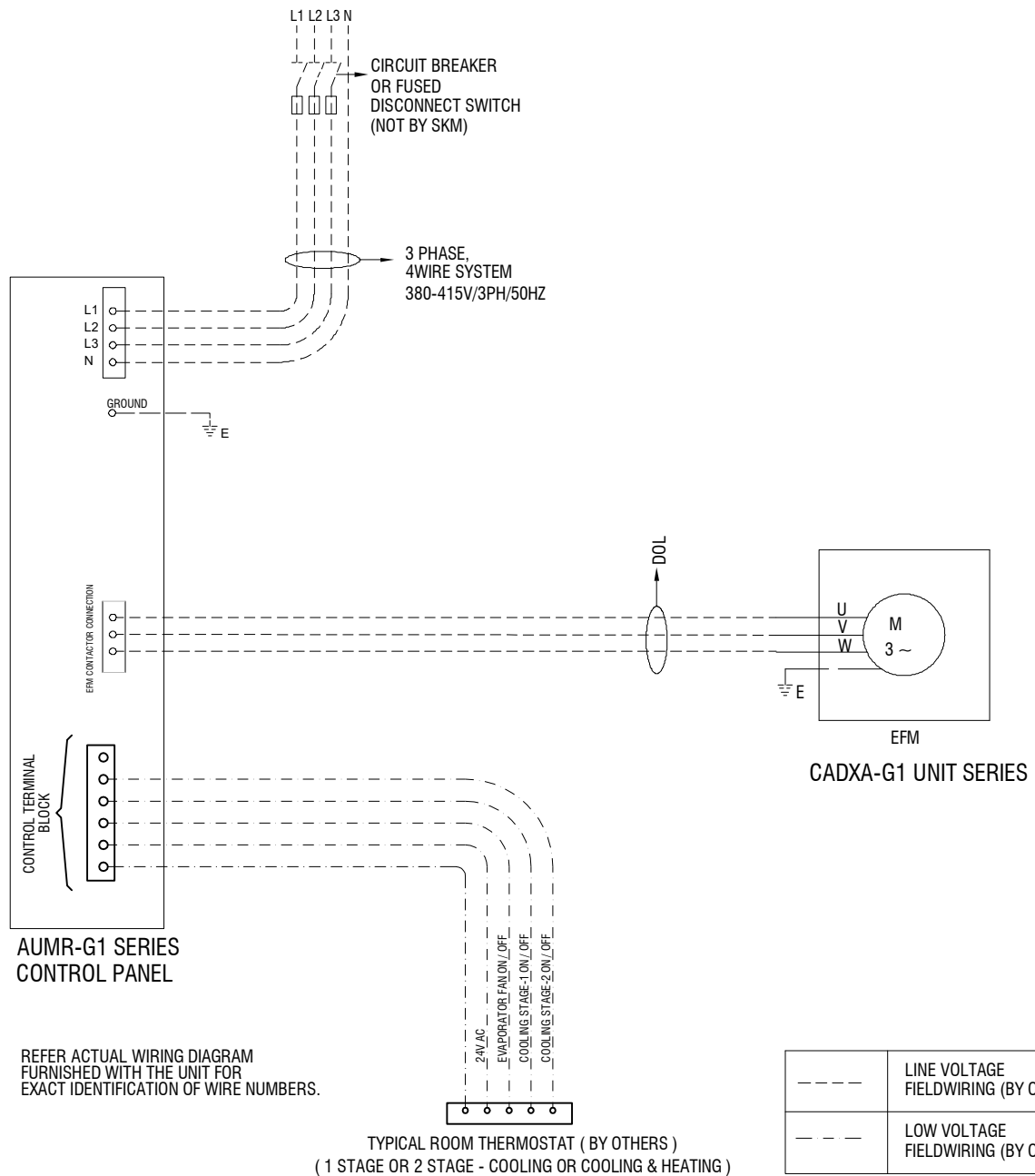


Field Connections

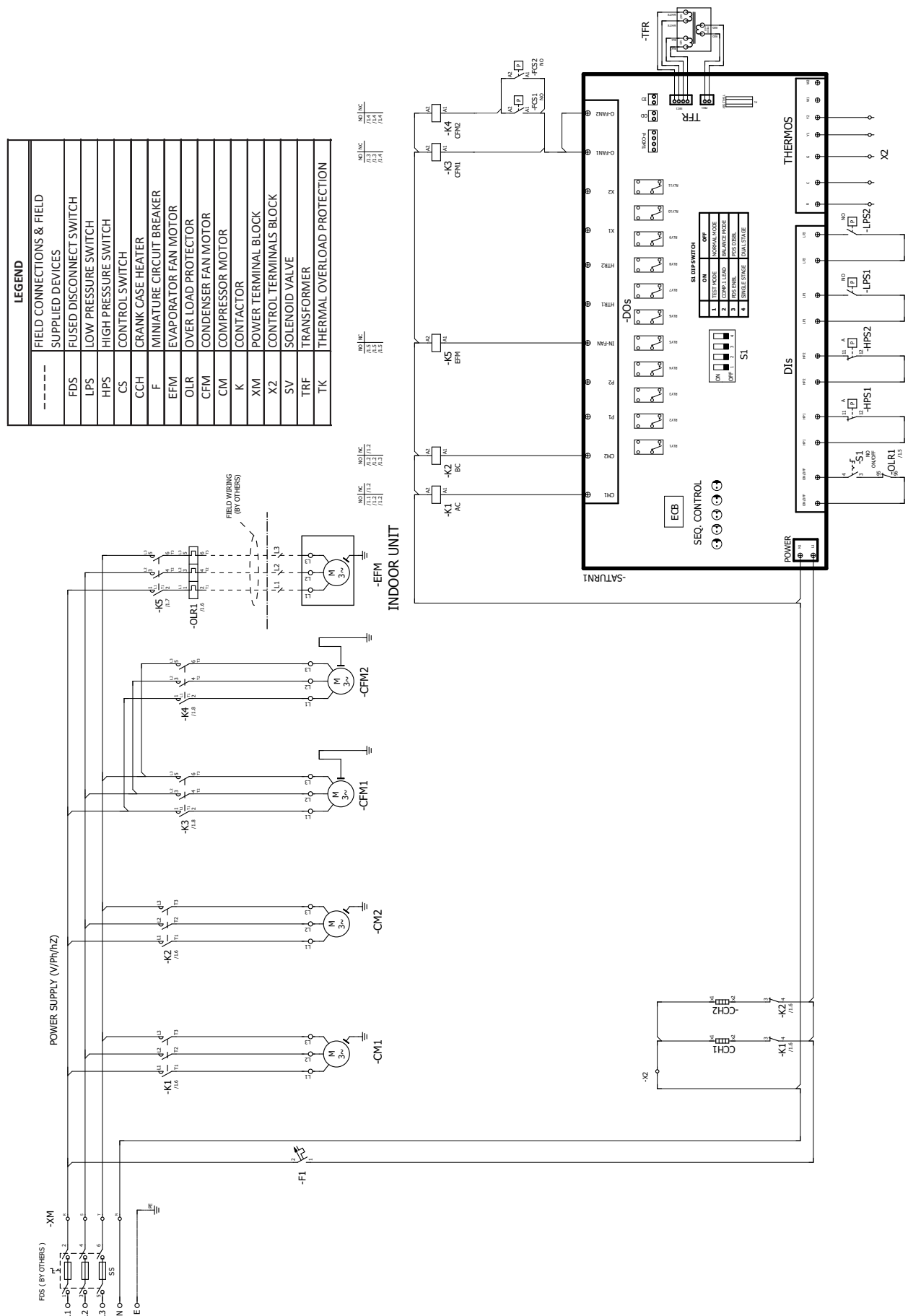
SKM **AUMR-G1 + CADX-AG1** series split units require at most field supplied and field installed fused disconnect switches or circuit breakers for power & control and a low/voltage temperature controller (room thermostat) as shown in field wiring diagram.

