

# AUMR + CADX-A Series

## Split Air Conditioners



50Hz

R-410A  
REFRIGERANT



Range 4 TR to 21 TR  
(14 kW to 74 kW)



## Contents

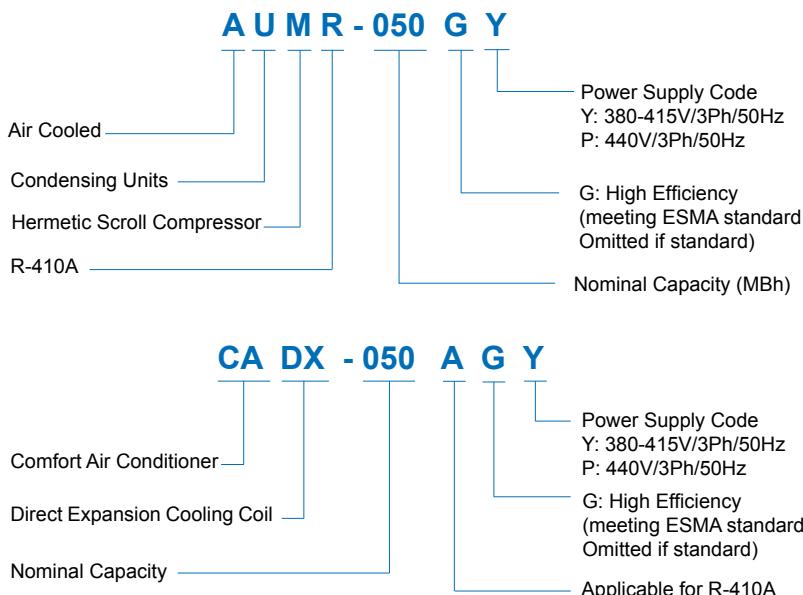
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## Legend

The following legends are used throughout this manual:

AFR .....	Air Flow Rate
BPF.....	By Pass Factor
CFM.....	Cubic feet per minute
EER.....	Energy Efficiency Ratio
ESP.....	External Static Pressure
Hz.....	Hertz
in. wg.....	Inch water gauge
kW.....	Kilowatts
kg.....	Kilogram
lbs.....	Pounds weight
L/s.....	Liters per second
MBh.....	BTUH x 1000
Pa.....	Pascal
Ph.....	Phase
PI....	Power Input of Compressor in kW
RPM.....	Revolutions Per Minute
RPS.....	Rated Power Supply
TR.....	Tons of Refrigeration
V.....	Volts

## Nomenclature



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

## Introduction

The new 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-A**) matched with floor mounted outdoor air cooled condensing unit (**AUMR**) series.

" AUMR + CADX-A series is also designed to perform as per ESMA regulation to achieve high efficiency level in gulf conditions.

SKM air cooled split air conditioners available in 12 variations to cover the range from 4 TR to 21 TR (**15 kW to 74 kW**) in 50Hz at nominal AHRI conditions. It is suitable to operate in a wide range of ambient temperatures from 50 °F (**10°C**) to 125°F (**51.7°C**), based on specific conditions & model applies.

SKM split units are internally wired and all that is required to be done on site is ducting, refrigerant piping, power wiring for **CADX-A** motor from **AUMR**, thermostat wiring and power supply connection which reduces installation work and consequently keeps costs to a minimum. 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**



## 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 **AUMR + CADX-A** is yet another model in the top class range of SKM products which uses the following basic components:

- High efficiency totally sealed scroll hermetic compressor.
- 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.

## Main Component Features

### AUMR Condensing Unit

#### Compressors

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

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

### Condenser Coils

Condenser coils are manufactured from Corrugated aluminium fins and Hi-X seamless copper tubes mechanically bonded to aluminium fins to ensure optimum heat transfer. All coils are tested against leakage by high 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. The TEAO and Class F insulation features ensure long life and are unique to SKM. The condenser fans are individually statically and dynamically balanced at the factory. Complete fan assembly is provided with acrylic coated fan guard.

### Control Panel

The AUMR 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 OR External overload protection for the motors (depending on the model).
- 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.
- Starter (contactor & overload relay) for **CADX-A** evaporator fan motor.  
(Power wiring from **AUMR** control panel to **CADX-A** motor to be done at site by others)

## Casing and Structure

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

## CADX-A 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 450 psig high pressure 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, IP-55 Protected, 4 pole Class F insulated electric motors. The motors are factory wired to the control panel where the motor starters are located to control the operation of the motors. The motors conform to relevant IEC standards.

### Filter

All **CADX-A** 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

The unit casing for **CADX-A** is made of zinc coated galvanized steel sheets conforming to JIS-G3302 and ASTM A653 which is phosphatized and baked after an electrostatic powder coat of approximately 60 microns. This finish and coating can pass a 1000 hour in 5% salt spray testing at 95°F ( $35^{\circ}\text{C}$ ) and 95% relative humidity as per ASTM B117. Panels and casing are insulated with 1" (25mm) thick fiberglass (with BGT coating) thermal and acoustic insulation having density of 2 lb/ft<sup>3</sup>. (32 kg/m<sup>3</sup>) and thermal conductivity of 0.23 BTU.in/ft<sup>2</sup>°Fh (0.033 W/m°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 ( $60^{\circ}\text{C}$ ).



## Optional Features

As with all SKM air conditioning units, the **AUMR** Series Split Units are available with multitude of optional features available on request:

### Double Skin Insulation (DSI)

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

### 2" (50mm) Flat Filter Section (FSIP2)

For heavy filtration need a section can be provided without or with aluminium cleanable filter (FSIP2).

### Alternative Condenser Material

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

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

### Alternate Evaporator Material

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

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

### Anti-Freeze Thermostat (AFT)

For evaporator coil freeze -up protection.

### Western Make Scroll Compressor (WMSC)

Western make scroll compressor.

### Compressor Run Hour Meter (RHM)

To monitor operating hours of each compressor.

### 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. For smaller heaters, power fuses can be provided if specified. Control of the heaters will be from the unit controller.

Following are the optional kW ratings for electric heater. Ratings other than those specified here can be supplied on request. Consult SKM for details. Following are the optional kW ratings for electric heater. Ratings other than those specified here can be supplied on request. Consult SKM for details. (Not available for High Efficiency models).

AUMR	CADX	Heater (kW)	Stages
050	050A	6	1
060	060A		
070	070A		
085	085A		
100	100A		
110	120A		
130	150A		
160	150A		
180	180A	18	2
205	180A		
240	240A		
260	240A	24	

Table 1

### Circuit Breaker for compressor (CBC)

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

### Rotalock Valves on compressors (RVC)

For additional facilitation of maintenance of unit.

### External Overload Protection (EOP)

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

### 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)

### 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. installation.

### Extra Ball Valve (XVF)

Extra ball valve can be incorporated in the liquid line.

### 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.

**Pressure relief valve**

(PRV)

To protect the unit from being over - pressurized.

**Pressure Gauges**

(SDG1)

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

**Manual Reset Type High Pressure Switch (MHP)**

To replace standard auto reset, capsule type pressure switch.

**Condenser Coil Guard**

(CGP)

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

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

(SDP)

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

**Stainless Steel Drain Pan**

(SSP)

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

**Up Size Evaporator Motor\*\***

(USM)

Unit with one up size evaporator motor.

(Not available for High Efficiency models).

**Pump Down Facility**

(PD)

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

With this option, each circuit will be provided with an additional discharge check valve (if required) to prevent Refrigerant Migration from High side to Low side when the compressor is off.  
Applicable for models from AUMR -050G to 260G.

**Circuit breaker for Motors\*\***

(CBM)

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

**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)

**Control Transformer**

(CXT)

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

(Not available for High Efficiency models).

**BMS Interface Volt Free Contacts**

(BMVF)

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

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

**Voltage Monitor Module**

(VMM)

Provides protection in the event of:

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

**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)

**Options for Field Installation****Low Voltage Thermostat**

(CHTS)

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

**Pump Down Facility with solenoid valve (PDS)**

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

Applicable for models from AUMR-050 to 260.

**Note:**

- \*DTS & BMSP options are only available along with AMCS option.
- \*\*If CBM combined with USM option please consult SKM as component might changed.
- Whenever multiple options related to unit control, please consult SKM for the drawings, as the size of the control panel might change.
- Solenoid valve is provided as Standard feature for High Efficiency series.

## CONDENSING UNIT SPECIFICATIONS - OUTDOOR

Condensing Unit		AUMR	050	060	070	085	100	110
Matched Air Handling Unit		CADX	050A	060A	070A	085A	100A	120A
Cooling Capacity (1)		MBh	50.6	63.3	73	83.3	96.1	116.8
		kW	14.8	18.6	21.4	24.4	28.2	34.2
Cooling Capacity (2)		MBh	45.1	55.5	65.3	74.5	86	102.9
		kW	13.2	16.3	19.1	21.8	25.2	30.2
Capacity Steps		%	100-0	100-0	100-0	100-0	100-0	100-50-0
Compressor	Type							
	Qty.		1	1	1	1	1	2
Outdoor Coil	Type							
	Qty.		1	1	1	1	1	2
	Face Area	ft <sup>2</sup>	20.0	26.7	26.7	26.7	26.7	40.0
		m <sup>2</sup>	1.86	2.48	2.48	2.48	2.48	3.72
No. of Refrigerant Circuits			1	1	1	1	1	2
Connections (3)	Liquid	in	1/2	1/2	1/2	1/2	1/2	1/2 (2x)
	Suction	in	7/8	7/8	7/8	1 1/8	1 1/8	7/8 (2x)
Outdoor Fan	Type							
	Code/Qty		550 / 1	710 / 1	710 / 1	710 / 1	710 / 1	550 / 2
Motor	Type		Totally Enclosed Air Over, Class-F insulation, 6 pole, IP54 / IP55 protected					
Refrigerant Operating Charge R-410A (4)	lbs		9.2	11.1	11.1	18.4	18.6	26.6
	kg		4.17	5.03	5.03	8.34	8.44	12.06
Operating Weight Approximate	lbs		325	362	362	443	450	700
	kg		147	164	164	201	204	318

Condensing Unit		AUMR	130	160	180	205	240	260
Matched Air Handling Unit		CADX	150A	150A	180A	180A	240A	240A
Cooling Capacity (1)		MBh	129	150.6	169	188.4	233.4	250.4
		kW	37.8	44.1	49.5	55.2	68.4	73.4
Cooling Capacity (2)		MBh	113.1	135.6	149.6	168.5	206.7	221.7
		kW	33.2	39.7	43.9	49.4	60.6	65
Capacity Steps		%	100-50-0	100-50-0	100-50-0	100-50-0	100-50-0	100-50-0
Compressor	Type							
	Qty.		2	2	2	2	2	2
Outdoor Coil	Type							
	Qty.		2	2	2	2	2	2
	Face Area	ft <sup>2</sup>	40.0	40.0	40.0	48.0	54.7	54.7
		m <sup>2</sup>	3.72	3.72	3.72	4.46	5.08	5.08
No. of Refrigerant Circuits			2	2	2	2	2	2
Connections (3)	Liquid	in	1/2 (2x)	1/2 (2x)	1/2 (2x)	1/2 (2x)	5/8 (2X)	5/8 (2X)
	Suction	in	7/8 (2x)	7/8 (2x)	1 1/8 (2X)	1 1/8 (2X)	1 1/8 (2X)	1 1/8 (2X)
Outdoor Fan	Type							
	Code/Qty		630 / 2	710 / 2	710 / 2	710 / 2	800 / 2	800 / 2
Motor	Type		Totally Enclosed Air Over, Class-F insulation,a 6 pole, IP54 / IP55 protected					
Refrigerant Operating Charge R-410A (4)	lbs		26.7	26.7	27.2	31.8	37.4	38.3
	kg		12.1	12.1	12.3	14.4	16.9	17.3
Operating Weight Approximate	lbs		714	780	856	940	988	988
	kg		324	354	388	426	448	448

### Notes:

- (1) Capacity ratings are based on AHRI Standard 210/240 & 340/360. Evaporator entering air conditions of 80°/67°F (27°/19.5°C) dry bulb/wet bulb and condenser entering air temperature of 95°F (35°C) dry bulb.
  - (2) Evaporator entering air conditions of 80°/67°F (27°/19.5°C) dry bulb/wet bulb and condenser entering air temperature of 114.8°F (46°C ) dry bulb.
  - (3) Connections are based on 25 ft maximum linear distance between the outdoor & indoor unit and 66 ft maximum lift.
  - (4) Refrigerant operating charge is for combined condensing unit with the matching air handling unit and 25 ft (7.6m) of interconnecting refrigerant lines.
- Capacity for condition (1)&(2) is gross which does not include the effect of evaporator fan motor heat.

Table 2

Condensing Unit		AUMR	130	160	180	205	240	260
Matched Air Handling Unit		CADX	150A	150A	180A	180A	240A	240A
Cooling Capacity (1)		MBh	129	150.6	169	188.4	233.4	250.4
		kW	37.8	44.1	49.5	55.2	68.4	73.4
Cooling Capacity (2)		MBh	113.1	135.6	149.6	168.5	206.7	221.7
		kW	33.2	39.7	43.9	49.4	60.6	65
Capacity Steps		%	100-50-0	100-50-0	100-50-0	100-50-0	100-50-0	100-50-0
Compressor	Type							
	Qty.		2	2	2	2	2	2
Outdoor Coil	Type							
	Qty.		2	2	2	2	2	2
	Face Area	ft <sup>2</sup>	40.0	40.0	40.0	48.0	54.7	54.7
		m <sup>2</sup>	3.72	3.72	3.72	4.46	5.08	5.08
No. of Refrigerant Circuits			2	2	2	2	2	2
Connections (3)	Liquid	in	1/2 (2x)	1/2 (2x)	1/2 (2x)	1/2 (2x)	5/8 (2X)	5/8 (2X)
	Suction	in	7/8 (2x)	7/8 (2x)	1 1/8 (2X)	1 1/8 (2X)	1 1/8 (2X)	1 1/8 (2X)
Outdoor Fan	Type							
	Code/Qty		630 / 2	710 / 2	710 / 2	710 / 2	800 / 2	800 / 2
Motor	Type		Totally Enclosed Air Over, Class-F insulation,a 6 pole, IP54 / IP55 protected					
Refrigerant Operating Charge R-410A (4)	lbs		26.7	26.7	27.2	31.8	37.4	38.3
	kg		12.1	12.1	12.3	14.4	16.9	17.3
Operating Weight Approximate	lbs		714	780	856	940	988	988
	kg		324	354	388	426	448	448

Table 3

## AIR HANDLING UNIT SPECIFICATIONS - INDOOR

Air Handling Unit		CADX	050A	060A	070A	085A	100A	120A
Matched Condensing Unit		AUMR	050	060	070	085	100	110
Cooling Capacity (1)		MBh	50.6	63.3	73	83.3	96.1	116.8
		kW	14.8	18.6	21.4	24.4	28.2	34.2
Cooling Capacity (2)		MBh	45.1	55.5	65.3	74.5	86	102.9
		kW	13.2	16.3	19.1	21.8	25.2	30.2
Indoor Coil	Type				Hi-X tubes 3/8" O/D			
	Face Area	ft <sup>2</sup>	4.17	5.81	5.81	6.25	7.99	7.99
		m <sup>2</sup>	0.39	0.54	0.54	0.58	0.74	0.74
Refrigerant Control				Thermostatic Expansion valve(s)				
Connections (3)	Liquid	in	1/2	1/2	1/2	1/2	1/2	1/2 ( 2x )
	Suction	in	7/8	7/8	7/8	1 1/8	1 1/8	7/8 ( 2x )
Indoor Fan	Type			Centrifugal DIDW Belt Drive				
	Code		10/10	10/10	10/10	12/12	12/12	12/12
		Air Flow	cfm	1700	2000	2400	3000	3600
	I/s		802	944	1133	1321	1416	1698
Motor	Type		Totally Enclosed Fan Cooled, Class-F insulation,4 Pole, IP55 protected					
	Size / Qty.	kW / #	0.55 / 1	0.55 / 1	0.75 / 1	1.1 / 1	1.1 / 1	1.5 / 1
Operating Weight Approximate		lbs	204	225	225	265	310	334
		kg	93	102	102	120	141	152

Air Handling Unit		CADX	150A	150A	180A	180A	240A	240A
Matched Condensing Unit		AUMR	130	160	180	205	240	260
Cooling Capacity (1)		MBh	129	150.6	169	188.4	233.4	250.4
		kW	37.8	44.1	49.5	55.2	68.4	73.4
Cooling Capacity (2)		MBh	113.1	135.6	149.6	168.5	206.7	221.7
		kW	33.2	39.7	43.9	49.4	60.6	65
Indoor Coil	Type		Hi-X tubes 3/8" O/D					
	Face Area	ft <sup>2</sup>	11.67	11.67	14.17	14.17	19.36	19.36
		m <sup>2</sup>	1.08	1.08	1.32	1.32	1.8	1.8
Refrigerant Control			Thermostatic Expansion valve(s)					
Connections (3)	Liquid	in	1/2 ( 2x )	1/2 ( 2x )	1/2 ( 2x )	1/2 ( 2x )	5/8 ( 2X )	5/8 ( 2X )
	Suction	in	7/8 ( 2x )	7/8 ( 2x )	1 1/8 ( 2X )			
Indoor Fan	Type		Centrifugal DIDW Belt Drive					
	Code		15/15	15/15	12/12 R2	12/12 R2	15/15 R2	15/15 R2
		Air Flow	cfm	4200	4800	5800	8000	8000
	I/s		1982	2265	2737	2926	3775	3775
Motor	Type		Totally Enclosed Fan Cooled, Class-F insulation,4 Pole, IP55 protected					
	Size / Qty.	kW / #	1.5 / 1	1.5 / 1	2.2 / 1	2.2 / 1	2.2 / 1	2.2 / 1
Operating Weight Approximate		lbs	442	442	473	473	642	642
		kg	201	201	214	214	291	291

### Notes:

- (1) Capacity ratings are based on AHRI Standard 210/240 & 340/360. Evaporator entering air conditions of 80°/67°F (27°/19.5°C) dry bulb/wet bulb and condenser entering air temperature of 95°F (35°C) dry bulb.
- (2) Evaporator entering air conditions of 80°/67°F (27°/19.5°C) dry bulb/wet bulb and condenser entering air temperature of 114.8°F (46°C) dry bulb.
- (3) Connections are based on 25 ft maximum linear distance between the outdoor & indoor unit and 66 ft maximum lift.

Capacity for condition (1)&(2) is gross which does not include the effect of evaporator fan motor heat.

