

Our EM-1 ceiling mount air conditioning evaporator has been engineered for maximum serviceability and ease of installation in commercial and school buses. Because the drain pan is part of the basic system, the EM-1 can be completely installed, charged and tested before the cover is put in place, greatly reducing installation time. Sim-

ple cover removal provides ready access to all serviceable components $^{\star}$ . This evaporator is available for non-ducted free blow applications in 25" – 30" (635 – 762 mm) length passenger areas.

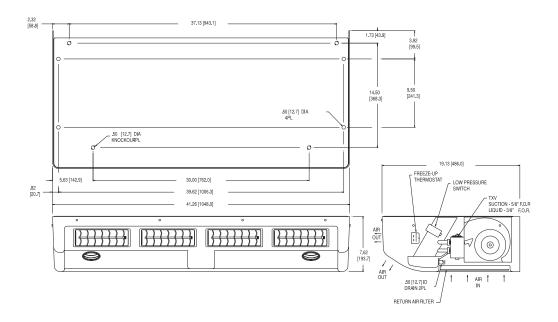
\* See EM-3



- New, efficient, transverse blower technology reduces AMP draw and provides increased, uniformly distributed air flow
- Higher capacity unit in a smaller package (height reduced over 20% from existing models, significantly increasing head clearance)
- Reduced service time and overall life cycle cost with single, easily accessible motor, bottom mounted air filter, 10% fewer parts and fasteners than previous models
- Return air filters can be removed and cleaned without removing the units cover

- High volume air flow, widely dispersed through bi-directional louvers for total passenger comfort
- State-of-the-art enhanced coils for maximum cooling capacity and increased efficiency
- Variable speed blower allows for full air flow adjustment to optimize system to individual cooling preferences
- · Heavy-duty steel frame is reinforced for added strength
- Can be front/rear center or front/rear side mounted in all makes/models of buses





Cooling capacity	60000 Btu/hr (17.5 kW) IMACA <sup>[1]</sup> 27000 Btu/hr (8 kW) ARI <sup>[2]</sup>
Air flow	1600 CFM (2718.4 m³/hr)
Refrigerant	R134a
Length	41.25" (1048 mm)
Width	19" (486 mm)
Height	7.62" (193.5 mm)
Weight	60 lbs (27 kg)
Condensate Drain Connection	½" (12.7 mm) O.D
Max amperage requirement	29.5 A @ 13.5 V dc (High Speed)
Voltage	12 or 24 VDC
Cover color	Snow White or Dove Gray
	[1] IMACA conditions: 100°F (38°C) / 90°F (32°C) / 50% RH

[1] IMACA conditions: 100°F (38°C) / 90°F (32°C) / 50% RH [2] ARI conditions: 95°F (35°C) / 80°F (27°C) / 50% RH



MCC's EM-2 ceiling mount air conditioning evaporator has been engineered for maximum serviceability and ease of installation in commercial and school buses application. Because the drain pan is part of the basic system, the EM-2 can be completely installed, charged and tested be-

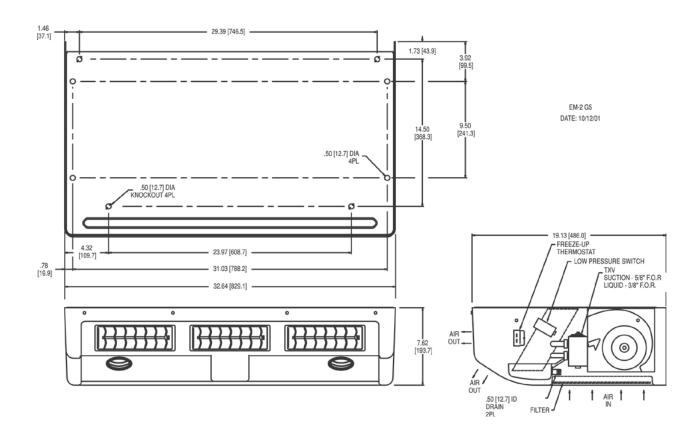
fore the cover is put in place, greatly reducing installation time. Simple cover removal provides ready access to all serviceable components. The EM-2 evaporator is available for non-ducted, free blow applications in 20'-25' (610-762 cm) length passenger areas.