Each Split unit is supplied with electrical wiring diagrams placed inside the control panel of the unit.

Field Wiring Requirement Schematic



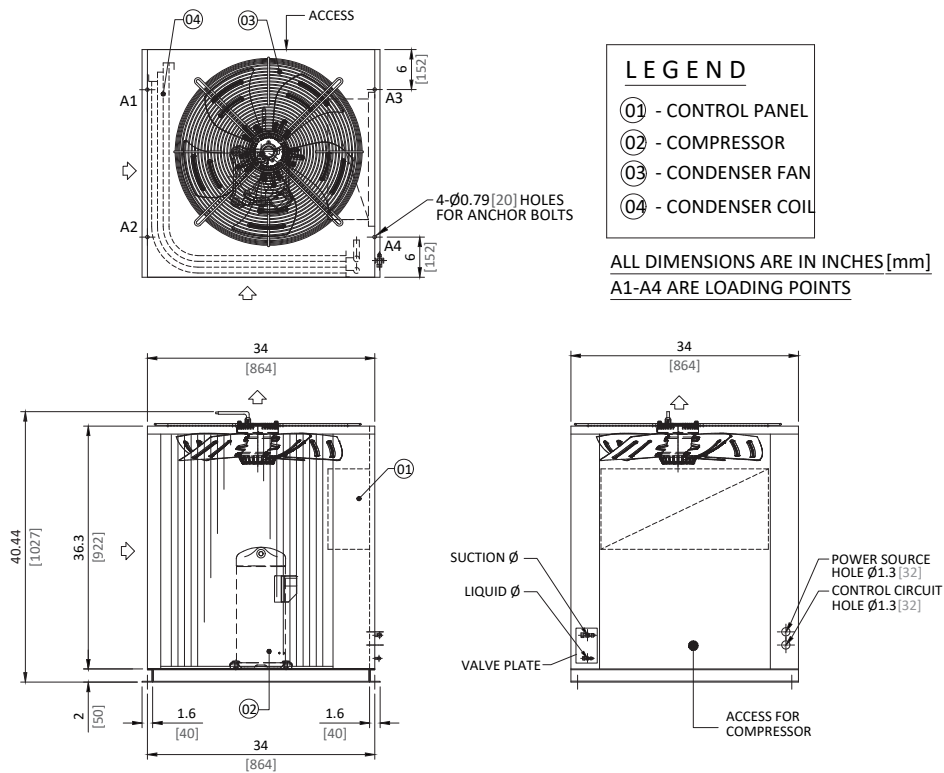
Typical Wiring Diagram (Outdoor Unit)