Table 4

Table 5



## CONDENSING UNIT SPECIFICATIONS - OUTDOOR (HIGH EFFICIENCY)

Condensing Unit		AUMR	50 G	60 G	70 G	85 G	100 G	110 G
Matched Air Handling Unit	CADX	060AG	060A G	070A G	100A G	100A G	120A G	
Cooling Capacity (1)	MBh	50.7	60	71.2	78.8	88.5	107	
	kW	14.9	17.6	20.9	23.1	25.9	31.4	
	EER	8.1	8.2	8.3	8.2	8.2	8.3	
Capacity Steps	%	100-0	100-0	100-0	100-0	100-0	100-0	100-50-0
Compressor	Type				Hermetic - Scroll			
	Qty.	1	1	1	1	1	1	2
Outdoor Coil	Type				Hi-X tubes			
	Qty.	1	1	1	1	1	1	2
	Face Area	ft <sup>2</sup>	27.3	32	32	32	32	56
		m <sup>2</sup>	2.54	2.97	2.97	2.97	2.97	5.20
No. of Refrigerant Circuits		1	1	1	1	1	1	2
Connections (3)	Liquid	in	1/2	1/2	1/2	1/2	1/2	1/2 (2x)
	Suction	in	7/8	7/8	7/8	1 1/8	1 1/8	7/8 (2x)
Outdoor Fan	Type				Propeller Direct Drive			
	Code/Qty	630 / 1	710 / 1	710 / 1	710 / 1	710 / 1	710 / 1	710 / 2
Motor	Type			Totally Enclosed Air Over, Class-F insulation, 6 pole, IP54 / IP55 protected				
Refrigerant Operating Charge R-410A (4)	lbs	18.4	21.1	21.1	21.6	21.6	21.6	35.5
	kg	8.3	9.6	9.6	9.8	9.8	9.8	16.1
Operating Weight Approximate	lbs	413	472	472	509	516	516	900
	kg	187	215	215	231	233	233	408

Table 6

Condensing Unit		AUMR	130 G	160 G	180 G	205 G	240 G	260 G
Matched Air Handling Unit	CADX	150AG	150AG	180AG	180AG	240AG	240AG	
Cooling Capacity (1)	MBh	115.4	141.8	156.2	175.1	211.9	228.3	
	kW	33.8	41.5	45.8	51.3	62	66.9	
	EER	8.2	8.2	8.0	8.1	8.2	7.9	
Capacity Steps	%	100-50-0	100-50-0	100-50-0	100-50-0	100-50-0	100-50-0	100-50-0
Compressor	Type				Hermetic - Scroll			
	Qty.	2	2	2	2	2	2	2
Outdoor Coil	Type				Hi-X tubes			
	Qty.	2	2	2	2	2	2	2
	Face Area	ft <sup>2</sup>	56.0	56.0	56.0	56.0	54.7	54.7
		m <sup>2</sup>	5.20	5.20	5.20	5.20	5.08	5.08
No. of Refrigerant Circuits		2	2	2	2	2	2	2
Connections (3)	Liquid	in	1/2 (2x)	1/2 (2x)	1/2 (2x)	1/2 (2x)	5/8 (2X)	5/8 (2X)
	Suction	in	7/8 (2x)	7/8 (2x)	1 1/8 (2X)	1 1/8 (2X)	1 1/8 (2X)	1 1/8 (2X)
Outdoor Fan	Type				Propeller Direct Drive			
	Code/Qty	710 / 2	710 / 2	710 / 2	710 / 2	800 / 2	800 / 2	
Motor	Type			Totally Enclosed Air Over, Class-F insulation, 6 pole, IP54 / IP55 protected				
Refrigerant Operating Charge R-410A (4)	lbs	35.6	35.6	36.1	36.1	52.3	52.3	
	kg	16.1	16.1	16.4	16.4	23.7	23.7	
Operating Weight Approximate	lbs	900	900	976	992	1088	1088	
	kg	408	408	442	450	494	494	

Table 7

### 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.
- (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 - INDOOR (HIGH EFFICIENCY)

Air Handling Unit		CADX	060AG	060A G	070A G	100A G	100A G	120A G
Matched Condensing Unit		AUMR	50 G	60 G	70 G	85 G	100 G	110 G
Cooling Capacity (1)		MBh	50.7	60	71.2	78.8	88.5	107
		kW	14.9	17.6	20.9	23.1	25.9	31.4
Indoor Coil	Type	Hi-X tubes 3/8" O/D						
	Face Area	ft <sup>2</sup>	5.81	5.81	5.81	7.99	7.99	7.99
		m <sup>2</sup>	0.54	0.54	0.54	0.74	0.74	0.74
Refrigerant Control			Thermostatic Expansion valve(s)					
Connections (3)	Liquid	in	1/2	1/2	1/2	1/2	1/2	1/2 ( 2x )
	Suction	in	7/8	7/8	7/8	1 1/8	1 1/8	7/8 ( 2x )
Indoor Fan	Type	Centrifugal DIDW Belt Drive						
	Code	10/10	10/10	10/10	12/12	12/12	12/12	12/12
		Air Flow	1700	2000	2400	2800	3000	3600
	I/s		802	944	1133	1321	1416	1699
Motor	Type	Totally Enclosed Fan Cooled, Class-F insulation,4 Pole, IP55 protected						
	Size / Qty.	kW / #	0.55 / 1	0.55 / 1	0.75 / 1	1.1 / 1	1.1 / 1	1.5 / 1
Operating Weight Approximate		lbs	246	246	246	338	338	350
		kg	112	112	112	153	153	159

Table 8

Air Handling Unit		CADX	150AG	150AG	180AG	180AG	240AG	240AG
Matched Condensing Unit		AUMR	130 G	160 G	180 G	205 G	240 G	260 G
Cooling Capacity (1)		MBh	115.4	141.8	156.2	175.1	211.9	228.3
		kW	33.8	41.5	45.8	51.3	62	66.9
Indoor Coil	Type	Hi-X tubes 3/8" O/D						
	Face Area	ft <sup>2</sup>	11.67	11.67	14.17	14.17	19.36	19.36
		m <sup>2</sup>	1.08	1.08	1.32	1.32	1.8	1.8
Refrigerant Control			Thermostatic Expansion valve(s)					
Connections (3)	Liquid	in	1/2 ( 2x )	1/2 ( 2x )	1/2 ( 2x )	1/2 ( 2x )	5/8 ( 2X )	5/8 ( 2X )
	Suction	in	7/8 ( 2x )	7/8 ( 2x )	1 1/8 ( 2X )			
Indoor Fan	Type	Centrifugal DIDW Belt Drive						
	Code	15/15	15/15	12/12 R2	12/12 R2	15/15 R2	15/15 R2	15/15 R2
		Air Flow	4200	4800	5800	6200	8000	8000
	I/s		1982	2265	2737	2926	3775	3775
Motor	Type	Totally Enclosed Fan Cooled, Class-F insulation,4 Pole, IP55 protected						
	Size / Qty.	kW / #	1.5 / 1	1.5 / 1	2.2 / 1	2.2 / 1	2.2 / 1	2.2 / 1
Operating Weight Approximate		lbs	480	480	518	518	675	675
		kg	218	218	235	235	306	306

Table 9

### 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.



## GROSS CAPACITY RATINGS

AUMR + CADX	AFR cfm		EBW		Condenser Entering Air Temperature																							
	I/s (BPF)		95°F (35°C)				105°F (40.6°C)				114.8°F (46°C)				118.4°F (48°C)				125°F (51.7°C)									
	Total Capacity MBh	Sensible Capacity kW	PI kW	Total Capacity MBh	Sensible Capacity kW	PI kW	Total Capacity MBh	Sensible Capacity kW	PI kW	Total Capacity MBh	Sensible Capacity kW	PI kW	Total Capacity MBh	Sensible Capacity kW	PI kW	Total Capacity MBh	Sensible Capacity kW	PI kW										
050 + 050A	1146	62	16.7	44	12.9	36.4	10.7	4	41.4	12.1	35.2	10.3	4.6	38.4	11.2	33.9	9.9	5.2	37.3	10.9	33.4	9.8	5.4	35.5	10.4	32.6	9.6	5.8
	541	67	19.4	47.5	13.9	30.5	8.9	4	45	13.2	29.5	8.6	4.7	42.5	12.5	28.5	8.3	5.3	41.6	12.2	28.1	8.2	5.5	--	--	--	--	--
	0.17	72	22.2	51.2	15	24.5	7.2	4.1	48.5	14.2	23.5	6.9	4.7	45.8	13.4	22.6	6.6	5.3	44.8	13.1	22.2	6.5	5.5	--	--	--	--	--
	1700	62	16.7	45.7	13.4	43.8	12.8	4	42.8	12.5	42.6	12.5	4.6	40	11.7	40	11.7	5.2	39	11.4	39	11.4	5.5	37.2	10.9	37.2	10.9	5.8
	802	67	19.4	50.6	14.8	36.2	10.6	4.1	47.8	14	35.2	10.3	4.7	45.1	13.2	34.2	10	5.3	43.8	12.9	33.8	9.9	5.5	--	--	--	--	--
	0.22	72	22.2	54.2	15.9	28	8.2	4.2	51.3	15	27.1	7.9	4.8	48.5	14.2	26.2	7.7	5.4	47.4	13.9	25.8	7.6	5.5	--	--	--	--	--
	2299	62	16.7	46.9	13.7	46.9	13.7	4	44	12.9	44	12.9	4.6	41.2	12.1	41.2	12.1	5.3	40.2	11.8	40.2	11.8	5.5	--	--	--	--	--
060 + 060A	1082	67	19.4	52.5	15.4	41.7	12.2	4.1	49.2	14.4	40.6	11.9	4.7	45.8	13.4	39.4	11.6	5.3	44.7	13.1	39	11.4	5.5	--	--	--	--	--
	0.26	72	22.2	56	16.4	31.4	9.2	4.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	1597	62	16.7	55.8	16.3	48.2	14.1	4.6	52	15.2	46.6	13.7	5.3	48.3	14.2	45	13.2	6.1	47	13.8	44.5	13	6.3	44.6	13.1	43.5	12.7	6.8
	754	67	19.4	61.1	17.9	40.4	11.8	4.7	57.7	16.9	39.1	11.5	5.5	54.2	15.9	37.8	11.1	6.2	52.9	15.5	37.3	10.9	6.5	50.2	14.7	36.2	10.6	6.9
	0.17	72	22.2	65.9	19.3	32.2	9.4	4.8	62.1	18.2	30.9	9	5.6	58.1	17	29.5	8.6	6.4	56.7	16.6	29	8.5	6.6	--	--	--	--	--
	2000	62	16.7	56.8	16.7	53.7	15.7	4.7	53.2	15.6	52.2	15.3	5.3	49.6	14.5	49.6	14.5	6.1	48.3	14.1	48.3	14.1	6.4	45.9	13.5	45.9	13.5	6.8
	944	67	19.4	63.3	18.6	44.7	13.1	4.8	59.8	17.5	43.4	12.7	5.5	55.5	16.3	41.8	12.3	6.2	53.8	15.8	41.2	12.1	6.5	50.9	14.9	40.2	11.8	6.9
070 + 070A	0.19	72	22.2	68.1	20	34.8	10.2	4.9	64.1	18.8	33.5	9.8	5.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3193	62	16.7	59.5	17.4	59.5	17.4	4.7	55.9	16.4	55.9	16.4	5.4	52.2	15.3	52.2	15.3	6.2	50.8	14.9	50.8	14.9	6.4	48.3	14.2	48.3	14.2	6.9
	1507	67	19.4	66.3	19.4	55.8	16.3	4.8	61.8	18.1	54.2	15.9	5.6	57.3	16.8	52.6	15.4	6.3	55.7	16.3	52.1	15.3	6.6	52.8	15.5	51.1	15	7
	0.26	72	22.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	1597	62	16.7	63.3	18.5	51.6	15.1	5.5	59.9	17.6	50	14.7	6.3	55.9	16.4	48.3	14.2	7.1	54.4	15.9	47.6	14	7.3	51.7	15.2	46.5	13.6	7.8
	754	67	19.4	68.3	20	43.3	12.7	5.6	64.8	19	41.9	12.3	6.4	61.3	18	40.5	11.9	7.2	60	17.6	40	11.7	7.5	57.7	16.9	39.1	11.5	7.9
	0.17	72	22.2	73.7	21.6	35	10.2	5.7	70	20.5	33.6	9.9	6.5	66.2	19.4	32.3	9.5	7.3	64.8	19	31.8	9.3	7.6	--	--	--	--	--
070A + 070A	2400	62	16.7	66.3	19.4	62.5	18.3	5.5	62.1	18.2	60.7	17.8	6.3	58.1	17	58.1	17	7.1	56.6	16.6	56.6	16.6	7.4	54.1	15.9	54.1	15.9	7.9
	1133	67	19.4	73	21.4	51.7	15.1	5.7	69.2	20.3	50.3	14.7	6.5	65.3	19.1	48.8	14.3	7.3	63.9	18.7	48.3	14.2	7.6	--	--	--	--	--
	0.22	72	22.2	78.5	23	40.2	11.8	5.8	74.3	21.8	38.8	11.4	6.6	70.2	20.6	37.5	11	7.4	68.7	20.1	37	10.8	7.7	--	--	--	--	--
	3193	62	16.7	67.8	19.9	67.8	19.9	5.6	63.7	18.7	63.7	18.7	6.4	59.7	17.5	59.7	17.5	7.2	58.3	17.1	58.3	17.1	7.4	55.7	16.3	55.7	16.3	7.9
	1507	67	19.4	75.7	22.2	59.1	17.3	5.8	71.6	21	57.6	16.9	6.6	66.7	19.6	55.9	16.4	7.3	65	19	55.3	16.2	7.6	--	--	--	--	--
	0.26	72	22.2	81.1	23.8	44.8	13.1	5.9	76.8	22.5	43.4	12.7	6.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	1719	62	16.7	71.4	20.9	57	16.7	5.3	67.8	19.9	55.3	16.2	6.1	63.7	18.7	53.5	15.7	7.1	62	18.2	52.8	15.5	7.5	58.6	17.2	51.3	15	8.1
085 + 085A	811	67	19.4	76.9	22.5	48	14.1	5.4	73.2	21.4	46.5	13.6	6.2	69.1	20.2	44.8	13.1	7.2	67.6	19.8	44.2	13	7.6	64.8	19	43.1	12.6	8.2
	0.17	72	22.2	83	24.3	39	11.4	5.6	79.3	23.1	37.5	11	6.4	74.6	21.9	35.9	10.5	7.3	73	21.4	35.4	10.4	7.6	70	20.5	34.3	10.1	8.2
	2800	62	16.7	76	22.3	71.7	21	5.4	71.3	20.9	69.8	20.4	6.2	66.5	19.5	66.5	19.5	7.2	64.7	19	64.7	19	7.5	61.6	18.1	61.6	18.1	8.1
	1321	67	19.4	83.3	24.4	59.1	17.3	5.6	79	23.2	57.6	16.9	6.4	74.5	21.8	55.9	16.4	7.3	72.8	21.4	55.3	16.2	7.6	69.5	20.4	54.1	15.9	8.2
	0.23	72	22.2	89.6	26.3	46	13.5	5.7	84.9	24.9	44.4	13	6.6	80.1	23.5	42.9	12.6	7.4	78.3	22.9	42.3	12.4	7.7	75	22	41.3	12.1	8.1
	3438	62	16.7	77.1	22.6	52.6	15.4	5.7	72.5	21.2	62	17.8	6.9	67.8	19.9	72	16.6	7.2	66	19.3	66	19.3	7.5	62.9	18.4	81	18.4	8.1
	1623	67	19.4	85.5	25.1	65	19	5.6	81.1	23.8	63.4	18.6	6.5	76.2	22.3	61.7	18.1	7.3	74	21.7	61	17.9	7.4	59.6	17.5	7.2	17.5	8.2
	0.26	72	22.2	91.8	26.9	49.6	14.5	5.8	86.9	25.5	48.1	14.1	6.6	81.9	24	46.5	13.6	7.4	--	--	--	--	--	--	--	--	--	
100 + 100A	2196	62	16.7	84.5	24.8	69.8	20.4	6.4	79.8	23.4	67.7	19.8	7.3	74.1	21.7	65.2	19.1	8.2	72	21.1	64.3	18.8	8.6	68.5	20.1	62.8	18.4	9.2
	1036	67	19.4	105.7	31	66.5	19.5	7.7	100.3	29.4	64.3	18.8	8.8	94.6	27.7	61.9	18.2	10.1	92.5	27.1	61.1	17.9	10.5	88.7	26	59.6	17.5	11.2
	0.09	72	22.2	114.3	33.5	54.2	15.9	7.8	106.5	31.6	51	15.2	8.9	102.5	30	49.8	14.6	10	100.2	29.4	49	14.4	10	96.2	28.2	47.5	13.9	11.1
	3600	62	16.7	104.2	30.5	100.8	29.5	7.7	97.9	28.7	97.9	28.7	8.8	91.4	26.8	91.4	26.8	10.1	89.1	26.1	89.1	26.1	10.5	84.9	24.9	84.9	24.9	11.3
	1699	67	19.4	116.8	34.2	84	24.6	7.8	110.6	32.4	81.6	23.9	8.9	102.9	30.2	78.8	23.1	10.1	100.1	29.3	77.8	22.8	10.4	95.3	27.9	76	22.3	11.1
	4392	62	16.7	106.6	31.3	81.3	7.7	100.4	29.4	100.4	29.4	8.8	93.8	27.5	93.8	27.5	10.1	91.5	26.8	91.5	26.8	10.5	87.3	25.6	87.3	25.6	11.2	
	2073	67	19.4	120	35.2	92.6	27.1	7.8	112.2	32.9	89.7	26.3	8.9	104.6	30.7	87	25.5	10	101.9	29.9	86.1	25.2	10.4	97.1	28.5	84.4	24.7	11.1
110 + 120A	0.14	72	22.2	128.8	37.7	70.6	20.7	7.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3208	62	16.7	119.3	33.1	97.3	28.5	9	106.4	30.9	94	27.5	10.4	97.9	28.7	90.8	26.6	11.9	95.3	27.9	89.7	26.3	12.4	90.5	26.5	87.7		