- New, efficient, transverse blower technology reduces AMP draw and provides increased, uniformly distributed air flow
- Heavy-duty galvanized steel frame is reinforced for added strength
- High volume air flow, widely dispersed through bi-directional louvers for total passenger comfort
- State-of-the-art enhanced coils for maximum cooling capacity and increased efficiency
- Return Air filter can be removed and cleaned without removing the unit cover

- Higher capacity unit in a smaller package (height reduced over 20% from existing models, significantly increasing head clearance)
- Three or variable speed blower allows for full air flow adjustment to optimize system to individual cooling preferences
- Reduced service time and overall life cycle cost with single, easily accessible motor, bottom mounted air filter,
- 10% fewer parts and fasteners than previous models
- Can be front/rear, center or front/rear side mounted indifferent bus applications





Cooling capacity	45000 Btu/hr (13 kW) IMACA <sup>[1]</sup> 18500 Btu/hr (5.4 kW) ARI <sup>[2]</sup>
Air flow	1200 CFM (2039 m³/hr)
Refrigerant	R134a
Length	33.9" (862 mm)
Width	19.13" (486 mm)
Height	7.62" (203 mm)
Weight	49 lbs (22 kg)
Condensate drain connection	½" (12.7 mm) O.D
Max amperage requirement	24.3 A @ 13.5 V dc (High Speed)
Voltage	12 or 24 VDC
Cover color	Snow White or Dove Gray
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<sup>[1]</sup> IMACA conditions: 100°F (38°C) / 90°F (32°C) / 50% RH [2] ARI conditions: 95°F (35°C) / 80°F (27°C) / 50% RH



MCC EM-3 rear ceiling mount air conditioning evaporator has been engineered for maximum serviceability and ease of installation in light and medium duty buses. Because the drain pan is part of the basic system, the EM-3 can be completely installed, charged and tested before the cover is put

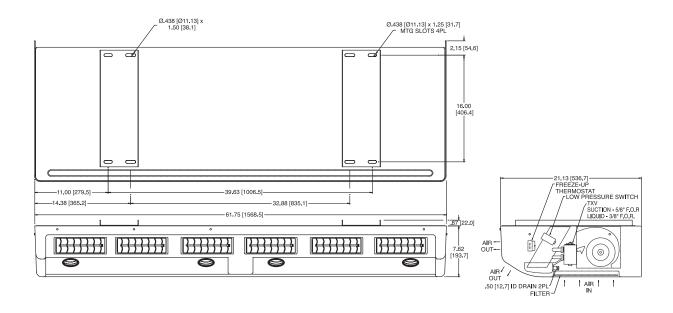
in place, greatly reducing installation time. Simple cover removal provides ready access to all serviceable components. EM-3 is available for non-ducted free blow applications in (30-35)' (914-1067)cm length passenger areas.



- New, efficient, transverse blower technology reduces AMP draw and provides increased uniformly distributed air flow
- Higher capacity unit in a smaller package (height reduced to over 20% less than existing models, thereby significantly increasing head clearance)
- Heavy-duty steel frame is reinforced for added strength
- High volume air flow, widely dispersed through bi-directional louvers for total passenger comfort
- Return air filter can be removed and cleaned without removing the unit's cover

- State-of-the-art-enhanced coils for maximum cooling capacity and increased efficiency
- Three or variable speed blower allows for full airflow adjustment to optimize system to individual cooling preferences
- Reduced service time and over all life cycle cost with single, easily accessible motor, bottom mounted air filter,
- 10% fewer parts and fasteners than previous models
- Can only be rear center ceiling mounted in all makes and models of buses





Cooling capacity	90000 Btu/hr (26 kW) IMACA <sup>[1]</sup> 47000 Btu/hr (14 kW) ARI <sup>[2]</sup>
Air flow	2400 CFM (679.6 m³/hr)
Refrigerant	R134a
Length	61.75" (1566 mm)
Width	21.13" (537 mm)
Height	8.49" (215.6 mm)
Weight	95 lbs (43 kg)
Condensed drain connection	½" (12.7 mm) O.D
Max amperage requirement	46 A @ 13.5 V dc (High Speed)
Voltage	12 or 24 VDC
Cover color	Snow White or Dove Gray
Ī	[1] IMACA conditions: 100°F (38°C) / 90°F (32°C) / 50% RH

[2] ARI conditions: 95°F (35°C) / 80°F (27°C) / 50% RH



## Evaporator EM-7

MCC EM-7 ceiling mount air conditioning evaporator has been engineered for maximum serviceability and ease of installation in commercial and school buses and vans. Because the drain pan is part of the basic system, the EM-7 can be completely installed, charged and tested before the cover is put in place, greatly reducing installation time.

