

General Accessories Panels

Panels for 1414, EJ and PJ Series Enclosures

- 14 gauge steel panels are finished in white.
- Aluminum panels are 0.080 type 5052 H-32 aluminum, unpainted.
- 14 gauge unpainted galvanized steel.
- Fiberglass panels in NEMA sizes.
- Steel panels and mounting hardware are included with 1414 Series enclosures.
- Galvanized panels and mounting hardware are included with the EJ Series enclosures.
- Mounting hardware is included with PJ Series enclosures, order panel separately.

Steel Part No.	Fiberglass Part No.	Aluminum Part No.	Galv. Steel Part No.	Panel Length	Panel Width	For Use with 1414 and EJ		For Use with PJ Series	
						Height	Width	Height	Width
14R0503			14G0503	4.88	2.88	6	4	—	—
14R0505	14F0505	14A0505	14G0505	4.88	4.88	6	6	7.04	7.04
14R0705	14F0705	14A0705	14G0705	6.75	4.88	8	6	8.94	7.06
14R0707			14G0707	6.75	6.88	8	8	—	—
14R0907	14F0907	14A0907	14G0907	8.75	6.88	10	8	11.08	9.20
14R0909			14G0909	8.75	8.88	10	10	—	—
14R1105			14G1105	10.75	4.88	12	6	—	—
14R1109	14F1109	14A1109	14G1109	10.75	8.88	12	10	13.08	11.20
14R1111			14G1111	10.75	10.88	12	12	—	—
14R1307			14G1307	12.75	6.88	14	8	—	—
14R1311	14F1311	14A1311	14G1311	12.75	10.88	14	12	15.08	13.20
14R1509			14G1509	14.75	8.88	16	10	—	—
14R1513	14F1513	14A1513	14G1513	14.75	12.88	16	14	17.22	15.34
P1868	F1868	A1868		16.88	14.88	—	—	19.34	17.34
P2068	F2068	A2068		18.44	14.44	—	—	20.94	16.94

Panels for 1418, 1422, 1447, and Wallmount Enclosures

- 12 gauge steel finished in white.
- Larger panels have two or four formed flanges.
- Some larger panels are 10 gauge.
- Panels and mounting hardware are included with 1418, 1447 and 1422 Series enclosures.

Part No.	Panel		For Use With Enclosure	
	Length	Width	Height	Width
18P0909 ¹	9	9	12	12
18P0921 ²	9	21	12	24
18P1309 ¹	13	9	16	12
18P1313 ¹	13	13	16	16
18P1515 ¹	15	15	18	18
18P1709 ¹	17	9	20	12
18P1713 ¹	17	13	20	16
18P1717 ¹	17	17	20	20
18P2109 ²	21	9	24	12
18P2113 ²	21	13	24	16
18P2117 ²	21	17	24	20
18P2121 ³	21	21	24	24
18P2709 ²	27	9	30	12
18P2713 ²	27	13	30	16
18P2717 ²	27	17	30	20
18P2721 ³	27	21	30	24
18P2727 ³	27	27	30	30
18P3321 ³	33	21	36	24
18P3327 ³	33	27	36	30
18P3333 ³	33	33	36	36
18P3921 ³	39	21	42	24
18P3927 ³	39	27	42	30
18P3933 ³	39	33	42	36
18P4521 ³	45	21	48	24
18P4527 ³	45	27	48	30
18P4533 ³	45	33	48	36
18P5733 ³	57	33	60	36
18P6927 ³	69	27	72	30
18P6933 ³	69	33	72	36

¹ Flat Panel ² 2 Formed Flanges ³ 4 Formed Flanges

Cooling Products

General Information

The Need for Environment Control

With wide spread use of micro-electronics in today's control systems, temperature management takes on a new priority in order to ensure steady and reliable performance. The maintenance of a correct operating temperature may combine both cooling and/ or heating inside an enclosure which can protect against costly down time and system failures.

General Selection Considerations

Cooling

Conditions	Solution	Advantages	Disadvantages
Maximum desired enclosure temperature is 10°F or 5°C above maximum outside ambient.	Oversize the enclosure.	Easy to implement, no maintenance. Maintains NEMA rating of the enclosure.	Dissipates small amount of heat. Larger enclosure size takes up more space.
	Install ventilation louvers.	Economical solution, very little maintenance, easy to implement.	Dissipates limited amount of heat. Dirt, oil or fluids could enter the enclosure. NEMA rating is affected.
	Install filter fans.	Less expensive than air/refrigeration systems. Relatively high amount of heat removed, some temperature control by using thermostats.	Must maintain filters. NEMA rating can be affected. Limited use in hostile environments such as chemical applications.
	Use an air/air heat exchanger.	Easy to install, small power consumption, temperature control via thermostat. Maintains NEMA rating of the enclosure.	Must maintain filters.
Maximum desired enclosure temperature lower than maximum outside ambient.	Use an air conditioner.	Easy to install. Temperature control via factory installed thermostat. Removes large amounts of heat. Maintains NEMA rating of enclosure, dehumidifies enclosure air.	Must maintain filter. Generally not to be used when outside temperature is below 59°F (15°) or above 130°F (52°C).

Circulation

Conditions	Solution	Advantages	Disadvantages
Localized heat or 'hot spots'.	Install circulation fans in the enclosure.	Economical solution, no maintenance, easy to install. Maintains NEMA rating of the enclosure.	Dissipates small amount of heat.

Heating

Conditions	Solution	Advantages	Disadvantages
Outside temperature is below minimum allowable equipment operation range.	Heat with radiant heater.	Economical power consumption. Reliable, can be temperature controlled.	Consumes energy, takes up internal panel space.
Condensation occurs.	Heat with radiant heater to maintain temperature above the dewpoint.	Economical power consumption. Reliable, humidity can be controlled.	Consumes energy, takes up internal panel space.

Cooling Products

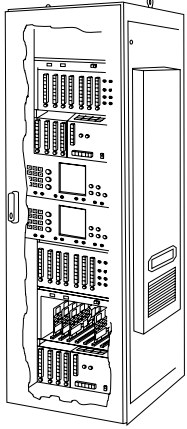
Sizing an Air Conditioner

Sizing an Air Conditioner

The proper selection of an air conditioner is determined by the following steps:

- Step 1) Internal heat load quoted as Watts that must be dissipated.
- Step 2) The exposed surface area of the enclosure.
- Step 3) Temperature differential required between maximum inside temperature and maximum outside ambient.
- Step 4) Final calculation of the above.

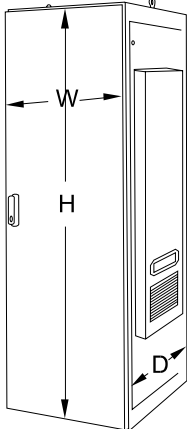
Step One



1 Watt = 3.413 BTU/H

Determine the internal heat load (in Watts) that must be dissipated.

Step Two



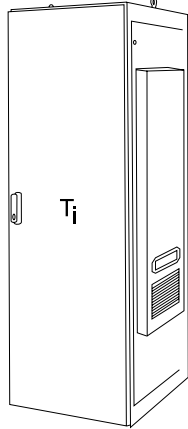
1 m² = 10.76 ft²

Calculate the exposed surface area of the enclosure:

$$\frac{2(h" \times w") + 2(h" \times d") + (w" \times d")}{144} = \text{Area (ft}^2\text{)}$$

(Example for freestanding enclosure)

Step Three



1°C or 1°KΔT=1.8°FΔT

Determine the temperature differential by subtracting the maximum allowable temperature inside the enclosure (T_i) from the maximum ambient temperature outside the enclosure (T_o).

T_o-T_i = DT

Step Four

(Watts x 3.413) + [1.25 x Area ft² X DT (°F)] = BTU/H

Capacity Required
BTU/H. Capacity Rating.

The DTS/DTT offering is available in the most popular selection of cooling capacities, sizes, voltages and mounting configurations. Available capacities range from 1,200 to 16,000 BTU/H in both side mounting and top mounting models. All models use powerful radial fans for maximum air circulation inside the enclosure in ambient temperatures of 125°F (+52°C). Models from 2,000 BTU/H capacity are equipped with thermal expansion valves for optimal use of the evaporator heat exchange surface under all operating conditions. For additional protection of the compressor motor, these valves are supplied as standard with Maximum Operating Pressure control devices (MOP). For energy conservation, the use of hot gas bypass valves is limited to the unloaded starting and control of large compressors from 8,000 BTU/H upwards. All air conditioners were developed, designed and subject to final inspections in accordance with international standards.

Cooling Products

General Specifications for All Air Conditioners

Construction:	Outer shell of sheet steel.
Closed Loop Cooling:	Ambient outside air is never mixed with clean dry enclosure air.
Operating Temperature:	Minimum +46 F (+8 C) Maximum +125 F (52 C). Optional low ambient kit is available
Gasketing:	Is provided and/or installed on all units to maintain NEMA ratings specified.
Templates:	Provided on all units for easy layout of cutouts and mounting.
Power:	Available in 115 V 60 Hz, 110 V 50 Hz and 230 V, 460 50/60Hz 3 phase.
Filter:	Removable filter mat made from synthetic fibers are reusable and can be rinsed clean.
Refrigerants:	All models use environmentally friendly R134a.
Fans:	All blower motors are thermal protected and sealed with permanent lubricants.
Condensate Disposal:	Built in condensate evaporators are standard on most models. All units feature a condensate drain fitting complete with hose attachment.
Insulation:	Cold components, lines and evaporator compartment insulated for maximum efficiency and protection against condensation.
Quality Assurance:	Prior to charging, the refrigeration system is hermetically sealed with all joints brazed under protection gas atmosphere to exclude any internal scale. After a thorough leak test every unit undergoes safety and function checks, then is serialized and packed into sturdy boxes prior to shipment.
Installation Manuals:	Included with all models are detail drawings, mounting, schematic and wiring diagrams, a trouble shooting checklist and warranty information.

Product Summary

Side Mount Air Conditioners

Part No.	NEMA Protection	Rating BTU/H	Rated Voltage	Hz	Height	Width	Depth
DTS1200A115LG	12	1,200	115	60	13.00	14.76	7.48
DTS1200A230LG	12	1,200	230	50/60	13.00	14.76	7.48
DTS2000A115LG	12	2,000	115	60	17.52	12.40	10.04
DTS2000A230LG	12	2,000	230	50/60	17.52	12.40	10.04
DTS3081A115N4SS	4X	2,500	115	60	20.15	10.05	10.77
DTS3081A230N4SS	4X	2,500	115	60	20.15	10.05	10.77
DTS3041A115LG	12	2,500	115	60	20.15	10.05	10.77
DTS3041A230LG	12	2,500	230	50/60	20.15	10.05	10.77
DTS3500A115LG	12	3,500	115	60	36.00	15.35	7.87
DTS3500A230LG	12	3,500	230	50/60	36.00	15.35	7.87
DTS3141A115LG	12	4,000	115	60	29.46	15.55	9.38
DTS3161A115N3LG	3R/4	4,000	115	60	29.46	15.55	9.32
DTS3141A230LG	12	4,000	230	50/60	29.46	15.55	9.38
DTS3181A115N4SS	4X	4,000	115	60	29.46	15.55	9.32
DTS3161A230N3LG	3R/4	4,000	230	50/60	29.46	15.55	9.32
DTS3181A230N4SS	4X	4,000	230	50/60	29.46	15.55	9.32
DTS3241A115LG	12	7,500	115	60	47.61	15.55	10.65
DTS3261A115N3LG	3R/4	7,500	115	60	47.61	15.55	10.51
DTS3281A115N4SS	4X	7,500	115	60	47.61	15.55	10.51
DTS3241A230LG	12	7,500	230	50/60	47.61	15.55	10.65
DTS3261A230N3LG	3R/4	7,500	230	50/60	47.61	15.55	10.51
DTS3281A230N4SS	4X	7,500	230	50/60	47.61	15.55	10.51
DTS8000A115LG	12	8,000	115	60	53.15	15.63	10.63
DTS8000A230LG	12	8,000	230	50/60	53.15	15.63	10.63
DTS12000A115LG	12	12,000	115	60	53.15	15.63	10.63
DTS12000A230LG	12	12,000	230	50/60	53.15	15.63	10.63
DTS9841A460LG	12	16,000	460	60	60.98	19.09	14.17

A115 units can be operated 50 Hz at 110 V

Top Mount Air Conditioners

Part No.	NEMA Protection	Rating BTU/H	Rated Voltage	Hz	Height	Width	Depth
DTT4500A115LG	12	4,500	115	60	15.94	23.62	15.35
DTT4500A230LG	12	4,500	230	50/60	15.94	23.62	15.35

A115 units can be operated 50 Hz at 110 V and A460 units can be operated at 50Hz at 380V.

Technical references and DXF downloads available at www.hamfmfg.com

All dimensions in inches unless specified otherwise

Quality Enclosures. Service Excellence.

Side Mounting DTS Series

1200 BTU/H



Description

- Designed for side mounting where hot spot cooling or low capacity cooling is required.
- Compact design uses minimal surface area.
- Closed loop cooling ensures air is recirculated without ever mixing with contaminated ambient air.

Standards

- Maintains NEMA 12 rating
- IP 54
- UR, cUR and CE

Features

- R134a refrigerant.
- Thermostat control.
- Continuous air circulation from high capacity fans.

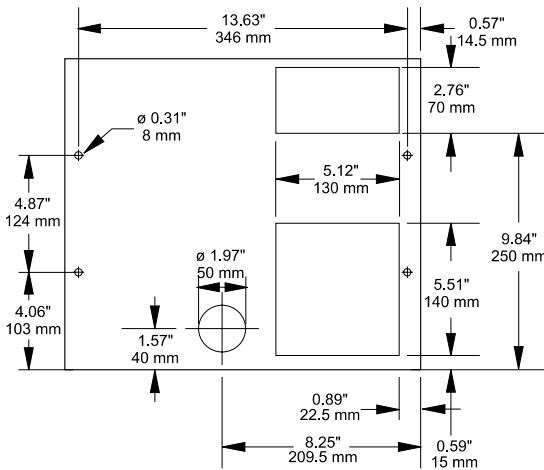
- EMI/RFI suppression meets CE.
- Line cord with plug (115 V).
- Washable filter mat protected within an easily removable grill.
- Gasket, mounting kit and template for enclosure cutout and drilling are included.
- Condensate drain hose and clamp provided.
- Exterior case easily removable for field service.
- Q Mount allows unit to hang in place for easy installation.