Table 10

**See Notes on page 12**

## GROSS CAPACITY RATINGS

AUMR + CADX	AFR cfm l/s (RPF)	EWB	Condenser Entering Air Temperature																									
			95°F (35°C)				105°F (40.6°C)				114.8°F (46°C)				118.4°F (48°C)				125°F (51.7°C)									
			Total Capacity	Sensible Capacity	PI	Total Capacity	Sensible Capacity	PI	Total Capacity	Sensible Capacity	PI	Total Capacity	Sensible Capacity	PI	Total Capacity	Sensible Capacity	PI	Total Capacity	Sensible Capacity	PI	Total Capacity	Sensible Capacity	PI					
180	4604	62	16.7	149.6	43.8	132.2	38.8	11.1	139.9	41	128.1	37.6	12.8	130.2	38.2	124.1	36.4	14.7	126.7	37.1	122.6	35.9	15.4	120.6	35.4	120.1	35.2	16.6
	2173	67	19.4	163.3	47.9	110.1	32.3	11.4	154.7	45.3	106.8	31.3	13.2	145.7	42.7	103.5	30.3	15	142.4	41.8	102.2	30	15.6	136.1	39.9	99.8	29.3	16.7
	0.19	72	22.2	175.6	51.5	86.9	25.5	11.8	166.2	48.7	83.7	24.5	13.5	156.6	45.9	80.5	23.6	15.1	153.1	44.9	79.3	23.2	15.7	146.7	43	77.2	22.6	16.6
	5800	62	16.7	152.3	44.6	147.8	43.3	11.2	143	41.9	143	41.9	12.9	133.5	39.1	133.5	39.1	14.8	130	38.1	130	38.1	15.5	124	36.3	124	36.3	16.6
	2737	67	19.4	169	49.5	122.2	35.8	11.6	159.9	46.9	118.9	34.9	13.3	149.6	43.9	115.2	33.8	15.1	145.4	42.6	113.7	33.3	15.7	138.1	40.5	111.1	32.6	16.6
180A	0.22	72	22.2	181.2	53.1	94.4	27.7	12	171.3	50.2	91.2	26.7	13.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7792	62	16.7	156.2	45.8	156.2	45.8	11.3	147	43.1	147	43.1	13	137.5	40.3	137.5	40.3	14.9	134	39.3	134	39.3	15.6	127.9	37.5	127.9	37.5	16.6
	3677	67	19.4	175.1	51.3	140.7	41.2	11.8	163.5	47.9	136.7	40.1	13.4	152.2	44.6	132.7	38.9	15.1	148.2	43.4	131.4	38.5	15.7	141.1	41.4	128.9	37.8	16.6
	0.26	72	22.2	187.2	54.9	105.9	31	12.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	4604	62	16.7	166.4	48.8	139.6	40.9	12.9	157.6	46.2	135.7	39.8	14.7	146.4	42.9	130.9	38.4	16.6	142.3	41.7	129.1	37.8	17.3	135.2	39.6	126.1	37	18.5
205	2173	67	19.4	179.7	52.7	116.5	34.2	13.1	170.6	50	113	33.1	15	161.1	47.2	109.2	32	16.9	157.6	46.2	107.9	31.6	17.6	151.3	44.4	105.6	30.9	18.7
	0.19	72	22.2	193.8	56.8	93.3	27.3	13.4	184	53.9	89.8	26.3	15.2	173.8	50.9	86.3	25.3	17.2	170	49.8	85	24.9	17.9	163.3	47.9	82.7	24.2	19
	6200	62	16.7	172.4	50.5	160.8	47.1	13	161.3	47.3	156.3	45.8	14.8	150.3	44.1	150.3	44.1	16.7	146.4	42.9	146.4	42.9	17.4	139.6	40.9	139.6	40.9	18.5
	2926	67	19.4	188.4	55.2	132.7	36.9	13.3	178.6	52.4	129.1	37.8	15.1	168.5	49.4	125.4	36.7	17	164.8	48.3	124	36.4	17.7	157.9	46.3	121.6	35.6	18.9
	0.22	72	22.2	202.6	59.4	103.3	30.3	13.5	191.9	56.3	99.9	29.3	15.4	181.1	53.1	96.4	28.2	17.4	177.2	51.9	95.1	27.9	18.1	170.2	49.9	92.9	27.2	19.2
180A	7792	62	16.7	175	51.3	175	51.3	13	164.3	48.2	164.3	48.2	14.8	153.6	45	16.7	149.7	43.9	149.7	43.9	17.4	142.9	41.9	142.9	41.9	41.9	18.6	
	3677	67	19.4	194	56.9	147.4	43.2	13.4	183.8	53.9	143.8	42.1	15.2	172.8	50.7	139.9	41	17.1	168.1	49.3	138.3	40.5	17.8	159.9	46.9	135.4	39.7	18.9
	0.26	72	22.2	208.1	61	112.5	33	13.6	197	57.7	108.9	31.9	15.5	186	54.5	105.5	30.9	17.5	--	--	--	--	--	--	--	--	--	--
	6292	62	16.7	205.9	60.4	181.4	53.2	14.5	192.4	56.4	175.6	51.5	16.7	178.9	52.4	169.9	49.8	19.1	174	51	167.9	49.2	20	165.4	48.5	164.4	48.2	21.5
	2969	67	19.4	225	65.9	151.2	44.3	14.8	213.2	62.5	146.7	43	17	200.7	58.8	142	41.6	19.4	196	57.5	140.2	41.1	20.3	187.5	55	137	40.2	21.8
240	0.19	72	22.2	242.4	71.1	119.6	35.1	15.1	229.5	67.3	115.2	33.8	17.4	215.9	63.3	110.6	32.4	19.7	211	61.8	109	31.9	20.5	202.4	59.3	106.1	31.1	21.9
	8000	62	16.7	209.9	61.5	203.6	59.7	14.6	196.9	57.7	167	183.7	53.8	183.7	53.8	19.2	178.9	52.4	178.9	52.4	20.1	170.3	49.9	170.3	49.9	21.6		
	3776	67	19.4	233.4	68.4	168.6	49.4	14.9	220.9	64.8	164	48.1	17.2	206.7	60.6	158.8	46.6	19.5	200.8	58.8	156.7	45.9	20.4	190.5	55.8	153.1	44.9	21.8
	0.22	72	22.2	250.6	73.5	130.4	38.2	15.3	237	69.5	126	36.9	17.6	223	65.4	121.5	35.6	19.8	--	--	--	--	--	--	--	--	--	--
	10649	62	16.7	215.2	63.1	215.2	63.1	14.6	202.4	59.3	202.4	59.3	16.8	189.2	55.4	189.2	55.4	19.3	184.3	54	184.3	54	20.1	175.6	51.5	175.6	51.5	21.6
240A	5026	67	19.4	241.9	70.9	193.2	56.6	15.1	226.3	66.3	187.8	55	17.3	210.2	61.6	182.2	53.4	19.6	204.5	59.9	180.2	52.8	20.4	194.6	57	176.8	51.8	21.8
	0.26	72	22.2	258.9	75.9	145.6	42.7	15.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6292	62	16.7	223.1	65.4	188.8	55.3	16.8	209.5	61.4	182.9	53.6	19.4	193.2	56.6	176	51.6	22.1	187.5	54.9	173.5	50.9	23.1	177.4	52	169.3	49.6	24.8
	2969	67	19.4	241.1	70.7	157.5	46.2	17.1	227.8	66.8	152.3	44.6	19.8	213.9	62.7	146.9	43.1	22.6	208.7	61.2	145	42.5	23.5	199.5	58.5	141.5	41.5	25.2
	0.19	72	22.2	259.8	76.2	125.7	36.8	17.5	245.5	71.9	120.7	35.4	20.2	230.3	67.5	115.4	33.8	23	224.7	65.9	113.5	33.3	23.9	214.9	63	110.2	32.3	25.6
260	8000	62	16.7	229.1	67.2	211.6	62	16.9	213.3	62.5	205	60.1	19.5	197.7	57.9	197.7	57.9	22.2	192.1	56.3	192.1	56.3	23.2	182.3	53.4	182.3	53.4	24.9
	3776	67	19.4	250.4	73.4	175	51.3	17.3	236.4	69.3	169.7	49.7	20	221.7	65	164.3	48.1	22.7	216.3	63.4	162.3	47.6	23.7	205.3	60.2	158.3	46.4	25.3
	0.22	72	22.2	269.3	78.9	136.6	40	17.7	253.8	74.4	131.4	38.5	20.4	237.9	69.7	126.3	37	23.2	232.2	68.1	124.4	36.5	24.2	222	65.1	121.1	35.5	25.8
	10649	62	16.7	233.8	68.5	233.8	68.5	17	218.5	64	218.5	64	19.6	203.2	59.6	203.2	59.6	22.3	197.7	57.9	197.7	57.9	23.3	187.8	55.1	187.8	55.1	25
	5026	67	19.4	259.9	76.2	199.6	58.5	17.5	245	71.8	194.3	56.9	20.2	227.2	66.6	188.1	55.1	22.9	220.5	64.6	185.7	54.4	23.8	208.8	61.2	181.7	53.3	25.4
240A	0.26	72	22.2	278.4	81.6	151.8	44.5	17.8	262.1	76.8	146.7	43	20.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 11

## GROSS CAPACITY RATINGS (HIGH EFFICIENCY)

AUMR + CADX	AFR cfm l/s	EWB	Condenser Entering Air Temperature																									
			95°F (35°C)				105°F (40.6°C)				114.8°F (46°C)				118.4°F (48°C)				125°F (51.7°C)									
			Total Capacity	Sensible Capacity	PI	Total Capacity	Sensible Capacity	PI	Total Capacity	Sensible Capacity	PI	Total Capacity	Sensible Capacity	PI	Total Capacity	Sensible Capacity	PI	Total Capacity	Sensible Capacity	PI	Total Capacity	Sensible Capacity	PI					
	(BPF)	°F	°C	MBh	kW	MBh	kW	MBh	kW	MBh	kW	MBh	kW	MBh	kW	MBh	kW	MBh	kW	MBh	kW	MBh	kW					
050 G + 060AG	1597	62	16.7	52.3	15.3	52.3	15.3	3.5	49.5	14.5	49.5	14.5	4.0	48.7	14.3	48.7	14.3	4.6	47.5	13.9	47.5	13.9	4.9	45.4	13.3	45.4	13.3	5.3
	754	66.2	19.0	56.4	16.5	49.6	14.5	3.5	53.3	15.6	48.4	14.2	4.0	50.2	14.7	47.2	13.8	4.7	49.0	14.4	46.8	13.7	4.9	47.0	13.8	46.0	13.5	5.3
	0.05	72	22.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	1700	62	16.7	52.9	15.5	52.9	15.5	3.5	50.1	14.7	50.1	14.7	4.0	49.2	14.4	49.2	14.4	4.6	48.0	14.1	48.0	14.1	4.9	45.9	13.4	45.9	13.4	5.3
	802	66.2	19.0	57.0	16.7	51.5	15.1	3.5	53.8	15.8	50.3	14.7	4.0	50.7	14.9	49.1	14.4	4.7	49.5	14.5	48.7	14.3	4.9	47.4	13.9	47.4	13.9	5.3
	0.06	72	22.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	3193	62	16.7	59.9	17.5	59.9	17.5	3.5	56.4	16.5	56.4	16.5	4.1	53.0	15.5	53.0	15.5	4.7	51.7	15.2	51.7	15.2	4.9	--	--	--	--	--
	1507	66.2	19.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
060 G + 060AG	0.1	72	22.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	1597	62	16.7	60.0	17.6	60.0	17.6	4.2	56.8	16.7	56.8	16.7	4.8	53.4	15.6	53.4	15.6	5.6	52.1	15.3	52.1	15.3	5.8	49.7	14.6	49.7	14.6	6.3
	754	66.2	19.0	65.8	19.3	53.4	15.7	4.3	61.9	18.1	51.8	15.2	4.9	57.9	17.0	50.2	14.7	5.6	56.4	16.5	49.6	14.5	5.9	53.7	15.7	48.6	14.2	6.4
	0.05	72	22.2	73.1	21.4	43.2	12.7	4.4	69.3	20.3	41.8	12.3	5.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	2000	62	16.7	62.7	18.4	62.7	18.4	4.3	59.4	17.4	59.4	17.4	4.9	55.7	16.3	55.7	16.3	5.6	56.7	16.6	56.7	16.6	5.9	53.9	15.8	53.9	15.8	6.4
	944	66.2	19.0	67.9	19.9	60.5	17.7	4.3	64.1	18.8	59.1	17.3	4.9	60.0	17.6	57.5	16.9	5.7	58.4	17.1	56.9	16.7	5.9	55.6	16.3	55.6	16.3	6.5
	0.07	72	22.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	3193	62	16.7	70.4	20.6	70.4	20.6	4.3	66.3	19.4	50.0	16.8	18.1	61.8	18.1	61.8	18.1	5.7	60.1	17.6	60.1	17.6	6.0	56.9	16.7	56.9	16.7	6.5
	1507	66.2	19.0	72.7	21.3	72.7	21.3	4.4	68.6	20.1	50.0	16.8	18.8	64.0	18.8	64.0	18.8	5.8	62.3	18.3	62.3	18.3	6.1	--	--	--	--	--
070 G + 070AG	0.1	72	22.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	1597	62	16.7	68.4	20.1	64.2	18.8	4.9	64.7	19.0	62.4	18.3	5.6	61.0	17.9	60.8	17.8	6.4	59.6	17.5	59.6	17.5	6.7	57.1	16.7	57.1	16.7	7.3
	754	66.2	19.0	75.4	22.1	57.5	16.8	5.0	71.8	21.1	55.9	16.4	5.7	67.2	19.7	54.0	15.8	6.5	65.5	19.2	53.3	15.6	6.8	62.4	18.3	52.0	15.3	7.3
	0.05	72	22.2	82.5	24.2	46.7	13.7	5.1	78.5	23.0	45.2	13.2	5.8	74.4	21.8	43.6	12.8	6.6	72.8	21.3	43.1	12.6	6.9	70.0	20.5	42.1	12.3	7.4
	2400	62	16.7	73.7	21.6	73.7	21.6	5.0	69.9	20.5	69.9	20.5	5.7	66.0	19.3	66.0	19.3	6.5	64.4	18.9	64.4	18.9	6.8	64.4	18.9	64.4	18.9	7.4
	1133	66.2	19.0	79.9	23.4	71.4	20.9	5.1	75.6	22.2	69.7	20.4	5.8	71.2	20.9	68.1	20.0	6.6	69.5	20.4	67.5	19.8	6.9	66.5	19.5	66.3	19.4	7.4
	0.08	72	22.2	89.3	26.2	56.8	16.6	5.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3193	62	16.7	77.2	22.6	77.2	22.6	5.0	76.3	22.4	76.3	22.4	5.8	71.8	21.0	71.8	21.0	6.6	70.1	20.5	70.1	20.5	6.9	66.9	19.6	66.9	19.6	7.4
	1507	66.2	19.0	83.1	24.4	83.1	24.4	5.1	78.7	23.1	78.7	23.1	5.8	74.1	21.7	74.1	21.7	6.6	72.4	21.2	72.4	21.2	6.9	69.3	20.3	69.3	20.3	7.4
085 G + 100AG	0.1	72	22.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	2196	62	16.7	79.2	23.2	79.2	23.2	5.4	75.0	22.0	75.0	22.0	6.2	70.4	20.6	70.4	20.6	7.1	68.7	20.1	68.7	20.1	7.5	65.6	19.2	65.6	19.2	8.1
	1036	66.2	19.0	86.0	25.2	71.6	21.0	5.5	81.0	23.7	69.6	20.4	6.3	75.9	22.3	67.6	19.8	7.2	74.1	21.7	66.9	19.6	7.5	70.7	20.7	65.6	19.2	8.1
	0.05	72	22.2	95.6	28.0	57.6	16.9	5.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	2800	62	16.7	82.8	24.3	82.8	24.3	5.5	78.3	22.9	78.3	22.9	6.3	76.5	22.4	76.5	22.4	7.2	74.5	21.8	74.5	21.8	7.5	71.0	20.8	71.0	20.8	8.1
	1321	66.2	19.0	89.1	26.1	82.4	24.1	5.6	84.1	24.6	80.5	23.6	6.4	78.8	23.1	78.5	23.0	7.3	76.9	22.5	76.9	22.5	7.6	73.4	21.5	73.4	21.5	8.1
	0.07	72	22.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	4392	62	16.7	91.7	26.9	91.7	26.9	5.7	86.3	25.3	86.3	25.3	6.5	80.7	23.6	80.7	23.6	7.3	78.6	23.0	78.6	23.0	7.6	74.8	21.9	74.8	21.9	8.1
100 G + 100AG	2073	66.2	19.0	94.6	27.7	94.6	27.7	5.8	89.2	26.1	89.2	26.1	6.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	0.1	72	22.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	2196	62	16.7	87.4	25.6	85.2	25.0	6.3	82.7	24.2	82.7	24.2	7.2	77.6	22.8	77.6	22.8	8.2	75.8	22.2	75.8	22.2	8.5	72.5	21.2	72.5	21.2	9.1
	1036	66.2	19.0	96.4	28.3	75.9	22.3	6.5	90.4	26.5	73.4	21.5	7.3	84.4	24.7	71.0	20.8	8.3	82.3	24.1	70.1	20.6	8.6	78.5	23.0	68.6	20.1	9.2
	0.05	72	22.2	105.3	30.9	61.1	17.9	6.6	99.8	29.3	59.1	17.3	7.5	94.3	27.6	57.2	16.8	8.5	92.3	27.0	56.4	16.5	8.9	--	--	--	--	--
	3000	62	16.7	92.6	27.1	92.6	27.1	6.4	87.6	25.7	87.6	25.7	7.3	82.2	24.1	82.2	24.1	8.2	80.3	23.5	80.3	23.5	8.6	80.0	23.5	80.0	23.5	9.3
	1416	66.2	19.0	100.0	29.3	87.6	26.3	6.5	94.3	27.7	87.5	25.7	7.4	88.5	25.9	85.3	25.0	8.4	86.4	25.3	84.5	24.8	8.7	82.6	24.2	82.6	24.2	9.3
	0.07	72	22.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
110 G + 120AG	4392	62	16.7	102.3	30.0	102.3	30.0	6.6	96.3	28.2	96.3	28.2	7.5	90.2	26.4	90.2	26.4	8.4	87.9	25.8	87.9</td							

## GROSS CAPACITY RATINGS (HIGH EFFICIENCY)

AUMR + CADX	AFR cfm l/s	EWB	Condenser Entering Air Temperature																													
			95°F (35°C)						105°F (40.6°C)						114.8°F (46°C)						118.4°F (48°C)						125°F (51.7°C)					
			Total Capacity	Sensible Capacity	PI	Total Capacity	Sensible Capacity	PI	Total Capacity	Sensible Capacity	PI	Total Capacity	Sensible Capacity	PI	Total Capacity	Sensible Capacity	PI	Total Capacity	Sensible Capacity	PI	Total Capacity	Sensible Capacity	PI	Total Capacity	Sensible Capacity	PI						
(BPF)	°F	°C	MBh	kW	MBh	kW	MBh	kW	MBh	kW	MBh	kW	MBh	kW	MBh	kW	MBh	kW	MBh	kW	MBh	kW	MBh	kW	MBh	kW	MBh	kW				
160 G + 150AG	3208	62	16.7	136.5	40.0	128.4	37.6	9.9	129.1	37.8	125.0	36.6	11.3	121.6	35.7	121.6	35.7	12.9	118.9	34.8	118.9	34.8	13.5	113.9	33.4	113.9	33.4	14.6				
	1514	66.2	19.0	150.5	44.1	115.0	33.7	10.1	143.2	42.0	111.9	32.8	11.5	133.7	39.2	108.0	31.6	13.1	130.3	38.2	106.6	31.2	13.7	124.3	36.4	104.1	30.5	14.8				
	0.05	72	22.2	164.5	48.2	93.3	27.3	10.3	156.6	45.9	90.3	26.5	11.8	148.2	43.4	87.2	25.6	13.4	145.1	42.5	86.1	25.2	14.0	139.5	40.9	84.1	24.7	15.0				
	4800	62	16.7	146.8	43.0	146.8	43.0	10.1	139.3	40.8	139.3	40.8	11.5	131.4	38.5	131.4	38.5	13.1	128.3	37.6	128.3	37.6	13.7	128.3	37.6	128.3	37.6	14.8				
	2265	66.2	19.0	159.2	46.7	142.6	41.8	10.2	150.6	44.1	139.3	40.8	11.7	141.8	41.5	135.9	39.8	13.3	138.4	40.6	134.7	39.5	13.9	132.4	38.8	132.4	38.8	14.9				
	0.08	72	22.2	177.9	52.1	113.3	33.2	10.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
	6417	62	16.7	153.9	45.1	153.9	45.1	10.2	152.0	44.6	152.0	44.6	11.7	142.9	41.9	142.9	41.9	13.3	139.5	40.9	139.5	40.9	13.9	133.3	39.1	133.3	39.1	14.9				
	3028	66.2	19.0	165.7	48.6	165.7	48.6	10.3	156.7	45.9	156.7	45.9	11.8	147.5	43.2	147.5	43.2	13.4	144.1	42.2	144.1	42.2	14.0	138.0	40.4	138.0	40.4	15.0				
	0.1	72	22.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
180 G + 180AG	3905	62	16.7	152.9	44.8	150.3	44.0	10.8	144.6	42.4	144.6	42.4	12.4	135.7	39.8	135.7	39.8	14.3	132.4	38.8	132.4	38.8	15.0	126.4	37.1	126.4	37.1	16.2				
	1843	66.2	19.0	168.0	49.2	133.6	39.1	11.1	157.6	46.2	129.3	37.9	12.7	147.1	43.1	125.0	36.6	14.5	143.3	42.0	123.5	36.2	15.2	136.7	40.1	120.9	35.4	16.3				
	0.05	72	22.2	184.2	54.0	107.6	31.5	11.6	174.5	51.1	104.0	30.5	13.2	164.8	48.2	100.5	29.5	14.7	--	--	--	--	--	--	--	--	--	--	--			
	5800	62	16.7	164.3	48.2	164.3	48.2	11.0	155.2	45.5	155.2	45.5	12.7	151.6	44.4	151.6	44.4	14.6	147.7	43.3	147.7	43.3	15.2	140.8	41.3	140.8	41.3	16.3				
	2737	66.2	19.0	176.8	51.8	166.4	48.8	11.4	166.6	48.8	162.6	47.6	13.0	156.2	45.8	156.2	45.8	14.7	152.3	44.6	152.3	44.6	15.2	145.4	42.6	145.4	42.6	16.3				
	0.08	72	22.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
	7792	62	16.7	178.5	52.3	178.5	52.3	11.4	167.9	49.2	167.9	49.2	13.0	157.0	46.0	157.0	46.0	14.7	153.0	44.8	153.0	44.8	15.2	145.7	42.7	145.7	42.7	16.3				
	3677	66.2	19.0	183.7	53.8	153.8	53.8	11.5	173.1	50.7	173.1	50.7	13.1	162.4	47.6	162.4	47.6	14.7	158.4	46.4	158.4	46.4	15.2	--	--	--	--	--				
	0.1	72	22.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
205 G + 180AG	3905	62	16.7	169.2	49.6	157.7	46.2	12.7	159.4	46.7	153.2	44.9	14.5	149.5	43.8	148.7	43.8	14.4	145.8	42.7	145.8	42.7	17.1	139.4	40.8	139.4	40.8	18.3				
	1843	66.2	19.0	185.7	54.4	141.1	43.3	13.0	176.3	51.7	137.0	40.2	14.8	164.2	48.1	132.0	38.7	16.7	159.7	46.8	130.2	38.1	17.4	152.1	44.6	127.0	37.2	18.5				
	0.05	72	22.2	202.6	59.4	114.4	33.5	13.3	192.1	56.3	110.5	32.4	15.1	181.3	53.2	106.5	31.2	17.1	177.4	52.0	105.1	30.8	17.8	170.4	50.0	102.6	30.1	19.0				
	8200	62	16.7	183.4	53.8	183.4	53.8	13.0	173.4	50.8	173.4	50.8	14.8	162.7	47.7	162.7	47.7	16.7	158.8	46.5	158.8	46.5	17.3	158.4	46.4	158.4	46.4	18.7				
	2926	66.2	19.0	198.1	58.1	180.6	52.9	13.2	186.7	54.7	176.4	51.7	15.0	175.1	51.3	172.0	50.4	16.9	170.9	50.1	170.4	49.9	17.6	163.4	47.9	163.4	47.9	18.8				
	0.08	72	22.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
	7792	62	16.7	190.0	55.7	190.0	55.7	13.1	186.8	54.7	186.8	54.7	15.0	175.1	51.3	175.1	51.3	16.9	170.7	50.0	170.7	50.0	17.6	163.0	47.8	163.0	47.8	18.8				
	3677	66.2	19.0	204.1	59.8	204.1	59.8	13.3	192.3	56.4	192.3	56.4	15.1	180.5	52.9	180.5	52.9	17.1	176.2	51.7	176.2	51.7	17.7	168.6	49.4	168.6	49.4	18.9				
	0.1	72	22.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
240 G + 240AG	5335	62	16.7	207.0	60.7	199.9	58.6	13.9	195.3	57.3	194.7	57.1	16.0	183.2	53.7	183.2	53.7	18.4	178.6	52.3	178.6	52.3	19.3	170.3	49.9	170.3	49.9	20.9				
	2518	66.2	19.0	228.5	67.0	178.4	52.3	14.1	216.0	63.3	173.2	50.8	16.2	200.7	58.8	167.0	48.9	18.6	195.2	57.2	164.8	48.3	19.5	185.5	54.4	160.9	47.2	21.1				
	0.09	72	22.2	249.6	73.1	143.7	42.1	14.5	236.8	69.4	139.1	40.8	16.6	223.1	65.4	134.2	39.3	19.0	218.1	63.9	132.5	38.8	19.8	209.0	61.3	129.3	37.9	21.2				
	8000	62	16.7	221.3	64.9	221.3	64.9	14.1	209.4	61.4	209.4	61.4	16.1	196.3	57.5	196.3	57.5	18.6	191.4	56.1	191.4	56.1	19.5	190.6	55.9	190.6	55.9	21.1				
	3776	66.2	19.0	240.0	70.3	220.4	64.6	14.3	226.3	66.3	215.3	63.1	16.4	211.9	62.1	209.8	61.5	18.8	206.5	60.5	206.5	60.5	19.6	196.8	57.7	196.8	57.7	21.1				
	0.12	72	22.2	267.5	78.4	174.0	51.0	14.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
	10649	62	16.7	230.5	67.6	230.5	67.6	14.2	217.7	63.8	217.7	63.8	16.3	212.4	62.2	212.4	62.2	18.8	206.8	60.6	206.8	60.6	19.6	196.9	57.7	196.9	57.7	21.1				
	5026	66.2	19.0	248.0	72.7	248.0	72.7	14.4	233.9	68.6	233.9	68.6	16.6	219.0	64.2	219.0	64.2	18.9	213.5	62.6	213.5	62.6	19.7	203.8	59.7	203.8	59.7	21.2				
	0.14	72	22.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
260 G + 240AG	5335	62	16.7	225.5	66.1	208.3	61.1	16.0	211.4	62.0	201.9	59.2	18.4	197.1	57.8	195.4	57.3	21.2	191.8	56.2	191.8	56.2	22.2	182.4	53.5	182.4	53.5	24.0				
	2518	66.2	19.0	245.7	72.0	185.6	54.4	16.3	232.7	68.2	180.1	52.8	18.8	218.2	63.9	174.1	51.0	21.6	211.6	62.0	171.4	50.2	22.6	199.9	58.6	166.7	48.9	24.3				



