



# ECUA08

## Environmental Control Unit

### General Description

The Marvair® Environmental Control Unit (ECU), model ECU08, manufactured by the Marvair Division of AIRXCEL®, Inc., is designed for the telecommunications cabinet or enclosure. The versatile design allows the unit to be either installed inside or with the condenser louver, on the outside of the enclosure.

The ECUA08 has as standard the necessary features to maintain the proper environmental control demanded by the telecommunication industry. The unit is designed for use in ambients from 20°F (-7°C) to 120°F (49°C). The low noise level makes the unit ideal for installation in urban and residential areas. ECUA08 has a nominal cooling capacity of 8,000 BTUH (.67 tons). To facilitate installation, the unit rests on a mounting bracket. One bracket is shipped with each unit.

Tested to UL Standard 1995, 2nd Ed., and CAN/CSA-C22.2 No. 236-95 2nd Ed.



### Standard Features

#### Designed for Operation in Low Ambient Conditions

- Low ambient control cycles condenser motor to maintain proper refrigerant pressures. allows operation down to 20°F/-7°C. Note: low temperature operation is affected by ambient conditions, e.g., wind and humidity.

Three minute bypass of the low pressure switch allows the compressor to start when outdoor conditions are below 55°F/13°C.

#### Remote Alarm Capability

- Dry contacts can be used for remote alarm or notification upon air conditioner lockout.

#### Built-in Reliability

- High and low refrigerant pressure switches with lockout protects refrigerant circuit.
- Timed low pressure by-pass.
- Time delay/anti-short cycle timer.
- Internal thermostat (optional).

#### Rugged Construction

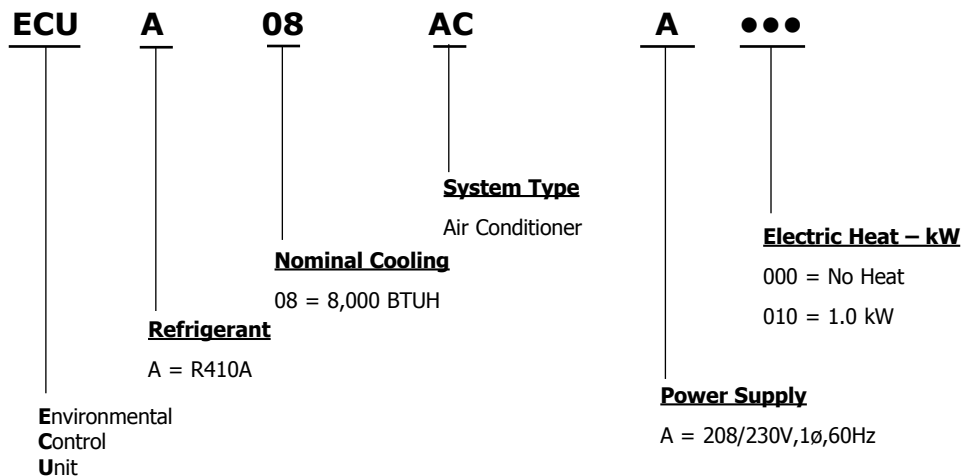
- Blowers on evaporator and condenser sections.
- Indoor or outdoor installation.
- Copper tube, aluminum fin evaporator and condenser coils.
- Factory installed 1.0 kW heater (optional).
- Rotary compressor.
- Additional crankcase heater (optional).
- Baked on neutral beige finish over galvalume steel for maximum cabinet life.

#### Ease of Service

- Lightweight allows easy field replacement of unit.

R-410A  
Refrigerant

## Model Identification



## Summary Ratings

ELECT. HEAT		000 = None		010 = 1.0 kw	
BASIC MODEL	VOLTAGE PHASE	CKT #1		CKT #1	
		MCA	MFS	MCA	MFS
ECUA08ACA	208-230/1	8.2	15	8.2	15
MCA = Minimum Circuit Ampacity (Wire Size Amps). MFS = Maximum Fuse Size or HACR circuit breaker. .					

## Unit Load Amps

BASIC MODEL NUMBER	VOLTAGE PHASE HERTZ	CURRENT AMPS		LOAD OF RESISTIVE HEATING ELEMENTS ONLY (AMPS)	TOTAL MAXIMUM HEATING AMPS (STANDARD UNIT)
		AC	IBM	1.0 kW	1.0 kW
ECUA08ACA (N)	208-230/1/60	7.10	1.70	4.20	5.90

IBM = Indoor Blower Motor

## Electrical Characteristics

BASIC MODEL	COMPRESSOR					OUTDOOR FAN MOTOR				INDOOR FAN MOTOR		
	TYPE	VOLTS	RLA	LRA	MCC	VOLTS	RPM	FLA	HP	VOLTS	RPM	HP
ECUA08ACA (N)	Rotary	208/230-60-1	4.4	22.2	6.8	208/230-60-1	1600	1.00	1/10	208/230-60-1	3000	1/10