Accessories

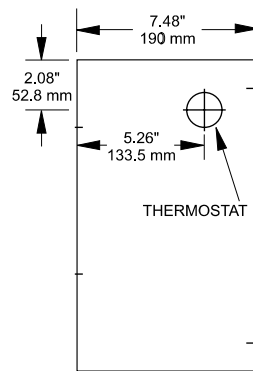
- Gaskets...see page 400
- Replacement filters...see page 400
- Replacement grill...see page 400



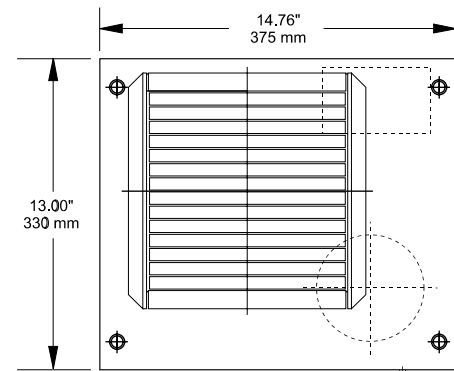
Climate Control



Drilling Template



Right Side View



Front View

Part Number	Ship Wt. lbs
DTS1200A115LG	42
DTS1200A230LG	42

Technical Data

Electrical Data	DTS1200A115LG	DTS1200A230LG
Rated Voltage	115 V 60 Hz 110 V 50 Hz	230 V 50/60 Hz
Range of Operation	103-127 V	207-253 V
Power Consumption	200 W	200 W
Running Amps	2.2 A	1.3 A
Starting Current	15.7 A	9.5 A
Line Cord	With plug	Without plug

Refrigeration Data	
Rated Capacity	1,200 BTU/H (350 Watts)
Type of Refrigerant	R134a
Refrigerant Charge	280 g
Adjustable Thermostat	Factory setting +95°F (+35°C)
Max. Ambient Air Temp.	+125°F (+52°C)
Min. Ambient Air Temp.	+46°F (+8°C)
Air Capacity (unrestricted)	Internal Circulation 106 CFM External Circulation 230 CFM
Condensate Discharge	Direct via tube
Filter Mat	150 g/m ²
Db Noise Level	≤ 62 dB(A)
Unit Weight	40 lbs (18 kg)
Exterior Case	Galvanized sheet steel
Finish	RAL7035 light grey finish
NEMA Rating	Enclosures IP 54/NEMA 12

Side Mounting DTS Series 2000 BTU/H



Description

- Compact design for side mounting on any enclosure surface where hot spot cooling or low capacity cooling is required.
- Closed loop cooling ensures clean enclosure air is recirculated without ever mixing with contaminated ambient air.

Standards

- Maintains enclosure's NEMA 12 rating
- IP 54
- UR, cUR and CE

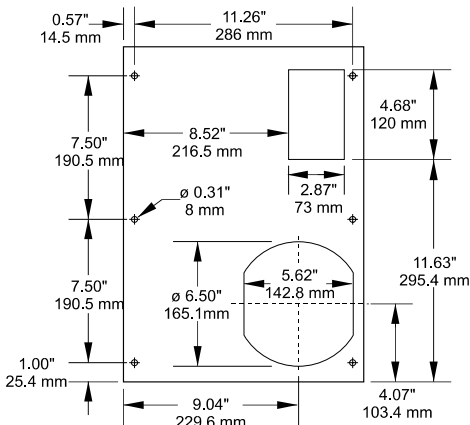
Features

- R134a refrigerant.
- Thermostat control.
- Line cord with plug (115 V).
- Washable filter mat protected within an easily removable grill.

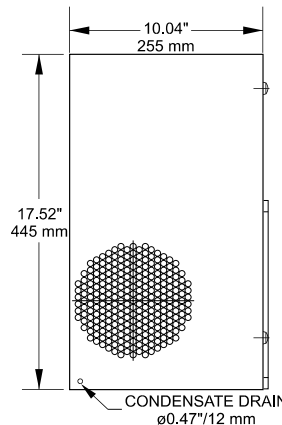
- Expansion valve permits increased efficiency through improved evaporator heat transfer and less frequent compressor operation.
- Built in condensate evaporator.
- Continuous air circulation from high capacity fans.
- EMI/RFI suppression meets CE.
- Gasket, mounting kit and template for cutout and drilling are included.
- Condensate drain hose and clamp.
- Exterior case easily removable for field service.
- Q Mount allows unit to hang in place for easy installation.

Accessories

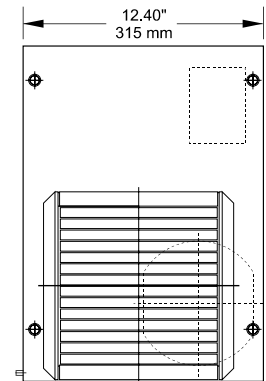
- Gaskets...see page 400
- Replacement filters...see page 400
- Replacement grill...see page 400



Drilling Template



Left Side View



Front View

Climate Control

Part Number	Ship Wt. lbs
DTS2000A115LG	54
DTS2000A230LG	54

Technical Data

Electrical Data	DTS2000A115LG	DTS2000A230LG
Rated Voltage	115 V 60 Hz	230 V 50/60 Hz
	110 V 50 Hz	
Range of Operation	103-127 V	207-253 V
Power Consumption	270 W	230 W
Running Amps	2.9 A	1.3 A
Starting Current	13.8 A	7.4 A
Line Cord	With plug	Without plug

Refrigeration Data	
Rated Capacity	2,000 BTU/H (580 Watts)
Type of Refrigerant	R134a
Refrigerant Charge	300 g
Adjustable Thermostat	Factory setting +95°F (+35°C)
Max. Ambient Air Temp.	+125°F (+52°C)
Min. Ambient Air Temp.	+46°F (+8°C)
Air Capacity (unrestricted)	Internal Circulation 230 CFM External Circulation 230 CFM
Condensate Discharge	Condensate evaporator
Filter Mat	150 g/m ²
Db Noise Level	≤ 62 dB(A)
Unit Weight	51 lbs (23 kg)
Exterior Case	Galvanized sheet steel
Finish	RAL7035 light grey finish
NEMA Rating	Enclosures IP 54/NEMA 12

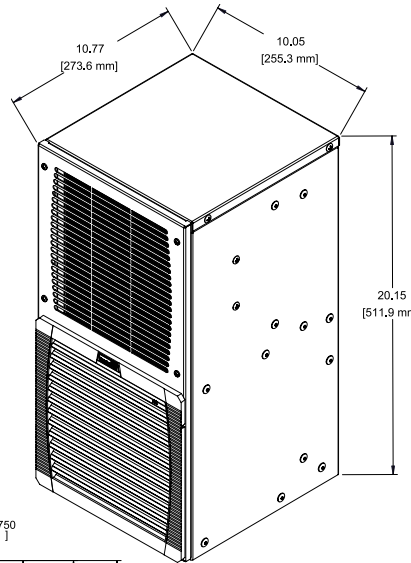
Side Mounting DTS Series

2500 BTU/H



Description

- Compact design for side mounting on any enclosure surface where hot spot or low capacity cooling is required.
- Closed loop cooling ensures clean enclosure air is recirculated without ever mixing with contaminated ambient air.



Standards

- Maintains enclosure's NEMA 12 rating
- IP 54
- UL, cUL and CE

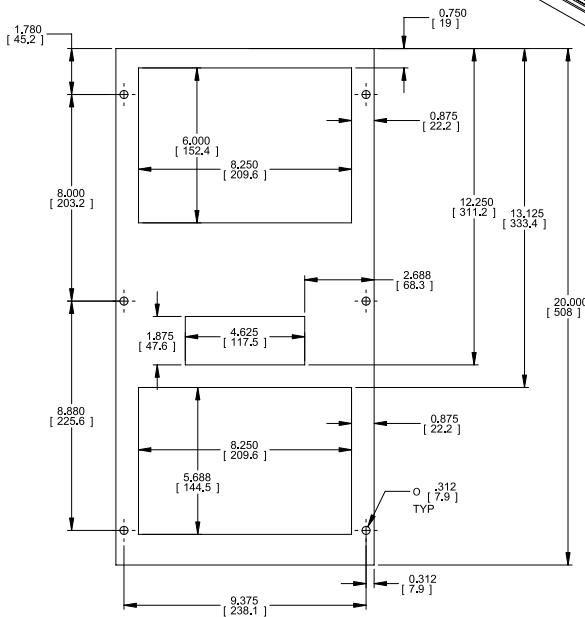
Features

- R134a refrigerant.
- Thermostat control accessible from inside enclosure.
- Expansion valve increases efficiency with improved evaporator heat transfer and less frequent compressor operation.
- Direct condensate discharge via drain hose.
- Continuous air circulation from high capacity fans.
- EMI/RFI suppression meets CE.
- Self-diagnostics on startup.
- Fault indication via LED light.
- Door contact for power down when enclosure door is opened.
- Gasket, mounting kit and template for cutout and drilling are included.
- Condensate drain hose and clamp
- Easy install with "Click & Fit" system

Accessories

- Gaskets...see page 400
- Remote door switch...see page 400

Climate Control



Technical Data

Electrical Data	DTS3041A115LG	DTS3041A230LG
Rated Voltage	115v 60 Hz	230v 50/60 Hz
	110v 50 Hz	
Range of Operation	103-127v	207-253v
Power Consumption	690 W	724 W
Running Amps	6.0 A	3.3 A
Starting Current	28 A	14.4 A
Line Cord	With Plug	With Plug

Part Number	Ship Wt. lbs
DTS3041A115LG	56
DTS3041A230LG	56

Refrigeration Data

Rated Capacity	2500 BTU/H (585 Watts)
Type of Refrigerant	R134a
Refrigerant Charge	400 g
Adjustable Set Points	Factory setting +95°F (+35°C)
Max. Ambient Air Temp.	+131°F (+55°C)
Min. Ambient Air Temp.	+59°F (+15°C)
Air Capacity (unrestricted)	Internal Circulation 191 CFM External Circulation 88 CFM
Condensate Discharge	Condensate Drain
Filter Mat	Filterless
Db Noise Level	≈ 64 dB(A)
Unit Weight	51 lbs (23 kg)
Exterior Case	Galvanized sheet steel
Finish	RAL7035 light grey finish
NEMA Rating	Enclosures IP 54/NEMA 12

Side Mounting DTS Series

3500 BTU/H



Description

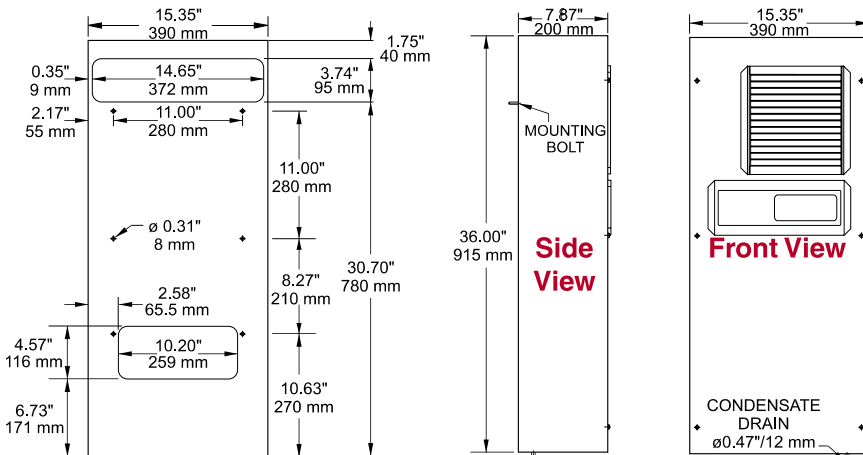
- Compact design for side mounting on any enclosure surface where hot spot or low capacity cooling is required.
- Closed loop cooling ensures clean enclosure air is recirculated without ever mixing with contaminated ambient air.

Standards

- Maintains enclosure's NEMA 12 rating
- IP 54
- UR, cUR and CE

Features

- R134a refrigerant.
- Thermostat control.
- Expansion valve increases efficiency with improved evaporator heat transfer and less frequent compressor operation.
- Built in condensate evaporator.
- Continuous air circulation from high capacity fans.
- EMI/RFI suppression meets CE.
- Line cord with plug (115 V).
- Self-diagnostics on startup.
- Fault indication via LED light.
- Door contact for power down when enclosure door is opened.
- Washable filter mat protected within an easily removable grill.
- Gasket, mounting kit and template for cutout and drilling are included.
- Condensate drain hose and clamp.
- Exterior case easily removable for resetting thermostat and field service.
- Q Mount allows unit to hang in place for easy installation.



Drilling Template

Note: Any unmarked radius is ϕ 0.79"R

Part Number	Ship Wt. lbs
DTS3500A115LG	99
DTS3500A230LG	99

Technical Data

Electrical Data	DTS3500A115LG	DTS3500A230LG
Rated Voltage	115 V 60 Hz	230 V 50/60 Hz
	110 V 50 Hz	
Range of Operation	103-127 V	207-253 V
Power Consumption	590 W	550 W
Running Amps	6.7 A	2.9 A
Starting Current	17.5 A	8.3 A
Line Cord	With plug	Without plug

Accessories

- Gaskets...see page 400
- Lifting lugs...see page 400
- Remote door switch...see page 400
- Replacement filters...see page 400
- Replacement grill...see page 400

Refrigeration Data

Rated Capacity	3,500 BTU/H (1,014 Watts)
Type of Refrigerant	R134a
Refrigerant Charge	480 g
Adjustable Set Points	Factory setting +95°F (+35°C)
Max. Ambient Air Temp.	+125°F (+52°C)
Min. Ambient Air Temp.	+46°F (+8°C)
Air Capacity (unrestricted)	Internal Circulation 247 CFM External Circulation 341 CFM
Condensate Discharge	Condensate evaporator
Filter Mat	150 g
Db Noise Level	≤ 64 dB(A)
Unit Weight	94 lbs (43 kg)
Exterior Case	Galvanized sheet steel
Finish	RAL7035 light grey finish
NEMA Rating	Enclosures IP 54/NEMA 12

Climate Control

Side Mounting DTS Series

4000 & 7500 BTU/H



7500 BTU/H unit shown

Climate Control

Description

- Designed for side mounting on any enclosure surface where high capacity system cooling is required.
- Closed loop cooling ensures clean enclosure air is recirculated without ever mixing with contaminated ambient air.
- Optimum air circulation with maximum clearance distance between warm inlet and cold outlet for reduced hot spot locations.

Standards

- Maintains enclosure's NEMA 12 rating
- IP 54
- UL, cUL and CE

Features

- R134a refrigerant.
- Thermostat control accessible from inside enclosure.
- Hot gas bypass valve prevents evaporator freeze up while minimizing heavy inrush currents on large BTU/H units.
- Built in condensate evaporator.
- Continuous air circulation from high capacity fans.
- EMI/RFI suppression meets CE.
- Self-diagnostics on startup.
- Fault indication via LED light.
- Provision for door contact allowing power down when enclosure door is opened.
- Gasket, mounting kit and template for enclosure cutout and drilling are included.
- Condensate drain hose and clamp provided.
- Q Mount allows unit to hang in place for easy installation.