## Fan Performance

AUMR + CADX A	Air Flow Rate		Internal Static Pressure		External Static Pressure - in.wg(Pa)												RPM Range		
					0.2(50)		0.4(100)		0.5(125)		0.6(150)		0.8(200)		1.0(250)				
	cfm	l/s	in.wg	Pa	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW			
050 + 050A	1146	541	0.24	59.73	602	0.1	731	0.14	793	0.17	-	-	-	-	-	-	816 to 1052		
	1700	802	0.51	127.77	777	0.27	869	0.32	914	0.35	958	0.38	1044	0.44	1128	0.51	1233	0.6	
	2292	1082	0.96	239.26	1000	0.62	1071	0.69	1105	0.72	1139	0.76	1205	0.83	1271	0.91	1351	1.01	
060 + 060A	1597	754	0.24	59.75	630	0.18	736	0.23	785	0.25	833	0.28	926	0.33	1017	0.39	1129	0.47	844 to 1089
	2000	944	0.36	90.18	731	0.31	821	0.37	863	0.4	905	0.43	984	0.5	1060	0.56	1153	0.65	
	3193	1507	0.96	239.18	1085	1.15	1145	1.24	1175	1.29	1204	1.34	1261	1.43	1315	1.53	1382	1.65	
070 + 070A	1597	754	0.24	59.75	630	0.18	736	0.23	785	0.25	833	0.28	926	0.33	1017	0.39	1129	0.47	774 to 966
	2400	1133	0.53	131.35	844	0.51	922	0.58	960	0.62	996	0.66	1066	0.73	1133	0.8	1214	0.9	
	3193	1507	0.96	239.18	1085	1.15	1145	1.24	1175	1.29	1204	1.34	1261	1.43	1315	1.53	1382	1.65	
085 + 085A	1719	811	0.24	59.73	-	-	642	0.22	690	0.25	736	0.28	826	0.35	-	-	-	-	725 to 905
	2800	1321	0.62	155.66	760	0.57	831	0.66	865	0.7	899	0.74	962	0.83	1024	0.93	1098	1.05	
	3438	1622	0.96	239.26	908	1.01	968	1.12	997	1.17	1025	1.22	1080	1.33	1133	1.44	1198	1.58	
100 + 100 A	2196	1036	0.24	59.71	-	-	656	0.32	699	0.35	740	0.39	818	0.46	893	0.54	982	0.64	833 to 1039
	3000	1416	0.43	107.54	700	0.55	774	0.65	809	0.69	843	0.74	908	0.83	970	0.93	1045	1.05	
	4392	2073	0.96	239.14	973	1.6	1026	1.74	1052	1.8	1077	1.87	1127	2.01	1176	2.15	1234	2.32	
110 + 120A	2196	1036	0.28	69.69	-	-	674	0.33	716	0.37	756	0.4	834	0.48	907	0.55	996	0.66	646 to 806
	3600	1699	0.74	185.52	851	0.97	913	1.09	942	1.14	972	1.2	1028	1.31	1082	1.42	1148	1.56	
	4392	2073	1.13	282.67	1019	1.72	1071	1.86	1096	1.92	1121	1.99	1170	2.13	1217	2.27	1274	2.44	
130 + 150A	3208	1514	0.24	59.71	472	0.35	549	0.45	585	0.5	619	0.55	683	0.65	744	0.76	817	0.92	780 to 972
	4200	1982	0.4	98.55	568	0.7	632	0.82	662	0.88	691	0.94	746	1.06	799	1.2	862	1.37	
	6417	3028	0.96	239.21	816	2.29	861	2.46	882	2.55	904	2.64	946	2.82	986	3.0	1035	3.24	
160 + 150A	3208	1514	0.24	59.71	472	0.35	549	0.45	585	0.5	619	0.55	683	0.65	744	0.76	817	0.92	648 to 809
	4800	2265	0.52	130.04	632	1	690	1.14	717	1.21	744	1.27	795	1.42	844	1.56	903	1.75	
	6417	3028	0.96	239.21	816	2.29	861	2.46	882	2.55	904	2.64	946	2.82	986	3.0	1035	3.24	
180 + 180A	4604	2173	0.29	71.1	621	0.62	714	0.78	758	0.86	799	0.93	879	1.09	955	1.26	1045	1.49	780 to 972
	5800	2737	0.46	114.71	739	1.14	817	1.34	854	1.43	890	1.53	959	1.72	1025	1.92	1103	2.18	
	7792	3677	0.87	215.67	954	2.6	1015	2.86	1044	2.99	1073	3.12	1129	3.39	1183	3.65	1249	3.97	
205 + 180A	4604	2173	0.29	71.1	621	0.62	714	0.78	758	0.86	799	0.93	879	1.09	955	1.26	1045	1.49	648 to 809
	6200	2926	0.53	132.42	781	1.37	855	1.58	891	1.68	925	1.79	991	1.99	1054	2.2	1129	2.47	
	7792	3677	0.87	215.67	954	2.6	1015	2.86	1044	2.99	1073	3.12	1129	3.39	1183	3.65	1249	3.97	
240 + 240A	6292	2969	0.29	71.09	513	0.77	593	0.98	629	1.08	665	1.19	732	1.42	796	1.67	873	2	Table 14
	8000	3775	0.47	117	614	1.45	680	1.7	712	1.83	742	1.96	800	2.22	855	2.5	921	2.87	
	10649	5025	0.87	215.67	785	3.23	837	3.55	863	3.72	887	3.88	935	4.22	981	4.56	1036	5.01	
260 + 240A	6292	2969	0.29	71.09	513	0.77	593	0.98	629	1.08	665	1.19	732	1.42	796	1.67	873	2	Table 14
	8000	3775	0.47	117	614	1.45	680	1.7	712	1.83	742	1.96	800	2.22	855	2.5	921	2.87	
	10649	5025	0.87	215.67	785	3.23	837	3.55	863	3.72	887	3.88	935	4.22	981	4.56	-	-	

### Notes:

1. Areas shaded in blue indicate factory setting of RPM.
2. Areas shaded in grey indicate operating range outside the standard motor. Shift to larger motor size in this area.
3. Internal static pressure is based on pressure drops through evaporator coil, fan casing and 1" flat filter.
4. The shown RPM range is with standard pulleys combination.

## Fan Performance (HIGH EFFICIENCY)

Model AUMR G+CADX-A G	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		
50 G + 60A G	1597	754	0.32	79.71	674	0.2	775	0.25	823	0.27	871	0.3	963	0.35	1053	0.42	1142	0.49
	1700	802	0.36	88.74	701	0.23	798	0.28	844	0.31	889	0.34	976	0.39	1062	0.46	1147	0.52
	3193	1507	1.31	326.25	1189	1.31	1246	1.41	1274	1.46	1302	1.5	1355	1.6	1408	1.7	1459	1.8
60 G + 60A G	1597	754	0.32	79.71	674	0.2	775	0.25	823	0.27	871	0.3	963	0.35	1053	0.42	1142	0.49
	2000	944	0.49	121.06	787	0.35	873	0.41	914	0.44	954	0.47	1031	0.54	1106	0.6	1180	0.67
	3193	1507	1.31	326.25	1189	1.31	1246	1.41	1274	1.46	1302	1.5	1355	1.6	1408	1.7	1459	1.8
70 G + 70A G	1597	754	0.32	79.71	674	0.2	775	0.25	823	0.27	871	0.3	963	0.35	1053	0.42	1142	0.49
	2400	1133	0.71	177.18	916	0.58	990	0.65	1026	0.69	1060	0.72	1128	0.8	1192	0.87	1256	0.95
	3193	1507	1.31	326.25	1189	1.31	1246	1.41	1274	1.46	1302	1.5	1355	1.6	1408	1.7	1459	1.8
085 G +100A G	2196	1036	0.32	79.66	602	0.28	691	0.35	732	0.38	772	0.42	849	0.49	922	0.57	993	0.66
	2800	1321	0.5	125.46	714	0.52	789	0.6	824	0.65	858	0.69	924	0.78	987	0.87	1047	0.96
	4392	2073	1.31	326.2	1065	1.84	1115	1.98	1139	2.04	1164	2.11	1211	2.25	1257	2.39	1301	2.52
100 G +100A G	2196	1036	0.32	79.66	602	0.28	691	0.35	732	0.38	772	0.42	849	0.49	922	0.57	993	0.66
	3000	1416	0.58	144.68	755	0.62	826	0.72	859	0.76	892	0.81	955	0.9	1015	1	1073	1.1
	4392	2073	1.31	326.2	1065	1.84	1115	1.98	1139	2.04	1164	2.11	1211	2.25	1257	2.39	1301	2.52
110 G +120A G	2196	1036	0.32	79.66	602	0.28	691	0.35	732	0.38	772	0.42	849	0.49	922	0.57	993	0.66
	3600	1699	0.86	213.33	886	1.04	946	1.15	975	1.21	1003	1.26	1059	1.37	1112	1.49	1163	1.6
	4392	2073	1.31	326.2	1065	1.84	1115	1.98	1139	2.04	1164	2.11	1211	2.25	1257	2.39	1301	2.52
130 G +150A G	3208	1514	0.32	79.66	504	0.39	578	0.49	612	0.54	645	0.59	708	0.7	768	0.81	826	0.94
	4200	1982	0.53	132.44	612	0.78	672	0.9	701	0.96	729	1.02	783	1.15	833	1.29	882	1.43
	6417	3028	1.31	326.3	893	2.59	-	-	-	-	-	-	-	-	-	-	-	
160 G +150A G	3208	1514	0.32	79.66	504	0.39	578	0.49	612	0.54	645	0.59	708	0.7	768	0.81	826	0.94
	4800	2265	0.7	175.39	685	1.13	739	1.26	765	1.33	791	1.4	839	1.55	886	1.69	-	-
	6417	3028	1.31	326.3	893	2.59	-	-	-	-	-	-	-	-	-	-	-	
180 G +180A G	3905	1843	0.29	72.95	606	0.47	705	0.61	751	0.68	796	0.75	882	0.9	965	1.07	1046	1.26
	5800	2737	0.64	159.56	810	1.32	883	1.51	918	1.61	953	1.71	1019	1.9	1082	2.1	1143	2.31
	7792	3677	1.22	302.75	1059	3.06	1115	3.32	1143	3.45	1170	3.58	1223	3.84	1274	4.1	1324	4.37
205 G +180A G	3905	1843	0.29	72.95	606	0.47	705	0.61	751	0.68	796	0.75	882	0.9	965	1.07	1046	1.26
	6200	2926	0.74	184.46	858	1.59	928	1.79	961	1.9	994	2	1057	2.21	1117	2.43	1176	2.64
	7792	3677	1.22	302.75	1059	3.06	1115	3.32	1143	3.45	1170	3.58	1223	3.84	1274	4.1	1324	4.37
240 G +240A G	5335	2518	0.25	62.9	484	0.56	570	0.74	610	0.84	648	0.94	722	1.16	793	1.4	862	1.68
	8000	3775	0.56	139.89	645	1.56	709	1.82	740	1.95	769	2.08	826	2.35	880	2.64	932	2.93
	10649	5025	1.04	259.21	831	3.51	881	3.84	905	4.01	929	4.18	975	4.52	1020	4.87	1063	5.23
260 G +240A G	5335	2518	0.25	62.9	484	0.56	570	0.74	610	0.84	648	0.94	722	1.16	793	1.4	862	1.68
	8000	3775	0.56	139.89	645	1.56	709	1.82	740	1.95	769	2.08	826	2.35	880	2.64	932	2.93
	10649	5025	1.04	259.21	831	3.51	881	3.84	905	4.01	929	4.18	975	4.52	1020	4.87	1063	5.23

Table 15

### 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
50	32	17	78	1	11	74	1	0.9	2.6	050A	1.4	7.3
60	40	20	85	1	13	75	1	2.2	9.0	060A	1.4	7.3
70	40	22	112	1	14	101	1	2.2	9.0	070A	1.9	9.7
85	40	25	107	1	16	95	1	2.2	9.0	085A	2.6	14.8
100	50	29	123	1	19	111	1	2.2	9.0	100A	2.6	14.8
110	50	30	82	2	11	64	2	0.9	2.6	120A	3.4	18.8
130	50	36	96	2	13	75	2	1.2	3.6	150A	3.4	18.8
160	63	40	130	2	14	101	2	2.2	9.0	150A	3.4	18.8
180	63	46	127	2	16	95	2	2.2	9.0	180A	4.8	27.1
205	80	52	146	2	19	111	2	2.2	9.0	180A	4.8	27.1
240	80	58	163	2	20	118	2	4.0	16.5	240A	4.8	27.1
260	80	60	164	2	21	118	2	4.0	16.5	240A	4.8	27.1

Table 16

**Power Supply: 440V/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
50	32	16	78	1	11	74	1	0.9	2.6	050A	1.3	6.7
60	40	21	85	1	13	75	1	2.5	8.8	060A	1.3	6.7
70	40	22	112	1	14	101	1	2.5	8.8	070A	1.7	8.8
85	40	25	106	1	16	95	1	2.5	8.8	085A	2.3	13.5
100	50	29	122	1	19	111	1	2.5	8.8	100A	2.3	13.5
110	50	30	82	2	11	64	2	0.9	2.6	120A	3.1	17.0
130	50	35	96	2	13	75	2	1.2	3.6	150A	3.1	17.0
160	63	40	129	2	14	101	2	2.5	8.8	150A	3.1	17.0
180	63	46	127	2	16	95	2	2.5	8.8	180A	4.4	24.6
205	80	53	146	2	19	111	2	2.5	8.8	180A	4.4	24.6
240	80	57	160	2	20	118	2	3.7	14.0	240A	4.4	24.6
260	80	60	161	2	21	118	2	3.7	14.0	240A	4.4	24.6

Table 17

## ELECTRICAL DATA (HIGH EFFICIENCY)

**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
050G	32	17	79	1	11	74	1	1.2	3.6	060AG	1.4	7.3
060G	40	20	85	1	13	75	1	2.2	9.0	060AG	1.4	7.3
070G	40	22	112	1	14	101	1	2.2	9.0	070AG	1.9	9.7
085G	40	25	107	1	16	95	1	2.2	9.0	100AG	2.6	14.8
100G	50	29	123	1	19	111	1	2.2	9.0	100AG	2.6	14.8
110G	50	33	90	2	11	64	2	2.2	9.0	120AG	3.4	18.8
130G	50	35	101	2	12	74	2	2.2	9.0	150AG	3.4	18.8
160G	63	40	130	2	14	101	2	2.2	9.0	150AG	3.4	18.8
180G	63	46	127	2	16	95	2	2.2	9.0	180AG	4.8	27.1
205G	80	52	146	2	19	111	2	2.2	9.0	180AG	4.8	27.1
240G	80	57	159	2	20	118	2	3.4	13.0	240AG	4.8	27.1
260G	80	59	160	2	21	118	2	3.4	13.0	240AG	4.8	27.1

