RETROAIRE™

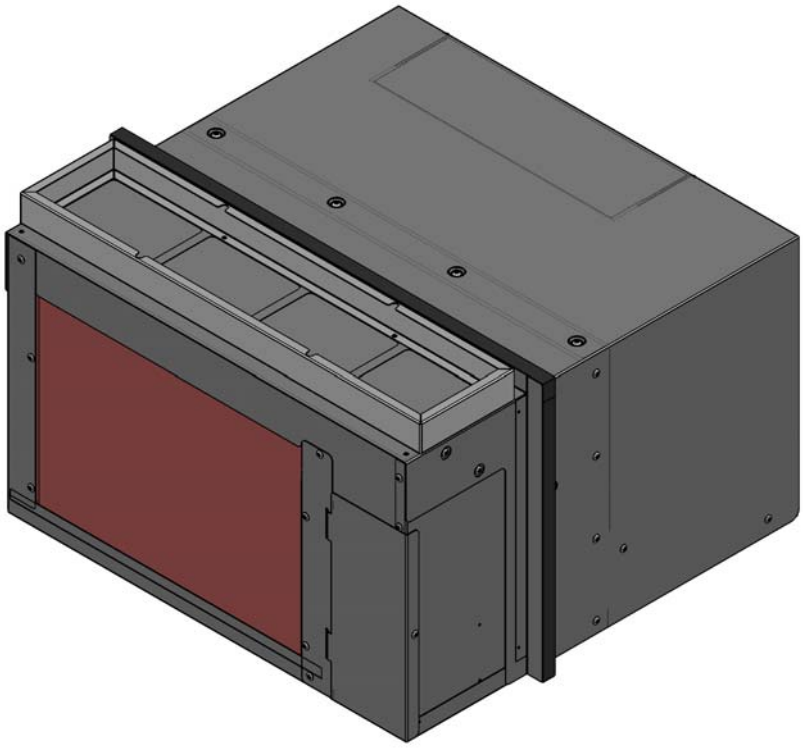
The Right Fit for Comfort

R41C

Packaged Terminal Air Conditioner (PTAC)

Straight cooling nominal capacity	
Btuh	9,000
kW	2.6

Specifications and Performance



R41C

Replacement for:
IslandAire EZ Series QC

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ecr innovative living™

An ISO 9001-2008 Certified Company

P/N 240008499, Rev. C [05/01/2011]

Read This First

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NOTICE

The RetroAire™ replacement PTAC/PTHP is backed by EMI and ECR International and is tested and rated in accordance with:

AHRI Standards 310/380

UL-484

Due to ongoing product development, product designs and specifications may change without notice.

Please contact the factory for more information.

General Product Information

Product description

RetroAire Replacement Packaged Terminal Air Condition units are available as a straight cooling (PTAC). The PTAC configurations fit the wall sleeves of the units listed on the front cover.

The Retroaire PTAC units:

- Use R-410A refrigerant. This refrigerant is not affected by a phase out schedule.
- Include high-efficiency rotary compressors, protected by a 5-year warranty.
- Include an enhanced, high-efficiency heat exchangers.
- Offer two fan speeds.
- Incorporate positive condensate re-evaporation to improve efficiency.

RetroAire PTAC ratings meet or exceed ASHRAE 90.1 Standards for energy efficiency:

- PTAC units are available in the nominal size of 9,000 Btuh, (2.6kW)
- Energy Efficiency Rating (EER) as high as 9.3.

Standard controls and components

Construction

- 20-gauge galvanized steel construction of chassis.
- Condenser baffle options to accommodate extended wall sleeve applications. (Consult the factory for special order items).
- Powder-coated condenser and evaporator drain pan.
- Foam strip seal for supply air duct.
- Weather strip insulation.

Air systems

- Motors are thermally-protected PSC type.
- Air-stream surfaces are insulated with ¼" fiber-glass or ⅛" (3.2 mm) Volara™.
- The indoor fan is a foward-curved type, directly mounted to the motor shaft.
- Unit is set up for controls by others consult factory for controls options.

Condensate removal

- The outdoor fan incorporates condensate slinger ring — Condensate is thrown onto the coil, where it evaporates, improving system performance.