Accessories

- Gaskets...see page 400
- Lifting lugs...see page 400
- Remote door switch...see page 400

Technical Data

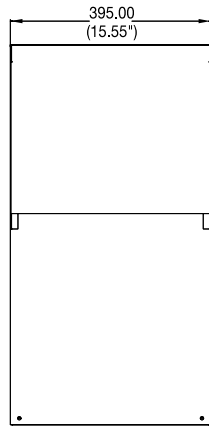
Part Number	Ship Wt. lbs.
DTS3141A115LG	99
DTS3141A230LG	99
DTS3241A115LG	127
DTS3241A230LG	127

Electrical Data	DTS3141A115LG DTS3141A230LG	DTS3241A115LG DTS3241A230LG
Rated Voltage	115 V 60 Hz/ 230 V 50/60 Hz	115 V 60 Hz/ 230 V 50/60 Hz
Range of Operation	103-127 V/198-252 V	103-127 V/198-252 V
Power Consumption	950 W/860 W	1400 W/1400 W
Running Amps	7.2 A/4.0 A	14.6 A/6.3 A
Starting Current	17.1 A/9.3 A	26.8 A/16.5 A
Line Cord	Terminal Block	Terminal Block

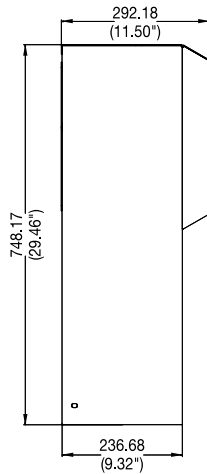
Side Mounting DTS Series

4000 & 7500 BTU/H

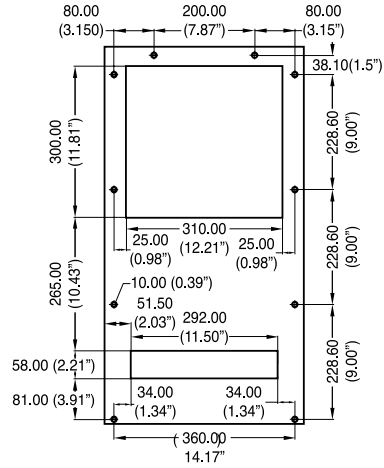
DTS 3141



Front View

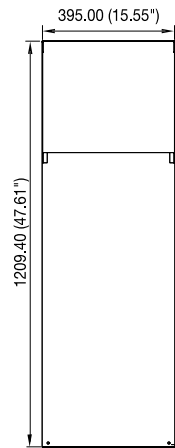


Side View

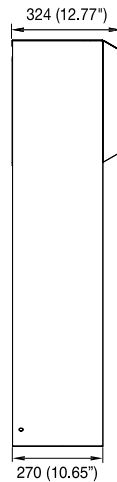


Drilling Template

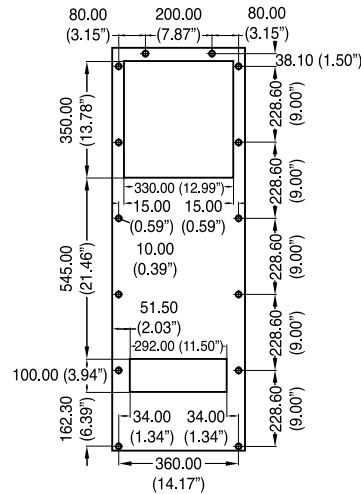
DTS 3241



Front View



Side View



Drilling Template

Climate Control

Refrigeration Data	DTS3141A115/ 230LG	DTS3241A115/ A230LG
Rated Capacity	4,000 BTU/H (1,172 Watts)	7,500 BTU/H (2,197 Watts)
Type of Refrigerant	R134a	R134a
Refrigerant Charge	500 g	500 g
Adjustable Set Points	Factory setting +95°F (+35°C)	Factory setting +95°F (+35°C)
Max. Ambient Air Temp.	+125°F (+52°C)	+125°F (+52°C)
Min. Ambient Air Temp.	+46°F (+8°C)	+46°F (+8°C)
Air Capacity (unrestricted)	Internal Circulation 350 CFM External Circulation 350 CFM	Internal Circulation 580 CFM External Circulation 580 CFM
Condensate Discharge	Condensate Evaporator	Condensate Evaporator
Filter Mat	Filterless	Filterless
Db Noise Level	≤ 70 dB(A)	≤ 73 dB(A)
Unit Weight	80 lbs (36 kg)	101 lbs (46 kg)
Exterior Case	Galvanized sheet steel	Galvanized sheet steel
Finish	RAL7035 Light Grey powder finish	RAL7035 Light Grey powder finish
NEMA Rating	Enclosures IP 54/NEMA 12	Enclosures IP 54/NEMA 12

Side Mounting DTS Series

8000 & 12000 BTU/H



Description

- Designed for side mounting on any enclosure surface where high capacity system cooling is required.
- Closed loop cooling ensures clean enclosure air is recirculated without ever mixing with contaminated ambient air.
- Optimum air circulation with maximum clearance distance between warm inlet and cold outlet for reduced hot spot locations.

Standards

- Maintains enclosure's NEMA 12 rating
- IP 54
- UR, cUR and CE

Features

- R134a refrigerant.
- Thermostat control.
- Hot gas bypass valve prevents evaporator freeze up while minimizing heavy inrush currents on large BTU/H units.
- Built in condensate evaporator.
- Continuous air circulation from high capacity fans.
- EMI/RFI suppression meets CE.
- Self-diagnostics on startup.
- Fault indication via LED light.
- Provision for door contact allowing power down when enclosure door is opened.
- Gasket, mounting kit and template for enclosure cutout and drilling are included.
- Washable filtermat protected within an easily removable grill.
- Condensate drain hose and clamp provided.
- Q Mount allows unit to hang in place for easy installation.
- Versatile design maintains foot print for larger capacity units if required.

Accessories

- Gaskets...see page 400
- Lifting lugs...see page 400
- Remote door switch...see page 400
- Replacement filters...see page 400
- Replacement grill...see page 400

Technical Data

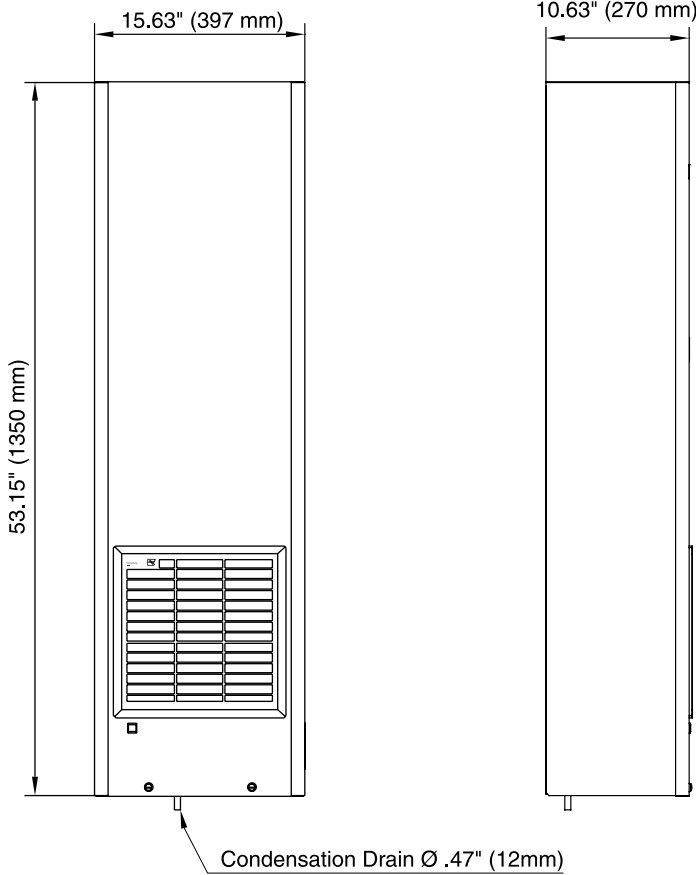
Part Number	Ship Wt. lbs.
DTS8000A115LG	189
DTS8000A230LG	189
DTS12000A115LG	189
DTS12000A230LG	189

Electrical Data	DTS8000A115LG DTS8000A230LG	DTS12000A115LG DTS12000A230LG
Rated Voltage	115 V 60 Hz/ 230 V 50/60 Hz	115 V 60 Hz/ 230 V 50/60 Hz
Range of Operation	103-127 V/187-253 V	103-127 V/187-253 V
Power Consumption	2,100 W/1,800 W	2,300 W/2,000 W
Running Amps	21.0 A/12.5 A	21.0 A/12.5 A
Starting Current	52.0 A/46.2 A	52.0 A/46.2 A
Line Cord	8' Cord	8' Cord

Technical references and DXF downloads available at www.hammf.com

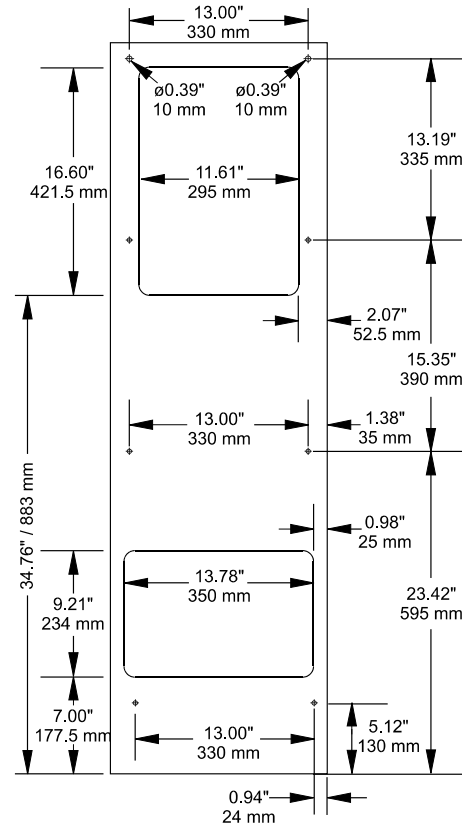
All dimensions in inches unless specified otherwise

Side Mounting DTS Series 8000 & 12000 BTU/H



Front View

Side View



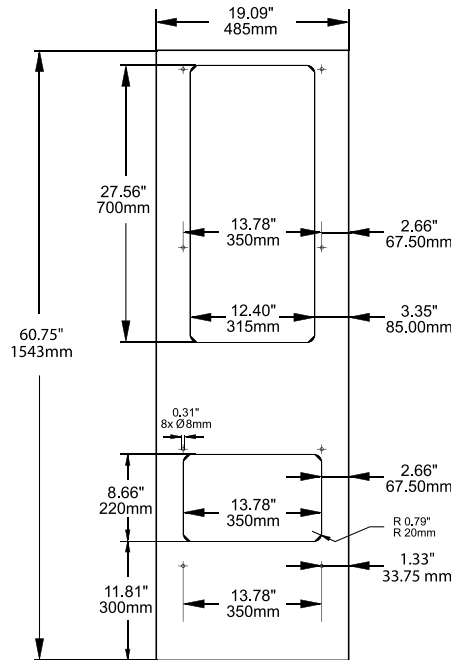
Drilling Template

Climate Control

Refrigeration Data	DTS8000A115LG DTS8000A230LG	DTS12000A115LG DTS12000A230LG
Rated Capacity	8,000 BTU/H (2,340 Watts)	12,000 BTU/H (3,500 Watts)
Type of Refrigerant	R134a	R134a
Refrigerant Charge	750 g	850 g
Adjustable Set Points	Factory setting +95°F (+35°C)	Factory setting +95°F (+35°C)
Max. Ambient Air Temp.	+125°F (+52°C)	+125°F (+52°C)
Min. Ambient Air Temp.	+46°F (+8°C)	+46°F (+8°C)
Air Capacity (unrestricted)	Internal Circulation 450 CFM External Circulation 589 CFM	Internal Circulation 530 CFM External Circulation 589 CFM
Condensate Discharge	Condensate Evaporator	Condensate Evaporator
Filter Mat	150 g/ m ²	150 g/ m ²
Db Noise Level	≤ 69 dB(A)	≤ 69 dB(A)
Unit Weight	160 lbs (72 kg)	165 lbs (75 kg)
Exterior Case	Galvanized sheet steel	Galvanized sheet steel
Finish	RAL7035 Light Grey powder finish	RAL7035 Light Grey powder finish
NEMA Rating	Enclosures IP 54/NEMA 12	Enclosures IP 54/NEMA 12

Side Mounting DTS Series

16,000 BTU/H



Drilling Template



Description

- Designed for side mounting on any enclosure surface where high capacity system cooling is required.
- Closed loop cooling ensures clean enclosure air is recirculated without ever mixing with contaminated ambient air.

Standards

- Maintains enclosure's NEMA 12 rating
- IP 54
- UR, cUR and CE

Features

- R134a refrigerant.
- Thermostat control accessible from inside enclosure.
- Expansion valve increases efficiency with improved evaporator heat transfer and less frequent compressor operation.
- Direct condensate discharge via drain hose.
- Continuous air circulation from high capacity fans.
- EMI/RFI suppression meets CE.
- Self-diagnostics on startup.
- Fault indication via LED light.
- Door contact for power down when enclosure door is opened.
- Gasket, mounting kit and template for cutout and drilling are included.
- Condensate drain hose and clamp.

Accessories

- Gaskets...see page 400
- Lifting lugs...see page 400
- Remote door switch...see page 400

Climate Control

Part Number	Ship Wt. lbs
DTS9841A460LG	210

Technical Data

Electrical Data	DTS9841A460LG
Rated Voltage	460v 60Hz 3 phase
Range of Operation	380v 50Hz / 460v 60Hz
Power Consumption	1891W / 2336W
Running Amps	4.2A / 3.6A
Starting Current	28.3A / 25.2A
Line Cord	Terminal Block

Refrigeration Data	
Rated Capacity	16,000 BTU/H (4,000 Watts)
Type of Refrigerant	R134a
Refrigerant Charge	2,100 g
Adjustable Set Points	Factory setting +95°F (+35°C)
Max. Ambient Air Temp.	+131°F (+55°C)
Min. Ambient Air Temp.	+59°F (+15°C)
Air Capacity (unrestricted)	Internal Circulation 882 CFM External Circulation 1,076 CFM
Condensate Discharge	Condensate Drain
Filter Mat	Filterless
Db Noise Level	≤ 70 dB(A)
Unit Weight	200 lbs (91 kg)
Exterior Case	Galvanized sheet steel
Finish	RAL7035 light grey finish
NEMA Rating	Enclosures IP 54/NEMA 12

Technical references and DXF downloads available at www.hammmfg.com

All dimensions in inches unless specified otherwise

Top Mounting DTT Series
4500 BTU/H



Description

- Designed for top mounting where space limitations do not allow side mounting on the enclosure surface.
- Closed loop cooling ensures clean enclosure air is recirculated without ever mixing with contaminated ambient air.

Standards

- Maintains NEMA 12 rating
- IP 54
- UR, cUR, CE

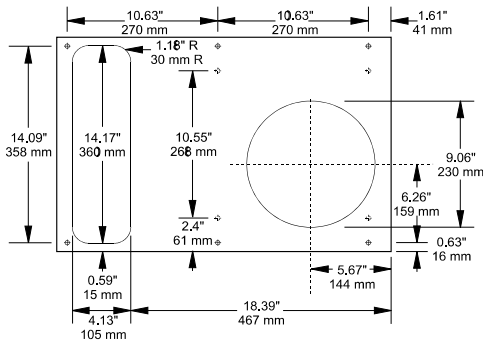
Features

- R134a refrigerant.
- Thermostat control.
- Expansion valve increases efficiency with improved evaporator heat transfer and less frequent compressor operation.
- Built in condensate evaporator.
- Continuous air circulation from high capacity fans.
- EMI/RFI suppression meets CE.
- Line cord with plug (115 V).
- Washable filter mat protected within an easily removable grill.
- Gasket, mounting kit and template for cutout and drilling are included.
- Condensate drain hose and clamp.

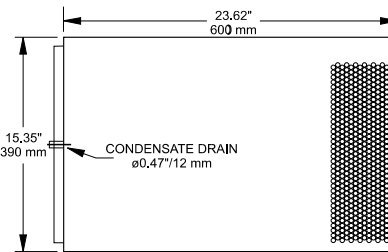
- Volt free contact for high pressure failure.
- Exterior case easily removable for resetting thermostat and field service.
- Can accommodate crane hooks to assist installation.
- Versatile design maintains foot print through the series.