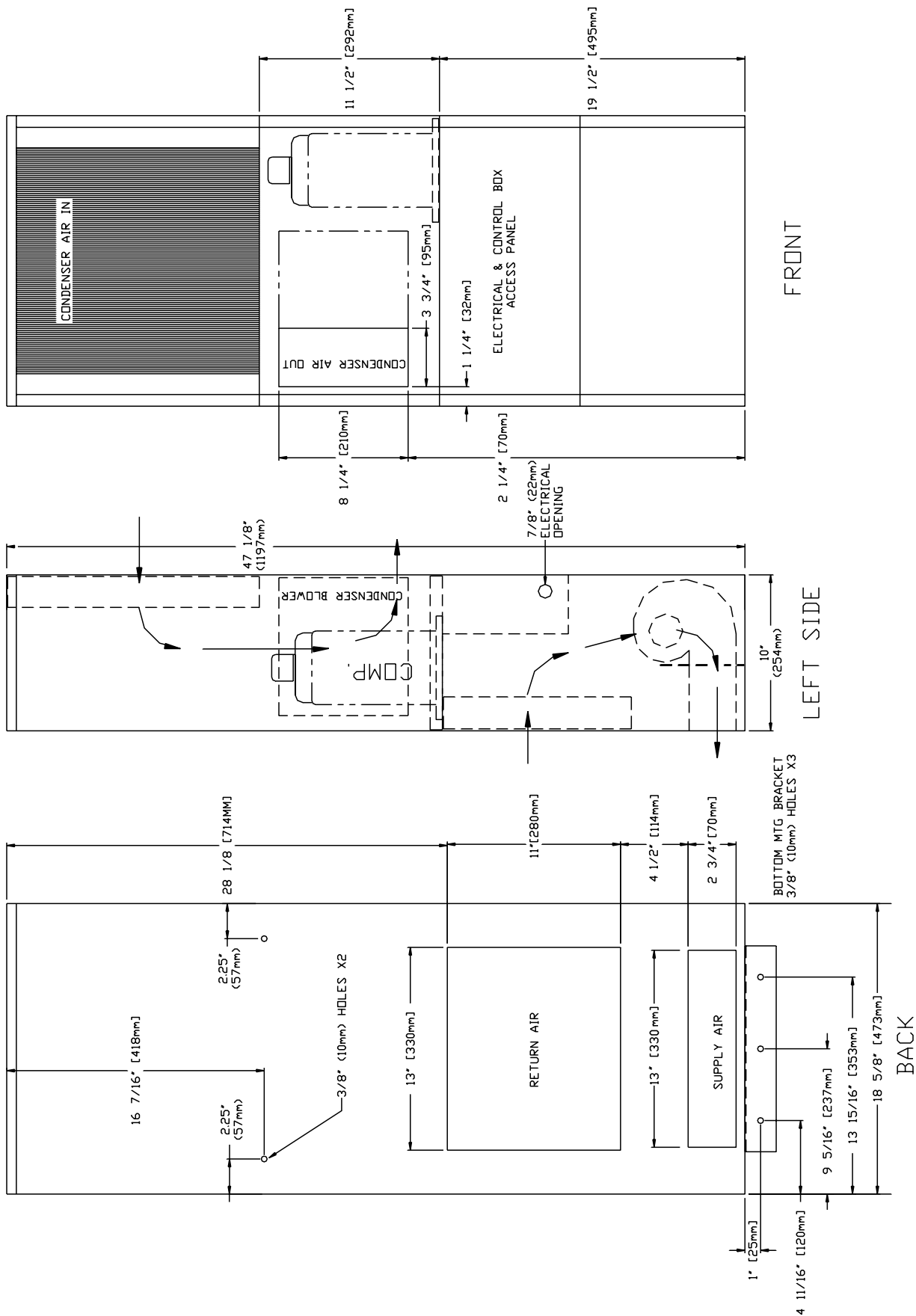
RLA = Rated Load Amps    LRA = Locked Rotor Amps    MCC = Maximum Continuous Current    FLA = Full Load Amps  
RPM = Revolutions per Minute    HP = Horse Power

## Certified Efficiency and Capacity Ratings

MODEL	COOLING BTUH	SENSIBLE COOLING (BTUH)	SENSIBLE/TOTAL RATIO	RATED CFM <sup>1</sup>
ECUA08	7,900	5,720	0.72	315

Rated at 95°F outdoor and 80°F/67°F (WB/DB) indoor. Note: All capacity and efficiency ratings are at 60 Hz. power supply. Ratings are affected by altitude.  
<sup>1</sup>Air flow ratings are with no outside air.

## Dimensional Data - ECUA08



Unit weight: 90 lbs/40 kg



## Operation

The ECUA08 is controlled by a thermostat that senses the internal cabinet temperature. When cooling is desired, the compressor, evaporator blower and condenser blower are energized. Cool air is discharged near the bottom of the unit into the cabinet. When two ECUA08s are used on the same cabinet, the CommStat 3™ provides temperature control of the redundant units and equal run time on both units.

A field installed jumper wire on the low voltage control board in the ECUA08 will permit the evaporator blower to run continuously. The ECUA08 can also be immediately shut off when used in cabinets with a fire or smoke alarm system. Please refer to the Installation Manual for details. Electric heat is optional.

## Accessories

### Thermostats

*CommStat 3™ Controller, P/N S/04581*

Solid state controller designed to operate a fully or partially redundant air conditioning system. Insures equal wear on both air conditioners while allowing the lag unit to assist upon demand. Lead/ lag changeover is factory set at 7 days, but is field programmable in 1/2 day increments from 1/2 to 7 days. The CommStat 3™ Controller has LED's to indicate status & function, digital display of temperature, a comfort override button for energy savings, five alarm relays, a built in temperature sensor and is fully programmable. See CommStat 3 Controller Product Data Sheet for details on operation & installation.

*Internal Thermostat, P/N 50718*

One stage cool, one stage heat. Factory installed.

### Louvers

*Condenser Discharge Louver P/N 91134*

17" x 9" (432 mm x 229 mm) dark bronze condenser discharge louver.

*Condenser Intake Louver P/N 91137*

17" x 14" (432 mm x 356 mm) dark bronze condenser intake louver.

As part of the Marvair® continuous improvement program, specifications are subject to change without notice.



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