



SUBMITTAL DATA

VRD048S6M-5P

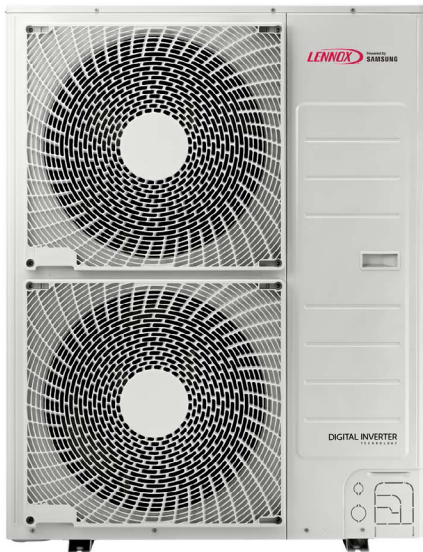
Mini-VRF Heat Recovery Condensing Unit

Job Name: _____
Purchaser: _____
Submitted to: _____
Unit designation: _____

Location: _____
Engineer: _____
Reference:

Approval	Construction
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Schedule #: _____



General Information

- Compatible with Lennox R-32 VRF indoor units and upcoming R-32 Universal Communication Kit.
- Active AI control enhances operational performance: AI Low Pressure Control can improve cooling speed up to 21%; AI High Pressure Control reduces unnecessarily high pressures, improving efficiency and reducing power consumption.
- Auto-restart after power loss.
- Soft-start compressor minimizing current in rush.

Construction

- Galvanized steel with a baked-on powder coated finish for durability.
- The heat exchanger shall be mechanically bonded aluminum fin to copper tube.

Refrigerant System

- The system shall utilize low-GWP R-32 refrigerant.
- The compressors shall be hermetically sealed, inverter driven, flash injected scroll type.
- The outdoor unit shall pump down the refrigerant in the event an indoor unit detects a refrigerant leak. The sequence of operations

shall include closing refrigerant isolation valves at the end of the pump down process to secure as much refrigerant as possible in the outdoor unit in the event of refrigerant leakage within an indoor door unit.

- Refrigerant flow shall be controlled by an EEV (electronic expansion valve) throughout the system.
- A flat plate subcooler device will improve capacity at extreme system refrigerant pipe lengths and reduce refrigerant noise.
- Installation of an HR Changer is mandatory. If additional ports are required, a second HR Changer should be used in parallel.
- The system shall include an R32 alarm output plug on the indoor unit and outdoor unit for notification of R32 leak when an indoor unit refrigerant leak detector detects a leak (VSTAT10P-1 accessories are required).

Controls

- Control wiring shall be 2 X 16 AWG wire.
- No additional interface modules/adapters are required when connecting to Lennox central control options.

Convenience

- The outdoor unit shall have snow accumulation prevention option setting to prevent snow drifting against an idle outdoor unit.
- Night-time Quiet Mode: reduction of operational sound during evening hours (automatic or manual activation).
- Maximum Current Control configurable from 50% - 100% via outdoor unit, wired controller or central control.



SPECIFICATIONS VRD048S6M-5P

Model	Outdoor Unit Model Number (US Code)		VRD048S6M-5P
Performance	Rated Capacity*	Cooling (Btu/h)	48,000
		Heating (Btu/h)	54,000
	Heating Capacity at 5°F OA, 70°F Indoor DB (Btu/h, Ducted)**		38,000
	SEER2 (Ducted / Mixed / Non-ducted)		19 / 20.15 / 21.3
	EER2 (Ducted / Mixed / Non-ducted)		11.7 / 12.05 / 12.4
	HSPF2 (Ducted / Mixed / Non-ducted)		10 / 10.25 / 10.5
Power	Voltage	ø / V / Hz	1 / 208-230 / 60
	Working Voltage Range (VAC)		187 - 253
	Nominal Current***	Cooling (A)	17.8
		Heating (A)	19.7
	Max. Breaker	Amps	30
	Min. Circuit Ampacity	Amps	24
Dimensions	W X H X D	In.	37 X 55-15/16 X 13
	Weight	Lbs.	243.60
Sound Pressure Level	Cooling / Heating (high)		51 / 53
Operating Temperatures	Outdoor	Cooling	23 - 118°F (-5 - 48°C)
			0 - 118°F (-18 - 48°C) W/Baffle
		Heating	-22 - 75°F (-30 - 24°C)
Pipe Connections	High side		3/8
	Low side (suction)		5/8
	Max. Distance - ODU to IDU	ft.	492 (574 equivalent)
	Max. Line Set Length (total)	ft.	984
	Max. Vertical Separation	Outdoor to indoor (ft.)	IDU above ODU: 131, ODU above IDU: 164
		Highest to lowest indoor (ft.)	49
Refrigerant	Type		R-32
	Control Method		Electronic Expansion Valve (D)
	Factory Charge	oz.	105.8
Compressor	Type		Flash Injected, Inverter Driven Scroll
	RLA	Amps	19.3
Condenser Fan	Type		BLDC With Axial Type Fan (2)
	MOC / Watts / CFM (max.)		1.2 / 125W X 2 / 4,415
Corrosion Prevention	ISO-9227 - The condenser heat exchanger showed no unusual rust or corrosion development to 3,000 hours.		
Safety	Certifications		UL 60335-2-40
	Devices	PCB fuses, indoor unit terminal block thermal fuse, current transformer, over-voltage protection, crankcase heating, temperature limit protection logic, compressor overload sensing	