Table 18

### Legend

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

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

**ICF** Maximum Instantaneous Current Flow

### Note :

Voltage imbalance not to exceed ± 2 % of the rated voltage

**RLA** Rated Load Amps. (at worst operating condition)  
**LRA** Locked Rotor Amps

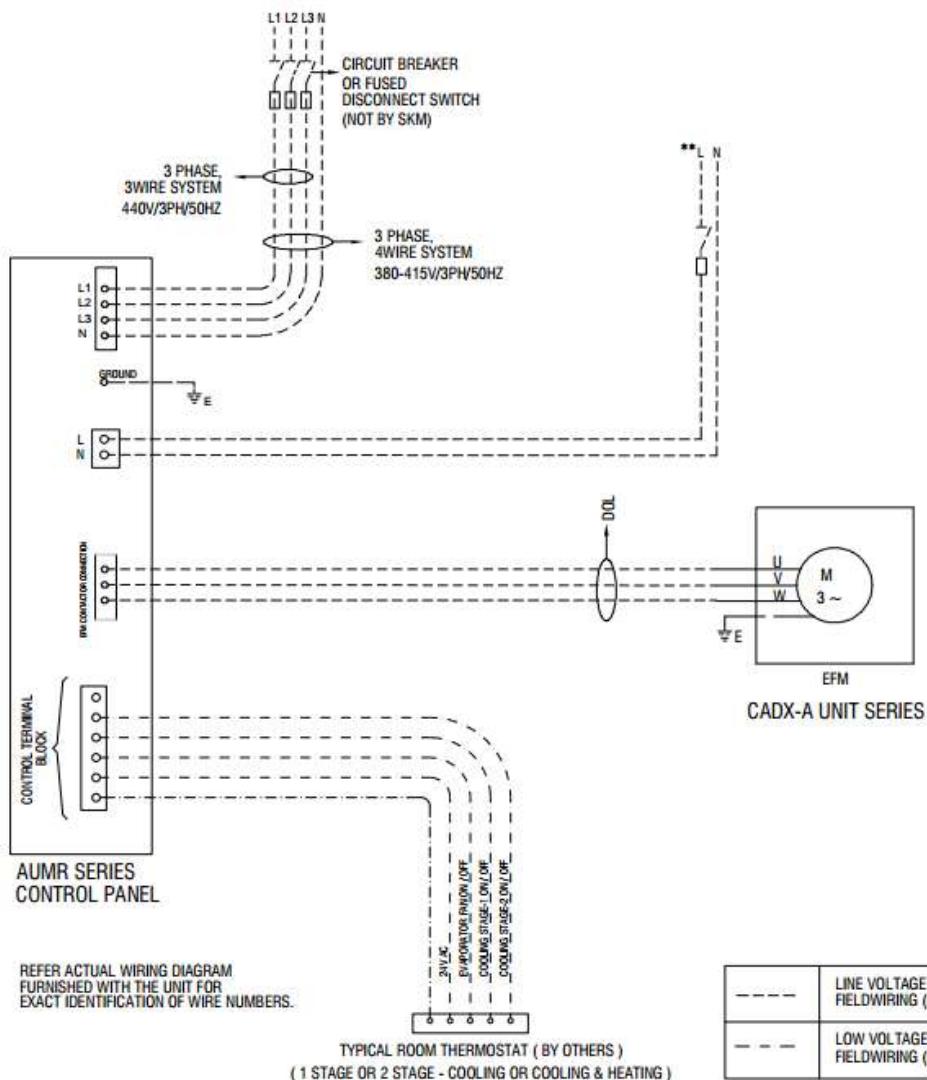
**FLA** Full Load Amps

## Field Connections

SKM AUMR + CADXA 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

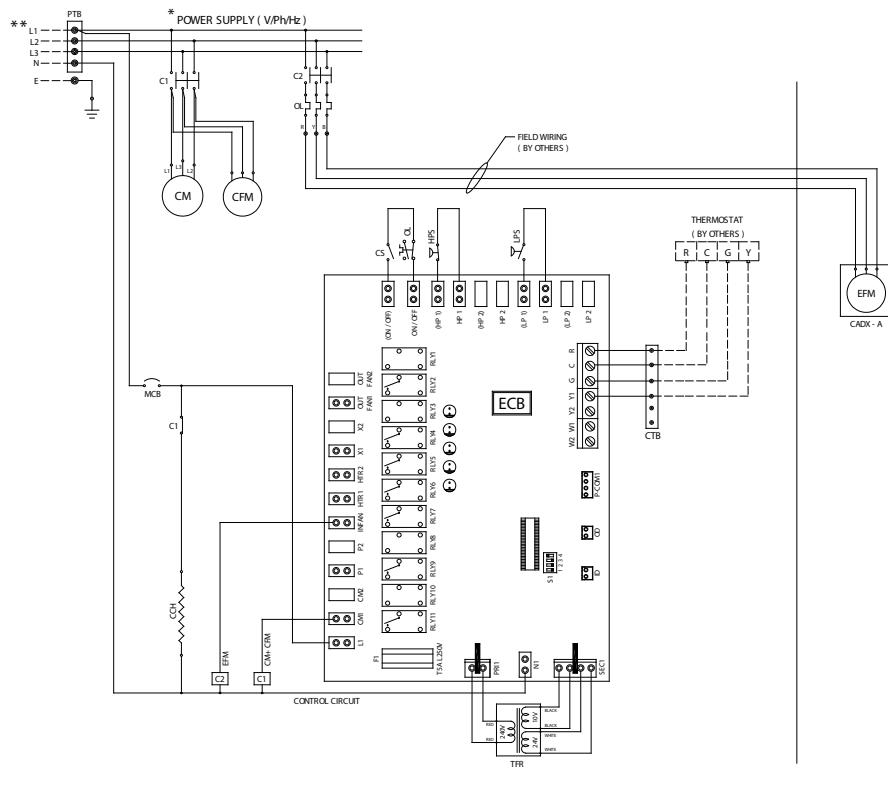


\*\*The AUMR series units rated for 440V/3Ph/50Hz or power supplies without neutral require separate source of control power supply through field supplied and installed 15A/220v fused control disconnect switch or order with factory built in option 'CXT'.



## Typical Wiring Diagram

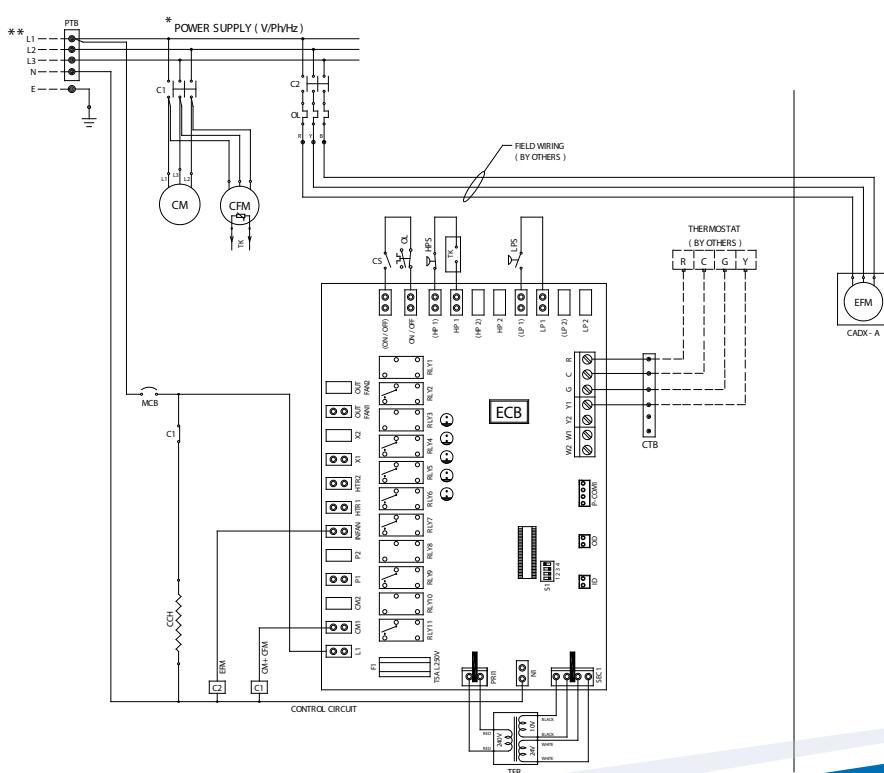
### AUMR Models : 050



#### LEGEND

— - -	FIELD WIRING & FIELD SUPPLIED DEVICES
PTB	POWER TERMINAL BLOCK
C	CONTACTOR
CM	COMPRESSOR MOTOR
CFM	CONDENSER FAN MOTOR
OL	OVERLOAD RELAY
EFM	EVAPORATOR FAN MOTOR
MCB	MINIATURE CIRCUIT BREAKER
CCH	CRANK CASE HEATER
CS	CONTROL SWITCH
HPS	HIGH PRESSURE SWITCH
LPS	LOW PRESSURE SWITCH
TFR	TRANSFORMER
CTB	CONTROL TERMINAL BLOCK
FCS	FAN CYCLING SWITCH
ECB	ELECTRONIC CONTROL BOARD
TK	THERMAL OVERLOAD PROTECTION

### AUMR Models : 060 - 100

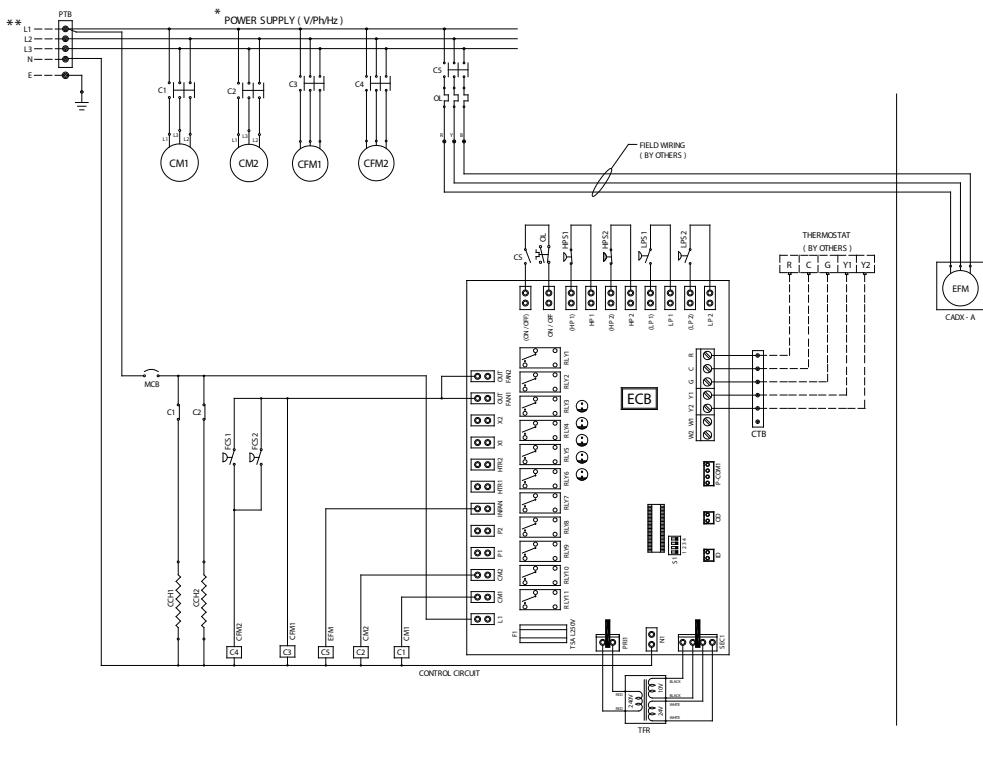


\* TYPICAL WIRING DIAGRAM SHOWN IS SUITABLE FOR 380~ 415V/3Ph/50Hz ONLY.  
FOR 440V/3Ph/50Hz, PLEASE CONSULT SKM.

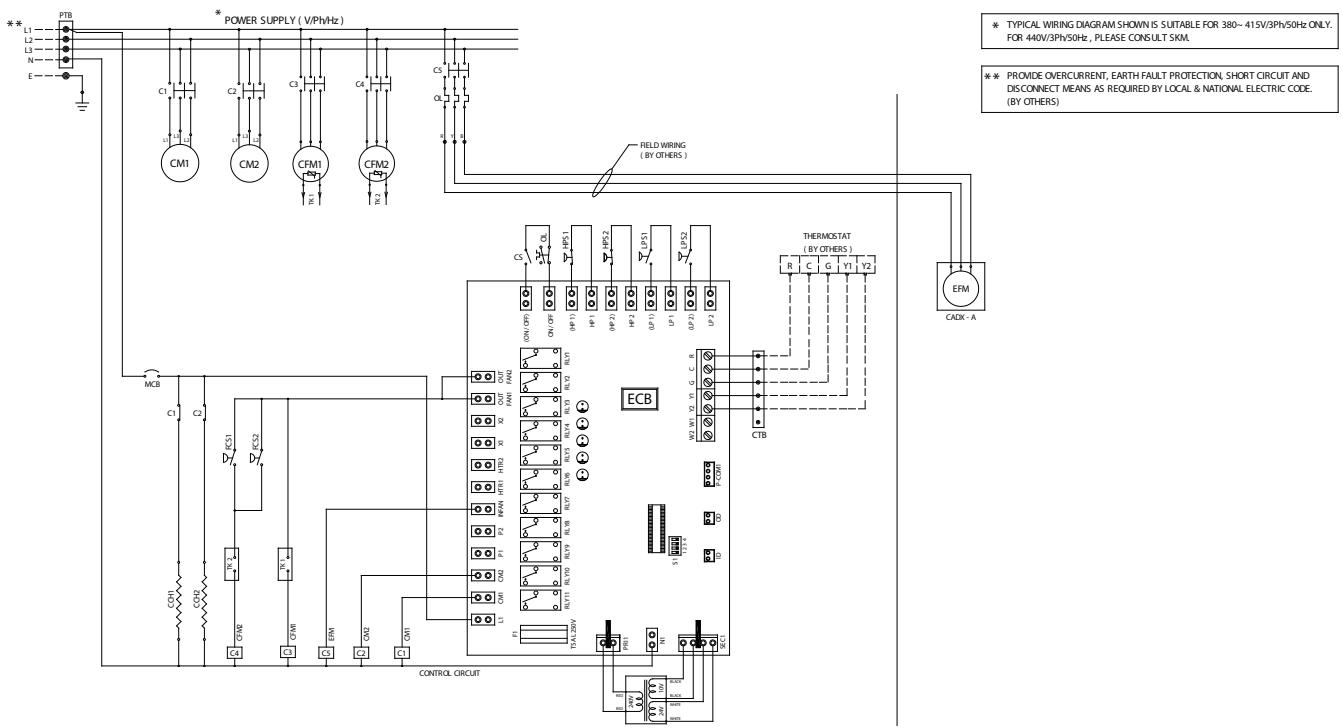
\*\* PROVIDE OVERCURRENT, EARTH FAULT PROTECTION, SHORT CIRCUIT AND  
DISCONNECT MEANS AS REQUIRED BY LOCAL & NATIONAL ELECTRIC CODE.  
(BY OTHERS)

## Typical Wiring Diagram

AUMR Models : 110 - 130

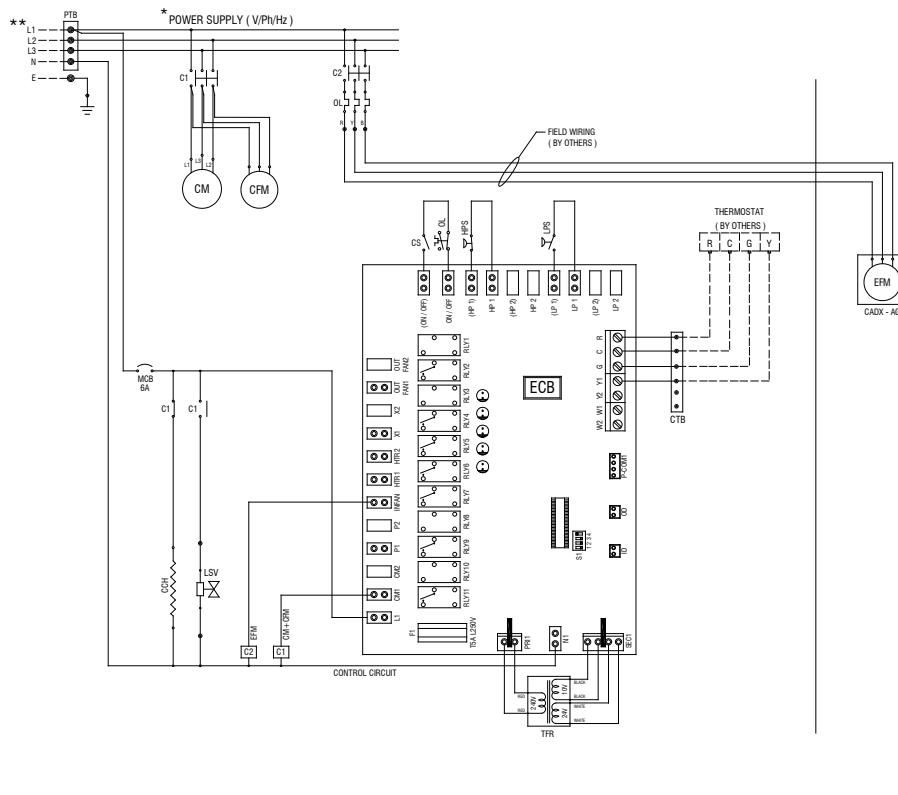


AUMR Models : 160 - 260



## Typical Wiring Diagram (HIGH EFFICIENCY)

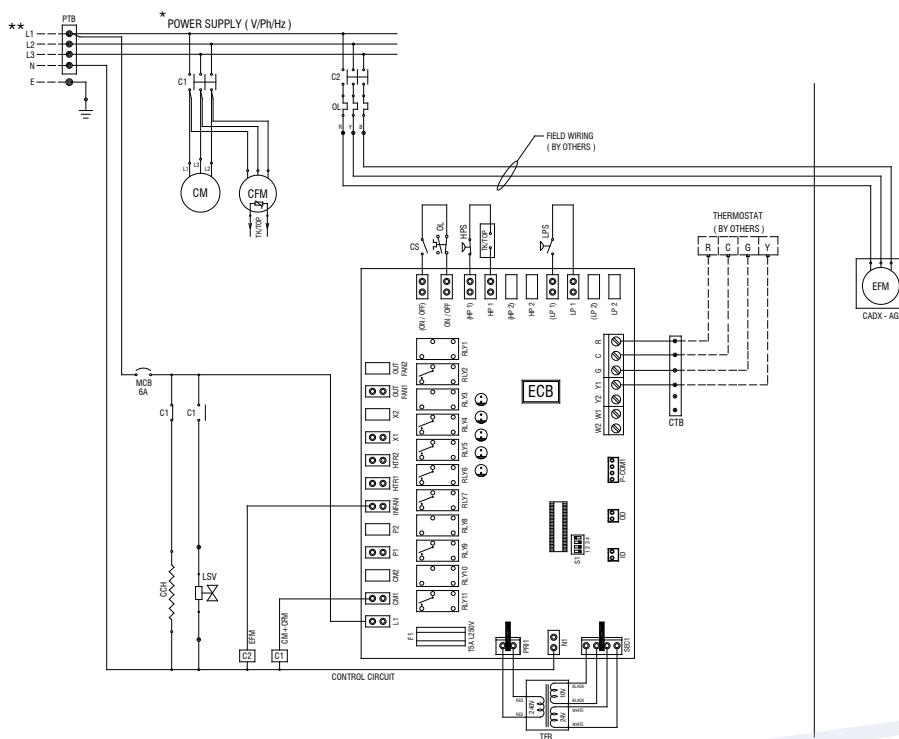
### AUMR Models : 050 G



#### LEGEND

— — —	FIELD WIRING & FIELD SUPPLIED DEVICES
PTB	POWER TERMINAL BLOCK
C	CONTACTOR
CM	COMPRESSOR MOTOR
CFM	CONDENSER FAN MOTOR
OL	OVERLOAD RELAY
EFM	EVAPORATOR FAN MOTOR
MCB	MINIATURE CIRCUIT BREAKER
CCH	CRANK CASE HEATER
CS	CONTROL SWITCH
HPS	HIGH PRESSURE SWITCH
LPS	LOW PRESSURE SWITCH
TFR	TRANSFORMER
CTB	CONTROL TERMINAL BLOCK
FCS	FAN CYCLING SWITCH
ECB	ELECTRONIC CONTROL BOARD
TK/TOP	THERMAL OVERLOAD PROTECTION
LSV	LIQUID LINE SOLENOID VALVE

### AUMR Models : 060 G - 100 G

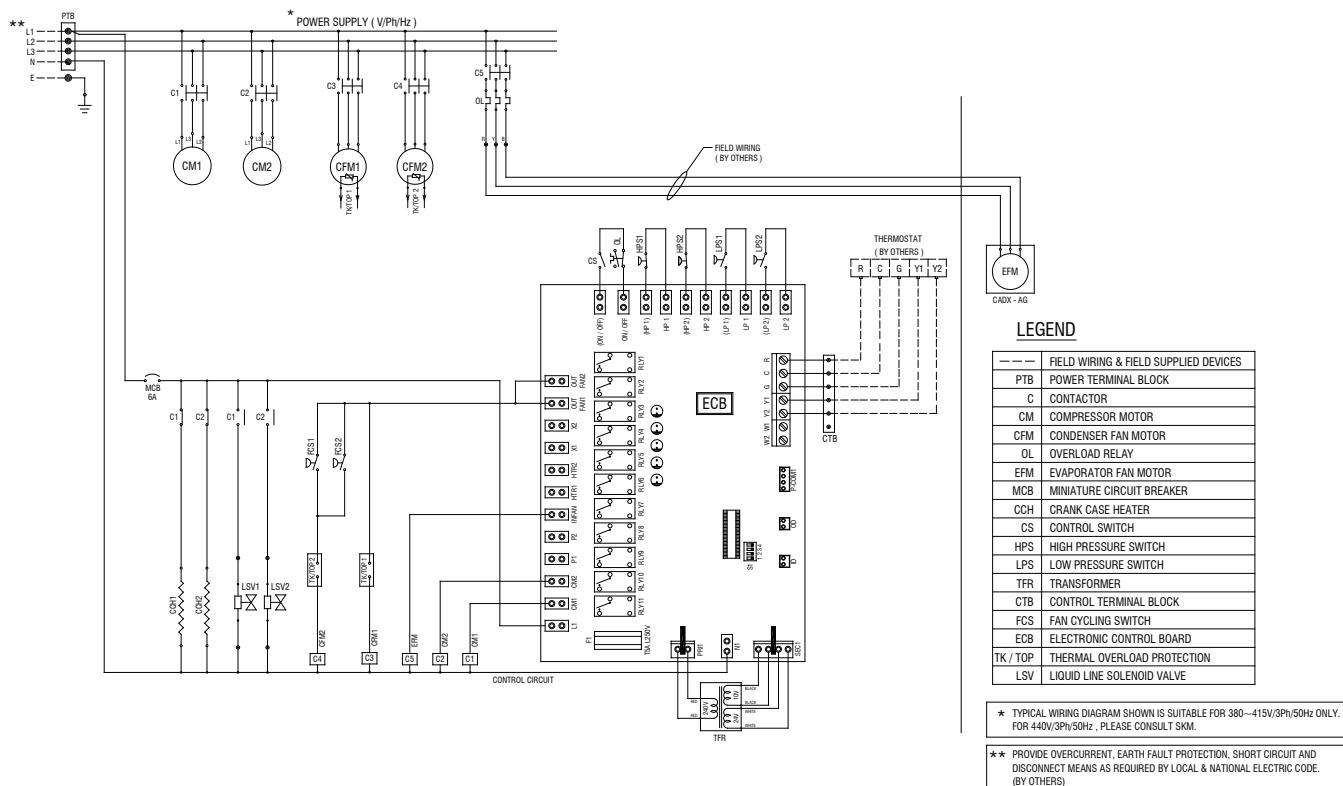


\* TYPICAL WIRING DIAGRAM SHOWN IS SUITABLE FOR 380–415V/3Ph/50Hz ONLY.  
FOR 440V/3Ph/50Hz, PLEASE CONSULT SKM.