Accessories

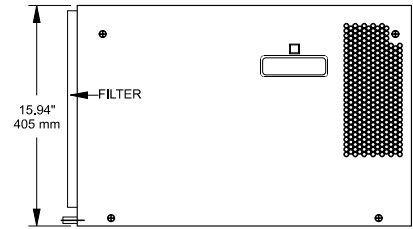
- Gaskets...see page 400
- Lifting lugs...see page 400
- Remote door switch...see page 400
- Replacement filters...see page 400
- Replacement grill...see page 400



Drilling Template



Top View



Side View

Part Number	Ship Wt. lbs.
DTT4500A115LG	95
DTT4500A230LG	95

Technical Data

Electrical Data	DTT4500A115LG	DTT4500A230LG
Rated Voltage	115 V 60 Hz	230V 50/60 Hz
	100 V 50 Hz	
Range of Operation	103-127 V	207-253 V
Power Consumption	630 W	840 W
Running Amps	7.7 A	5.2 A
Starting Current	24.9 A	18.5 A
Line Cord	With plug	Without plug

Refrigeration Data

Rated Capacity	4,500 BTU/H (1,300 Watts)
Type of Refrigerant	R134a
Refrigerant Charge	480 g
Adjustable Thermostat	Factory setting +95°F (+35°C)
Max. Ambient Air Temp.	+125°F (+52°C)
Min. Ambient Air Temp.	+46°F (+8°C)
Air Capacity (unrestricted)	Internal Circulation 547 CFM External Circulation 547 CFM
Condensate Discharge	Condensate evaporator
Filter Mat	150 g/m ²
Db Noise Level	≤ 66 dB(A)
Unit Weight	90 lbs (41 kg)
Exterior Case	Galvanized sheet steel
Finish	RAL7032 beige powder finish
NEMA Rating	Enclosures IP 54/NEMA 12

Technical references and DXF downloads available at www.hammfg.com

All dimensions in inches unless specified otherwise

Quality Enclosures. Service Excellence.

Air Conditioner Accessories

Neoprene Gasket Kit

- Replacement for standard supplied gasket.
- Self-adhesive cellular neoprene gasket.
- Supplied in 10 foot rolls, 0.19"x0.75".
- For side mount units greater than 3500 BTU/H, two gasket kits are required.

Part No. **1481DJ10**

Replacement Grill

- Replacement grill for air conditioners.
- Packaged individually.

Black Part No.	RAL 7032 Beige Part No.	Use with Air Conditioner
PG3BK	PG3RAL	DTS1200 - DTS3500
PG5BK	PG5RAL	DTS8000 - DTS12000
n/a	AFF1	DTT4500

Replacement Filters

- Packaged in quantities of 5.
- Made of synthetic fibers.
- Re-usable up to 20 times.
- 100% resistant to humidity.
- Filters have a mass filtering level of 67%.

Part No.	Dimensions		Use With Air Conditioner	Filter Density (g/m ²)
	A	B		
DTSF3150	inch 8.30 mm 210	inch 8.30 mm 210	DTS1200 - DTS6000	150
DTSF5150	inch 11.00 mm 280	inch 11.00 mm 280	DTS8000 - DTS12000	150
DTTF5150	inch 11.81 mm 300	inch 11.81 mm 300	DTT4500	150

Remote Door Switch

- Permits convenient door activated on-off function of air conditioners. Mounts to flange of any Hammond enclosure.
- Can be wired normally open or normally closed.
- 115/230 V AC

Part No. **FLKDS**



Lifting Lugs

- Packaged in quantities of 2.
- Used for lifting, transporting and installation of air conditioners.
- 8 mm diameter.
- For use with DTS3500 - DTS12000 and DTT4500.

Part No. **LL8**

Water Condensate Evaporator



Part No. **KVDTX**

- High performance evaporation kit
- Easy to retrofit on any cooling unit

Technical Data	
Max. Water Volume	13.5 oz (400 ml)
Evaporation Rate	3.4 oz/hr (100 ml/hr)
Electrical Data	
Voltage(s)	230v /115v
Frequency	50/60 Hz
Voltage Range	100-240v
Max. Power	125 W
Power Range	20-110 W
Nominal Current	0.5 A (230v) / 0.8 A (115v)
Starting Current	1.3 A
Zero Water Current	0.09 A (230v) / 0.18 A (115v)
Mechanical Data	
Height x Width x Depth	3.35" x 10.35" x 4.00" (85 x 263 x 102 mm)
Finish	Stainless Steel
Weight	2.6 lbs (1.175 Kg)

Side Mounting DTS Series - NEMA 3R, 4, 4X

2500 BTU/H - Stainless Steel



Description

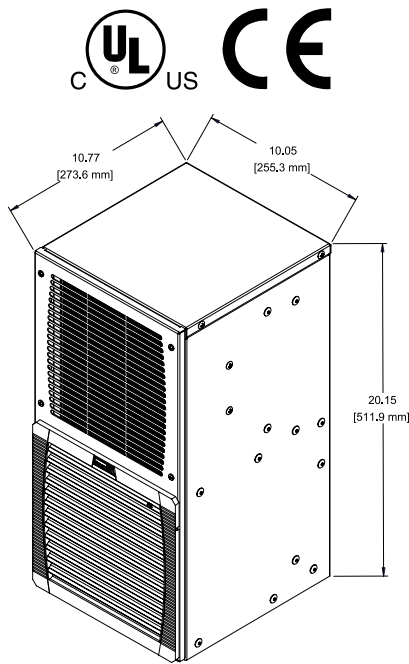
- Compact design for side mounting on any enclosure surface where spot cooling or low capacity cooling is required.
- Closed loop cooling ensures clean enclosure air is recirculated without ever mixing with contaminated ambient air.
- Ideal for outdoor or very wet conditions.

Standards

- UL, cUL, and CE
- Complies with
 - NEMA 3R, 4, 4X

Features

- Stainless steel body.
- R134a refrigerant.
- Thermostat control.
- Line cord with plug (115 V).
- Expansion valve permits increased efficiency through improved evaporator heat transfer and less frequent compressor operation.
- Continuous air circulation from high capacity fans.
- EMI/RFI suppression meets CE standard.
- Gasket, mounting kit, and template for cutout and drilling are included.
- Direct condensate discharge, drain hose and clamp.
- Q Mount allows unit to hang in place for easy installation.

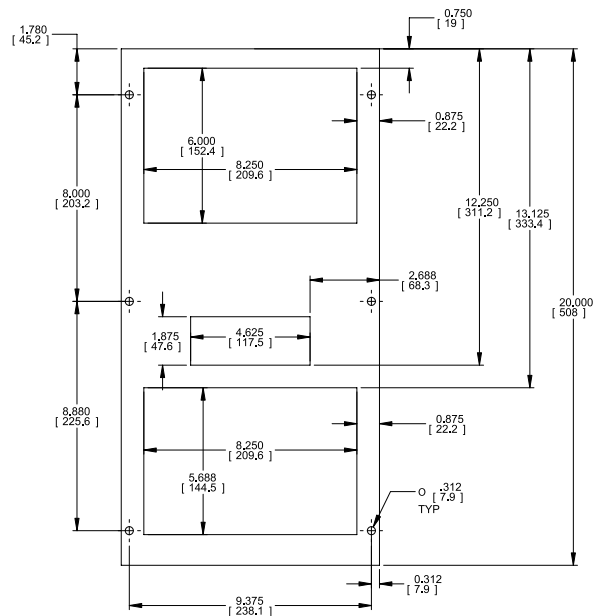


Dimensional Drawing Only

Part Number	Ship Wt. lbs.
DTS3081A115N4SS	60
DTS3081A230N4SS	60

Technical Data

Electrical Data	DTS3081A115N4SS	DTS3081A230N4SS
Rated Voltage	115 V 60 Hz 110 V 50 Hz	230 V 50/60 Hz
Range of Operation	103-127 V	198-253 V
Power Consumption	690 W	724 W
Running Amps	6.0 A	3.3 A
Starting Current	28 A	14.4 A
Line Cord	With plug	With plug



Refrigeration Data	
Rated Capacity	2,500 BTU/H (732 Watts)
Type of Refrigerant	R134a
Refrigerant Charge	400 g
Adjustable Thermostat	Factory setting +95°F (+35°C)
Max. Ambient Air Temp.	+131°F (+55°C)
Min. Ambient Air Temp.	+46°F (+8°C)
Air Capacity (unrestricted)	Internal Circulation 191 CFM External Circulation 88 CFM
Condensate Discharge	Condensate drain
Filter Mat	Filterless
Db Noise Level	≤ 64 dB(A)
Unit Weight	55 lbs (25 kg)
Exterior Case	304 Stainless steel
Finish	Polish #3
NEMA Rating	3R, 4, 4X

Climate Control

Side Mounting DTS Series - NEMA 3R, 4

4000 & 7500 BTU/H



Description

- Designed for side mounting on any enclosure surface where high capacity system cooling is required.
- Closed loop cooling ensures clean enclosure air is recirculated without ever mixing with contaminated ambient air.
- Optimum air circulation with maximum clearance distance between warm inlet and cold outlet for reduced hot spot locations.

Features

- R134a refrigerant.
- Thermostat control accessible from inside enclosure.
- Expansion valve prevents evaporator freeze up while minimizing heavy inrush currents on large BTU/H units.
- Built in condensate evaporator.
- Continuous air circulation from high capacity fans.
- EMI/RFI suppression meets CE.
- Self-diagnostics on startup.
- Fault indication via LED light.
- Provision for door contact allowing power down when enclosure door is opened.
- Gasket, mounting kit and template for enclosure cutout and drilling are included.
- Condensate drain hose and clamp provided.
- Q Mount allows unit to hang in place for easy installation.
- Nema 3R/4 exterior galvanized sheet steel with powdercoat finish.

4000 BTU/H Shown

Standards

- UL, cUL, CE
- Complies with
 - NEMA 3R, 4

Climate Control

Part Number	Ship Wt. lbs.
DTS3161A115N3LG	104
DTS3161A230N3LG	104
DTS3261A115N3LG	129
DTS3261A230N3LG	129

Accessories

- Gaskets...see page 400
- Lifting lugs...see page 400
- Remote door switch...see page 400

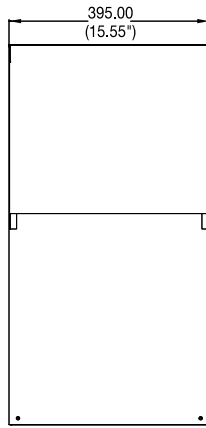
Technical Data

Electrical Data	DTS3161A115N3LG	DTS3161A230N3LG	DTS3261A115N3LG	DTS3261A230N3LG
Rated Voltage	115 V 60 Hz	230 V 50/60 Hz	115 V 60 Hz	230 V 50/60 Hz
Range of Operation	103-127 V	198-252 V	103-127 V	198-252 V
Power Consumption	950 W	860 W	1800 W	1800 W
Running Amps	7.2 A	4 A	14.6 A	6.3 A
Starting Current	17.1 A	9.3 A	26.8 A	16.5 A
Line Cord	Terminal Block	Terminal Block	Terminal Block	Terminal Block

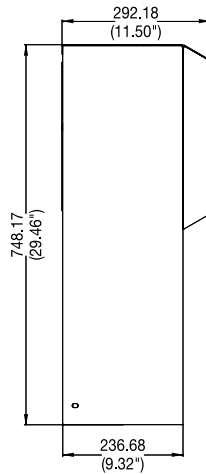
Side Mounting DTS Series - NEMA 3R, 4

4000 & 7500 BTU/H

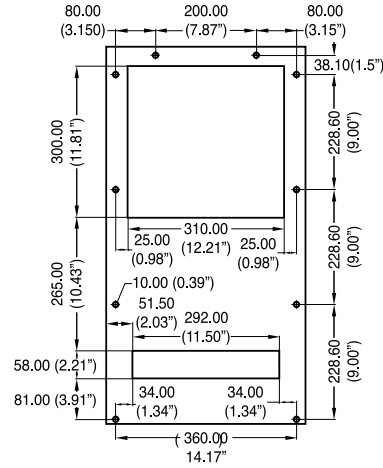
DTS 3161



Front View

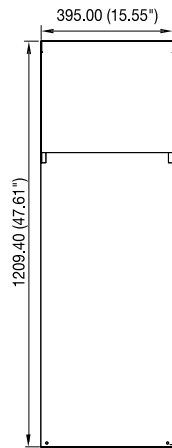


Side View

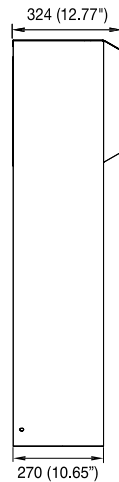


Drilling Template

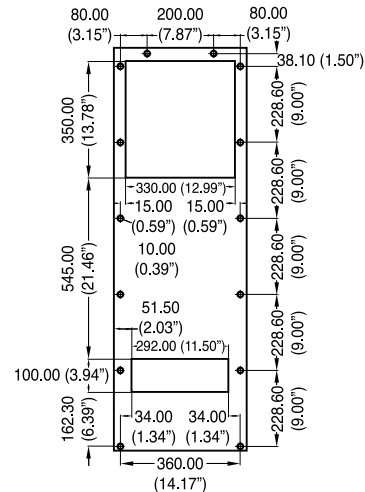
DTS 3261



Front View



Side View



Drilling Template

Climate Control

Refrigeration Data	DTS3161A115/230N3LG	DTS3261A115/230N3LG
Rated Capacity	4,000 BTU/H (1,172 Watts)	7,500 BTU/H (2,197 Watts)
Type of Refrigerant	R134a	R134a
Refrigerant Charge	500 g	500 g
Adjustable Thermostat	Factory setting +95°F (+35°C)	Factory setting +95°F (+35°C)
Max. Ambient Air Temp.	+125°F (+52°C)	+125°F (+52°C)
Min. Ambient Air Temp.	+46°F (+8°C)	+46°F (+8°C)
Air Capacity (unrestricted)	Internal Circulation 350 CFM External Circulation 350 CFM	Internal Circulation 580 CFM External Circulation 580 CFM
Condensate Discharge	Condensate Evaporator	Condensate evaporator
Filter Mat	150 g/m ²	150 g/m ²
Db Noise Level	≤ 70 dB(A)	≤ 73 dB(A)
Unit Weight	84 lbs (38 kg)	120 lbs (46 kg)
Exterior Case	Galvanized Steel Powdercoat Finish	Galvanized Steel Powdercoat Finish
Finish	RAL7035 Light Grey powder finish (LG)	RAL7035 Light Grey powder finish (LG)
NEMA Rating	Enclosures IP56 /NEMA 3R/4	Enclosures IP56 /NEMA 3R/4

Technical references and DXF downloads available at www.hamfmfg.com

All dimensions in inches unless specified otherwise

Quality Enclosures. Service Excellence.

Side Mounting DTS Series - NEMA 3R, 4, 4X

4000 & 7500 BTU/H - Stainless Steel



Light Grey 4000 BTU/H Shown

Description

- Designed for side mounting on any enclosure surface where high capacity system cooling is required.
- Closed loop cooling ensures clean enclosure air is recirculated without ever mixing with contaminated ambient air.
- Optimum air circulation with maximum clearance distance between warm inlet and cold outlet for reduced hot spot locations.

Standards

- UL, cUL, CE
- Complies with
 - NEMA 3R, 4, 4X

Features

- R134a refrigerant.
- Thermostat control accessible from inside enclosure.
- Expansion valve prevents evaporator freeze up while minimizing heavy inrush currents on large BTU/H units.
- Built in condensate evaporator.
- Continuous air circulation from high capacity fans.
- EMI/RFI suppression meets CE.
- Self-diagnostics on startup.
- Fault indication via LED light.
- Provision for door contact allowing power down when enclosure door is opened.
- Gasket, mounting kit and template for enclosure cutout and drilling are included.
- Condensate drain hose and clamp provided.
- Q Mount allows unit to hang in place for easy installation.
- Nema 4/4x exterior 304 stainless steel.

