

Job Name _____
 Purchaser _____
 Submitted to _____
 Unit Designation _____

Location _____
 Engineer _____
 Reference _____ Approval _____ Construction _____
 Schedule # _____

Specifications

Model	Indoor Unit Model Number	AC048KNZDCH/AA		
	Outdoor Unit Model Number	AC048JXADCH/AA		
Performance	Nominal Capacity ¹	Cooling / Heating (Btu/h)	48,000 / 53,000	
	Capacity Range	Cooling (Btu/h)	19,000 - 50,000	
		Heating (Btu/h)	16,000 - 55,000	
	SEER / EER	18.0 / 9.6		
	COP (nominal heating)	3.14		
	HSPF	9.7		
	AHRI Certification Number	8950574		
	Condensate (pints/h)	11.2		
Power (without optional heat kits)	Voltage	ø / V / Hz	1 / 208-230 / 60	
	Working Voltage Range (VAC)	176 - 254 (max. 3% deviation from each)		
	Operating Current (min. / std. / max.)	Cooling (A)	7.9 / 21.3 / 23.0	
		Heating (A)	7.5 / 21.6 / 23.5	
	Max. Breaker	Amps	40	
Min. Circuit Ampacity (A)	26.4			
Dimensions	W X H X D (in.)	Indoor Unit	24 1/2 X 58 3/4 X 21 3/4	
		Outdoor Unit	37 X 48 X 13	
	Weight (lbs.)	Indoor Unit	163.14	
		Outdoor Unit	194	
Sound Pressure Level	Indoor Unit dB(A)	L / M / H	38 / 41 / 43	
	Outdoor Unit dB(A)	Cooling / Heating (high)	53 / 55	
Operating Temperatures °F(°C)	Outdoor	Cooling	23 ~ 115°F(-5 ~ 46°C)	
		Heating	0 ~ 115°F(-18 ~ 46°C) W/Baffle	
	Indoor	Cooling	-4 ~ 76°F(-20 ~ 24°C)	
		Heating	61 ~ 90°F(16 ~ 32°C) T ≤ 80°F(27°C)	
Pipe Connections	Indoor & Outdoor	High side (flare)	3/8"	
		Low side (flare)	5/8"	
	Maximum (ft.)	246		
	Maximum Vertical Separation (ft.)	98		
Condensate Connection	3/4" FNPT			
Refrigerant	Factory Charge	oz.	98.77	
	Charged for	25 ft		
	Additional Refrigerant	0.355 oz./ft. over 25 ft		
Compressor	Type	Inverter Driven, Twin BLDC Rotary		
	RLA	A	17.0	
Evaporator Fan	Type	Double-inlet, forward curve, centrifugal (with ECM motor)		
	Air Volume	CFM (L/M/H)	1,130 / 1,271 / 1,413 (at standard ESP)	
		Total CFM Range ²	415 - 1,739	
	HP	3/4		
	Motor Amps	A	2.09	
	External Static Pressure ("WC)	Standard	0.28	
	Min. / Max.	0.1 / 1.0		
Condenser Fan	Motor	BLDC With Axial Type Fan (2)		
	FLA / Watts / CFM (max.)	0.48 A X 2 / 125 W X 2 / 3,040 CFM		
Optional Accessories	Wired Controller	Advanced Wired Controller	MWR-WG00UN	
		Simplified Touch Controller	MWR-SH11UN	
	Wi-Fi Adapter	MIM-H04UN		
	Wireless Signal Control	Wireless Signal Receiver	MRK-A10N	
		Wireless Controller	AR-EH03U	
	External Temperature Sensor	MRW-TA		
	External Contact Control	MIM-B14		
	Central Control Interface Module for Connection to DVM Plus Controls (non-NASA)	MIM-N01		
	Filter Box (includes 1" MERV 8 filter)	VFB-3		
	Supplemental Electric Heat Kits	5kW	VHK-305A	
		10kW	VHK-310A	
	Wall Bracket (for outdoor unit)	CKN-250		
	Wind Baffles	Front	WBF-1M2	
		Back	WBB-2M	
	Line Sets - insulated and flared, interconnect cables included	25' - ILS2510		
50' - ILS5010				
Downflow Conversion Kit	VDK-3			
Safety	Certifications	ETL (UL 1995)		
	Devices: PCB fuses, indoor unit terminal block thermal fuse, current transformer, over-voltage protection, crankcase heating, temperature limit protection logic, compressor overload sensing			