Controls

- Unit is provided without controls. Molex plugs allow for easy connection to existing controls or building control systems.
- Ability to control a normally-open or normally-closed motor valve switch (on hydronic heat units only). Valve controls must be ordered for 24V or line voltage.
- Freeze protection thermostat provided to protect compressor should evaporator coil ice because of lack of air flow.
- All hydronic heat units include molex plugs for connection of hydronic valve motor.
- All units are equipped with manual reset high pressure switch which prevents abnormal high pressure operation, increasing compressor reliability.

Factory-installed options *(consult the factory)*

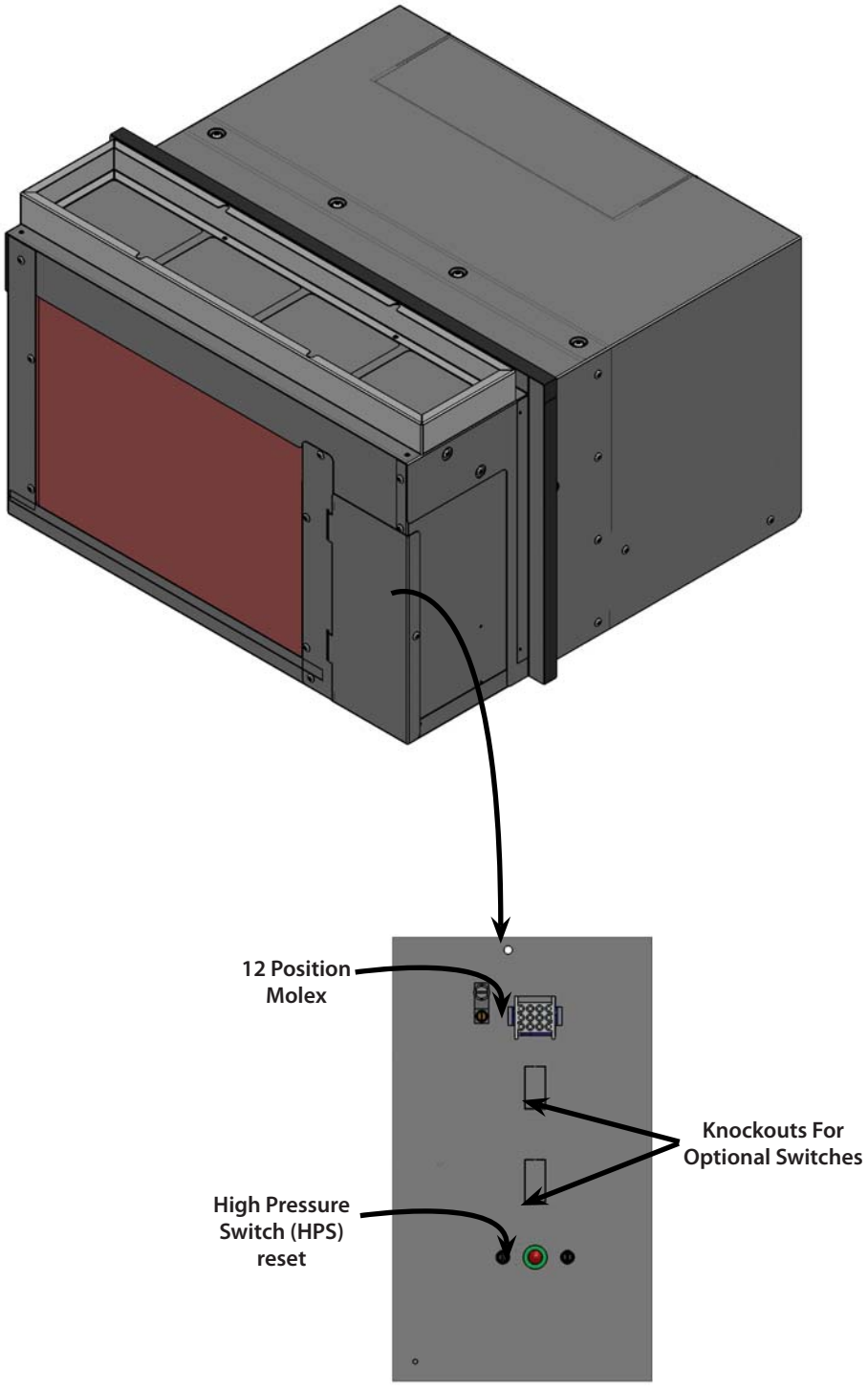
- Corrosion-resistant coil option — used for seacoast and harsh-environment usage; coated aluminum fin/copper tube condenser coil.
- Supplemental electric heat — see heat options on “Model coding” on page 6.
- Hydronic heat controls
- Front air intake

Field-installed accessories

- Hydronic heat — the coil assembly is shipped loose for field installation.
- Wall sleeves, louvers, and cabinets
- Aquastat - delays fan start-up until coil reaches 100°F (38°C) to virtually eliminate "cold" blow condition.
- Hydronic control valve , Water 2 way & 3 way
- Hydronic control valve, Steam 2 way
- Hydronic Isolation valve, 1/2 in Sweat Connection.