Accessories

- Gaskets...*see page 400*
- Lifting lugs...*see page 400*
- Remote door switch...*see page 400*

Climate Control

Part Number	Ship Wt. lbs.
DTS3181A115N4SS	107
DTS3181A230N4SS	107
DTS3281A115N4SS	144
DTS3281A230N4SS	144

Technical Data

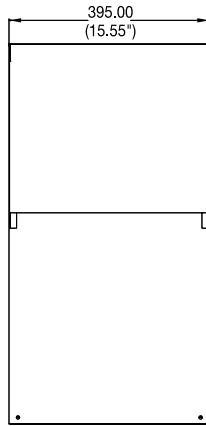
Electrical Data	DTS3181A115N4SS	DTS3181A230N4SS	DTS3281A115N4SS	DTS3281A230N4SS
Rated Voltage	115 V 60 Hz	230 V 50/60 Hz	115 V 60 Hz	230 V 50/60 Hz
Range of Operation	103-127 V	198-252 V	103-127 V	198-252 V
Power Consumption	950 W	860 W	1800 W	1800 W
Running Amps	7.2 A	4 A	14.6 A	6.3 A
Starting Current	17.1 A	9.3 A	26.8 A	16.5 A
Line Cord	Terminal Block	Terminal Block	Terminal Block	Terminal Block

Technical references and DXF downloads available at www.hamfmfg.com

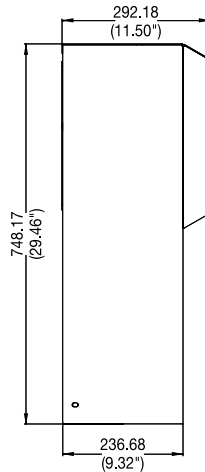
All dimensions in inches unless specified otherwise

Side Mounting DTS Series - NEMA 3R, 4, 4X 4000 & 7500 BTU/H - Stainless Steel

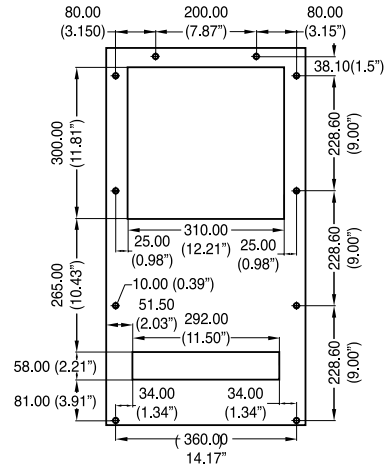
DTS 3181



Front View

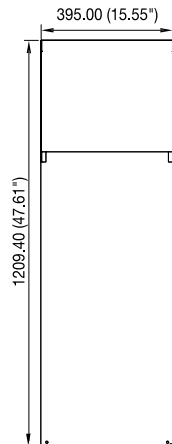


Side View

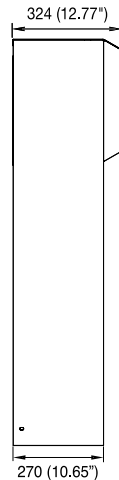


Drilling Template

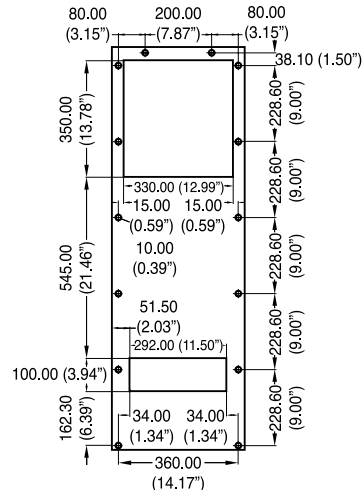
DTS 3281



Front View



Side View



Drilling Template

Climate Control

Refrigeration Data	DTS3181A115/230N4SS	DTS3281A115/230N4SS
Rated Capacity	4,000 BTU/H (1,172 Watts)	7,500 BTU/H (2,197 Watts)
Type of Refrigerant	R134a	R134a
Refrigerant Charge	500 g	500 g
Adjustable Thermostat	Factory setting +95°F (+35°C)	Factory setting +95°F (+35°C)
Max. Ambient Air Temp.	+125°F (+52°C)	+125°F (+52°C)
Min. Ambient Air Temp.	+46°F (+8°C)	+46°F (+8°C)
Air Capacity (unrestricted)	Internal Circulation 350 CFM External Circulation 350 CFM	Internal Circulation 580 CFM External Circulation 580 CFM
Condensate Discharge	Condensate Evaporator	Condensate evaporator
Filter Mat	150 g/m ²	150 g/m ²
Db Noise Level	≤ 70 dB(A)	≤ 73 dB(A)
Unit Weight	84 lbs (38 kg)	120 lbs (46 kg)
Exterior Case	304 Stainless Steel	304 Stainless Steel
Finish	Polish #3	Polish #3
NEMA Rating	Enclosures IP56 /NEMA 3R/4x	Enclosures IP56 /NEMA 3R/4x

Blowers and Fans

General Selection Considerations

General Specifications

All Hammond blowers and filter fans are engineered for performance and built for reliability. This versatile line includes a blower, fan tray and filter fans.

Blowers and fans use forced convection cooling, which means ambient air flows through a filter into the enclosure to cool heated components. Both blowers and fans are sized in CFM (cubic feet per minute).

It is recommended that an exhaust filter be used in combination with the blower or filter fan to act both as an exhaust point for the hot internal air plus aid in the pressurization of the enclosure, reducing the chance of unfiltered air entering the enclosure. Whenever possible, the blower or filter fan should be located in the bottom third of the enclosure and the filtered exhaust grill placed as high as possible on the opposing side. Performance levels can be further increased by adding a second exhaust filter.

Sizing Blowers and Fans

To determine the CFM (cubic feet per minute) required in any standard situation, use the following calculation, (non-standard situations would consist of high air density - significantly more than 0.075 lbs per cubic foot.)

$$\text{CFM} = \frac{\text{Power to be dissipated (Watts)} \times 3.17}{\text{Maximum Allowable Internal Temperature (°F)} - \text{Maximum Ambient Temperature (°F)}}$$

Note - The calculation above is exact, but adding an additional 25% to the CFM level is a standard safety factor.

Climate Control

If the air density is high (significantly more than 0.075 lbs per cubic foot), use the number calculated above in the following formula:

$$\frac{\text{CFM} \times (0.075)}{\text{Non-standard Air Density (lbs per cubic foot)}}$$

Note: Ambient Temperature must be lower than maximum internal temperature for fan/blower to be effective.

Packaged Twin Blowers

160 to 470 CFM



Description

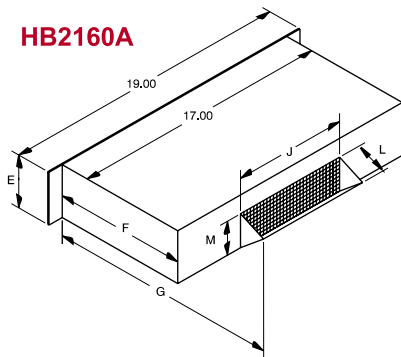
- Each contains a quadruplex centrifugal blower powered by a single precision ball-bearing motor.
- These widely-used Packaged Twin Blowers deliver air from more than 50% of their 17" width.
- Internal neoprene isolation mounts reduce transmission of vibration to the enclosure.
- Can be mounted on panel rails or into a cutout in an enclosure.

Features

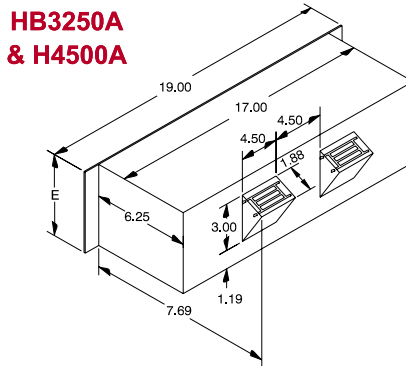
- Capacities: 160 to 470 CFM.
- Heavy-gauge steel enclosures with EIA-notched flanges for rail mounting.
- Attractive 19 inch stainless steel grills.
- UR/CSA approved ball-bearing motors.
- Inlet air cools motor for longer life.
- Permanent filters.
- Exhaust guards included.
- Six foot (minimum) SJTW 3-wire cord.

Accessories

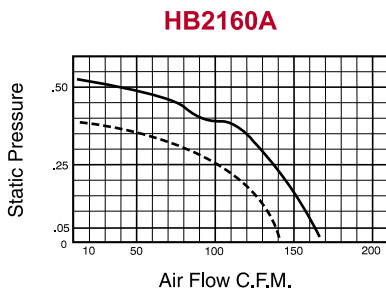
- Filter coat...see page 413



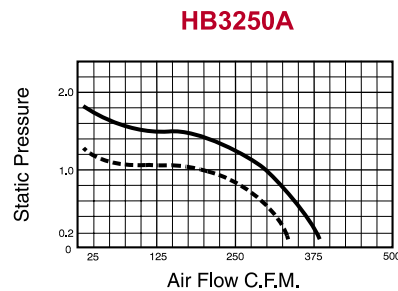
HB2160A



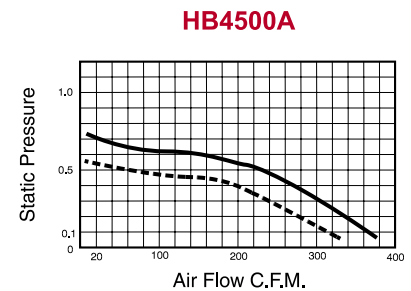
**HB3250A
& H4500A**



HB2160A



HB3250A



HB4500A

— 50 Hz
- - - 60 Hz

Part No.	Free Flow Air Delivery (CFM)	RPM Nominal	Ambient Temp.		Panel Height										Ship Wt.lbs
			Min. F	Max. F	Units	E	F	G	H	J	K	L	M	N	
HB2160A	160	1500	-20	250	2	3.50	8.75	10.50	-	7.50	-	2.25	2.25	-	10
HB3250A	300	3000	-20	250	3	5.25	6.25	7.69	4.50	4.50	0.63	1.88	3.00	1.19	18
HB4500A	470	3250	-20	250	4	7.00	8.25	10.25	4.63	4.75	1.00	2.50	4.00	1.44	23

Accessory Products



Breather Kit (Pressure Compensation Plug)



- Packaged individually.
- Provides for controlled pressure compensation due to temperature variations (i.e. night/day operation).
- Recommend two plugs per cabinet in opposite locations.
- Minimum cutout diameter 1.46"

Part No.	Dimensions (Diameter x Depth)	Ship Wt. lbs
SDA412	2.6" x 1.2"	1

Mounting:	PG 29 (1.14") thread with union nut, minimum cutout diameter
Material:	Polycarbonate UL94VO
Protection:	IP45
Color:	RAL 7032 beige

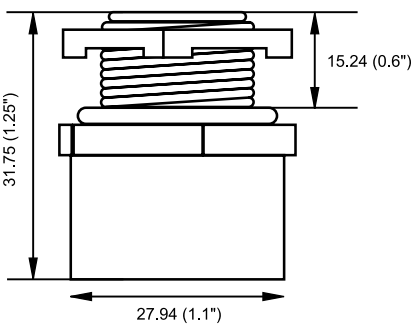


Breather Kit (Pressure Compensation Plug)



- Packaged individually.
- Provides for controlled pressure compensation due to temperature variations (i.e. night/day operation).
- Recommend two plugs per cabinet in opposite locations.
- Pipe Thread 1/2"NPT (actual dia. 0.84")

Part No. **BDN4XN1**



CSA/A Ex Approvals:	Class I, Zone 1, Ex e II Class I Division 2 Groups ABCD Class II EFG, Class III
Ingress Protection:	IP66, CSA Enclosure Type NEMA 4X
Impact Resistance:	20Nm (7Nm GF Nylon)
Materials:	Durethan BKV 30 N1 30% Glass Filled Nylon O Ring - Nitrile Fixing nut - Brass
Operating Temp:	-50C to +85C

Climate Control

General Accessories

Hardware

General Accessories

Hardware

Heavy Duty Door Clamping Hardware



- New note style replacement hardware for use on 1418N4, 1418N4SS, 1447SN4, and 1447SN4SS Hammond enclosures.
- Formed heavy gauge stainless steel.
- Set of two.
- Note: Old style (no notch) available, Part No. 1481C18

Part No. **1481HC18**

Junction Box Padlock Kit



- Field installed kit requires drilling of only 4 holes
- Compatible with 1414 Series junction boxes.
- Only available in 316 Stainless Steel.
- Sold Individually.
- Installation Instructions provided

Part No. **14PLKS16**

Quick Release Clamp



- Provides fast access to conventional screw clamp type enclosures.
- Installs on clamp bracket in place of screw on 1418, 1418N4, 1447N4, and 1422N4 Series enclosures.
- Entire assembly is stainless steel.
- Set of two.

Part No. **1418QR**

Door Clamping Hardware



- Replacement hardware for use on 1414, 1485, 1486, and 1487 Hammond enclosures.
- Formed heavy gauge stainless steel.
- Set of two

Part No. **1481C14**

Quick Release Junction Box Clamp



- Installs easily on standard clamp bracket allowing for quick access.
- Compatible with 1414 Series junction boxes. Also 1485 Series wireway and 1486 trough.
- Available in plated or stainless steel.
- Sold Individually.

Part No.	Material
14QR	Plated Steel
14QRSS	304 SS
14QRS16	316 SS

Lifting or Pull Handles

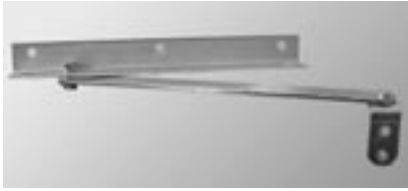


- Chrome plated steel accessory handles.
- Two 10-32 screws on 1427L, M, and N; 6-32 screws on 1427P and Q.

Part No.	Mtg. Centers	Handle Diameter
1427L	7.00	0.375
1427M	5.25	0.375
1427N	3.50	0.375
1427P	2.81	0.250
1427Q	2.25	0.250

General Accessories

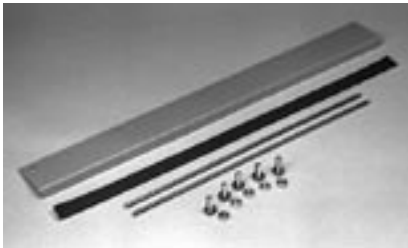
General Accessories



Door Stop Kit

- Provides for door opening in fixed position as required.
- Prevents door swing that can occur in field maintenance situations.
- This door stop kit maintains NEMA 4x, 4, 3R and 12 ratings when installed correctly using the hardware and directions provided.

Part No.	DSTOPK
----------	---------------



Drip Shield Kit

- Designed for use on Hammond NEMA 12 1418, and 1422 enclosures to protect door and hardware from falling dust and water.
- Cannot be used on NEMA 4 (mild steel or aluminum) or 4X due to interference with the top clamps on those units.
- Installs quickly and easily in the field with common tools.
- Each kit includes a drip shield, stainless steel bolts, plated nuts, neoprene gasket for drip shield and a stainless steel hinge pin (2 half length pins are supplied when required).
- Finished in gray.

Part No.	Fits Enclosure Width (Inches)
1481S12K	12
1481S16K	16
1481S20K	20
1481S24K	24
1481S30K	30
1481S36K	36
1481S42K	42
1481S48K	48
1481S60K	60
1481S72K	72

General Accessories



Remote door switch and magnet mount not included - must be ordered separately.