General Information

- Auto-restart after power loss
- The indoor unit shall be capable of being field convertible to downflow configuration with optional downflow conversion kit.
- The outdoor unit shall have a snow accumulation prevention option setting to prevent snow drifting against an idle outdoor unit.
- The indoor and outdoor units shall have a removable EEPROM that stores system programming information, unit name, and other data
- All indoor unit addressing and option settings shall be done digitally; the indoor unit does not contain rotary dials or setting switches.
- The outdoor unit shall have a night time quiet mode option to reduce operating sound during the night (automatic or manual activation with dry contact signal).
- The pipe connections at the outdoor unit shall be internal allowing pipes to enter the chassis through the front, right side, bottom, or back.
- Air handler has an air leakage of no more than 2 percent of the design air flow rate when tested in accordance with ASHRAE 193.
- The outdoor unit shall supply power to indoor unit via 14 AWG X 3 power wire when optional heat kits are not installed. If VHK-***A supplemental heat kits are installed, power to the heat kits must be provided from a dedicated circuit with proper overcurrent protection per NEC (refer to VHK-***A supporting documents for heat kit electrical data).

Construction

- The outdoor unit shall be galvanized steel with a baked on powder coated finish for durability
- The indoor unit shall be constructed of insulated, powder coated, galvanized steel
- Indoor Fan**
The indoor fan is a double-inlet, forward curve, centrifugal type with a single constant-torque (ECM) fan motor
- The indoor unit shall have low, medium, high, and auto fan speed setting options.
- The evaporator fan motor shall have five speed taps

Heat Exchanger

- The indoor unit heat exchanger shall be mechanically bonded aluminum fin to copper tube
- The outdoor unit heat exchanger shall be aluminum, flat fin, micro channel

Controls

- Control signal shall be a DDC type signal
- Interconnect control wire between outdoor and indoor unit shall be 16AWG X 2 shielded
- Controls must be purchased separately
- Controls shall integrate with a BMS system

No additional interface modules/adapters are required when connecting to Samsung NASA DVM S central control.

Refrigerant System

- The refrigerant type shall be R410A
- The compressor shall be hermetically sealed, inverter controlled, twin BLDC Rotary made by Samsung
- Refrigerant flow shall be controlled by an electronic expansion valve at outdoor unit
- Soft-start to reduce current demand during compressor start

