

249VAN Preferred™ Series Variable Speed Heat Pump with Puron Advance™ Refrigerant and IntelliSense™ 2 to 5 Tons



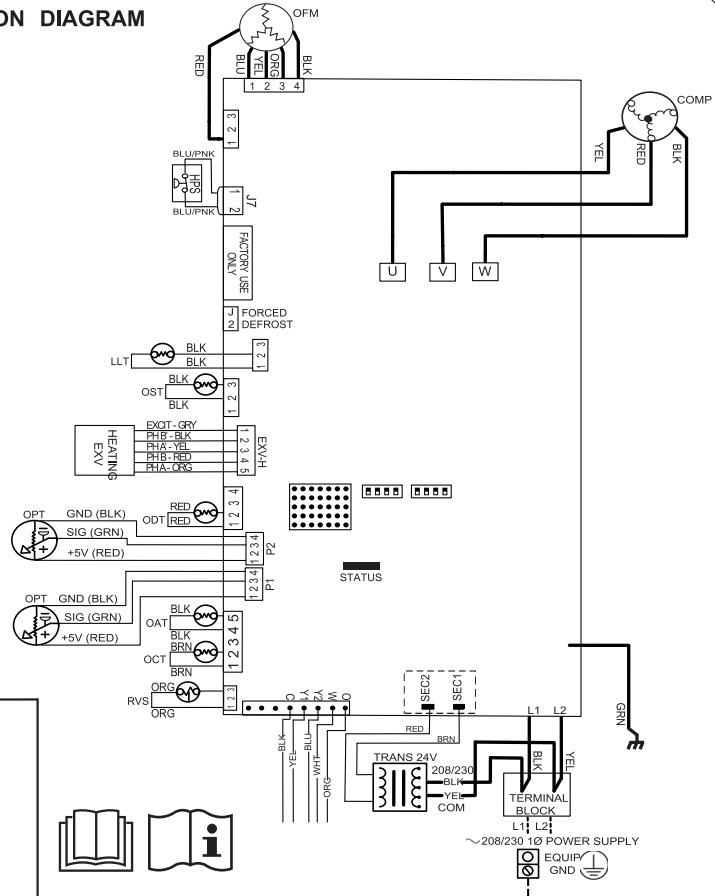
Wiring Diagram

CONNECTION DIAGRAM

Total System Charge (lbs.)	Minimum Floor Area sq.ft. (sq.m.)	Total Refrigerant Charge (lbs)
4	61 (5.7)	
5	76 (7.0)	
6	91 (8.5)	
7	106 (9.8)	
8	122 (11.3)	
9	137 (12.7)	
10	152 (14.1)	
11	167 (15.5)	
12	182 (16.9)	
13	198 (18.4)	
14	213 (19.8)	
15	228 (21.2)	
16	243 (22.6)	
17	258 (24.0)	
18	274 (25.5)	
19	289 (26.8)	
20	304 (28.2)	
21	319 (29.6)	
22	335 (31.1)	
23	350 (32.5)	
24	365 (33.9)	
25	380 (35.3)	

Total
Refrigerant
Charge (lbs)
Initial _____
+ Added _____
= Total _____

Fuse	Rating	Mfg	Mfg P/n
PCM Fuse 1	2	Littelfuse	0287002
PCM Fuse 2	2	Littelfuse	0287002
PCM Fuse 3	4	Littelfuse	0287004
VFD Fan Fuse	3.15	Hollyland	5HF-032H



NOTES:

- To be wired in accordance with National Electric Code (N.E.C.) and local codes.
- Use copper conductors only. Use conductors suitable for at least 75°C (167°F).
- Unit contains 24 volt transformer to power Primary Control Module.
If outdoor unit improperly grounded then connect indoor ground to "C" terminal.
- If any of the original wire, as supplied must be replaced, use the same or equivalent wire.
- Check all electrical connections inside control box for tightness.
- Do not attempt to operate unit until service valves have been opened.
- For use with R-454B Indoor units only.
- Factory authorized dissipation control board must be installed with Indoor unit.
- NEC class 2, 24VAC Circuit

UNIT OPERATION

This Control Board Contains A Five Minute Short Cycle Protector. A Five Minute Delay Will Occur Between Compressor Off/on Cycles. To Bypass Delay, Short Forced Defrost Pins For 1 Second Then Release.

- FIELD INITIATED FORCED DEFROST** - (Shown As Forced Defrost On Board) By Placing A Jumper Across The Forced Defrost Terminals For 5 Seconds, Or Longer, And Then Removing The Jumper The Unit Will Initiate A Defrost Cycle Regardless Of Coil Temperature. The Defrost Cycle Will Terminate At 65°F (+/-5°F) If Coil Temperature Is Above 32°F
- Or Outdoor Ambient Temperature Is Above 50°F. Defrost Mode Will Terminate After 30 Seconds Of Active Mode.
- OUTDOOR PRESSURE TRANSDUCERS** - The P1 And P2 On The PCM Are Independent Of Where The OPTs Are Installed On The Tubing. Both OPTs Can Be Connected To Either P1 Or P2.

-LEGEND-

—	FACTORY POWER WIRING	OCT HP	OUTDOOR COIL TEMPERATURE THERMISTOR
- - -	FIELD POWER WIRING	ODT	OUTDOOR DISCHARGE TEMPERATURE THERMISTOR
—	FACTORY CONTROL WIRING	OFM	OUTDOOR FAN MOTOR
- - -	FIELD CONTROL WIRING	OPT	OUTDOOR PRESSURE TRANSDUCER
COMM	CCN COMMUNICATION LIGHT	OST	OUTDOOR SUCTION TEMPERATURE THERMISTOR
COMP	COMPRESSOR	PCM	PRIMARY CONTROL MODULE (AC/HP CONTROL BOARD)
EXV	ELECTRONIC EXPANSION VALVE	RVS	REVERSING VALVE
HPS	HIGH PRESSURE SWITCH	STATUS	SYSTEM FUNCTION LIGHT
LLT HP	LIQUID LINE TEMPERATURE THERMISTOR	VFD	VARIABLE FREQUENCY DRIVE
OAT	OUTDOOR AIR TEMPERATURE THERMISTOR		

* MAY NOT BE FACTORY INSTALLED

352499-101 REV. B

Fig. 1 – Size 2 - 5 Tons