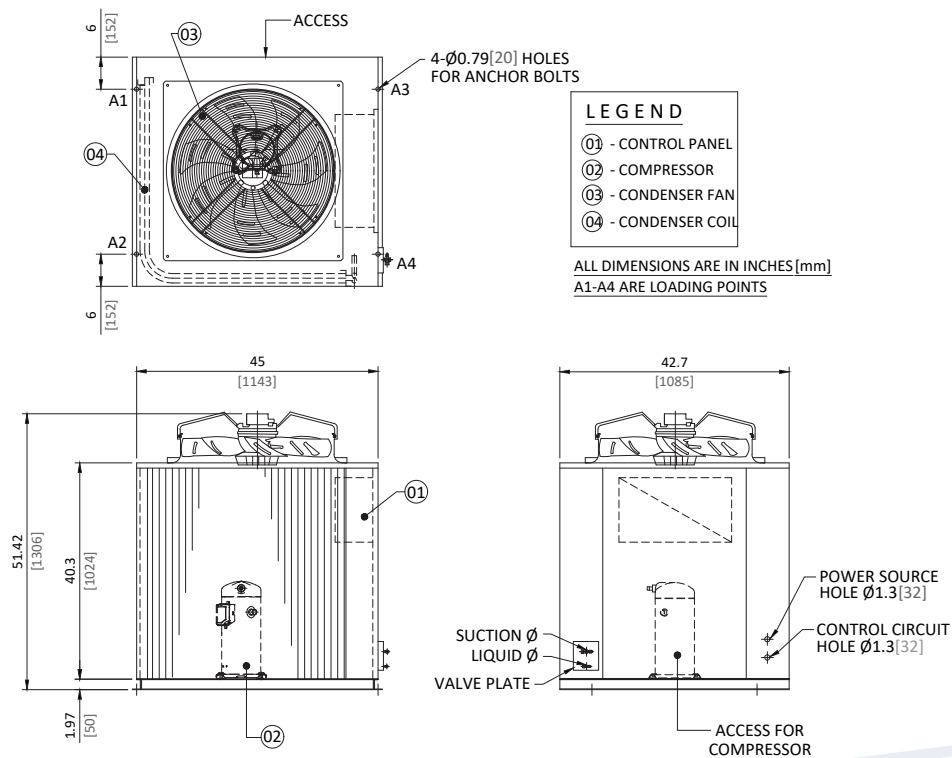


Condensing Unit Dimensional Data

Models: AUMR- 055G1 & 070G1

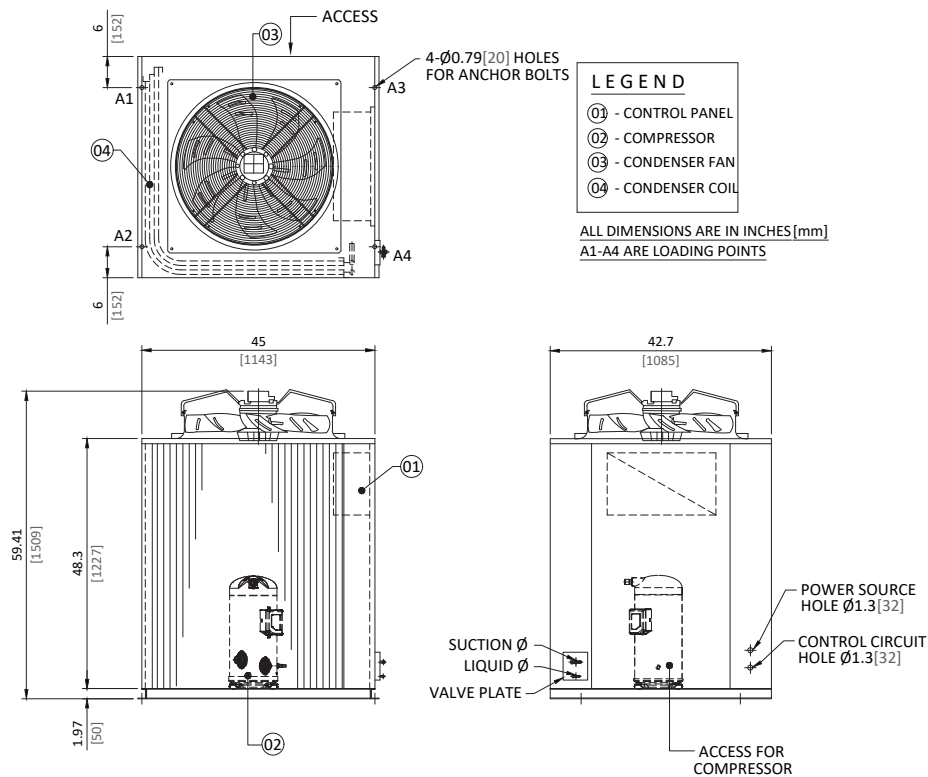


Models: AUMR- 080G1 & 090G1

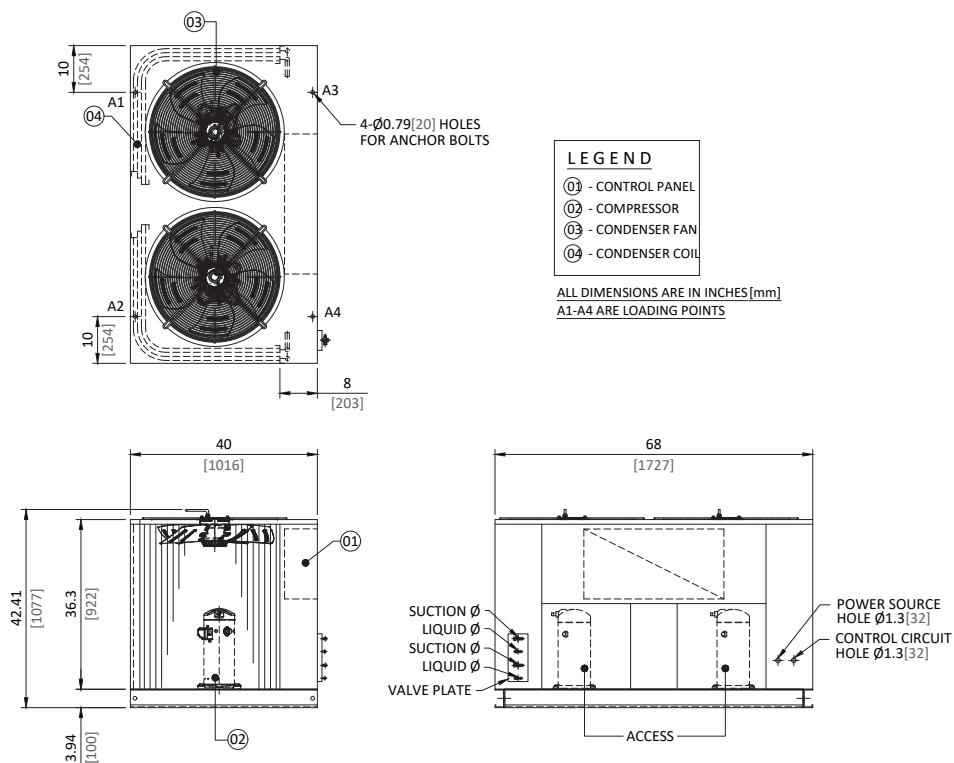


Condensing Unit Dimensional Data

Models: AUMR- 100G1 & 120G1



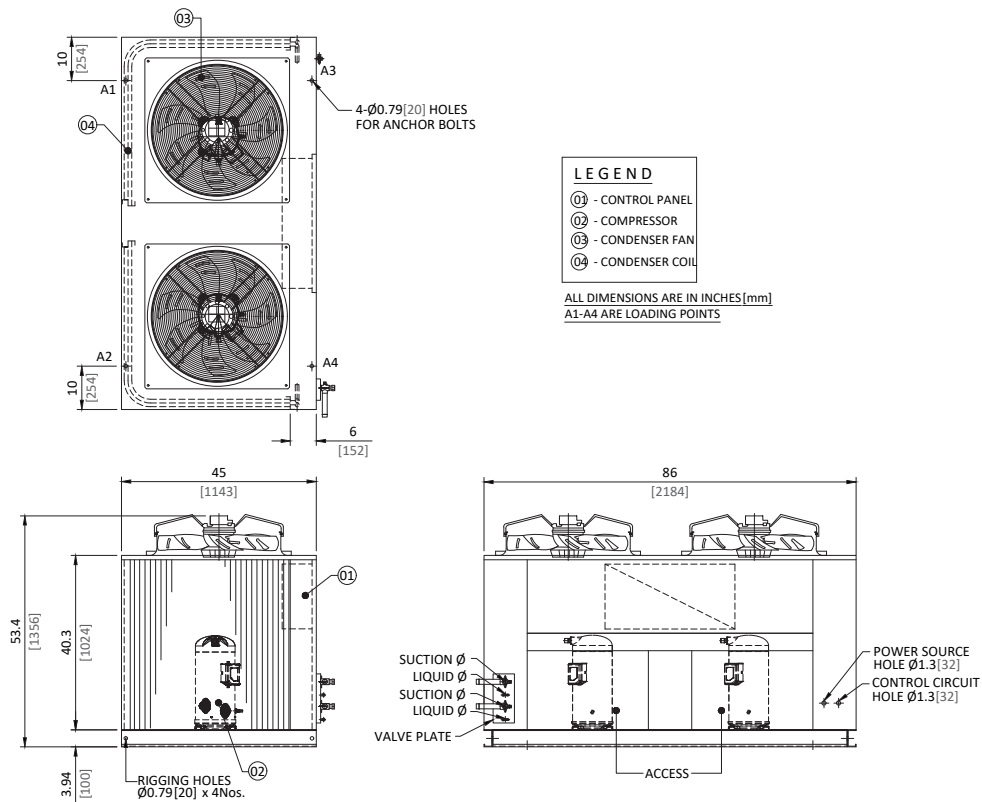
Models: AUMR- 130G1



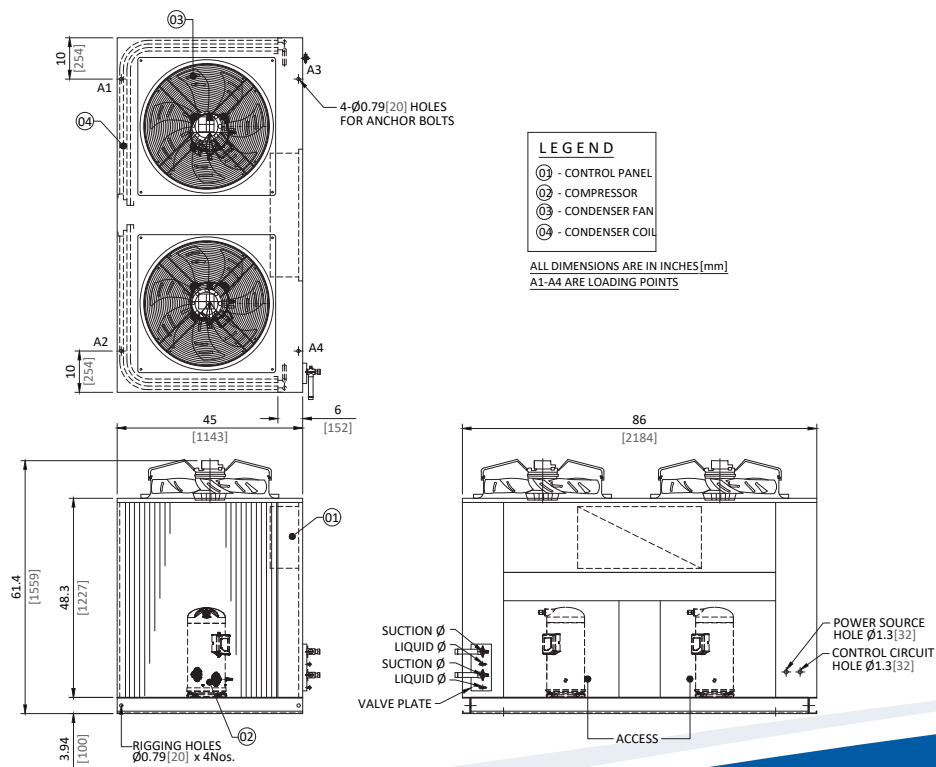


Condensing Unit Dimensional Data

Models: AUMR- 150G1 & 180G1

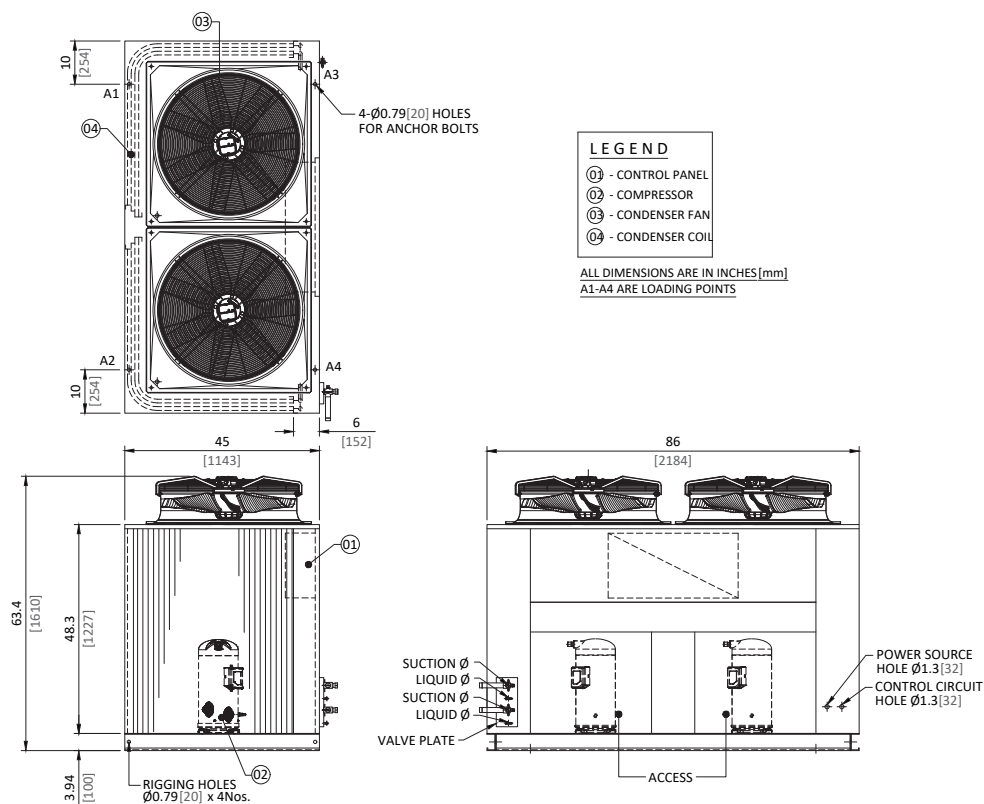


Models: AUMR- 200G1 & 230G1



Condensing Unit Dimensional Data

Models: AUMR- 260G1





Air Handling Unit Dimensional Data

Models: CADX-055AG1 to 120AG1

LEGEND

- ①- EVAPORATOR FAN
- ②- EVAPORATOR FAN MOTOR
- ③- EVAPORATOR COIL
- ④- 1"THK. FLAT FILTER

Model CADX	DIMENSIONS										
	L	W	H	A	B	C	D	E	F	J	G
055AG1	45 [1143]	48 [1219]	26.2 [665]	25 [635]	39.2 [995]	21.4 [544]	17.48 [444]	17.48 [444]	2.7 [69]	11.38 [289]	13.03 [331]
070AG1	45 [1143]	55 [1397]	25.2 [640]	24 [610]	47 [1194]	21.4 [544]	19.72 [501]	19.72 [501]	2.2 [57]	13.43 [341]	15.55 [395]
080AG1											
090AG1	50 [1270]	56 [1422]	28.2 [716]	27 [686]	47 [1194]	23.3 [592]	20.2 [514]	20.2 [514]	3.5 [89]	13.43 [341]	15.55 [395]
100AG1											
* 120AG1	60 [1524]	60 [1524]	31.2 [792]	30 [762]	50.5 [1283]	26.8 [681]	20.7 [526]	20.7 [526]	2.5 [63]	15.91 [404]	18.54 [471]