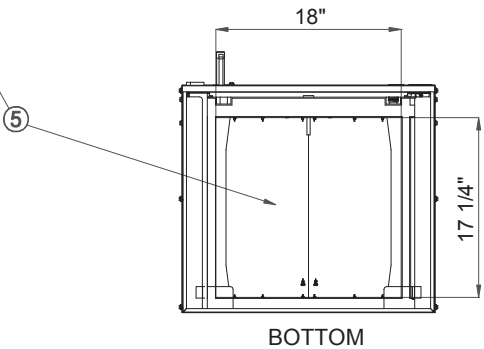
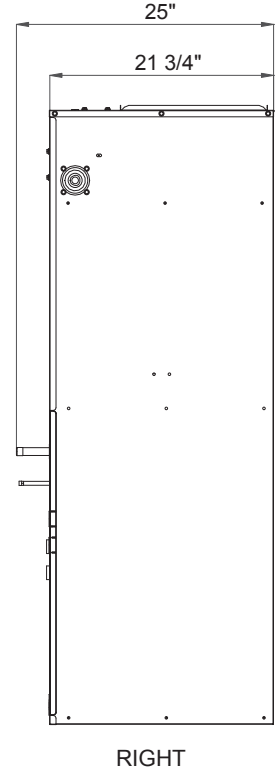
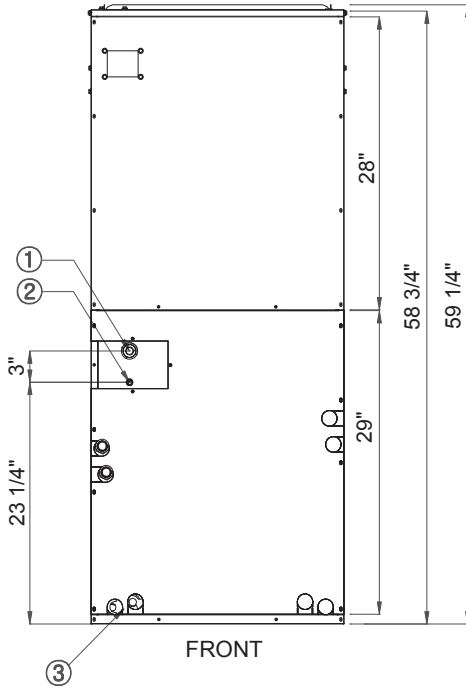
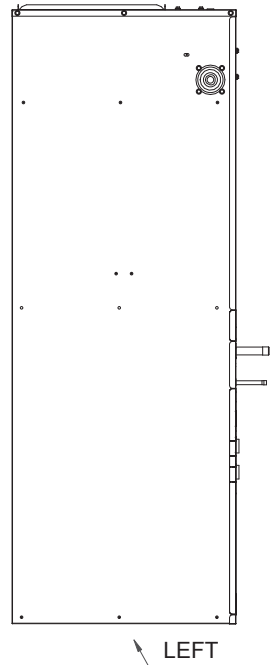
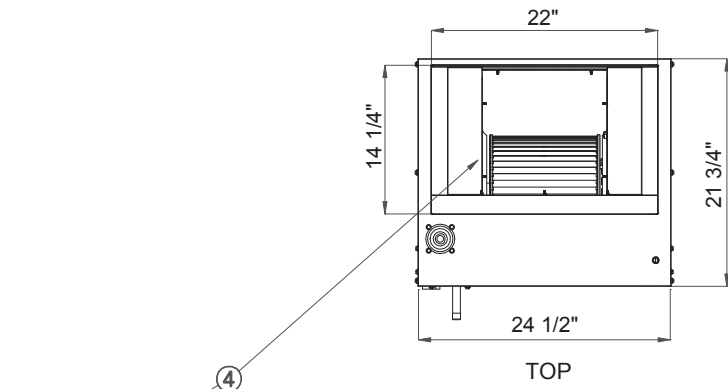
Warranty

10 Years compressor, 10 years parts, 1 year limited labor when registered (conditions apply)

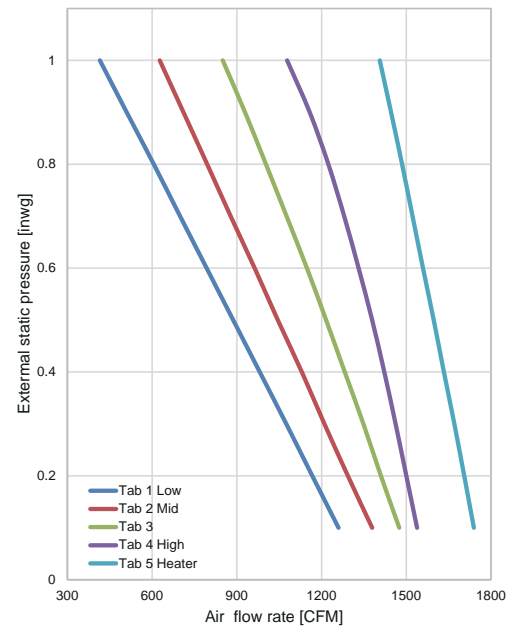
¹ Certified in accordance with the AHRI Unitary Small Air-Source Heat Pumps (USHP) Certification Program which is based on the latest edition of AHRI Standard 210/240.