Simple cover removal provides ready access to all serviceable components.

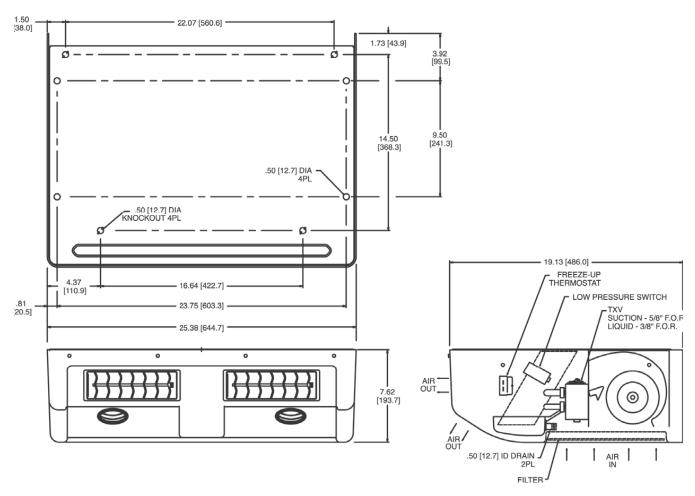
This evaporator is available for non-ducted free blow applications in (15-20)" (381-508)mm passenger areas.



- New, efficient, transverse blower technology reduces
  AMP draw and provides increased, uniformly distributed
  air flow
- Higher capacity unit in a smaller package (height reduced over 20% from existing models, significantly increasing head clearance)
- Reduced service time and overall life cycle cost with single, easily accessible motor, bottom mounted air filter, 10% fewer parts and fasteners than previous models
- Return air filters can be removed and cleaned without removing the units cover

- High volume air flow, widely dispersed through bi-directional louvers for total passenger comfort
- State-of-the-art enhanced coils for maximum cooling capacity and increased efficiency
- Variable speed blower allows for full air flow adjustment to optimize system to individual cooling preferences
- Heavy-duty steel frame is reinforced for added strength
- Can be front/rear center or front/rear side mounted in all makes/models of buses





Cooling capacity	35000 Btu/hr (10.25 kW) IMACA <sup>[1]</sup> 13700 Btu/hr (4 kW) ARI <sup>[2]</sup>
Air flow	800 CFM (1359 m³/hr)
Refrigerant	R134a
Length	25.38" (645 mm)
Width	19" (486 mm)
Height	7.62" (193.5 mm)
Weight	41 lbs (19 kg)
Condensate drain connection	½" (12.7 mm) O.D
Max amperage requirement	15.9 A @ 13.5 V dc (High Speed)
Voltage	12 or 24 VDC
Cover color	Snow White or Dove Gray
	[1] IMAGA [2] [2] [2] [2] [2] [2] [2]

<sup>[1]</sup> IMACA conditions: F (38°C) / 90°F (32°C) / 50% RH [2] ARI conditions: 95°F (35°C) / 80°F (27°C) / 50% RH



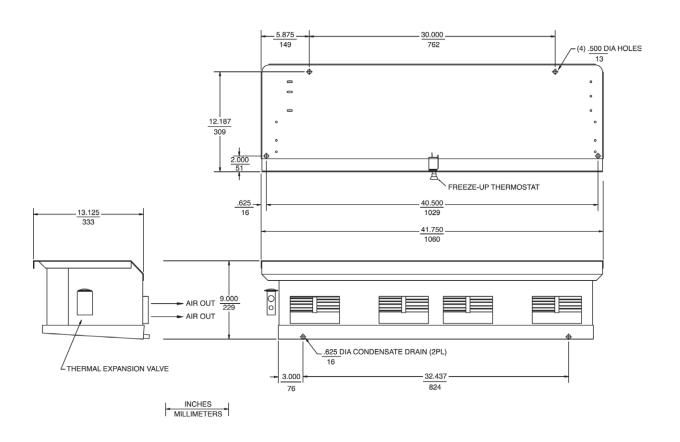
MCC EM-9 ceiling mount air conditioning evaporator has also been engineered for maximum serviceability and ease of installation in commercial and school buses. Because the drain pan is part of the basic system, the EM-9 can be completely installed, charged and tested before the cover is

put in place, greatly reducing installation time. Simple cover removal provides ready access to all serviceable components. This evaporator is available for ducted applications only up to 35" (889 mm) passenger areas.