*Standard capacity is based on non-ducted rated capacity. Minimum and maximum capacity will vary based on connected indoor unit type, capacity, and quantity along with indoor and outdoor temperatures. Refer to system capacity tables for full capacity details.

**AHRI rated heating capacity based on Appendix M1. Refer to TDB for max capacity.

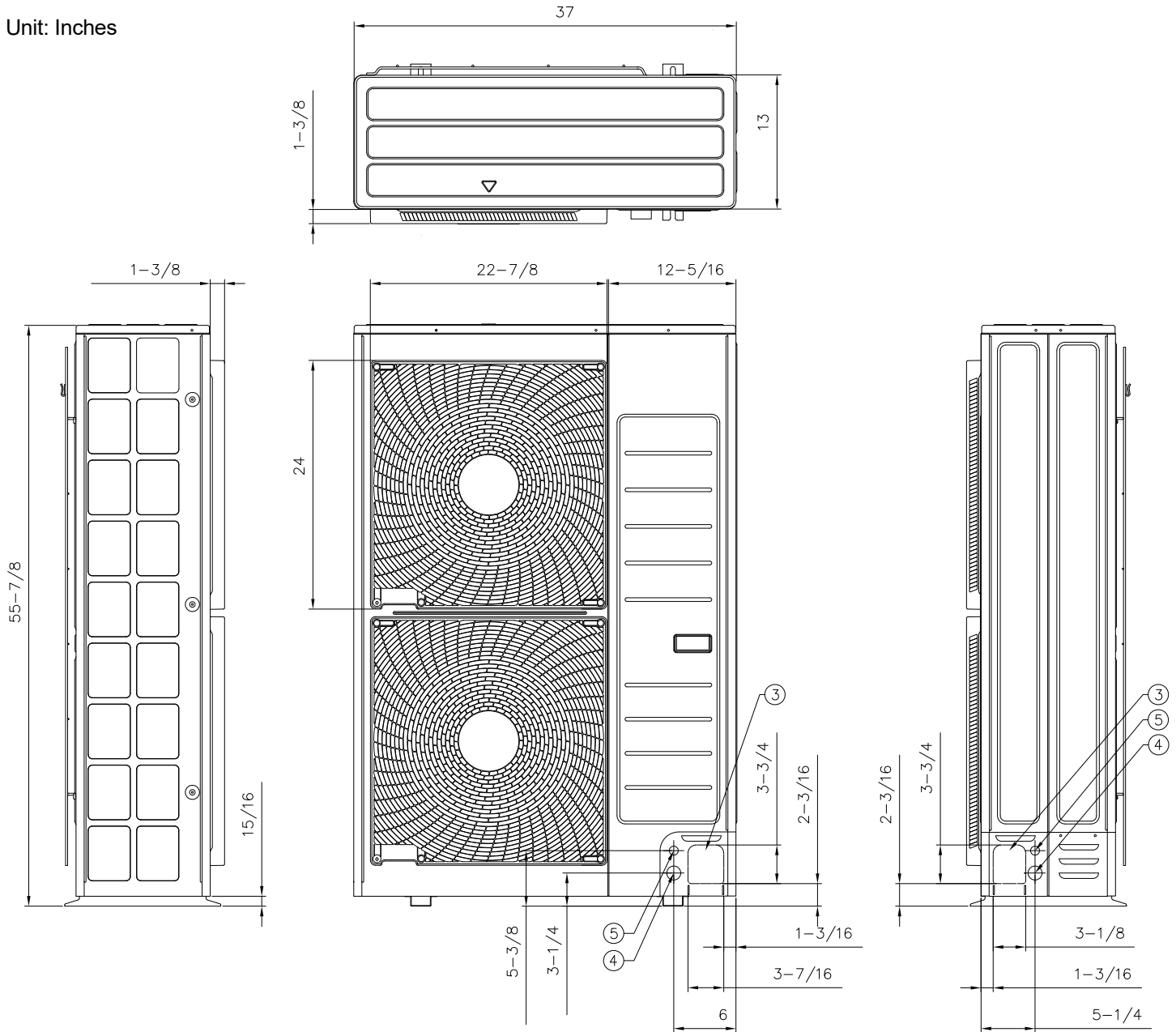
***Rated current based on highest combination ratio of non-ducted indoor units.