*USE DRAIN SIZE Ø1[25] FOR MODEL 120AG1

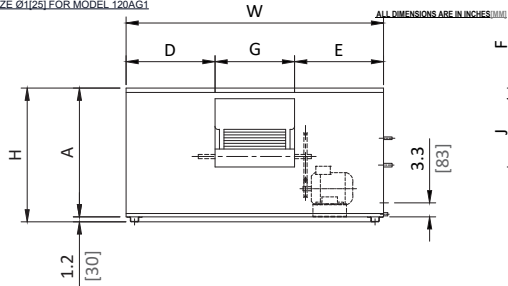
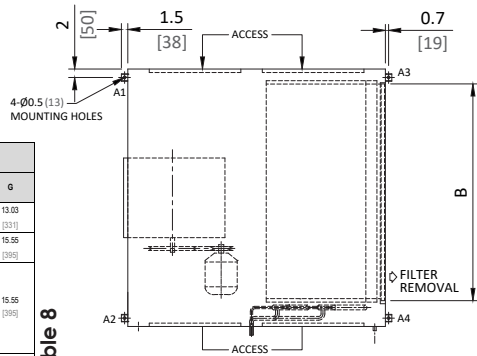


Table 8



Models: CADX-130AG1 to 260AG1

Model CADX	DIMENSIONS											
	L	W	H	A	B	C	D	E	F	J	G	H1
* 130AG1	60 [1524]	70 [1778]	31.2 [792]	30 [762]	62.6 [1589]	26.8 [681]	25.7 [653]	25.7 [653]	2.5 [63]	15.91 [404]	18.54 [471]	1.2 [30]
150AG1	60 [1524]	70 [1778]	33.2 [843]	32 [813]	62.6 [1589]	28.8 [732]	13.2 [334]	13.2 [334]	9 [229]	13.43 [341]	43.7 [1109]	1.2 [30]
180AG1												
200AG1	60 [1524]	80 [2032]	33.2 [843]	32 [813]	69.9 [1775]	28.8 [732]	18.2 [461]	18.2 [461]	9 [229]	13.43 [341]	43.7 [1109]	1.2 [30]
230AG1												
260AG1	61.4 [1560]	92 [2337]	35.2 [895]	33.5 [850]	81.7 [2074]	28.8 [732]	19.86 [504]	19.86 [504]	6 [152]	15.91 [404]	52.3 [1328]	1.8 [45]

ALL DIMENSIONS ARE IN INCHES [mm]

LEGEND

- ①- EVAPORATOR FAN
- ②- EVAPORATOR FAN MOTOR
- ③- EVAPORATOR COIL
- ④- 1"THK. FLAT FILTER

ALL DIMENSIONS ARE IN INCHES [mm]

A1-A4 ARE LOADING POINTS

* MODEL 130AG1 WITH SINGLE BLOWER FAN

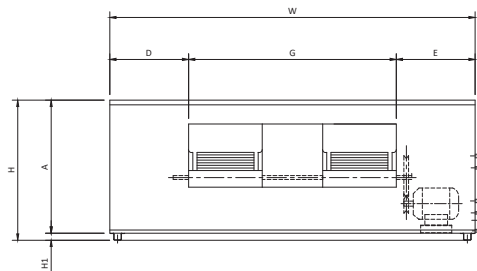
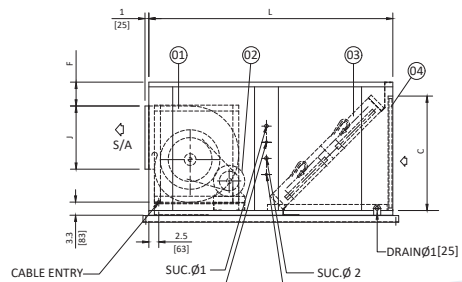
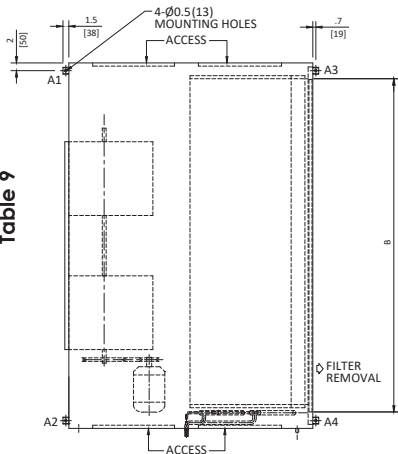


Table 9



WEIGHTS & LOADING POINTS

MODEL AUMR	LOAD AT EACH POINT Lbs (Kgs)				TOTAL WEIGHT
	A1	A2	A3	A4	
055G1	83 [38]	103 [47]	86 [39]	106 [48]	378 [172]
070G1	85 [38]	105 [48]	88 [40]	108 [49]	386 [175]
080G1	111 [50]	130 [59]	114 [52]	134 [61]	489 [222]
090G1	121 [55]	141 [64]	125 [57]	144 [65]	531 [241]
100G1	133 [60]	156 [71]	132 [60]	155 [70]	576 [261]
120G1	147 [67]	183 [83]	133 [60]	170 [77]	633 [287]
130G1	173 [78]	173 [78]	185 [84]	185 [84]	716 [324]
150G1	219 [99]	219 [99]	233 [106]	233 [106]	904 [410]
180G1	236 [107]	236 [107]	258 [117]	258 [117]	988 [448]
200G1	258 [117]	258 [117]	274 [124]	274 [124]	1064 [482]
230G1	297 [135]	297 [135]	290 [131]	290 [131]	1174 [532]
260G1	310 [140]	310 [140]	303 [137]	303 [137]	1226 [554]