- Heavy-duty steel frame is reinforced for added strength
- High volume air flow that delivers performance in to any shape of duct work
- State-of-the-art enhanced coils for maximum cooling capacity and increased efficiency
- Flexible mounted positions offer airflow where you need it
- Three speed blower allows for full air flow adjustment to optimize system to individual cooling preferences
- Unit incorporates coil freeze up protection. The result is increased trouble-free compressor life
- Return air Filter can be removed and cleaned without removing the unit cover





Cooling capacity	60000 Btu/hr (17.5 kW) IMACA <sup>[1]</sup> 27000 Btu/hr (8 kW) ARI <sup>[2]</sup>
Air flow	1600 CFM (2718 m³/hr)
Refrigerant	R134a
Length	41.75" (1060 mm)
Width	13.125" (333 mm)
Height	9" (228 mm)
Weight	85 lbs (38.5 kg)
Condensate drain connection	½" (12.7 mm) O.D
Max amperage requirement	37.5 A @ 13.5 V dc (High Speed)
Voltage	12 or 24 VDC
Cover color	Snow White or Dove Gray
	[1] [MAOA 2]

[1] IMACA conditions: 100°F (38°C) / 90°F (32°C) / 50% RH [2] ARI conditions: 95°F (35°C) / 80°F (27°C) / 50% RH



MCC's EM-17 rear ceiling mount air conditioning evaporator has been specifically engineered for use in vehicles with an overall length of 35 - 40' (1067 - 1219 cm) and which are used in the severest of climates and operating conditions. This unit was designed with the term "heavy-duty" in mind: from its long life large frame transit style motors to

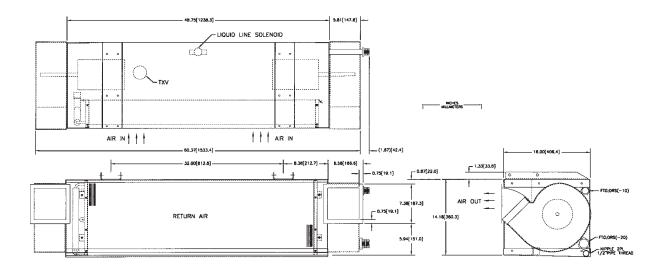
its own power supply being generated by a 24V batteryless alternator. This is the unit that needs to be experienced to be appreciated. It has conquered transit-duty school bus applications in the desert, now let it conquer your unique application.



- Internally-enhanced rugged coil design delivers the highest capacity in its class while using R-134a as its refrigerant
- Heavy-duty steel frame construction coupled with stainless steel fasteners equal rugged construction
- The highest air volume in its class is generated by two re-buildable 56-series cast frame constructed motors which drive two large diameter metal scroll blower wheels. This is then evenly dispersed through the use of ductwork to provide total passenger comfort
- State-of-the-art electronic controls are incorporated to provide minimum wiring, improved reliability, and maximum protection

- All refrigerant connection points are 0-ring for added leak protection and are coupled with hoses constructed to meet or exceed SAE Spec J2064 Type E
- A vinyl-clad steel cover is included in your choice of two colors (snow white or dove gray) which are custom fit to your vehicles unique contours
- A durable aluminum mesh filter is mounted in an easy to service hinged air return grill for minimized service time and maximum operating time





Cooling capacity	130000 Btu/hr (38 kW) IMACA <sup>[1]</sup> 32760 Btu/hr (9.61 kW) ARI <sup>[2]</sup>
Air flow	2400 CFM (4080 m³/hr)
Refrigerant	R134a
Length	16" (406.4 mm)
Width	48.75" (1238.3 mm)
Height	15.5" (394 mm)
Weight	196 lbs (89 kg)
Condensate drain connection	½" (12.7 mm) O.D
Current draw	57 amps at 27 VDC (Rated @ high speed and ½" static)
Cooling coil	6 rows deep, galvanized steel tube sheets with internally enhanced 0.4" (9.5 mm) diameter copper tubes expanded into 0.006" (0.15 mm) aluminum fins
Motors	Fully re-buildable 56-series frame construction capable of a constant duty design life rating of no less than 10000 hours. Motor shafts are a series-300 stainless steel for corrosion resistance. Motors are two speed (hi/low) through use of an external voltage dropping resistor.
Blowers	Rated at 2060 CFM (3500 $\rm m^3/hr)$ @ 0.5" (13 mm) static @ 27 volts and dynamical balanced for quiet operation.
Blower housings	Steel construction coated with a heat-resistant sound dampening foam to aid in noise reduction
Expansion valve	Externally equalized right-angle valve with a replaceable power head and cage assembly.
Expansion valve	The superheat is factory preset.
Return air filter	Constructed of a durable aluminum mesh rated to pass FMVSS302.
	[1] IMACA conditions: 100°F (38°C) / 90°F (32°C) / 50% RH