\*\* PROVIDE OVERCURRENT, EARTH FAULT PROTECTION, SHORT CIRCUIT AND DISCONNECT MEANS AS REQUIRED BY LOCAL & NATIONAL ELECTRIC CODE.  
(BY OTHERS)

## Typical Wiring Diagram (HIGH EFFICIENCY)

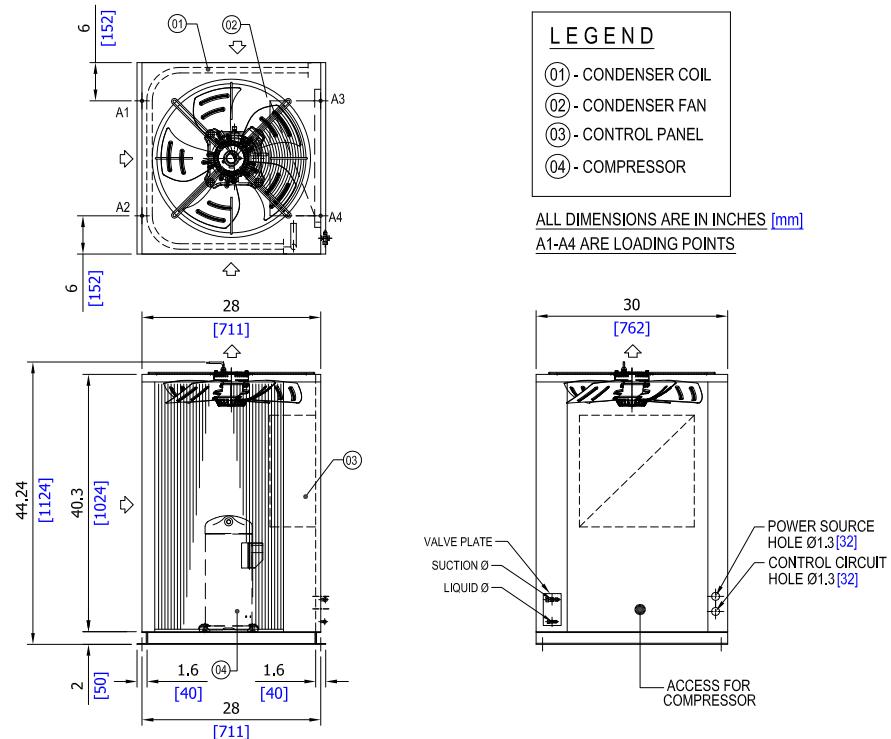
AUMR Models : 110 G - 260 G



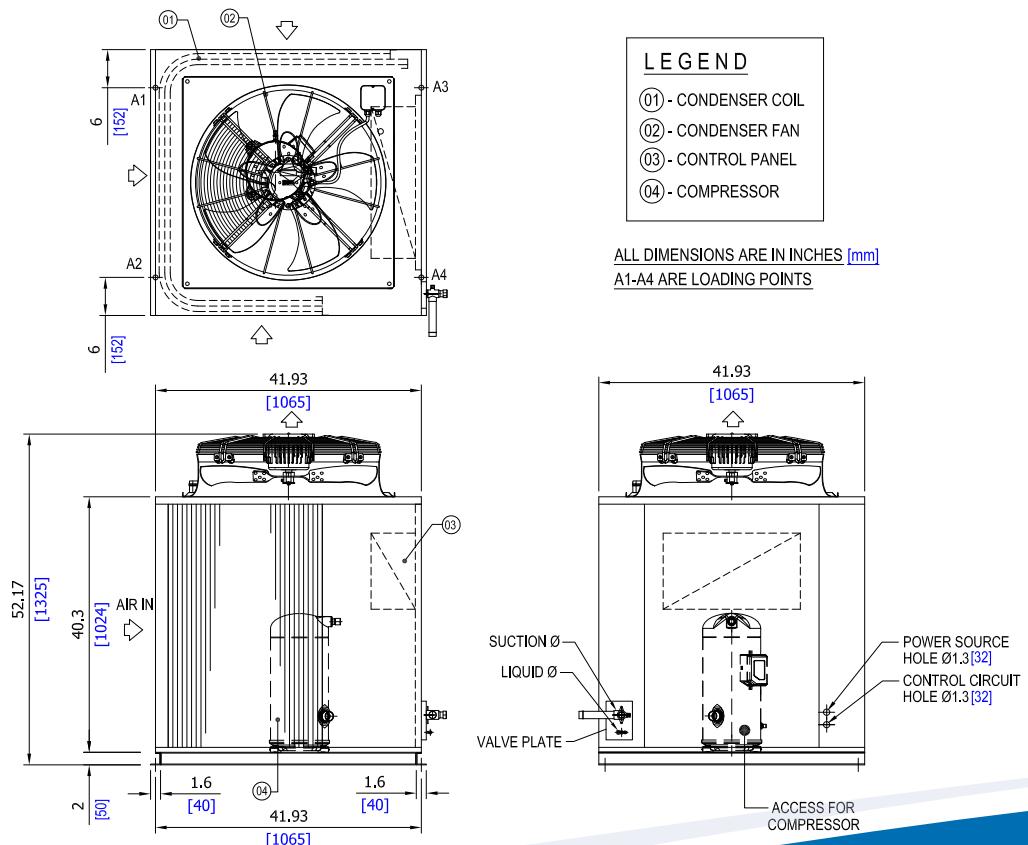


## Condensing Unit Dimensional Data

### AUMR Model : 050

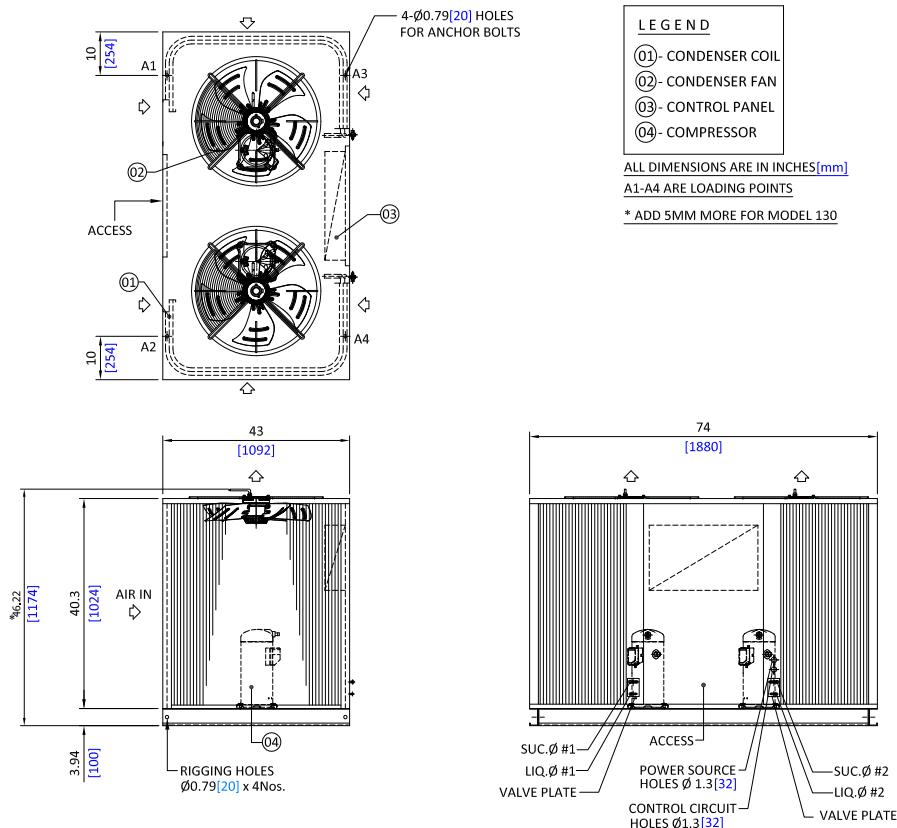


### AUMR Models : 060, 070, 085 & 100

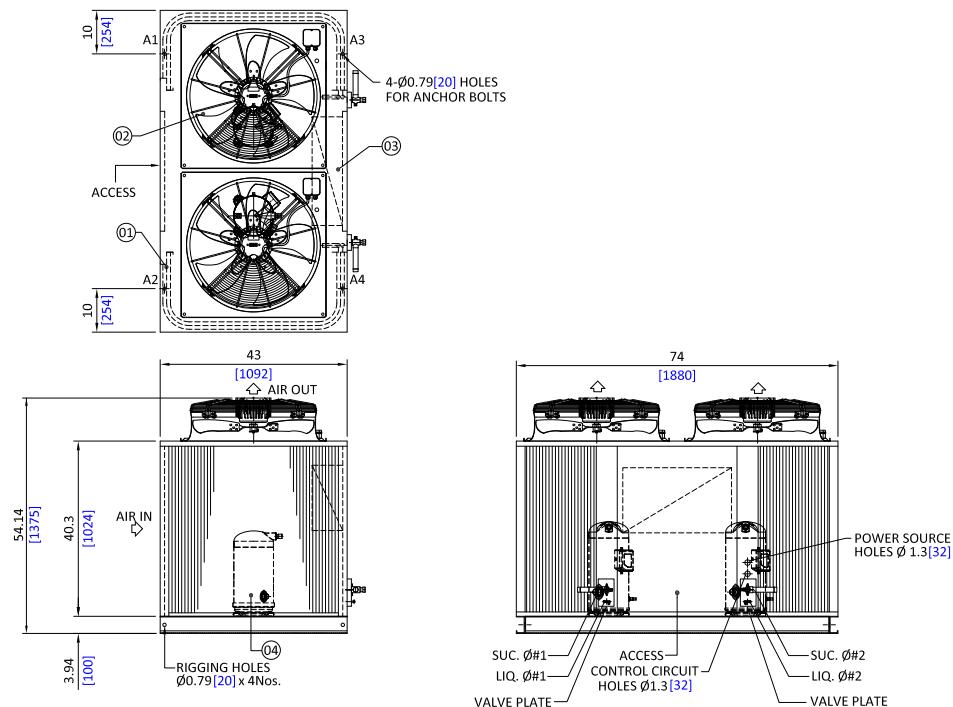


## Condensing Unit Dimensional Data

AUMR Model : 110 & 130



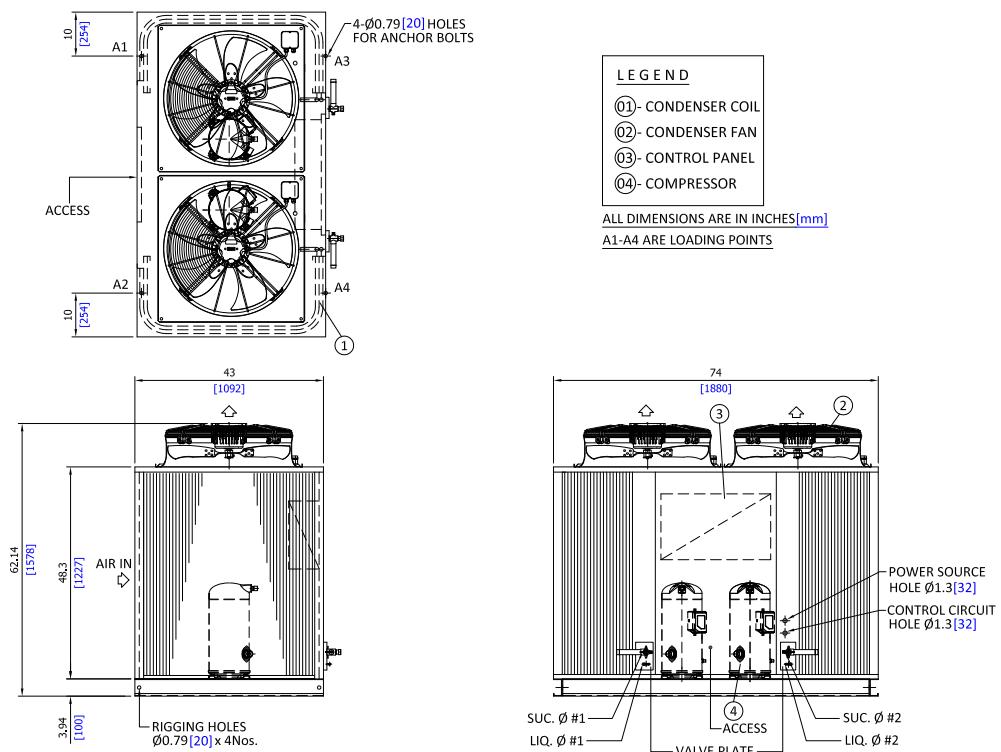
## AUMR Model : 160 & 180



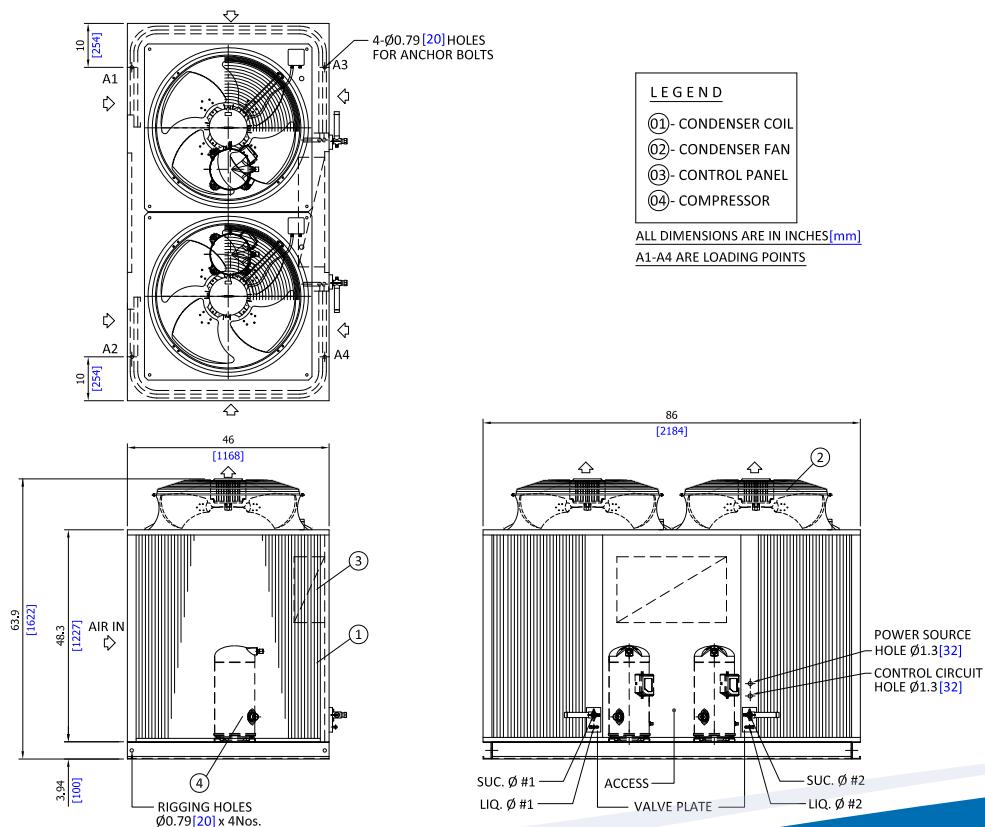


## Condensing Unit Dimensional Data

AUMR Models : 205



AUMR Models : 240 & 260

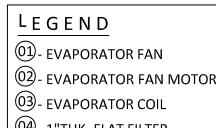
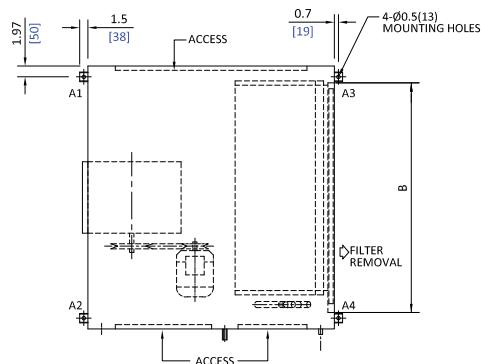


## Air Handling Unit Dimensional Data CADX Models : 050A - 150A

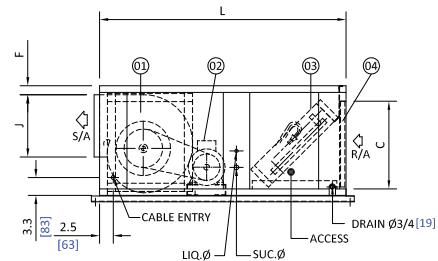
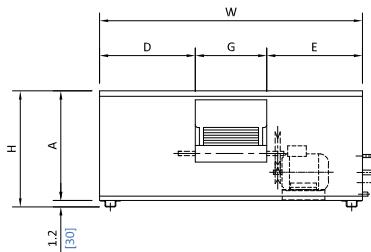
Model CADX-A	DIMENSIONS										
	L	W	H	A	B	C	D	E	J	G	F
050A [1143]	45 [1219]	48 [538]	21.2 [508]	20 [594]	39.14 [443]	17.5 [444]	17.48 [444]	17.48 [289]	11.38 [331]	13.03 [41]	1.6 [41]
060A [1143]	45 [1219]	48 [640]	25.2 [610]	24 [596]	39.2 [544]	21.4 [444]	17.48 [444]	17.48 [289]	11.38 [331]	13.03 [43]	1.7 [43]
070A [1143]	45 [1219]	48 [640]	25.2 [610]	24 [596]	39.2 [544]	21.4 [444]	17.48 [444]	17.48 [289]	11.38 [331]	13.03 [43]	1.7 [43]
085A [1143]	45 [1397]	55 [640]	25.2 [610]	24 [594]	47 [544]	21.4 [444]	19.72 [501]	19.72 [501]	13.43 [341]	15.55 [395]	2.2 [57]
100A [1270]	50 [1422]	56 [690]	27.2 [660]	26 [594]	47 [592]	23.3 [514]	20.2 [514]	20.2 [341]	13.43 [395]	15.55 [89]	3.5 [89]
*120A [1270]	50 [1422]	56 [690]	27.2 [660]	26 [594]	47 [592]	23.3 [514]	20.2 [514]	20.2 [341]	13.43 [395]	15.55 [89]	3.5 [89]
*150A [1474]	58 [1778]	70 [767]	30.2 [737]	29 [1589]	62.56 [646]	25.4 [653]	25.7 [653]	25.7 [404]	15.91 [471]	18.54 [63]	2.5 [63]

ALL DIMENSIONS ARE IN INCHES [mm]

Table 19



\* MODELS WITH DOUBLE CIRCUITS  
\* USE DRAIN SIZE 1[25] FOR MODELS 150A  
ALL DIMESN ARE IN INCHES [mm]  
A1-A4 ARE LOADING POINTS