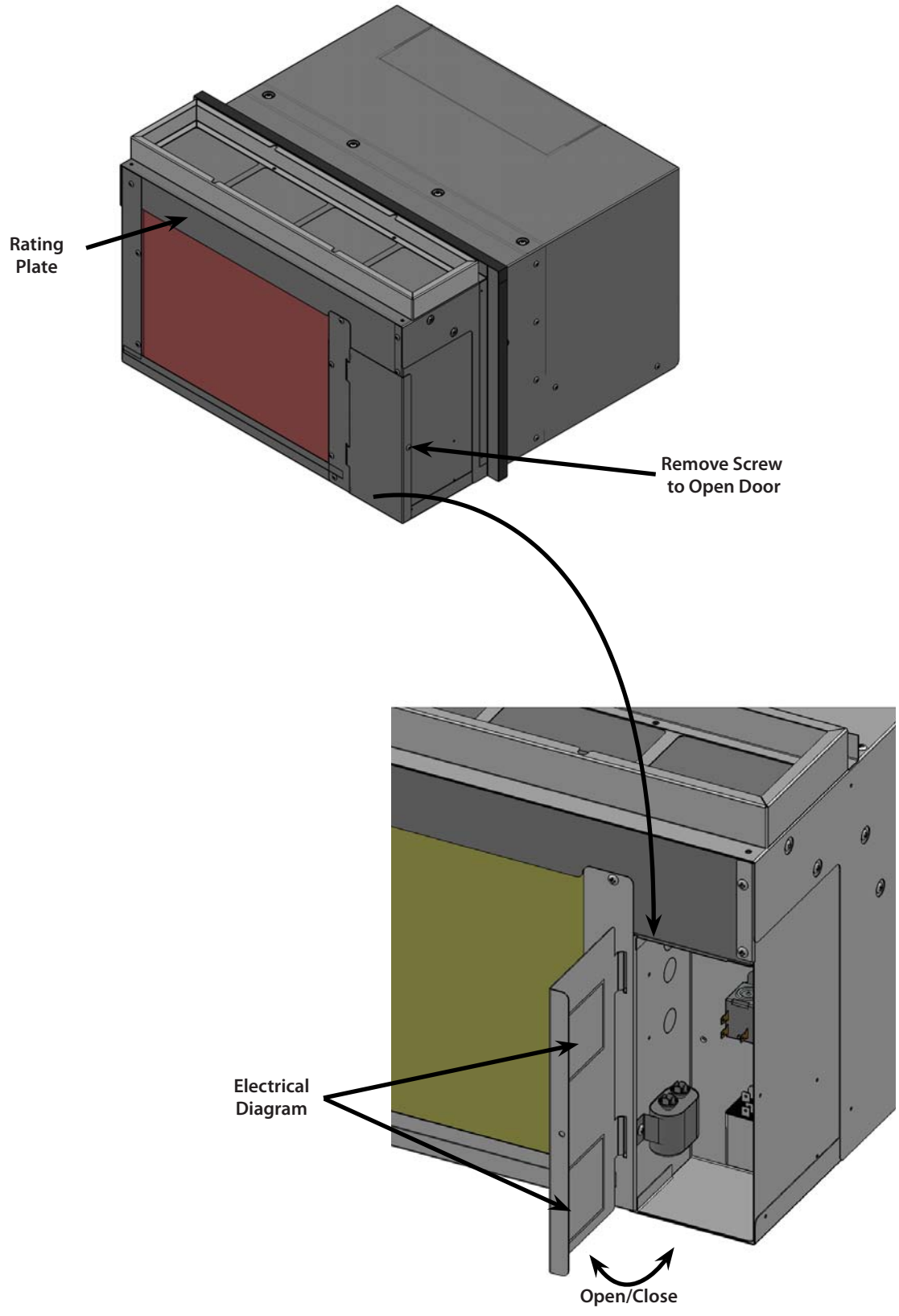
General Product Information *(continued)*