[2] ARI conditions: 95°F (35°C) / 80°F (27°C) / 50% RH



# Evaporator IW-1

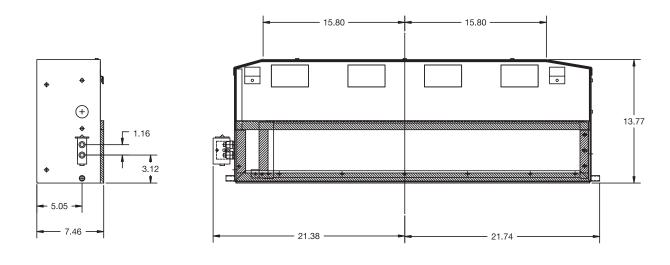
The IW-1 is designed to free up the overhead compartment where traditional evaporators are located. The IW-1 evaporator can also be matched with other MCC components to

provide a complete air conditioning system that meets your exact vehicle size, operating mode, and climate.



- Lightweight aluminum frame construction
- Flexible mounting configurations for every make of body
- Integrated motor cover panel for ease of service
- State-of-the-art enhanced coils for maximum cooling capacity
- Flush mount installation provides maximum head clearance and clean OEM appearance
- Easy access hinged return air filter provides for reduced service time





Cooling capacity	55000 Btu/hr (16.11 kW) IMACA <sup>[1]</sup> 27005 Btu/hr (8 kW) ARI <sup>[2]</sup>
Air flow	1600 CFM (2718.42 m³/hr)
Refrigerant	R134a
Length	43.12" (1095.2 mm)
Width	7.46" (189.5 mm)
Height	13.77" (349.8 mm)
Weight	50 lbs (22.7 kg)
Condensate drain connection	½" (12.7 mm) OD
Max amperage requirement	23.7 A @ 13.5 V dc (High Speed)
Voltage	12 or 24 VDC
Cover color	Snow White or Dove Gray
	[1] IMACA conditions, 100°E (30°C) / 00°E (32°C) / 50°/ PH

[1] IMACA conditions: 100°F (38°C) / 90°F (32°C) / 50% RH [2] ARI conditions: 95°F (35°C) / 80°F (27°C) / 50% RH

## Evaporator IW-2

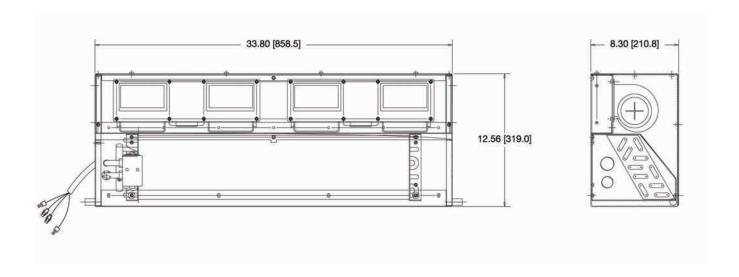
The IW-2 is designed to free up the overhead compartment where traditional evaporators are located. The IW-2 evaporator can also be matched with other MCC components to

provide a complete air conditioning system that meets your exact vehicle size, operating mode, and climate.



- Lightweight aluminum frame construction
- Flexible mounting configurations for every make or body
- Integrated motor cover panel for ease of service
- State-of-the-art enhanced coils for maximum cooling capacity
- Flush mount installation provides maximum head clearance and clean OEM appearance
- Easy access return air filter provides for reduced service time





Cooling capacity	45000 Btu/hr (13.2 kW) IMACA <sup>[1]</sup> 18500 Btu/hr (5.42 kW) ARI <sup>[2]</sup>
Air flow	800 CFM (1359.2 m³/hr)
Refrigerant	R134a
Length	33.8" (858.5 mm)
Width	8.30" (211 mm)
Height	12.56" (319 mm)
Weight	45 lbs (20.41 kg)
Condensate drain connection	½" (12.7 mm) OD
Max amperage requirement	23.7 A @ 13.5 V dc (High Speed)
Voltage	12 or 24 VDC
Cover color	Snow White or Dove Gray

[1] IMACA conditions: 100°F (38°C) / 90°F (32°C) / 50% RH [2] ARI conditions: 95°F (35°C) / 80°F (27°C) / 50% RH

# Evaporator IW-4

The IW-4 unit frees up the front bulkhead of Thomas Built Buses C2 conventional buses. The IW-4 evaporator can also be matched with other MCC components to provide

a complete air-conditioning system that meets your exact vehicle size, operating mode and climate.