Table 10

MODEL CADX	LOAD AT EACH POINT Lbs (Kgs)				TOTAL WEIGHT
	A1	A2	A3	A4	
055AG1	66 [30]	62 [28]	57 [26]	51 [23]	236 [107]
070AG1	75 [34]	85 [38]	74 [34]	79 [36]	313 [142]
080AG1	83 [38]	86 [39]	78 [35]	77 [35]	324 [147]
090AG1	83 [38]	86 [39]	78 [35]	77 [35]	324 [147]
100AG1	83 [38]	86 [39]	78 [35]	77 [35]	324 [147]
120AG1	107 [48]	116 [53]	109 [49]	114 [52]	446 [202]
130AG1	122 [55]	139 [63]	108 [49]	107 [49]	476 [216]
150AG1	128 [58]	135 [61]	124 [56]	115 [52]	502 [227]
180AG1	140 [63]	146 [66]	148 [67]	138 [63]	572 [259]
200AG1	140 [63]	146 [66]	148 [67]	138 [63]	572 [259]
230AG1	163 [74]	198 [90]	143 [65]	155 [70]	659 [299]
260AG1	163 [74]	198 [90]	143 [65]	155 [70]	659 [299]

Table 11



Recommended Suction and Liquid Line Sizes:

Models		PIPE LENGTH - FEET (m)															
		25		7.6)		50 (15.2)				75 (22.9)				100		30.5)	
		Circuit 1		Circuit 2		Circuit 1		Circuit 2		Circuit 1		Circuit 2		Circuit 1		Circuit 2	
AUMR	CADX	Liquid	Suction	Liquid	Suction	Liquid	Suction	Liquid	Suction	Liquid	Suction	Liquid	Suction	Liquid	Suction	Liquid	Suction
055G1	055AG1	1/2	7/8	-	-	1/2	7/8	-	-	1/2	7/8	-	-	1/2	1 1/8	-	-
070G1	070AG1	1/2	7/8	-	-	1/2	1 1/8	-	-	1/2	1 1/8	-	-	1/2	1 1/8	-	-
080G1	080AG1	1/2	7/8	-	-	1/2	1 1/8	-	-	1/2	1 1/8	-	-	5/8	1 1/8	-	-
090G1	090AG1	1/2	1 1/8	-	-	1/2	1 1/8	-	-	5/8	1 1/8	-	-	5/8	1 3/8	-	-
100G1	100AG1	1/2	1 1/8	-	-	5/8	1 1/8	-	-	5/8	1 1/8	-	-	5/8	1 3/8	-	-
120G1	120AG1	5/8	1 1/8	-	-	5/8	1 1/8	-	-	5/8	1 3/8	-	-	5/8	1 3/8	-	-
130G1	130AG1	1/2	7/8	1/2	7/8	1/2	1 1/8	1/2	1 1/8	1/2	1 1/8	1/2	1 1/8	5/8	1 1/8	5/8	1 1/8
150G1	150AG1	1/2	7/8	1/2	7/8	1/2	1 1/8	1/2	1 1/8	1/2	1 1/8	1/2	1 1/8	1/2	1 1/8	1/2	1 1/8
180G1	180AG1	1/2	1 1/8	1/2	1 1/8	1/2	1 1/8	1/2	1 1/8	5/8	1 1/8	5/8	1 1/8	5/8	1 3/8	5/8	1 3/8
200G1	200AG1	1/2	1 1/8	1/2	1 1/8	5/8	1 1/8	5/8	1 1/8	5/8	1 1/8	5/8	1 1/8	5/8	1 3/8	5/8	1 3/8
230G1	230AG1	5/8	1 1/8	5/8	1 1/8	5/8	1 1/8	5/8	1 1/8	5/8	1 3/8	5/8	1 3/8	5/8	1 3/8	5/8	1 3/8
260G1	260AG1	5/8	1 1/8	5/8	1 1/8	5/8	1 1/8	5/8	1 1/8	5/8	1 3/8	5/8	1 3/8	3/4	1 3/8	3/4	1 3/8

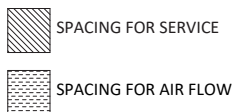
Table 12

Notes :

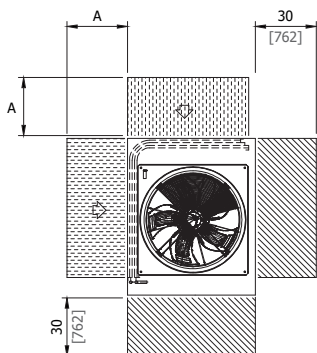
1. Pipe diameters are based on equivalent length of copper tubing sizes.
2. Pipe sizes are based on 2°F (1.1°C) or less temperature losses for liquid and suction line in equivalent pipe length.
3. If the condensing unit is below the evaporating unit, the maximum lift should not exceed to 66 feet.
4. Do not exceed 100 feet piping length without checking with SKM.
5. These sizes are for guidance only. For detailed proper piping, refer to recognized piping references like ASHRAE Guide and Data Book.

The recommended or required suction and liquid line sizes do not necessarily correspond with the refrigerant connections available on the outdoor or indoor unit. Necessary transformation may be required and it's field performed.

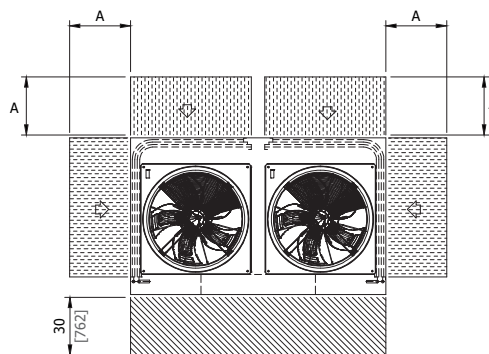
Recommended Clearances



ALL DIMENSIONS ARE IN INCHES [mm]