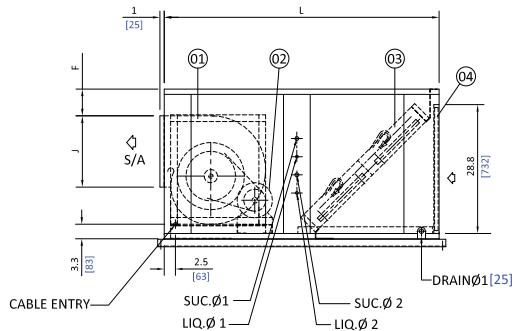
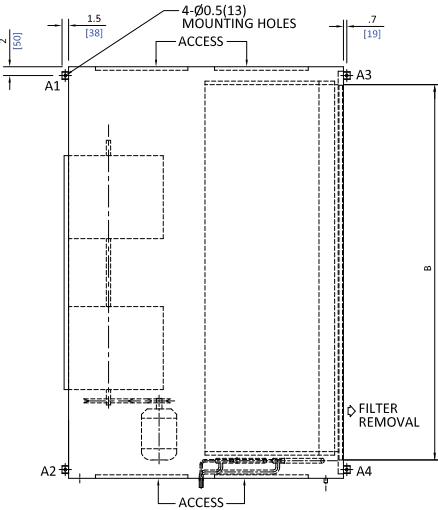
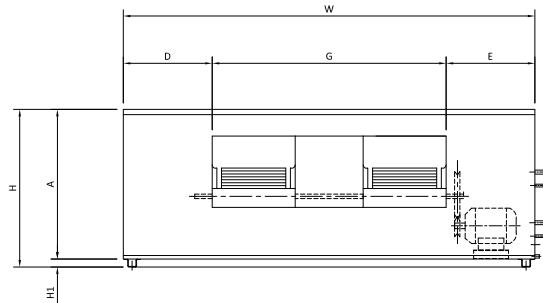
## CADX Model : 180A & 240A

Model CADX-A	DIMENSIONS										
	L	W	H	A	H1	B	D	E	F	J	G
180A [1524]	60 [1778]	70 [843]	33.2 [813]	32 [30]	1.2 [1589]	62.56 [334]	13.2 [334]	13.2 [228]	9 [341]	13.43 [341]	43.7 [1109]
240A [1560]	61.4 [2337]	92 [895]	35.2 [850]	33.5 [45]	1.8 [2074]	81.66 [504]	19.86 [504]	19.86 [152]	6 [152]	15.91 [404]	52.28 [1328]

Table 20



ALL DIMENSIONS ARE IN INCHES [mm]  
A1-A4 ARE LOADING POINTS





## Loading Points

MODEL AUMR	LOAD AT EACH POINT Lbs (Kgs)				TOTAL WEIGHT
	A1	A2	A3	A4	
50	80 [36]	83 [38]	80 [36]	82 [37]	325 [147]
60	89 [40]	93 [42]	89 [40]	91 [42]	362 [164]
70	89 [40]	93 [42]	89 [40]	91 [42]	362 [164]
85	109 [49]	113 [52]	109 [49]	112 [51]	443 [201]
100	111 [50]	115 [52]	111 [50]	113 [51]	450 [204]
110	174 [79]	174 [79]	176 [80]	176 [80]	700 [318]
130	177 [80]	177 [80]	180 [82]	180 [82]	714 [324]
160	194 [88]	194 [88]	196 [89]	196 [89]	780 [354]
180	213 [96]	213 [96]	215 [98]	215 [98]	856 [388]
205	234 [106]	234 [106]	236 [107]	236 [107]	940 [426]
240	246 [112]	246 [112]	248 [112]	248 [112]	988 [448]
260	246 [112]	246 [112]	248 [112]	248 [112]	988 [448]

Table 21

MODEL CADX-A	LOAD AT EACH POINT Lbs (Kgs)				TOTAL WEIGHT
	A1	A2	A3	A4	
050A	59 [27]	55 [25]	48 [22]	43 [19]	205 [93]
060A	65 [30]	61 [28]	53 [24]	47 [21]	226 [103]
070A	65 [30]	61 [28]	53 [24]	47 [21]	226 [103]
085A	76 [34]	72 [33]	62 [28]	55 [25]	265 [120]
100A	81 [37]	84 [38]	73 [33]	72 [33]	310 [141]
120A	87 [39]	91 [41]	78 [36]	78 [35]	334 [151]
150A	115 [52]	120 [54]	104 [47]	103 [47]	442 [200]
180A	119 [54]	134 [61]	106 [48]	113 [51]	472 [214]
240A	160 [73]	183 [83]	143 [65]	155 [70]	641 [291]

Table 22

## Recommended Suction and Liquid Line Sizes:

Models		PIPE LENGTH - FEET (m)															
		25 (7.6)				50 (15.2)				75 (22.9)				100 (30.5)			
AUMR	CADX	Circuit 1		Circuit 2		Circuit 1		Circuit 2		Circuit 1		Circuit 2		Circuit 1		Circuit 2	
		Liquid	Suction	Liquid	Suction	Liquid	Suction	Liquid	Suction	Liquid	Suction	Liquid	Suction	Liquid	Suction	Liquid	Suction
050	050A	1/2	7/8	-	-	1/2	7/8	-	-	1/2	7/8	-	-	1/2	1 1/8	-	-
060	060A	1/2	7/8	-	-	1/2	1 1/8	-	-	1/2	1 1/8	-	-	1/2	1 1/8	-	-
070	070A	1/2	7/8	-	-	1/2	1 1/8	-	-	1/2	1 1/8	-	-	5/8	1 1/8	-	-
085	085A	1/2	1 1/8	-	-	1/2	1 1/8	-	-	5/8	1 1/8	-	-	5/8	1 3/8	-	-
100	100A	1/2	1 1/8	-	-	5/8	1 1/8	-	-	5/8	1 1/8	-	-	5/8	1 3/8	-	-
110	120A	1/2	7/8	1/2	7/8	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
130	150A	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
160	150A	1/2	7/8	1/2	7/8	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
180	180A	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
205	180A	1/2	1 1/8	1/2	1 1/8	5/8	1 1/8	5/8	1 1/8	1/2	1 1/8	5/8	1 1/8	5/8	1 3/8	5/8	1 3/8
240	240A	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
260	240A	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 23

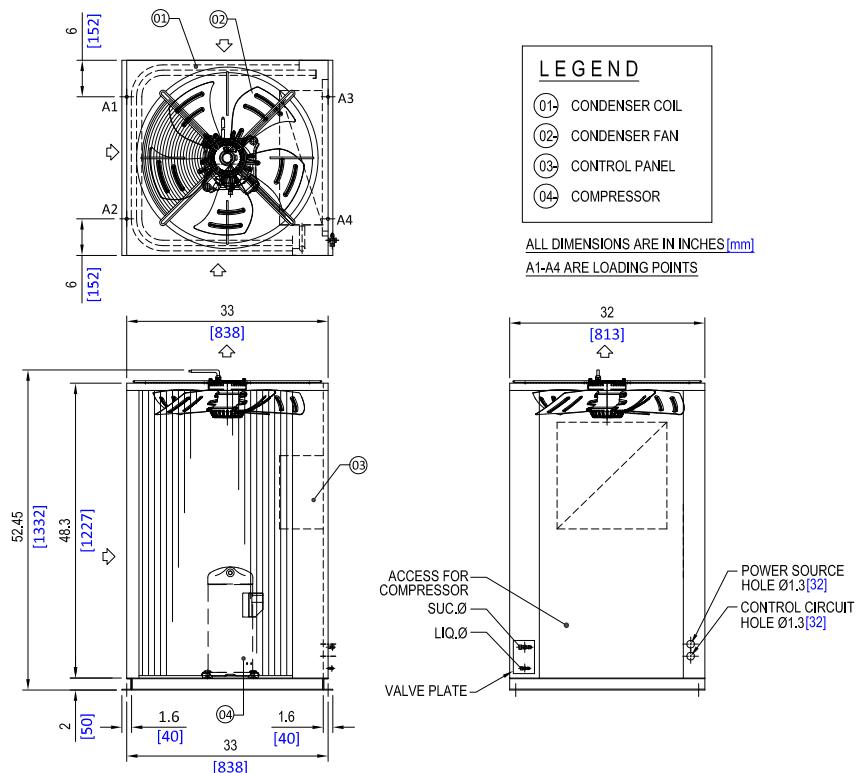
### Notes :

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

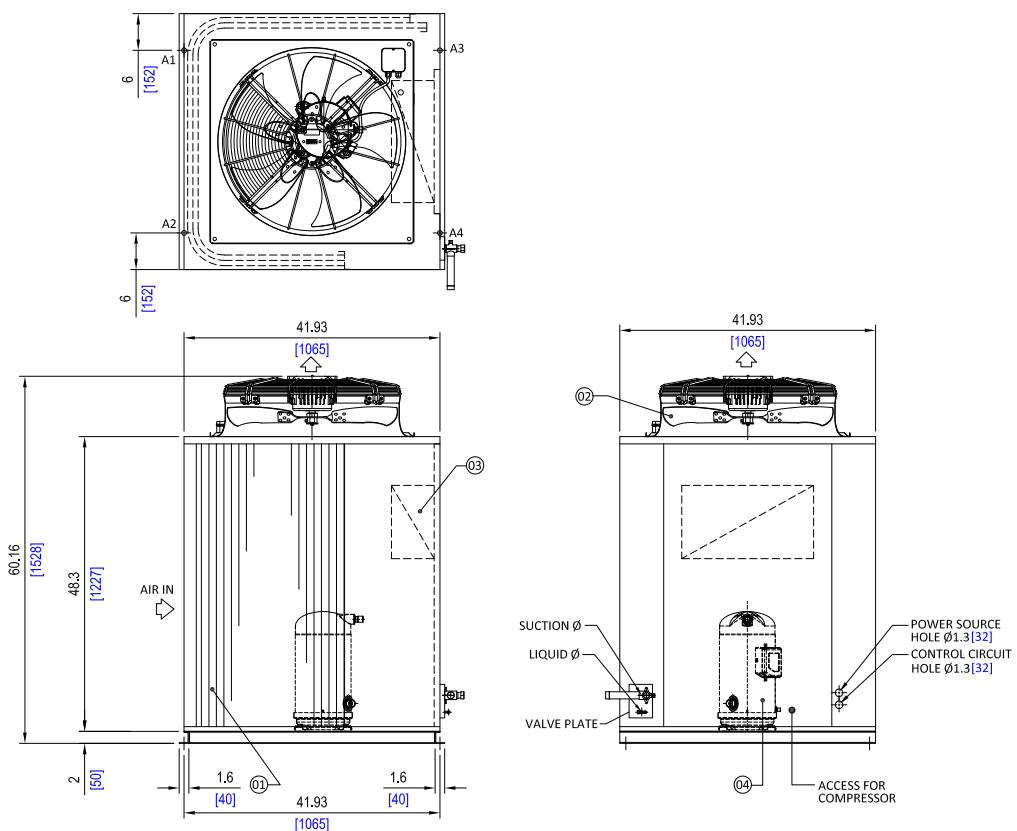
The recommended or required suction and liquid line sizes do not necessarily correspond with the refrigerant connections available on the outdoor or indoor unit. Necessary transformation may be required and it's field performed.

## Condensing Unit Dimensional Data (HIGH EFFICIENCY)

AUMR Model : 050 G



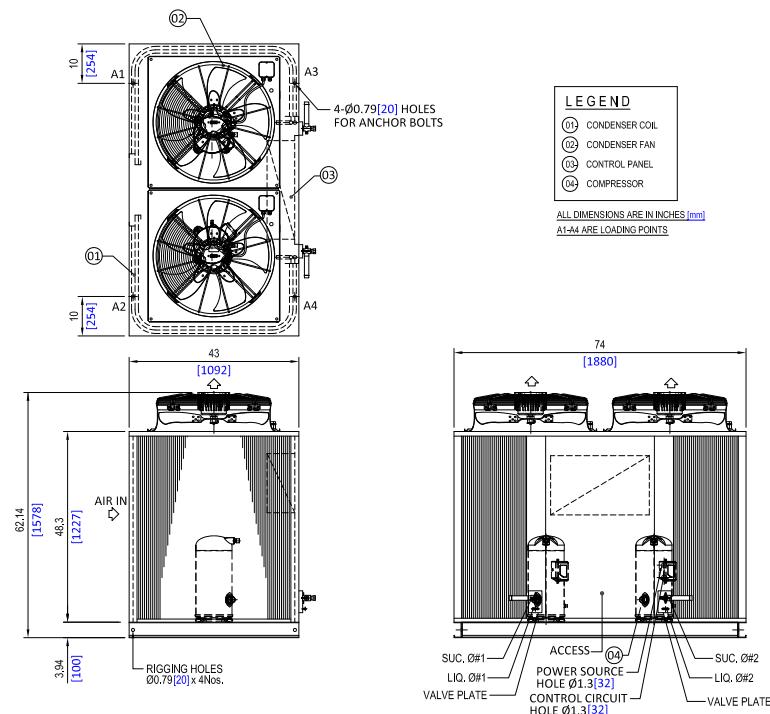
## AUMR Models : 060 G, 070 G, 085 G & 100 G



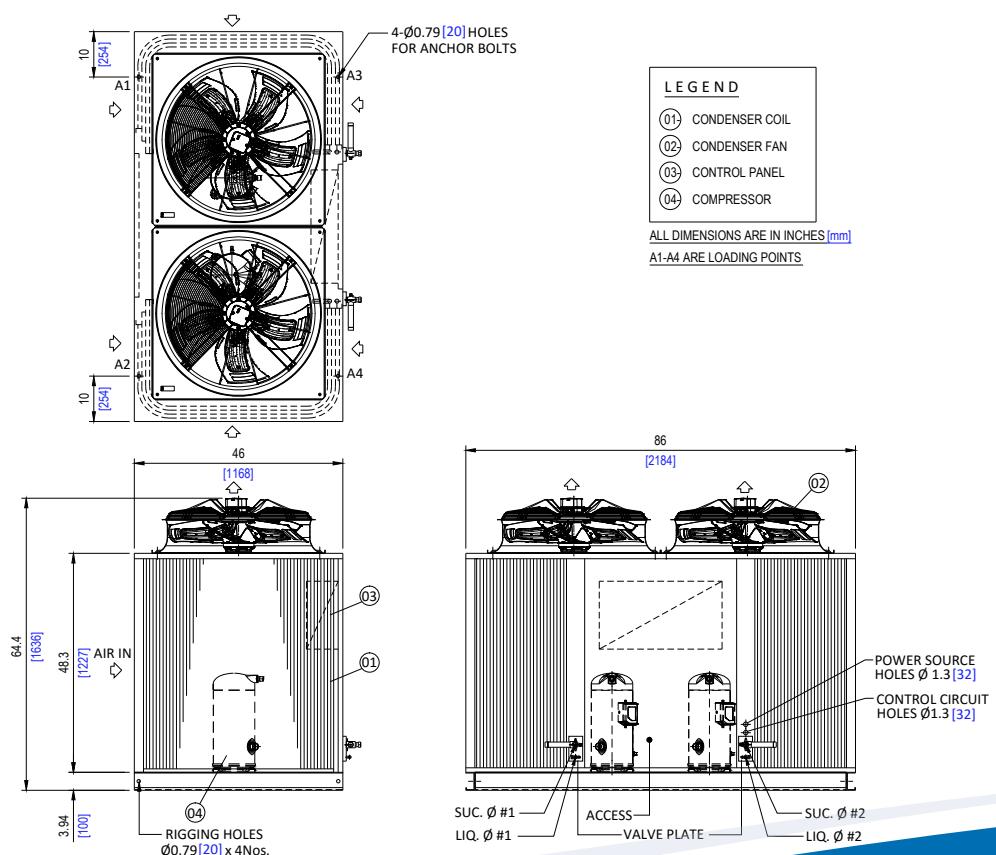


## Condensing Unit Dimensional Data (HIGH EFFICIENCY)

AUMR Model : 110 G - 205 G



## AUMR Models : 240 G & 260 G



## Air Handling Unit Dimensional Data (HIGH EFFICIENCY)

CADX Models : 060AG - 180AG

Model CADX-AG	DIMENSIONS											
	L	W	H	A	B	C	D	E	J	G	F	
060AG [1143]	45 [11219]	48 [665]	26.2 [635]	25 [996]	39.2 [544]	21.4 [444]	17.48 [444]	17.48 [444]	11.38 [289]	13.03 [331]	1.7 [43]	
070AG [1143]	45 [11219]	48 [665]	26.2 [635]	25 [996]	39.2 [544]	21.4 [444]	17.48 [444]	17.48 [444]	11.38 [289]	13.03 [331]	1.7 [43]	
100AG [1270]	50 [1422]	56 [716]	28.2 [686]	27 [1194]	47 [592]	23.3 [514]	20.2 [514]	20.2 [514]	13.43 [341]	15.55 [395]	3.5 [89]	
**120AG [1270]	50 [1422]	56 [716]	28.2 [686]	27 [1194]	47 [592]	23.3 [514]	20.2 [514]	20.2 [514]	13.43 [341]	15.55 [395]	3.5 [89]	
*150AG [1474]	58 [1778]	70 [767]	30.2 [737]	29 [1589]	62.6 [646]	25.4 [653]	25.7 [653]	25.7 [653]	15.91 [404]	18.54 [471]	2.5 [63]	
**180AG [1524]	60 [1778]	70 [767]	34.2 [868]	33 [1589]	62.6 [732]	28.8 [334]	13.2 [334]	13.2 [334]	13.43 [341]	43.7 [1109]	9 [228]	

Table 24

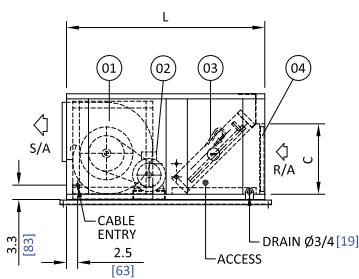
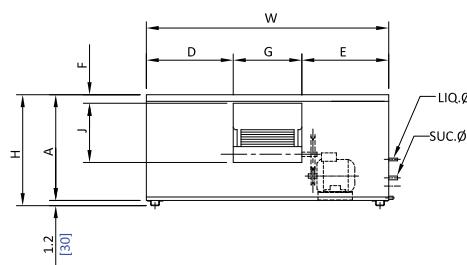
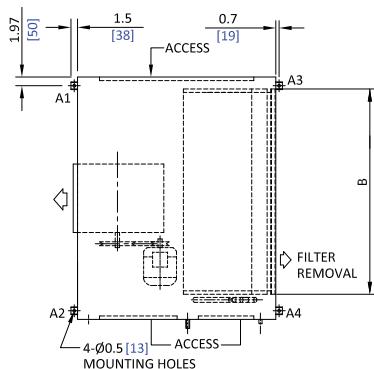
MODEL CADX-180AG WITH DOUBLE BLOWER FAN

MODELS WITH DOUBLE CIRCUITS

USE DRAIN SIZE 1/2" FOR MODELS 150AG & 180AG

ALL DIMENSIONS ARE IN INCHES [MM]

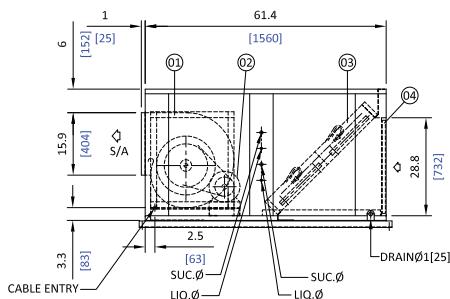
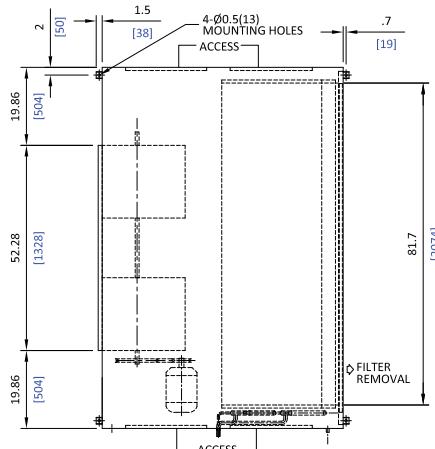
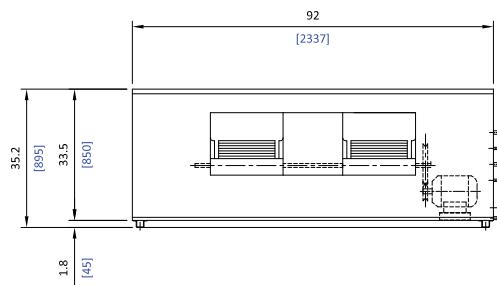
A1-A4 ARE LOADING POINTS



## CADX Model : 240AG

LEGEND

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





## Loading Points

### Condensing Unit (HIGH EFFICIENCY)

MODEL	LOAD AT EACH POINT Lbs (Kgs)				TOTAL WEIGHT
	A1	A2	A3	A4	
<b>50 G</b>	107 [48]	110 [50]	97 [44]	99 [45]	413 [187]
<b>60 G</b>	121 [55]	125 [57]	112 [51]	114 [52]	472 [215]
<b>70 G</b>	121 [55]	125 [57]	112 [51]	114 [52]	472 [215]
<b>85 G</b>	127 [58]	131 [59]	124 [56]	127 [58]	509 [231]
<b>100 G</b>	129 [58]	133 [60]	126 [57]	128 [58]	516 [233]
<b>110 G</b>	245 [111]	245 [111]	205 [93]	205 [93]	900 [408]