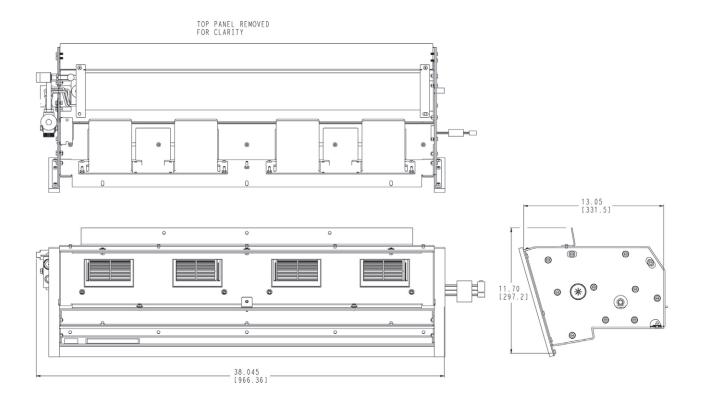


## **Features**

- Lightweight aluminum frame construction
- Integrated motor cover panel for ease of service
- Enhanced coils for maximum cooling capacity
- Easy access return air filter helps to reduce service time

 Drop-in one-piece construction simplifies installation time and provides maximum head clearance and clean OEM appearance





Cooling capacity	55000 Btu/hr (16.1 kW) IMACA <sup>[1]</sup> 28450 Btu/hr (8.33 kW) ARI <sup>[2]</sup>
Air flow	1500 CFM (2548.5 m <sup>3</sup> /hr)
Refrigerant	R134a
Length	38.10" (967.7 mm)
Width	13.64" (346.5 mm)
Height	10.30" (261.6 mm)
Weight	40 lbs (18.1 kg)
Condensate drain connection	½" (12.7 mm) OD
Max amperage requirement	23.7 A @ 13.5 V dc (High Speed)
Voltage	12 or 24 VDC
Cover color	Snow White or Dove Gray
	1] IMACA conditions: 100°F (38°C) / 90°F (32°C) / 50% RH 2] ARI conditions: 95°F (35°C) / 80°F (27°C) / 50% RH

# Evaporator IW-10

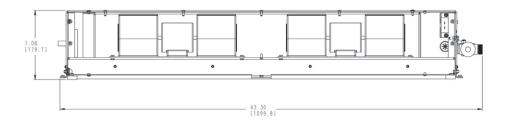
The IW-10 unit frees up the overhead compartment where traditional evaporators are located. The IW-10 evaporator can also be matched with other MCC components to

provide a complete air conditioning system that meets your exact vehicle size, operating mode and climate.

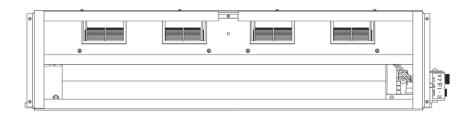


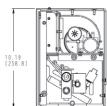
- · Lightweight aluminum construction
- Flexible mounting configurations
- Enhanced coils for maximum cooling capacity
- · Easy access return air filter helps to reduce service time
- Flat or formed ABS cover
- · Covers available in white or gray
- Flush mount installation provides maximum head clear ance and clean OEM appearance











Cooling capacity	55000 Btu/hr (16.1 kW) IMACA <sup>[1]</sup> 20580 Btu/hr (6.87 kW) ARI <sup>[2]</sup>
Air flow	1300 CFM (2208.7 m³)
Refrigerant	R134a
Length	43.30" (1100 mm)
Width	7.00" (177.8 mm)
Height	10.19" (25.9 mm)
Weight	32 lbs (14.5 kg)
Condensate drain connection	½" (12.7 mm) OD
Max amperage requirement	23.7 A @ 13.5 V dc (High Speed)
Voltage	12 or 24 VDC
Cover color	Snow White or Dove Gray

<sup>[1]</sup> IMACA conditions: 100°F (38°C) / 90°F (32°C) / 50% RH [2] ARI conditions: 95°F (35°C) / 80°F (27°C) / 50% RH