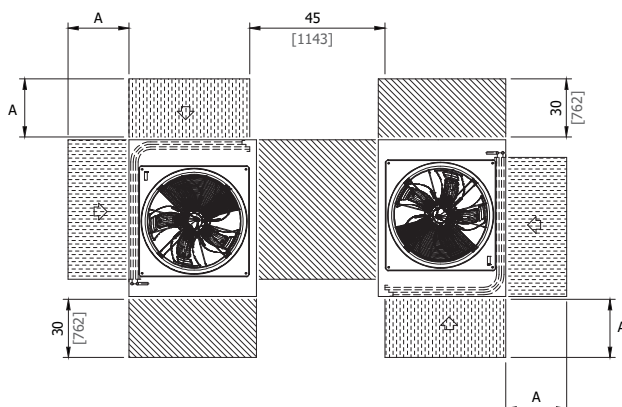


AUMR - 055G1 to 120G1



AUMR - 130G1 to 260G1

Single Unit

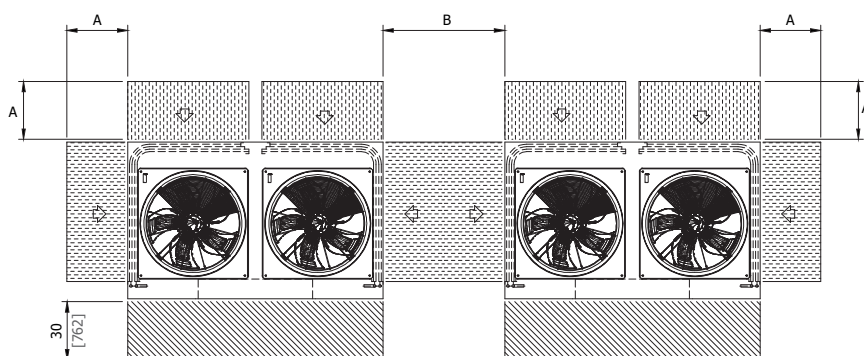


AUMR - 055G1 to 120G1

MODEL AUMR	A	B
055G1 / 070G1	40 [1016]	-
080G1 / 090G1	44 [1118]	
100G1 & 120G1	52 [1321]	
130G1	40 [1016]	64 [1626]
150G1 & 180G1	44 [1118]	72 [1829]
200G1 - 260G1	52 [1321]	88 [2235]

Table 13

ALL DIMENSIONS ARE IN INCHES [MM]



AUMR - 130G1 to 260G1
Multiple Unit



Installation and Commissioning

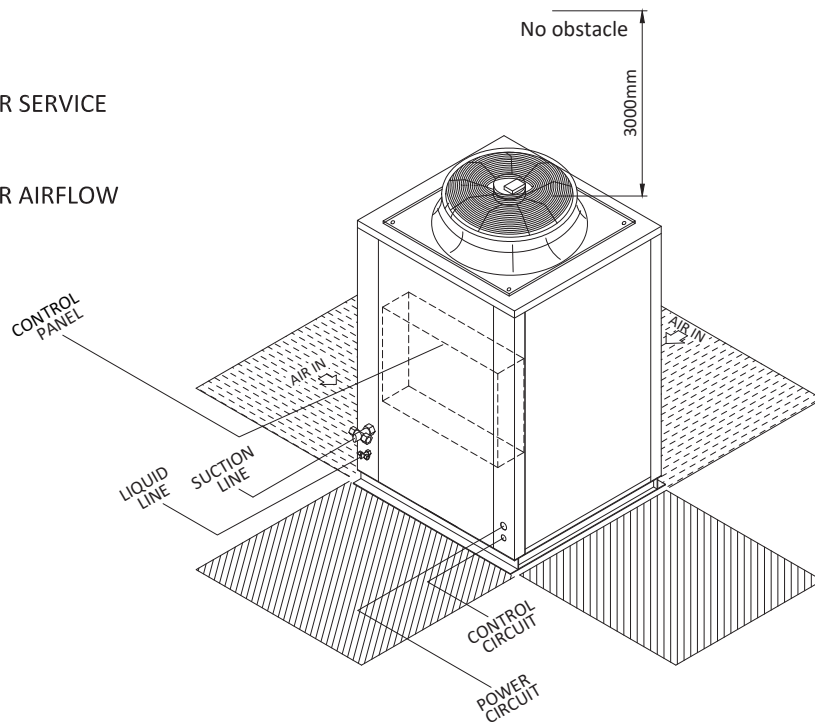
- Install the unit in such a location which is flat and strong enough to support its weight.
- All field wiring must comply with applicable local and national codes.
- Service spacing should be provided as shown in the figure. If any obstacles are around the unit, distributed air is short-circuited so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