Table 25

MODEL	LOAD AT EACH POINT Lbs (Kgs)				TOTAL WEIGHT
	A1	A2	A3	A4	
<b>130 G</b>	245 [111]	245 [111]	205 [93]	205 [93]	900 [408]
<b>160 G</b>	245 [111]	245 [111]	205 [93]	205 [93]	900 [408]
<b>180 G</b>	263 [119]	263 [119]	225 [102]	225 [102]	976 [442]
<b>205 G</b>	259 [117]	259 [117]	237 [108]	237 [108]	992 [450]
<b>240 G</b>	271 [123]	271 [123]	273 [124]	273 [124]	1088 [494]
<b>260 G</b>	271 [123]	271 [123]	273 [124]	273 [124]	1088 [494]

Table 26

### Air Handling Unit (HIGH EFFICIENCY)

MODEL	LOAD AT EACH POINT Lbs (Kgs)				TOTAL WEIGHT
	A1	A2	A3	A4	
<b>CADX-AG</b>					
<b>060AG</b>	67 [30]	63 [29]	62 [28]	54 [25]	246 [112]
<b>070AG</b>	67 [30]	63 [29]	62 [28]	54 [25]	246 [112]
<b>100AG</b>	84 [38]	87 [40]	85 [39]	82 [37]	338 [154]
<b>120AG</b>	89 [40]	93 [42]	85 [39]	83 [38]	350 [159]
<b>150AG</b>	119 [54]	124 [56]	120 [55]	117 [53]	480 [218]
<b>180AG</b>	124 [56]	139 [63]	125 [57]	130 [59]	518 [235]
<b>240AG</b>	164 [75]	187 [85]	157 [71]	167 [76]	675 [307]

Table 27

# SKM Split Air Conditioners → AUMR + CADX-A Series

## Recommended Clearances

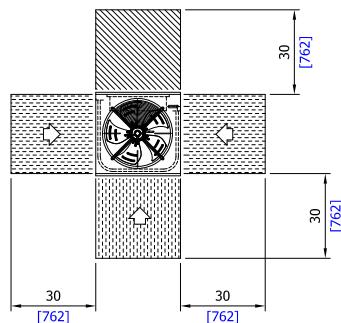


SPACING FOR SERVICE

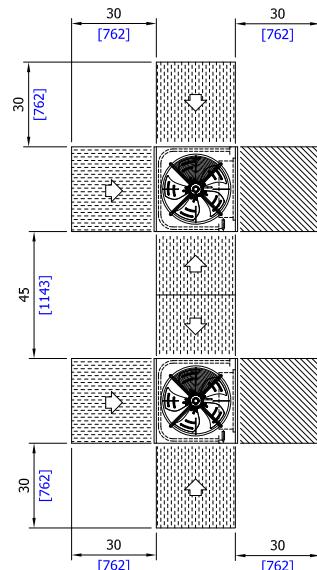


SPACING FOR AIR FLOW

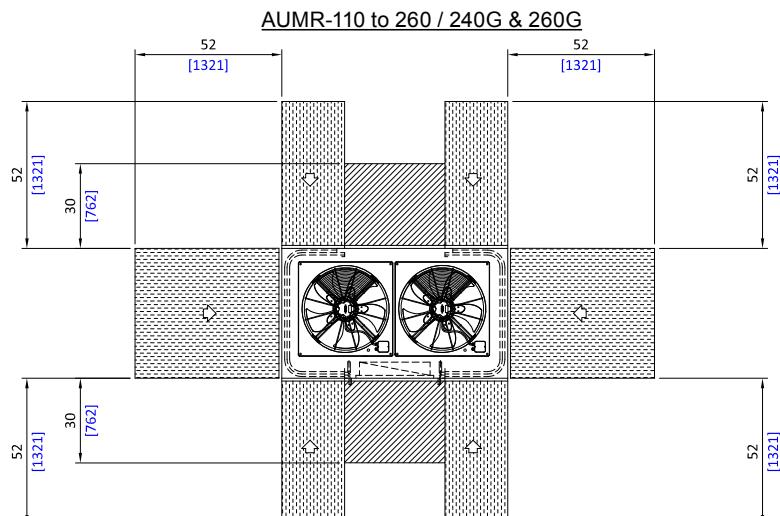
ALL DIMENSIONS ARE IN INCHES [mm]



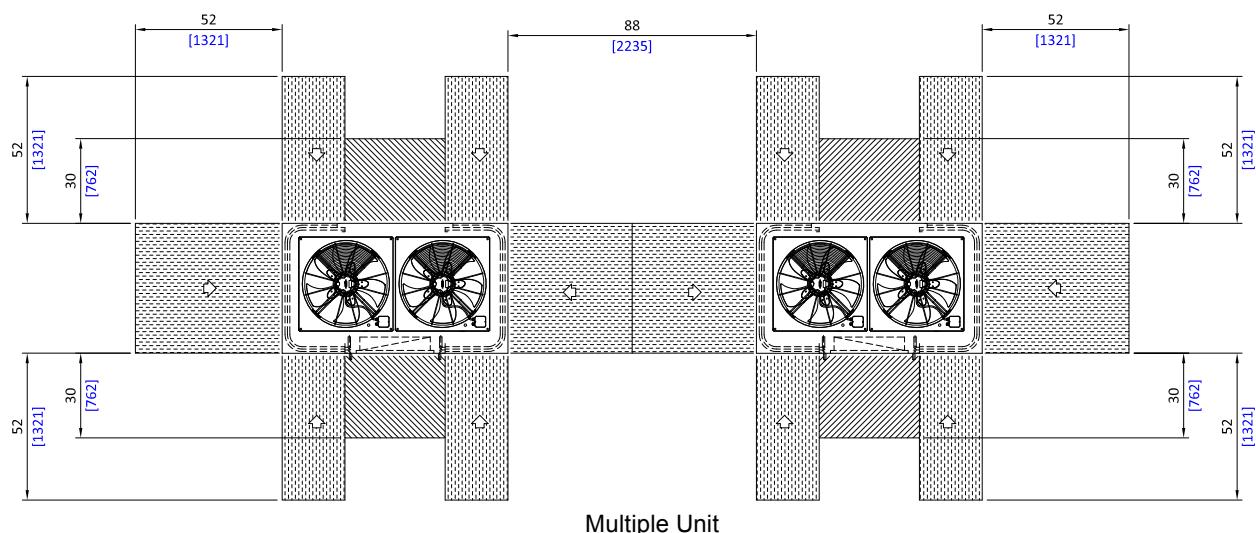
AUMR- 050 to 100 / 050G to 100G  
Single Unit



AUMR- 050 to 100 / 050G to 100G  
Multiple Unit



Single Unit

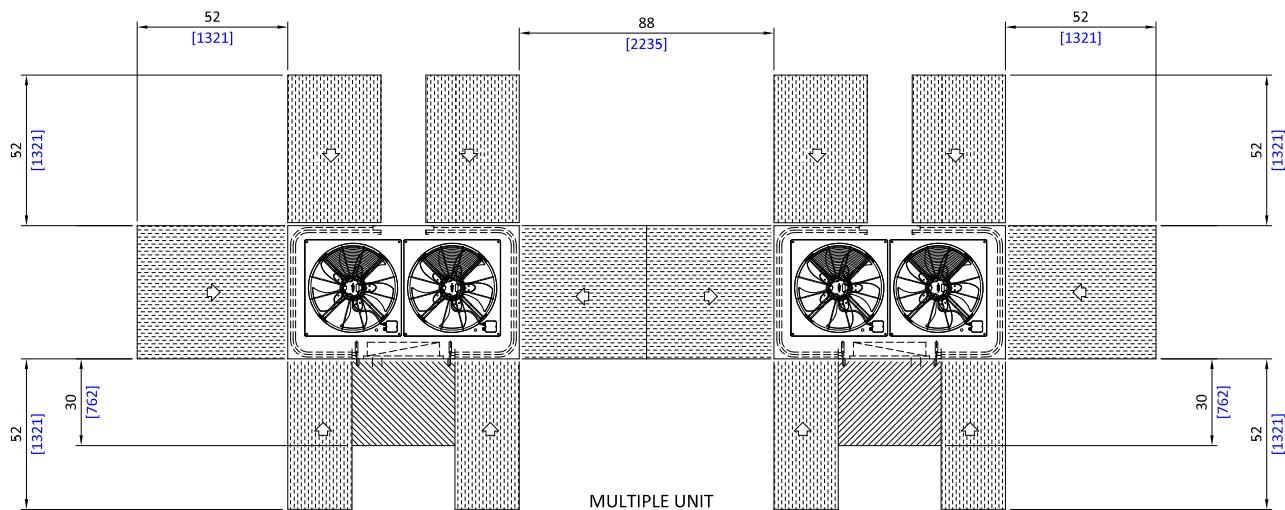
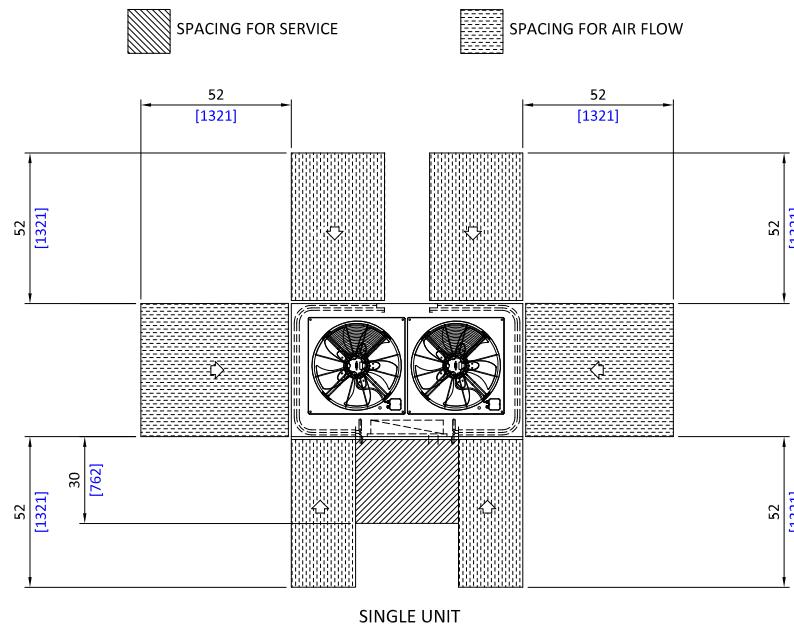


Multiple Unit



## Recommended Clearances (HIGH EFFICIENCY)

AUMR-110G - 205G



## Installation and Commissioning

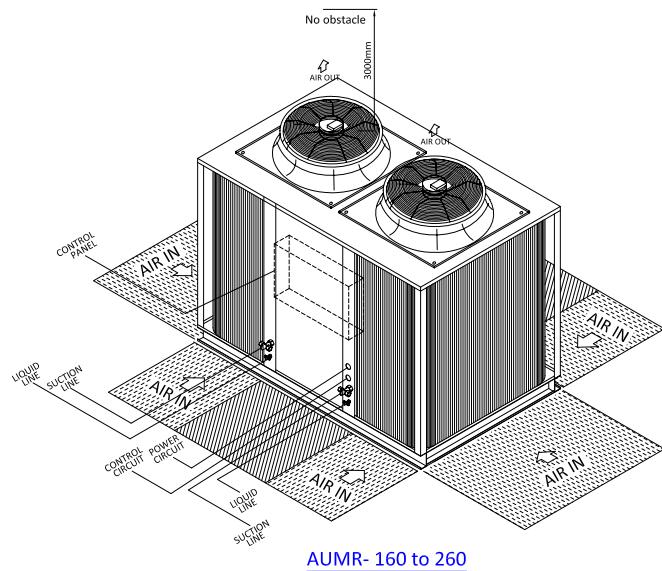
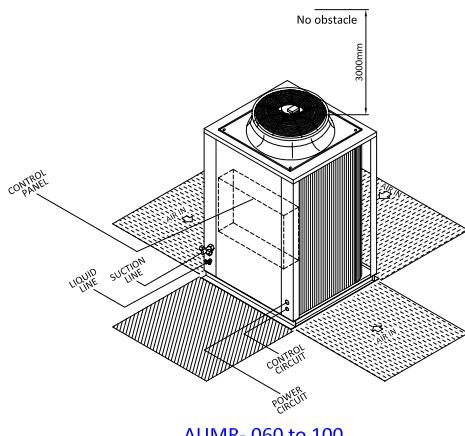
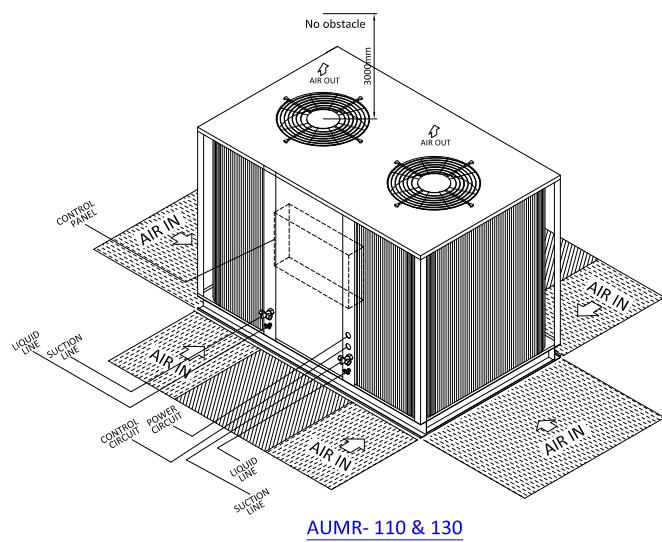
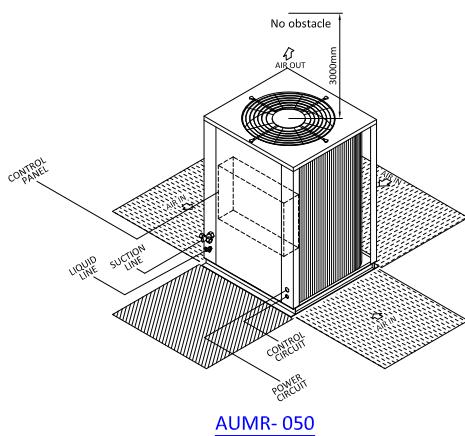
- Install the unit in such a location which is flat and strong enough to support its weight.
- All field wiring must comply with applicable local and national codes.
- Service spacing should be provided as shown in the figure. If any obstacles are around the unit, distributed air is short-circuited so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



SPACING FOR SERVICE

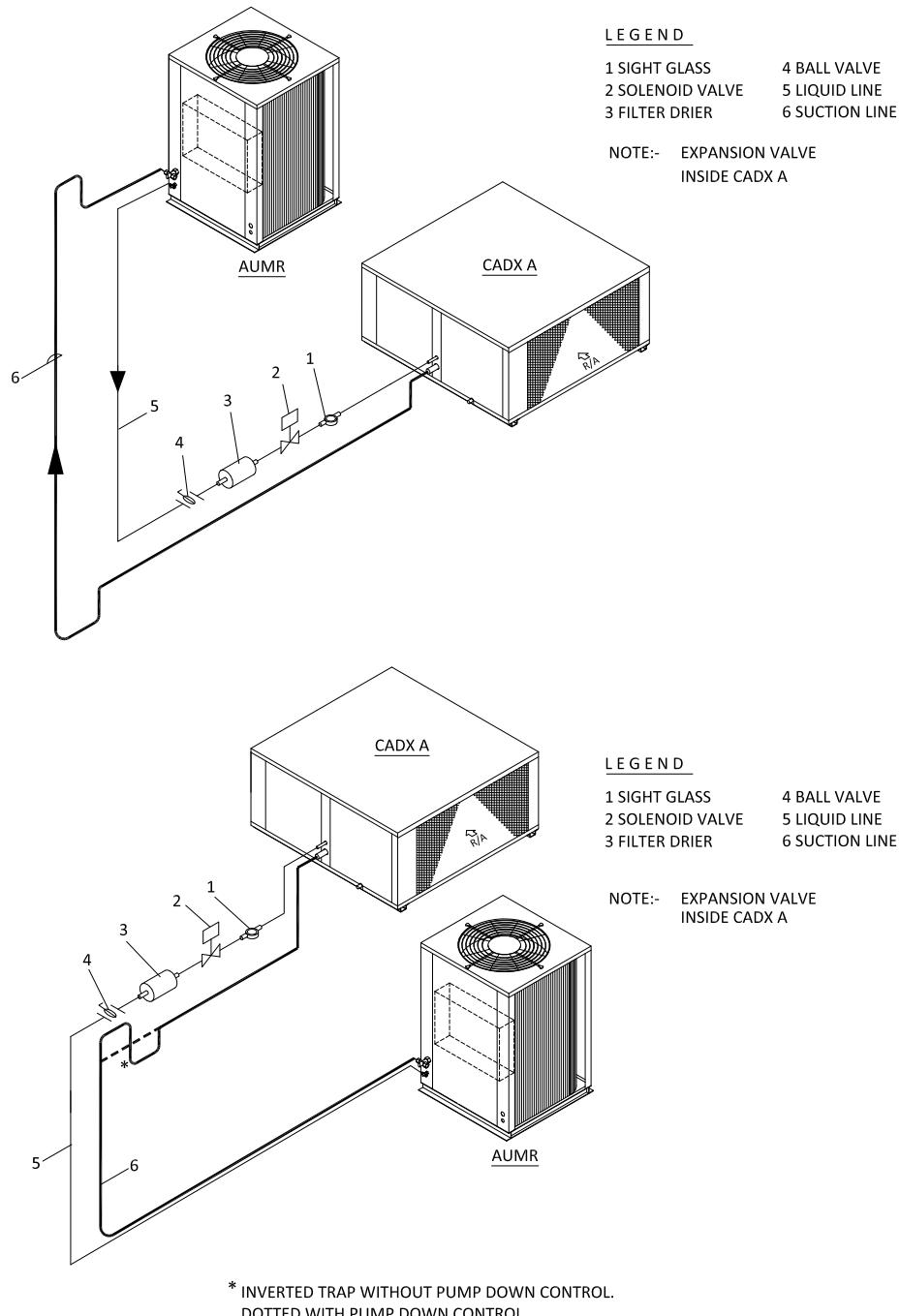


SPACING FOR AIRFLOW





## 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:

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

# GUIDE SPECIFICATIONS

## GENERAL

Split air conditioner shall be composed of compressor(s), condenser & evaporator coils with fans, refrigerant piping, electrical components & enclosing cabinet in one piece. These units shall be factory assembled, internally wired, fully refrigerant charged with R410A, tested under strict quality standards & are suitable for outdoor installation on rooftop or ground level with ducted system.

## CONDENSING UNIT

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

## COMPRESSOR(S)

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

## CONDENSER COIL(S)

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

## CONDENSER FAN(S) & MOTOR(S)

Condenser fans shall be propeller type with aluminum alloy blades and are directly driven by electric motors. Motors shall be Totally Enclosed Air Over (TEAO), six pole or four with Class F insulation and IP54/55 protection depending on models. The TEAO and Class F insulation features ensure long life and are unique to SKM. The condenser fans shall be individually statically and dynamically balanced at the factory. Complete fan assembly shall be provided with acrylic coated fan guard.

## 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 450 psig high pressure under water, cleaned & dehydrated at the factory. Coil shall conform to AHRI-410.

## EVAPORATOR FAN & 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.

## CASING

The unit casing for **CADX-A** is made of zinc coated galvanized steel sheets conforming to JIS-G3302 and ASTM A653 which is phosphatized and baked after an electrostatic powder coat of approximately 60 microns. This finish and coating can pass a 1000 hour in 5% salt spray testing at 95°F (35°C) and 95% relative humidity as per ASTM B117. Panels and casing are insulated with 1" (25mm) thick fiberglass (with BGT coating) thermal and acoustic insulation having density of 2 lb/ft<sup>3</sup>. (32 kg/m<sup>3</sup>) and thermal conductivity of 0.23 BTU.in/ft<sup>2</sup>°Fh (0.033 W/m°K). Insulation meets the requirements of NFPA 90A and 90B for fire resistance.

## FILTER SECTION

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.

## CONTROL PANEL

The 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 should be provided for protection.



## **NOTES**

## NOTES



## **NOTES**



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