Figure 1 R41 Chassis



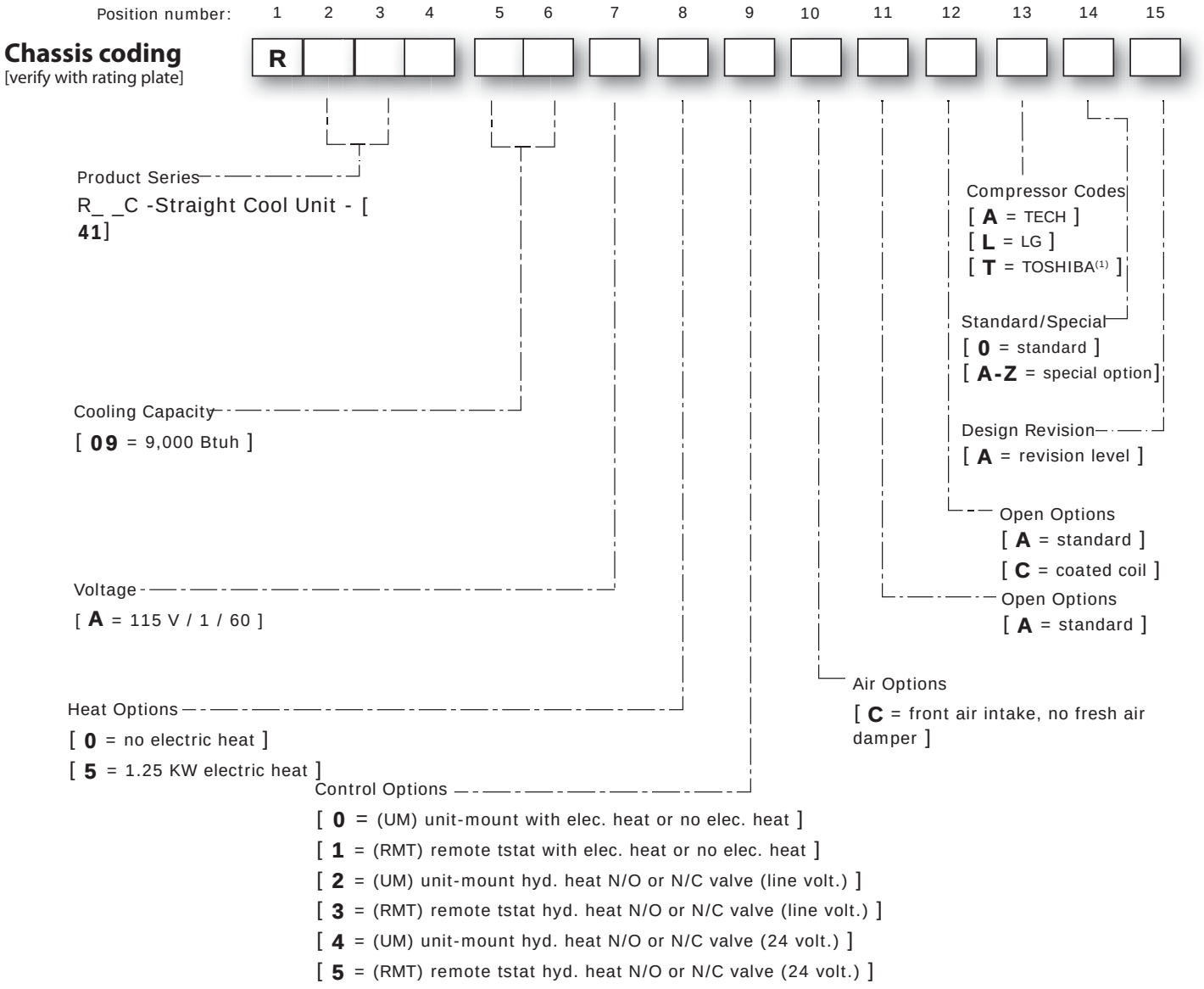
General Product Information *(continued)*

Figure 2 R41 Chassis Electrical Box



PTAC Model Coding

Figure 3 Model coding



(1) Toshiba compressor subject to manufacture availability.

Features

Indoor coil freeze protection *(standard)*

This feature will prevent the indoor coil from freeze up in the cooling mode.