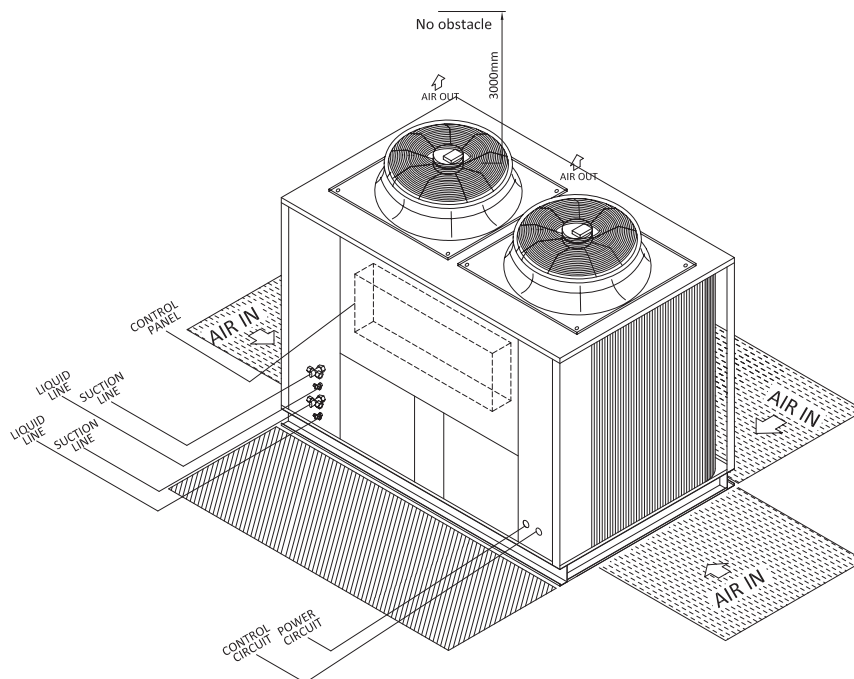
SPACING FOR SERVICE



SPACING FOR AIRFLOW

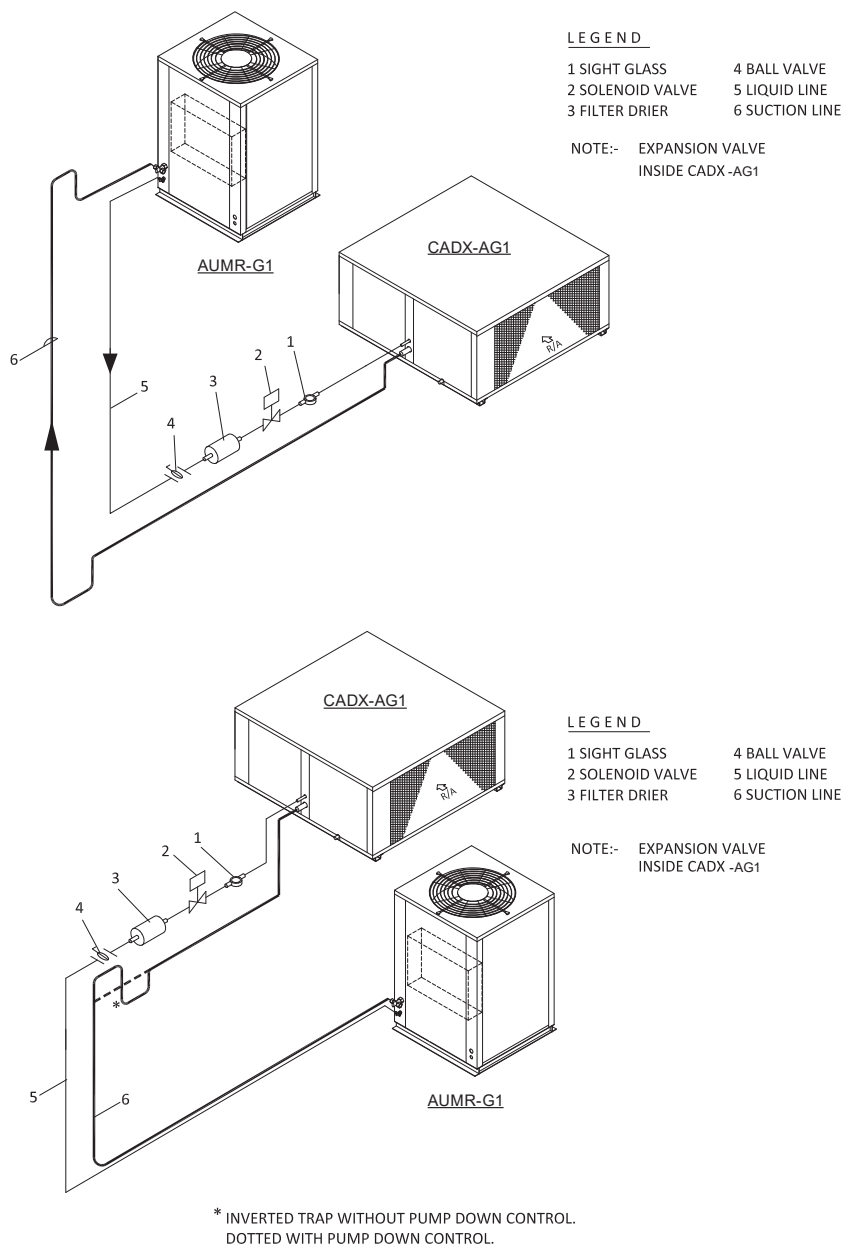


AUMR - 055G1 to 120G1



AUMR - 130G1 to 260G1

Typical Refrigeration Piping



Refrigerant Piping:

Correct design and size of refrigerant piping is necessary to 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”.



GUIDE SPECIFICATIONS

GENERAL

Split air conditioner shall be composed of a ceiling suspended air handling unit & floor mounted air cooled condensing unit.

CONDENSING UNIT

The condensing unit shall be composed of compressor(s), coil(s) and condenser fan(s) and motor(s).

COMPRESSOR

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

CONDENSER COIL(S)

Condenser coils shall be air cooled with integral sub cooler, constructed of special inner grooved seamless copper tubes 3/8" OD mechanically expanded into corrugated aluminum fins. These coils shall be tested against leakage by air pressure of 715psig (4930 kPa) under water, cleaned & dehydrated at the factory.

CONDENSER FAN(S) & MOTOR(S)

Condenser fans are propeller type with aluminum alloy blades and are directly driven by electric motors. Motors are Totally Enclosed Air Over (TEAO), six pole or four pole with Class F insulation and IP54/55 protection depending on models. Complete fan assembly is provided with fan guard.

CONTROL PANEL

The outdoor unit panel shall be factory wired and confirm to IP-54 requirements. Control panel shall contain compressor and motor starting contactors, electronic control board for unit operation, compressor anti-recycle time delay, control on/off switch, control circuit breaker and power & control terminal blocks. High and Low pressure switches protection.

For Indoor unit, junction box shall be provided for evaporator fan motor starter; comprising with contactor, overload relay, power and control terminal blocks.

CONDENSING UNIT CASING

Units casing shall be made of hot dip galvanized steel sheets (zinc coated) conforming to JIS-G3302 and ASTM A653 that 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 hours in 5% salt spray testing at 95°F relative humidity as per ASTM B117.

AIR HANDLING UNIT CASING

The unit casing for **CADX-AG1** shall be made of zinc coated galvanized steel sheets conforming to JIS-G3302 and ASTM A653 which is phosphatized and baked after an electrostatic powder coat of approximately 60 microns. This finish and coating can pass a 1000 hour in 5% salt spray testing at 95°F (35°C) and 95% relative humidity as per ASTM B117. Panels and casing are insulated with 1" thick fiberglass (with BGT coating) thermal and acoustic insulation having density of 2 lb/ft³. (32 kg/m³) and thermal conductivity of 0.23 BTU.in/ft²°Fh (0.033 W/m²K). Insulation meets the requirements of NFPA 90A and 90B for fire resistance.

EVAPORATOR COIL

Evaporator coil shall be constructed of inner grooved copper tubes 3/8" OD mechanically bonded to corrugated aluminium fins. Coil consists of headers of seamless copper tubing, thermostatic expansion valve(s) & multi-circuited distributor(s). These coils shall be tested against leakage by air pressure of 450 psig (3102Kpa) under water, cleaned & dehydrated at the factory. Coil shall conform to AHRI-410.

EVAPORATOR FAN AND MOTOR

Fans of evaporators shall be forward curved, double inlet double width (DIDW), centrifugal type, Statically & dynamically balanced, mounted on a single heavy duty statically & shaft with permanently lubricated bearings & driven by V belt with an adjustable variable pitch motor pulley. Motor shall be Totally Enclosed Fan Cooled (TEFC), 4 poles, class-F insulated, minimum IP55 protection & wired to unit control panel.

FILTERS

Air handling units shall be provided with air filter. Filter should be 1" (25mm) standard or 2" (50mm) thick optional washable aluminum media with average dust arrestance 54% based on ASHRAE standards 52.1.

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