ACCESSORIES VRD048S6M-5P

Wind baffles	Front	M1WBF12-1P
	Back	M1WBF06-1P
Hail guard kit (includes back and side guards)		M1GARD11-1P
		M1GARD16-1P
Base pan heater kit		V1BPNH02
External contact control interface module (operation and error output, night silent mode manual activation)		VSTAT10P-1

DIMENSIONAL DRAWING VRD048S6M-5P

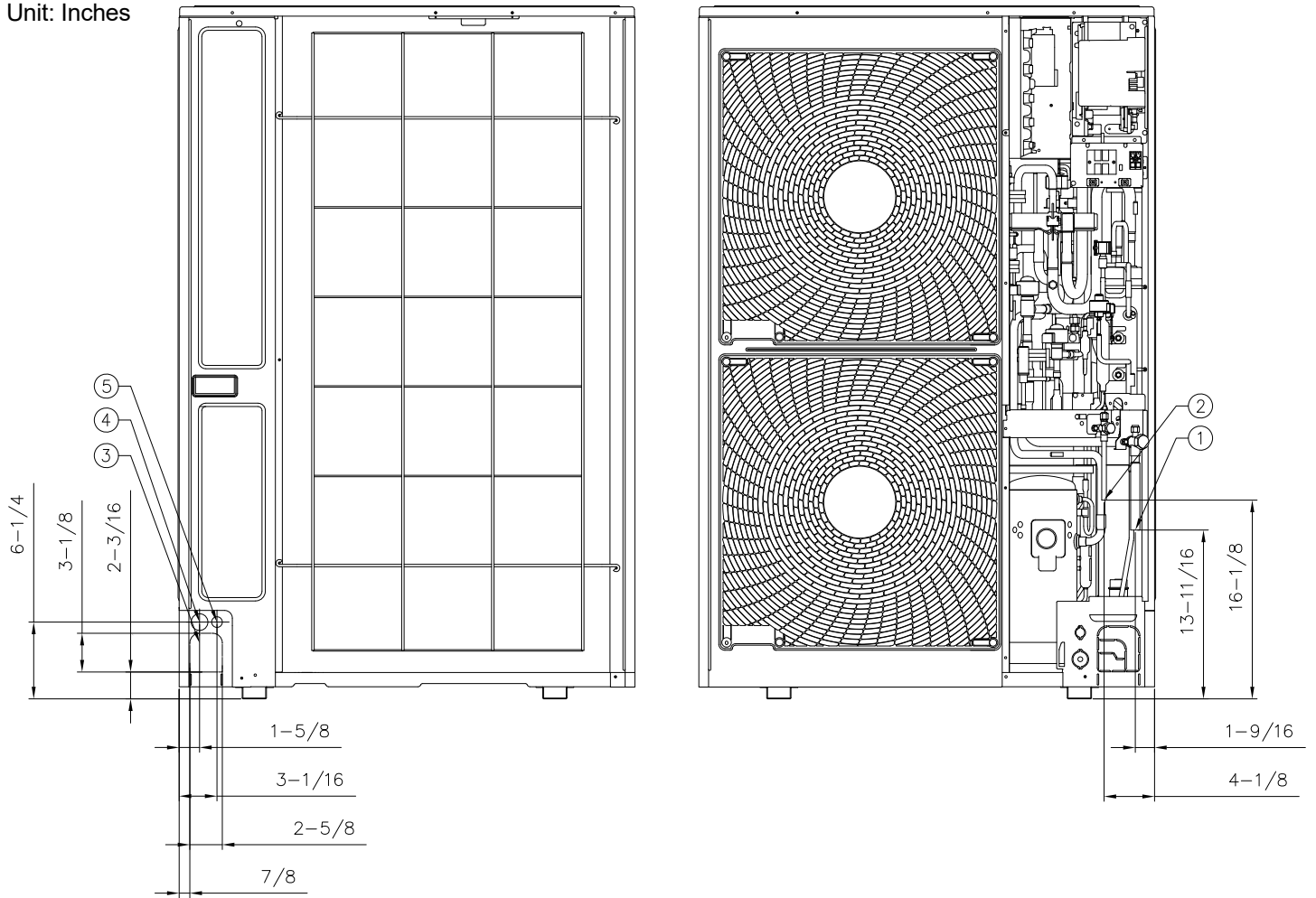
Unit: Inches



No.	Description
3	Pipe Intake Knockout Hole
4	Opening for Power Wire Conduit (1 3/8)
5	Opening for Communication Conduit (7/8)

DIMENSIONAL DRAWING VRD048S6M-5P

Unit: Inches



No.	Description
1	Gas Pipe Connection (5/8)
2	Liquid Pipe Connection (3/8)
3	Pipe Intake Knockout Hole
4	Opening for Power Wire Conduit (1 3/8)
5	Opening for Communication Conduit (7/8)
6	Drain Holes