- Indoor coil freeze up can occur due to a dirty air filter, restricted or poor air flow, low refrigerant charge or low room or outdoor temperatures.
- This in turn can cause compressor damage.
- Should a freeze condition be detected, the compressor and outdoor fan will be switched off until the freeze condition is satisfied. Indoor fan continues to run.

Condensate removal *(standard)*

The RetroAire replacement unit (cooling operation) is designed to eliminate condensate by slinging it onto the outdoor coil.

- Condensate drains through the bulkhead to the area near the outdoor fan.
- As part of its normal operation, the unit will produce condensate and collect it in the base pan of the unit. There it is picked up by the outdoor fan slinger ring and deposited onto the condenser coil. During the cooling season, this improves the unit's efficiency by maintaining reduced refrigeration system pressures.
- Base pan has overflow notches, if too much condensate is produced notches allow condensate to flow out of the basepan and into the wallsleeve out of the building.

Hydronic heating *(optional)*

An optional hydronic heat package may be selected in lieu of or as a supplement to electric heat. Heating operation is essentially the same as that of units with electric heat.

Aquastat connection (optional)

All replacement PTAC/PTHP's with hydronic heat are supplied with a standard line volt Aquastat connection.

Performance Data

Table 1 R41C performance data

Model R41C	Cooling Btuh (kW)	Sensible Heat Ratio	EER	Indoor Air Flow CFM (L/s)
R41C09	9,000 (2.6)	0.7	9.3	350 (165)

NOTICE

Due to EMI's ongoing development programs, design, specifications, and performance data is subject to change without notice. Please consult the factory for further information. For the most current unit/system performance data, please refer to our website, at www.ecrinternational.com.

Tested/Rated in Accordance with ARI 310/380 and UL Standard 484

Electrical Specifications

IMPORTANT

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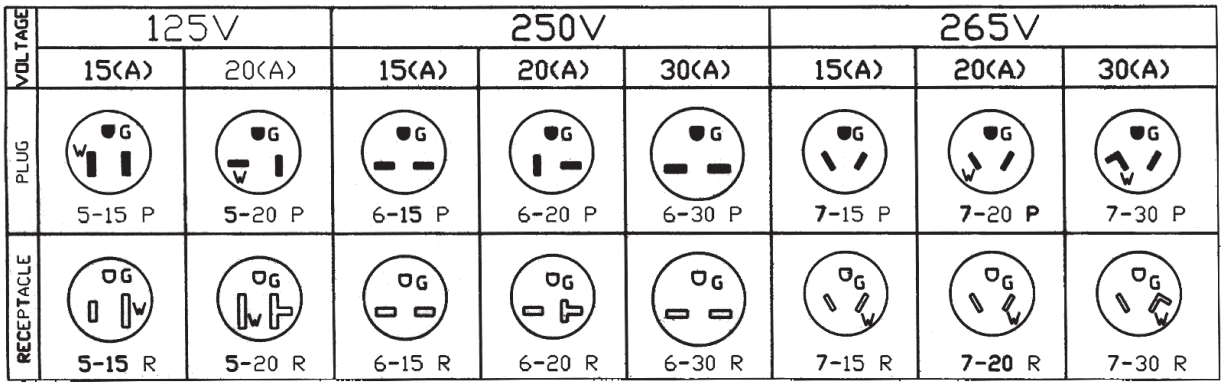
Table 2 **R41C - 9.000 BTU** electrical specifications

Power Supply Volt — 1–60		Compressor		Indoor Fan Motor		Outdoor Fan Motor		Electric Heat				Unit Electrical Ratings				
Volt	Min	RLA	LRA	FLA	Hp	FLA	Hp	Htr #	Volt	W	HA	TCA	THA	MCA	MOCP	Plug
115V	104	8.0	45.6	1.4	0.09	1.6	0.125	5	115	1250	10.9	11.0	12.3	15.3	20	5-20P

LEGEND	
Htr#	REFER TO FIG 3 MODEL DECODING, POSITION 8
RLA	RATED LOAD AMPS
FLA	FULL LOAD AMPS
Hp	HORSE POWER
W	WATTS
HA	HEATER AMPS
TCA	TOTAL COOLING AMPS
THA	TOTAL HEATING AMPS
MCA	MINIMUM CIRCUIT AMPS
MOCP	MAXIMUM OVER CURRENT PROTECTION



Notes

Notes

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An ISO 9001-2008 Certified Company