Light Kit & Accessories

- Light kits are offered in 18", 24" and 48" widths.
- CSA and UL component recognized.
- Features a manually operated switch, 115V convenience outlet, durable plastic lens, and 6 foot power cord (without plug).
- Can mount into light mounting channel, bolt through enclosure or by using magnet strip (available separately - see chart below.)
- Magnet mount can be used with mild steel enclosures only.
- Remote door switch available separately for automatic activation. Can be wired normally open or closed. 115/230 V AC
- 1¾" high x 4½" deep.
- Finished in white.
- Use standard 18", 24" or 48" T8 fluorescent bulb (not included)

Part No.	Description
FLK18T8¹	18" Fluorescent Light Kit
FLK24T8¹	24" Fluorescent Light Kit
FLK48T8¹	48" Fluorescent Light Kit
FLK18MM	Magnet mount for 18" and 24" kit
FLK48MM	Magnet mount for 48" light kit
FLKDS	Remote Door Switch

¹ T8 fluorescent bulb not included

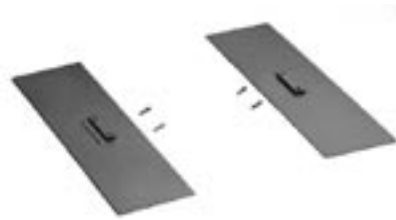
General Accessories
General Accessories



Literature Pocket Kit

- For use as additional or replacement literature pockets.
- Kit includes pocket, high strength two-sided adhesive tape and surface preparation swab.
- Plastic pocket is black.
- Packaged individually.

Part No.	Height	Width	Depth
PKT66	6	6	0.75
PKT99	6	9	0.75
PKT1212	12	12	2.50



Enclosure Stabilizers

- Prevents floor mounted enclosures from falling over while being worked on before they are bolted to the floor.
- Install by slipping under enclosure mounting foot and tightening two thumb screws.
- Finished in gray.

Part No.	Overall Dimensions
1481ES (1 pair)	8 x 30



Panel Lifting Handles

- Used for lifting, transporting and installing panel assemblies in enclosures that are positioned horizontally.

Part No.	1481H



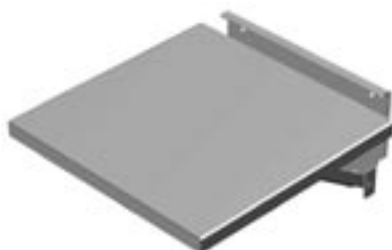
Neoprene Gasket Kit - NEMA 12 Enclosures

- Self-adhesive cellular neoprene gasket for NEMA 12 enclosures.
- Supplied in 10 foot rolls, 0.19" x 0.75".

Urethane Gasket Kit - NEMA 4, 4X Enclosures

- Self adhesive microcell urethane gasket for NEMA 4, 4X enclosures.
- Supplied in 10 foot rolls, 0.25" x 0.75".

Part No.	Material	For NEMA Type
1481DJ10	Neoprene	12
1481DJN410	Urethane	4, 4X



Fold Down Shelf

- Supports various equipment used temporarily to service/program switchgear inside enclosures.
- Mounts with bolts through doors or sides.
- Weight capacity 100 lbs.
- Finished in beige.

Part No	Work Surface (In.)	
	W	D
FDS1212	12	12
FDS1818	18	18



General Accessories

PF Filter Fans



PF3000 and PF2000

Description

- This line of fans provides innovative technology for fan cooling and pressurizing of industrial cabinets. A high quality filter fan provides an economical method of ensuring your enclosure does not overheat.
- Filtered passive ventilation can be provided by an exhaust filter for either convection cooling or in combination with a fan in forced air cooling.
- The slim-line design of this fan line is unique, when installed, the front louvered grill protrudes less than one quarter inch. The attractive grill maintains the sleek aesthetics of an enclosure system.

Standards

- UR, CUR and CE.
- Built to IP54 standards (except PF1000/PFA1000 - IP43 standards).
- Maintains NEMA 12 integrity of enclosure.
- Fan CSA Listed.

Features

- Available in 115V and 230V versions
- High performance fan motors with finger guards.
- ABS-FR grills (except PF1000 Series which is polystyrene FR).
- Durable, reusable filter mat.
- Grills are black allowing for a complementary match to all cabinet colors.
- Integral gasket to seal against enclosure. (except PF1000 - use PFG1000)

Easy Installation

- The patented "Click and Fit" system allows for rapid filter fan and exhaust filter installation without screws.
- After using the convenient cutout template (provided with every unit), the fan and/or exhaust filter just snaps into the opening.

Options

- Reverse flow (exhaust) available on 5,6,7000 models

Accessories

- Exhaust filters...see page 410
- Replacement grills...see page 410
- Replacement filters...see page 410

Climate Control

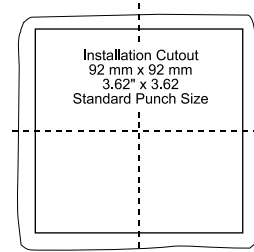
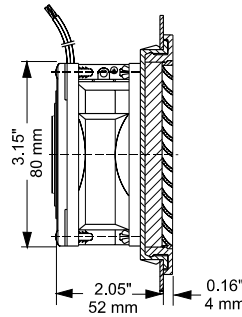
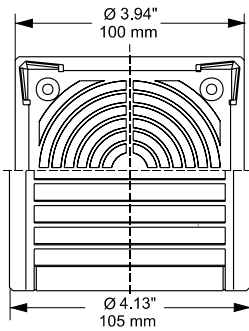
Part No.	Voltage	Free Flow Air Delivery (CFM)	Air Delivery w/Exhaust (CFM)	Max. Static Pressure (Pa)	Filter Density (g/m ²)	Filtering Level	Sound Level (dB)	Connector Type	Ambient Temp. °F Max/Min	Comparable IP Standard	Ship Wt. lbs
PF1000	115	16	10	29	150	73%	39	2 - 12" wires	140/14	IP43	1.5
PF2000	115	38	28	69	150	73%	49	terminal strip	122/14	IP54	2
PF2500	115	89	62	57	150	73%	55	terminal strip	122/14	IP54	4
PF3000	115	169	142	89	150	73%	55	terminal strip	122/14	IP54	4
PF5000	115	324	249	205	150	73%	69	terminal strip	122/14	IP54	7
PF6000	115	410	295	225	150	73%	71	terminal strip	122/14	IP54	8
PF7000	115	506	368	158	150	73%	72	terminal strip	122/14	IP54	8
PF1000230	230	16	10	29	150	73%	39	2 - 12" wires	140/14	IP43	1.5
PF2000230	230	38	28	69	150	73%	49	terminal strip	122/14	IP54	2
PF2500230	230	89	62	57	150	73%	55	terminal strip	122/14	IP54	4
PF3000230	230	169	142	89	150	73%	55	terminal strip	122/14	IP54	4
PF5000230	230	324	249	205	150	73%	69	terminal strip	122/14	IP54	7
PF6000230	230	410	295	225	150	73%	71	terminal strip	122/14	IP54	8
PF7000230	230	506	368	158	150	73%	72	terminal strip	122/14	IP54	8

Technical references and DXF downloads available at www.hamfmfg.com

All dimensions in inches unless specified otherwise

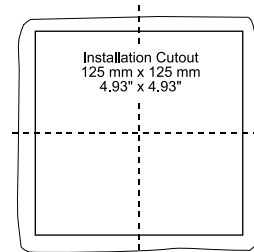
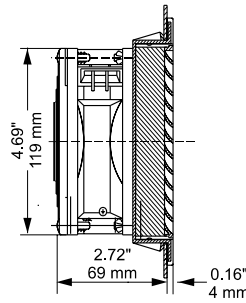
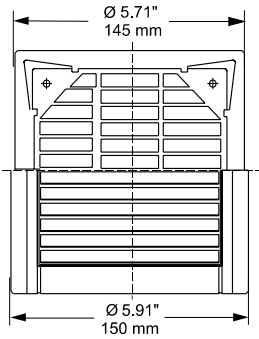
PF Filter Fans

Mechanical Data: PF 1000



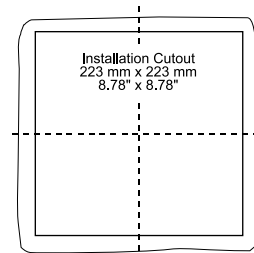
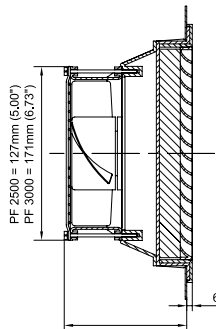
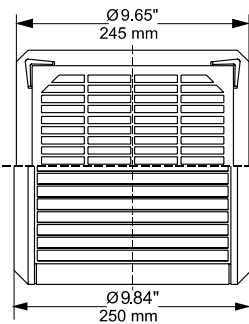
Installation Cutout

PF 2000



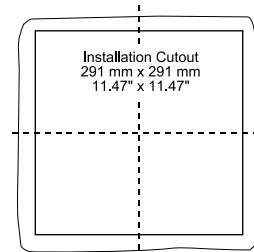
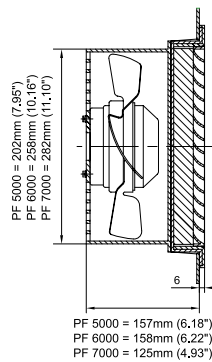
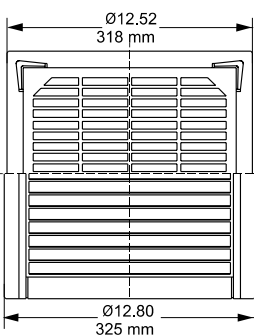
Installation Cutout

PF 2500 & 3000



Installation Cutout

PF 5000, 6000 & 7000



Installation Cutout

Note: All cutout tolerances +1/- 0 mm

Climate Control

Fan Accessories



Exhaust Filters

- Built to IP54 standards (except PFA1000 - IP43 standards).
- ABS-FR grills (except PF1000 Series which is polystyrene FR).
- Self-extinguishing, re-usable filter mat.
- Grills are black to complement all cabinet colors.
- Grills also available (see below)
- Integral gasket seals against enclosure.

Part No.	Filter Density (g/m ²)	Filtering Level	Comparable IP Standard
PFA1000	150	73%	IP43
PFA2000	150	73%	IP54
PFA3000	150	73%	IP54
PFA5000	150	73%	IP54



Replacement Grill

- Packaged individually.
- Consists of replacement grill only.

Black Part No.	RAL7032 Beige Part No.	Use With Filter Fan	Use With Exhaust Filter
PG1BK	PG1RAL	PF1000	PFA1000
PG2BK	PG2RAL	PF2000	PFA2000
PG3BK	PG3RAL	PF2500/PF3000	PFA3000
PG5BK	PG5RAL	PF5000/PF6000/PF7000	PFA5000



Replacement Filters

- Packaged in quantities of 5.
- Made of self-extinguishing synthetic fibers.

Part No.	Dimensions		Use With Filter Fan	Filter Density (g/m ²)
	A	B		
PFF1000	inch	3.40	PF1000	150
	mm	85		
PFF2000	inch	4.50	PF2000	350
	mm	115		
PFF3000	inch	8.30	PF2500/PF3000	350
	mm	210		
PFF5000	inch	11.00	PF5000/PF6000/PF7000	350
	mm	280		

Climate Control

Call Hammond for other Cooling Solutions....

- Intergral Door Air Conditioners
- Air/Water Heat Exchangers
- Custom Air/Air Heat Exchangers
- EMC Filter Fans
- other customer cooling solutions through our knowledgeable Pfannenbergl experts

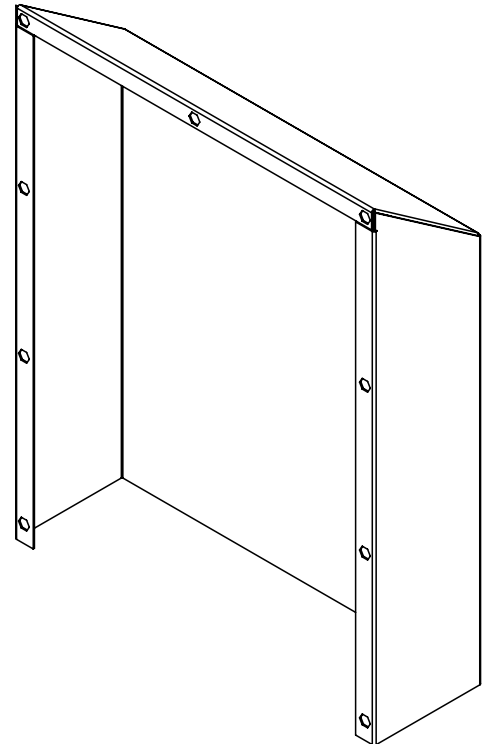
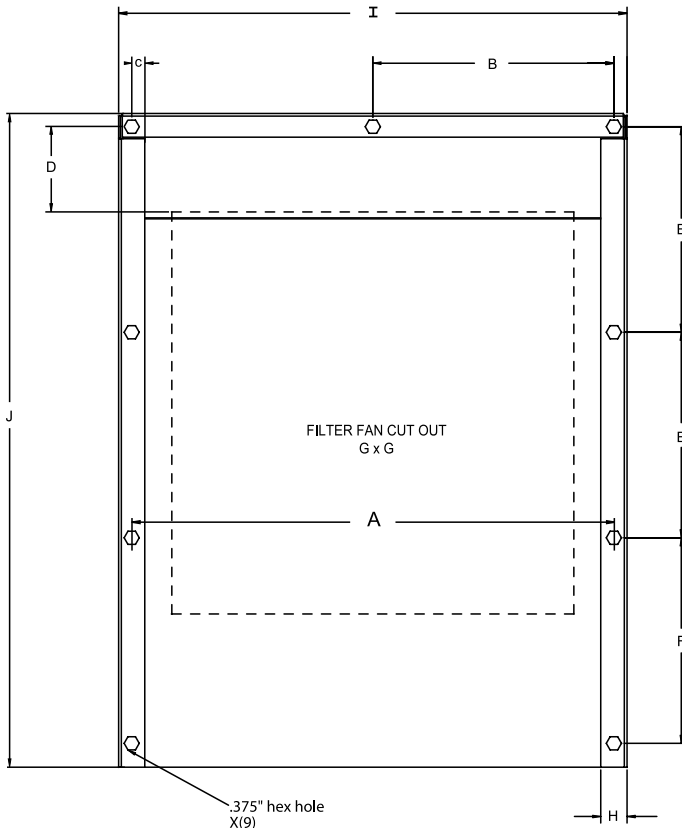
Filterfan Rainhoods - NEMA 3R



Applications

- NEMA 3R / Outdoor Rainhoods Standard Filterfans
- Fits sizes PF 2000, PF 25/3000 & PF 5/6/7000 Units
- 304 Stainless Steel Design for use on Washdown NEMA 4X enclosures
- Due to dust protection regulations, NEMA 4/4X rating on these systems is not possible.
- Gasket and sealing washers included.

Part No.	Goes With	Color
PFRH2000LG	PF/PFA2000	RAL7035
PFRH2000GY	PF/PFA2000	ANSI 61 Grey
PFRH2000SS	PF/PFA2000	304 Stainless Steel
PFRH3000LG	PF/PFA2500/3000	RAL7035
PFRH3000GY	PF/PFA2500/3000	ANSI 61 Grey
PFRH3000SS	PF/PFA2500/3000	304 Stainless Steel
PFRH5000LG	PF/PFA5000/6000/7000	RAL7035
PFRH5000GY	PF/PFA5000/6000/7000	ANSI 61 Grey
PFRH5000SS	PF/PFA5000/6000/7000	304 Stainless Steel



Climate Control

Series No.	A	B	C	D	E	F	G	H	I	J
PFRH2000	6.85	N/A	0.97	1.48	4.75	N/A	4.92	0.75	7.60	10.56
PFRH3000	10.79	5.39	1.00	2.50	6.82	N/A	8.78	0.75	11.54	14.69
PFRH5000	13.74	6.87	1.14	2.15	5.86	5.86	11.45	0.75	14.49	18.63

Technical references and DXF downloads available at www.hamfmg.com

All dimensions in inches unless specified otherwise

Quality Enclosures. Service Excellence.

Filtered Fan Boxes and Filter Grills



Filtered Fan Box



Filter Grill

Description

- In a typical cooling arrangement, the filtered fan box pulls air into the enclosures and the filter grill is used as an air outlet.
- The washable aluminum filter grill and the air filter are easily accessible and can be removed for cleaning.
- The filtered fan boxes are available in either 115 VAC or 230 VAC, 50/60 Hz.
- Filtered passive ventilation can be provided by an exhaust filter for either convection cooling or in combination with a fan in forced air cooling.

Standards

- UR/CUR/CE approved fan motors.
- CSA listed on fan only.

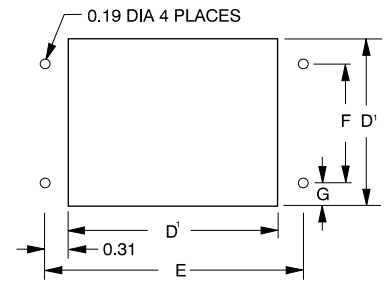
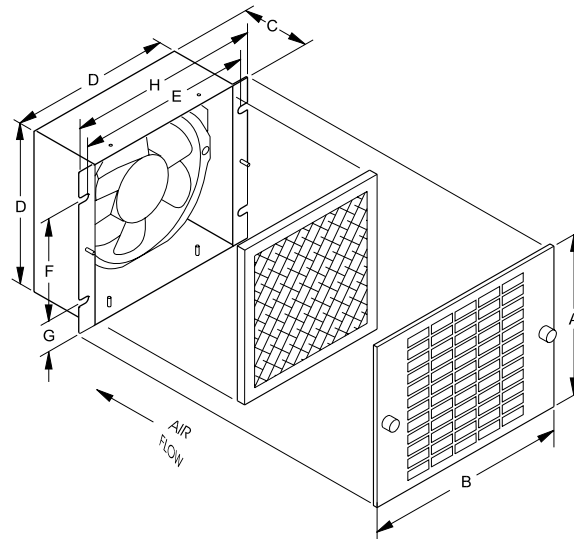
Features

- 115 VAC or 230 VAC, 50/60 Hz.
- 12" lead wires.
- Exceptionally quiet operation.
- Versatile mounting and adaptability.
- Heavy-gauge steel construction.
- Attractive stainless steel grills.
- Shipped with air flow to pressurize. Can be user modified to exhaust.
- Aluminum filter is coated with adhesive baffle surfaces for dust and dirt collection. Can be recoated after cleaning for optimum performance.
- Drilling template included.
- NOTE: One grill and filter are included with each fan package. Normally, an additional exhaust grill and filter are required for each installation and must be ordered separately.

Accessories

- Filter coat...see page 413
- Replacement Filter...see page 413

Filtered Fan Boxes and Filter Grills



Cutout Detail

Filtered Fan Boxes

Part No.	Free Flow Air Delivery		RPM Nominal	Running Amps	Watts	A	B	C	D	D ¹	E	F	G	H	Ship Wt. lbs
	CFM	Volts													
XF4115	105	115	3000	0.18	15	6.13	7.38	2.38	5.63	5.75	6.38	4.13	0.78	7.0	5
XF4230	105	230	3000	0.09	15	6.13	7.38	2.38	5.63	5.75	6.38	4.13	0.78	7.0	5
XF6115	220	115	3300	0.29	33	7.63	8.88	3.00	7.13	7.25	7.88	4.50	1.34	8.5	6
XF6230	220	230	3300	0.15	33	7.63	8.88	3.00	7.13	7.25	7.88	4.50	1.34	8.5	6
XF10115	560	115	1600	0.87	60	11.63	13.00	4.56	11.13	11.25	11.88	6.88	2.16	12.5	12
XF10230	560	230	1600	0.45	60	11.63	13.00	4.56	11.13	11.25	11.88	6.88	2.16	12.5	12

Exhaust Grill and Filters

Part No	A	B	D	E ¹	F ¹	H ¹
XFG4	6.13	7.38	5.63	6.38	4.13	7.00
XFG6	7.63	8.88	7.13	7.88	4.50	8.50
XFG10	11.63	13.00	11.13	11.88	6.88	12.50

Replacement Filters

Part No	Pkg. Qty.
XFF4	3
XFF6	3
XFF10	3

¹ Dimension for mounting and cabinet cutout. Secure sheet metal with #8 hardware.

Climate Control



Filter Coat

- Provides a filter adhesive with a grease-like consistency which absorbs and traps dust particles.
- 10 oz. bottle with environmentally friendly trigger spray.

Part No. **1475Q**

General Accessories

General Accessories



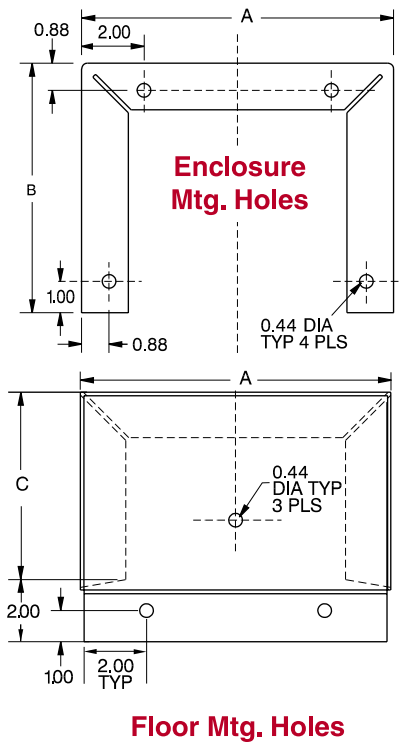
Floor Stand Kit

- Kit includes two mounting feet and hardware kit.
- Pre-punched mounting feet may be used as a template to drill holes on bottom of enclosure.
- Finished in gray or natural brushed stainless steel.



Steel Part No.	Stainless Steel Part No.	Foot Height	Enclosure Depth	Dimensions		
				A	B	C
1481FA8K		6	8	8	6	4
1481FA10K		6	10	10	8	6
1481FA12K		6	12	12	8	6
1481FA16K		6	16	16	10	8
1481FA18K		6	18	18	8	6
1481FA20K		6	20	20	10	8
1481FC6K		12	6	6	5	4
1481FC8K	1481FC8KSS	12	8	8	6	4
1481FC10K	1481FC10KSS	12	10	10	8	6
1481FC12K	1481FC12KSS	12	12	12	8	6
1481FC16K	1481FC16KSS	12	16	16	10	8
1481FC18K		12	18	18	8	6
1481FC20K		12	20	20	10	8
1481FC24K		12	24	24	10	8
1481FE6K		15	6	6	5	4
1481FE8K		15	8	8	6	4
1481FE10K		15	10	10	8	6
1481FE12K		15	12	12	8	6
1481FE16K		15	16	16	10	8
1481FE18K		15	18	18	10	8
1481FE24K		15	24	24	10	8
1481FG6K		18	6	6	5	4
1481FG8K		18	8	8	8	6
1481FG10K		18	10	10	8	6
1481FG12K		18	12	12	8	6
1481FG16K		18	16	16	10	8
1481FK6K		24	6	6	5	4
1481FK8K		24	8	8	8	4
1481FK10K	1481FK10KSS	24	10	10	8	4
1481FK12K	1481FK12KSS	24	12	12	10	6
1481FK16K		24	16	16	12	8

General Accessories



General Accessories
General Accessories



Part No.	No. of Outlets	Length (Inches) ¹	Switch	Cord Length	Cord Type
1589T36C1	6	36"	No	6'	Twist-Lock
1589T36F1	6	42"	No	6'	Straight
1589T42C1	7	42"	No	6'	Twist-Lock
1589T42F1	7	42"	No	6'	Straight
1589T48C1	8	48"	No	6'	Twist-Lock
1589T48F1	8	48"	No	6'	Straight
1589T60C1	10	60"	No	6'	Twist-Lock
1589T60F1	10	60"	No	6'	Straight
1589T70C1	10	70"	No	6'	Twist-Lock
1589T70F1	10	70"	No	6'	Straight
1589T77C1	12	77"	No	6'	Twist-Lock
1589T77F1	12	77"	No	6'	Straight

1589 Vertical Power Strip

- Construction same as 1585 series with:
 - 12 gauge wire
 - 20 amp power cord and circuit breaker
 - Plug types available are Nema L5-20P twist-lock or Nema 5-20P straight blade.



Extra Mounting Clips

Part No.	1585CLIP
----------	----------



Remote Receptacle

- 125V/15A max. receptacle
- mounts to 35mm DIN rail (not included)
- 3.6"H x 2.4"W x 1.9"D
- CE, UL/cUL component recognized

Part No.	SSD03504001
----------	-------------



Gland Plates

- 14 gauge mild steel gland plate allows for easy cable entry into enclosure
- Maintains NEMA 12, 4 rating
- Hardware and cutout template included
- Available in ANSI 61 Gray and RAL 7032 Beige



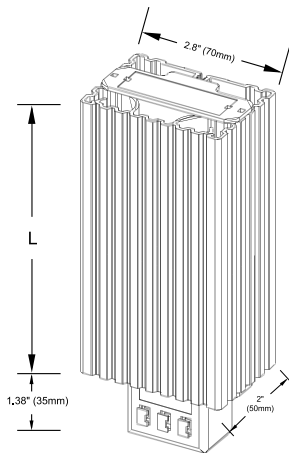
Part No.	Plate Size Finish	Fits Opening Height	Ship Wt. Width	Height	Width	lbs.
GP063	RAL 7032 Beige	6.31	2.75	5.06	1.5	3
GP134	RAL 7032 Beige	13.00	3.56	11.75	2.31	3
GP136	RAL 7032 Beige	13.38	5.88	12.13	4.63	4
GP216	RAL 7032 Beige	20.88	5.88	19.63	4.63	5
GP063GY	ANSI 61 Gray	6.31	2.75	5.06	1.5	3
GP134GY	ANSI 61 Gray	13.00	3.56	11.75	2.31	3
GP136GY	ANSI 61 Gray	13.38	5.88	12.13	4.63	4
GP216GY	ANSI 61 Gray	20.88	5.88	19.63	4.63	5

Technical references and DXF downloads available at www.hamcfg.com

All dimensions in inches unless specified otherwise

Quality Enclosures. Service Excellence.

Heating Products



Heaters

- Designed to provide enclosed electronic, pneumatic, hydraulic and mechanical equipment with protection from low temperatures, condensation and corrosion.
- The PTC (Positive Temperature Coefficient) heater unit maintains a stable temperature environment within enclosures, allowing critical components to perform with consistent reliability for longer periods.
- Heating power adjusts to ambient temperature
- Push connectors for quick and easy wiring

Part No.	Watts ¹	Max. Current ²	L (in.)	Ship Wt lbs
SHG14000	15 W	1.5 A	2.56	1
SHG14001	30 W	3.0 A	2.56	1
SHG14003	45 W	3.5 A	2.56	1
SHG14005	60 W	2.5 A	5.51	1
SHG14006	75 W	4.0 A	5.51	1
SHG14007	100 W	4.5 A	5.51	2
SHG14008	150 W	8.0 A	8.46	2

¹ At 68°F (20°C) ambient temperature. ² Inrush current

Operating Voltage:	AC/DC 110 - 250 V
Heating Element:	PTC resistor, self regulating
Heating Body:	Anodized extruded aluminum
Connection:	Push-type terminals for stranded and solid wire 3 x AWG 20 AWG 16 (0.5 - 1.5 mm ²)
Mounting:	Easily installed by clip mounting on 35 mm DIN rails (included)
Protection Class:	I, test voltage 1600 V
Protection:	IP20
Approval:	UL Recognized Component, cUL Recognized Component, CE

Fan Heaters

- For use when larger heating capacities or internal forced air circulation is required.
- Designed to prevent condensation or maintain minimum temperature in enclosures.
- Thermostats are also available.



Part No.	Watts	Surface Temperature	Starting Current	Dimensions L x W x D	Ship Wt. lbs
SHGL04600	250 W	167°F	2.2 A	7.00 x 3.15 x 3.15	2
SHGL04601	400 W	167°F	3.5 A	9.76 x 3.15 x 3.15	3

Operating Voltage:	AC 110-120 V, 50/60 Hz
Circulation Power:	20 CFM Free Blowing
Axial Fan:	Ball bearing
Durability:	30,000 hrs. at 68°F ambient temperature
Heating Element:	Resistance heating element with temperature limiter
Heating Body:	Extruded aluminum, black anodized
Connection:	3 pole terminal for 12 AWG
Mounting:	Easily installed by clip mounting on 35 mm DIN rails (included)
Protection Class:	1 (tested for grounding at 1250 V)
Protection:	IP20
Approval:	UL Recognized Component, cUL Recognized Component, CE



Technical references and DXF downloads available at www.hamcfg.com

All dimensions in inches unless specified otherwise

Climate Control

Heating Products



Control Panel Heater

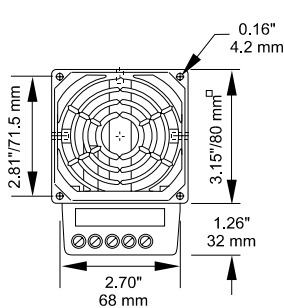
- When larger heating capacities or internal forced air circulation is required and space is limited.
- Compact design to prevent condensation or maintain minimum temperature in enclosures.
- Fan is included.
- Thermostats available

Part No.	Watts	Operating Current (Amps)	Volts	Temperature Maximum with Fan	Ship Wt. lbs.
SHV031029	100 W	0.89	AC 120	250°F/120°C	1
SHV031039	150 W	1.30	AC 120	320°F/160°C	1
SHV031139	200 W	1.79	AC 120	250°F/120°C	1
SHV031149	300 W	2.62	AC 120	320°F/160°C	1
SHV031159	400 W	3.45	AC 120	360°F/180°C	1

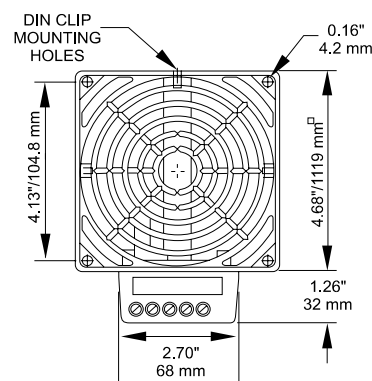
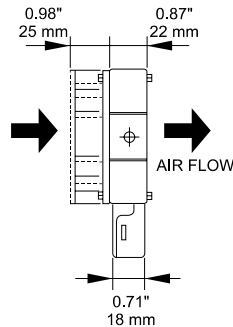


Operating Voltage:	AC 110 -120 V 50/60 Hz
Air Flow:	20 CFM (100W, 150W heaters), 63 CFM (200W, 300W, 400W heaters)
Axial Fan:	Ball bearing
Durability:	30,000 hrs. at 68°F ambient temperature
Heating Element:	Cartridge heater
Heating Body:	Die cast aluminum
Connection:	5 pole terminal for 14 AWG (maximum)
G/L1/N1:	Heater
L2/N2:	Fan
Mounting:	Easily installed by clip mounting on 35 mm DIN rails (included)
Protection class:	1 (tested for grounding at 1250 V)
Protection:	IP44
Approval:	UL Recognized Component, cUL Recognized Component, CE

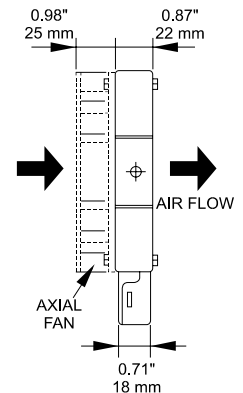
Climate Control



100 W, 150 W Heaters



200 W, 300 W, 400 W Heaters



Heating Products



High Wattage Fan Heater

- For large heating capacity requirements.
- Maintains minimum operating temperatures in enclosures.
- Helps prevent failures to components caused by condensation and corrosion.
- Built-in thermostat and control light.
- Heating power adjusts to ambient temperature.
- Heat exits top of fan heater. (add 2" clearance for heat sensitive parts)

Part No.	Watts	Inrush Current (Amps)	Volts	Temperature Maximum with Fan	Ship Wt. lbs
SCR027009	550 W	11 A	AC 120	250°F/120°C	2
SCR027009230	550 W	13 A	AC 230	250°F/120°C	2
SCR027019	650 W	12 A	AC 120	320°F/160°C	2.4

Air Flow:	20 CFM (550W), 26 CFM (650W)
Thermostat Range:	32 - 140 degrees Fahrenheit
Heating Element:	PTC - Semiconductor/resistor
Housing:	Plastic, rated UL94-VO
Connection:	3 pole terminal, AWG 14 max (2.5 mm ²)
Mounting:	Clip for 35mm DIN rail
Protection Class:	II (Double Insulated)
Protection Type:	IP20
Approval:	UL Recognized Component, cUL Recognized Component, CE

Climate Control



Fan Heater with Thermostat

- Designed to prevent condensation or maintain minimum temperature in enclosures.
- Built in Thermostat. (-18 C to +38 C) (0 F to +100 F)
- Fan Auto/On switch with pilot light for Heat On indication
- 20 CFM airflow
- High temperature safety protection
- Aluminum alloy outer casing
- Connection via terminal block.

Part No.	Watts	Voltage	Overall Dimensions Height x Width x Depth	Ship Wt. lbs
FLHTF125A115	125 W	120V	5.5" x 4.0" x 5.3"	2.2
FLHTF125A230	125 W	240V	5.5" x 4.0" x 5.3"	2.2
FLHTF200A115	200 W	120V	5.5" x 4.0" x 5.3"	2.2
FLHTF200A230	200 W	240V	5.5" x 4.0" x 5.3"	2.2
FLHTF400A115	400 W	120V	7.5" x 4.0" x 5.3"	3.0
FLHTF400A230	400 W	240V	7.5" x 4.0" x 5.3"	3.0
FLHTF800A115	800 W	120V	7.5" x 4.0" x 5.3"	3.0
FLHTF800A230	800 W	240V	7.5" x 4.0" x 5.3"	3.0

General Accessories

Hardware

Latch Kits for Single Door Type 12 Enclosures

- Designed for field installation on most 1418 Series single door enclosures (does not fit 1418 J Series).
- Available with key locking, padlocking, and non-locking handles.
- Single point kits include a handle and latch cam.
- Three point kits include a handle, latch cam, latch rods and adjustable rod guides.
- Latch rod ends have rollers for easier door closing.
- All parts are plated or painted for corrosion resistance.

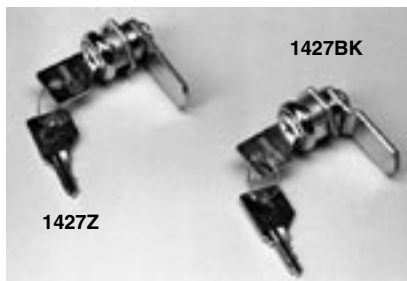


Non-Locking Handle	Handle Rotation	Locking Handle	Handle Rotation	"Tee" Locking Handle	Description
AHK1	clockwise	AHKL1	counter clockwise	THK1	1 point latch
AHK2	clockwise	AHKL2	counter clockwise	THK2	3 point latch 48" and under
AHK3	clockwise	AHKL3	counter clockwise	THK3	3 point latch 60" and over

Padlocking Handle	Locking & Padlocking Handle	Description
PHK1	PHKL1	1 point latch
PHK2	PHKL2	3 point latch 48" and under
PHK3	PHKL3	3 point latch 60" and over



Lock Kit for NEMA 1 Enclosures



- Installs in place of the existing slotted latch, or in cutout hole provided.
- Reversible cam position for other applications.
- Maintains NEMA1 rating.

Part No.	Fits Enclosure Series
1427LKN1	1420, N1A
1427BK	1439 Flush Mount
1427Z	1439 Surface Mount Kit
N1JLK	N1J, CHKO



Lock Kit for 1418 Type 4 and 12 Enclosures

- Designed for installation on most 1418 Series single door enclosures (does not fit 1418 J Series).
- Requires a drilled or punched hole to receive cylinder lock.
- Internal "O" ring provides dust and water tight construction.
- Maintains NEMA rating.

Part No.	1427LKN4
----------	----------

General Accessories

General Accessories

General Accessories



Touch-Up Spray Paint

- For use in matching standard Hammond colors.
- Provided in 12 oz. spray cans.

Touch Up - Spray Can

Part No.	Color
1413BKLGS	Black - Low Gloss
1413BKS	Black
1413CGRALS	Beige RAL7032
1413GFS	Gulf Blue
1413LRS	ANSI 61 Gray
1413NS	White
1413LGS	Light Gray 7035



Louvered Ventilating Plate

- Provides ventilation in enclosures where required.
- Easily installed in the field by cutting a square hole of the proper size and bolting the ventilator in place.
- Finished in gray.
- Hole diameter is 0.22".



Part No.	Plate Size		No. of Louvers	No. of Rows	Louvers Length	Opening Area (in²)
	Height	Width				
1481L44	5.62	5.5	4	1	4	3.0
1481L66	7.87	7.5	14	2	2	2.8
1481L88	10.56	10.5	18	2	4	14.0



Casters

- Packaged in sets of four.
- 800 lb. load capacity per set.
- 4" swivel casters with brakes.
- Features zinc plated ball bearing pivot, composite wheels.

Part No.	1425D
----------	-------



1425 Series Casters

- Packaged in sets of four.
- Feature ball bearing, swivel and hard composition wheels.
- Available for 3 weight capacities.

Part No.	Mfg. Specified Capacity (Set of 4)	Wheel Diameter (inches)
1425B	360	3.0
1425BM	700	3.0
1425BH	1050	3.0



Technical references and DXF downloads available at www.hammg.com

All dimensions in inches unless specified otherwise



Terminal Kit for 1418 Enclosures

- Used to provide convenient mounting for terminal blocks, pneumatic controls or small relays in 1418 wallmount enclosures.
- Brackets may be installed horizontally or vertically in an enclosure if the size corresponds to enclosure length or width.
- Finished in white.

Bracket Assembly

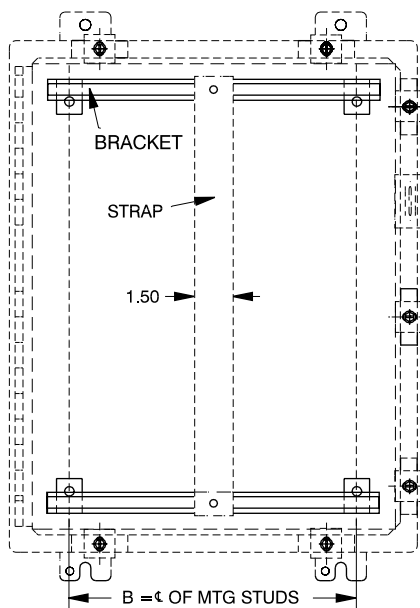
- Each kit consists of two or three brackets per assembly.
- Brackets combined with collar stud length provide 3" minimum clearance from the rear of the enclosure.
- "C" channel construction provides easy alignment of terminal straps.

Terminal Strap

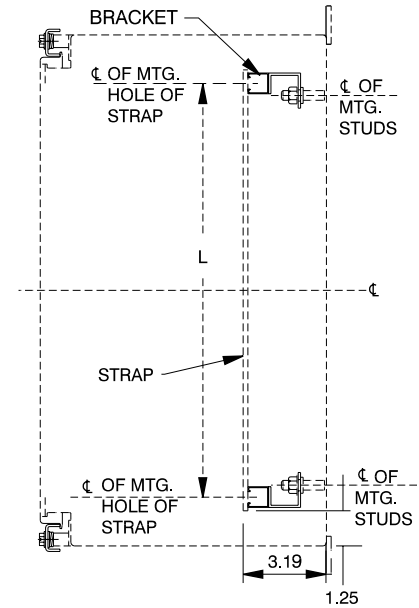
- 1.5" wide x 0.187" thick steel.
- Each strap includes spring locking hardware.
- Countersunk holes in straps provide extra terminal mounting space.

How To Order

- Each enclosure requires one bracket assembly kit and the required number of straps (order separately).
- Determine if strap will be mounted parallel to dimension "A" or "B".
- Choose the part number that corresponds to enclosure dimensions "A" or "B".
- When choosing a bracket assembly to be parallel to dimension "B" in an enclosure of 24", 30" or 36" width, determine if a two or three bracket assembly is required. When enclosures are 48" or greater on "A" dimension, 6 collar studs are used.
- Choose strap kit to correspond to the other enclosure dimensions.
- Order the number of kits equal to the number of straps required.



Front View



Side View

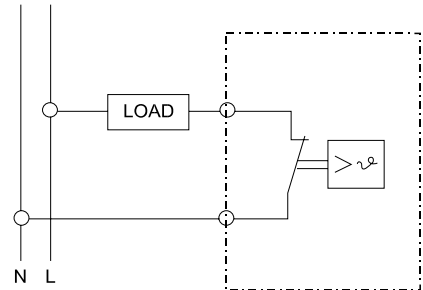
Bracket Assembly

Part No.	Number of Brackets	Length	B	Parallel Enclosure Dim
18B212	2	8.5	7.25	12
18B216	2	12.5	11.25	16
18B220	2	16.5	15.25	20
18B224	2	20.5	19.25	24
18B324	3	20.5	19.25	24
18B230	2	26.5	25.25	30
18B330	3	26.5	25.25	30
18B236	2	32.5	31.25	36
18B336	3	32.5	31.25	36

Strap

Part No.	Length	Usable Mounting Space (L)
18S12	9.5	7.6
18S16	13.5	11.6
18S20	17.5	15.6
18S24	21.5	19.6
18S30	27.5	25.6
18S36	33.5	31.6
18S42	39.5	37.6
18S48	45.5	43.6
18S60	57.5	55.6
18S72	69.5	67.6

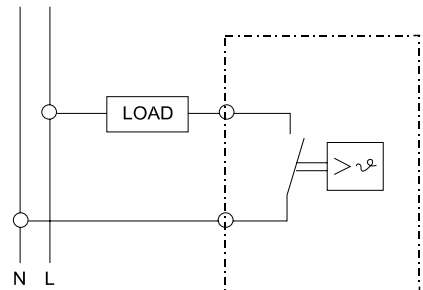
Accessory Products



NC - Normally Closed (Red)

Used in conjunction with heaters.

Contact opens when rising temperatures reach the set point temperature shutting heater off.



NO - Normally Open (Blue)

Used in conjunction with fans.

Contact closes when rising temperatures reach the set point temperature turning fan on.

Climate Control

Thermostat

- Designed to provide air temperature control and monitoring in cabinets.
- Thermostat NC (Normally Closed) for the control of heaters and heater fans.
- Thermostat NO (Normally Open) for the control of cooling units, or for switching signal transmitters in case of overheating.
- Available in Fahrenheit or Celsius.

Sensor Element:	Thermostatic bi-metal
Switching difference (hysteresis):	±4°F (±3°K)
Adjustment Range:	30-140°F
Connection:	2 pole terminal for AWG 14 (2.5mm ²)
Mounting:	Easily installed by clip mounting on 35 mm or 38 mm DIN rails (included)
Housing:	Flame retardant plastic UL94VO
Color:	Gray (SB)
Protection:	IP20
Approval:	UL Recognized Component , cUL Recognized Component, CE, CSA Listed

Part No.	Scale	Contact Type	Dimensions Height x Width x Depth	Switching Capacity	Ship Wt. lbs
SKT011409NC	°F	Normally Closed	2.4 x 1.6 x 1.4	15 A (1) AC 120 V, 10 A (1) AC 250 V	1
SKT011409NC-C	°C	Normally Closed	2.4 x 1.3 x 1.4	15 A (1) AC 120 V, 10 A (1) AC 250 V	1
SKT011419NO	°F	Normally Open	2.4 x 1.6 x 1.4	15 A (1) AC 120 V, 10 A (1) AC 250 V	1
SKT011419NO-C	°C	Normally Open	2.4 x 1.3 x 1.4	15 A (1) AC 120 V, 10 A (1) AC 250 V	1

General Accessories

Window Kits

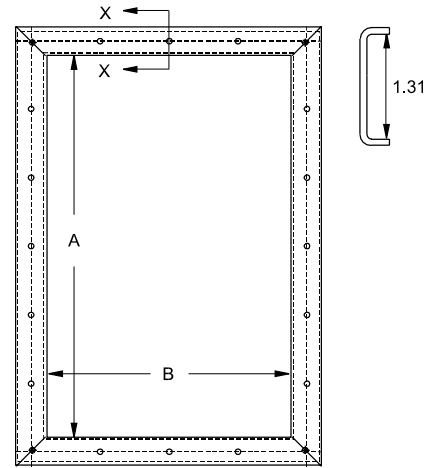
General Accessories

Window Kits



Steel and Stainless Steel Window Kits

- Designed to maintain environmental protection level of Type 4, 4X (for stainless steel) as noted
- Window is 0.25" thick, UV resistant Polycarbonate.
- Frame is heavy gauge steel, or 304 stainless steel with integral weld studs and compression clips.
- Oil resistant neoprene gasket ensures a watertight seal.
- Finished in gray or natural brushed stainless steel.



Part No.	Material	Window Dimensions		Recommended Cut-Out Size	
		A	B		
1481WN40503 ¹	Steel	5	3.0	6.69	4.69
1481WN40905 ¹	Steel	9	5.5	10.69	7.19
1481WN41303 ¹	Steel	13	3.0	14.69	4.69
1481WN41308 ¹	Steel	13	8.0	14.69	9.69
1481WN41705 ¹	Steel	17	5.5	18.69	7.19
1481WN41711 ¹	Steel	17	11.0	18.69	12.69
1481WN42315 ¹	Steel	23	15.0	24.69	16.69
1481WN42919 ¹	Steel	29	19.0	30.69	20.69
1481WN43523 ¹	Steel	35	23.0	36.69	24.69
1481WN4SS0503 ²	Stainless Steel	5	3.0	6.69	4.69
1481WN4SS0905 ²	Stainless Steel	9	5.5	10.69	7.19
1481WN4SS1308 ²	Stainless Steel	13	8.0	14.69	9.69
1481WN4SS1711 ²	Stainless Steel	17	11.0	18.69	12.69
1481WN4SS2315 ²	Stainless Steel	23	15.0	24.69	16.69
1481WN4SS2919 ²	Stainless Steel	29	19.0	30.69	20.69

¹ UL/ CSA Type 12 and Type 4

² UL/ CSA Type 12, Type 4 and Type 4x



Frameless Window Kits

- Designed for indoor use on Type 12 and 13 enclosures.
- Scratch resistant polycarbonate window is 0.25 inches thick.
- Double sided tape is on the window for easy installation.
- Mounting hardware and template are included.



Part No.	Window Dimensions		Maximum Cut-Out Size	
	A	B		
1481WFL52	5.50	3.00	4.50	2.00
1481WFL133	13.88	3.88	12.88	2.88
1481WFL96	9.62	7.19	8.62	6.19



Technical references and DXF downloads available at www.hamfmfg.com

All dimensions in inches unless specified otherwise