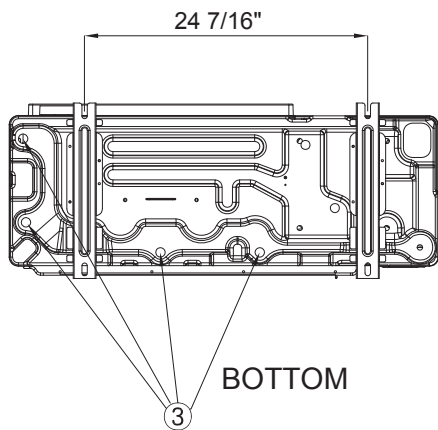
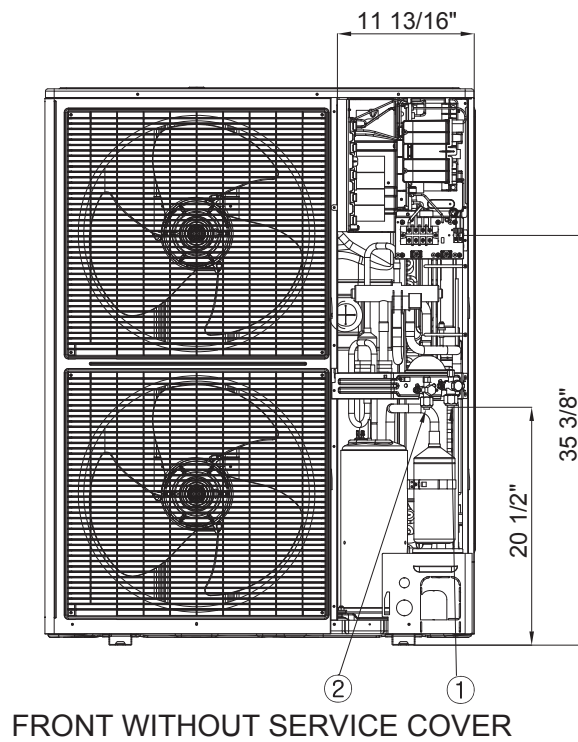
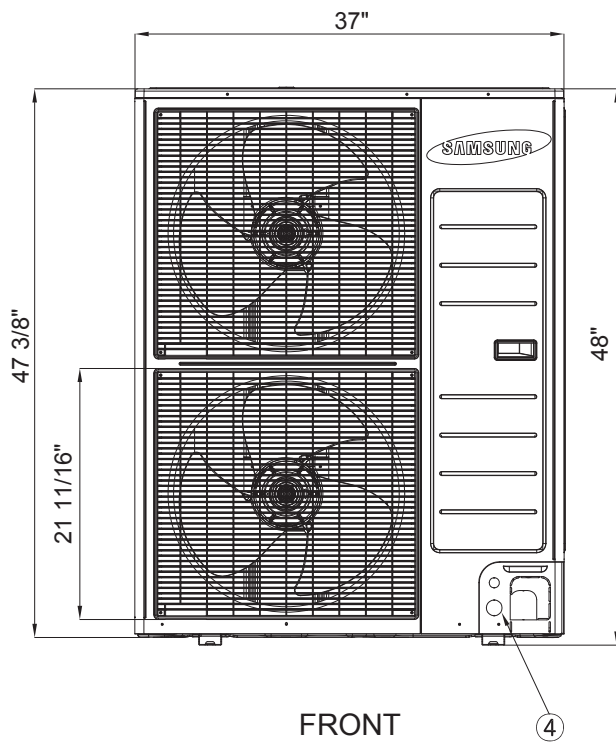
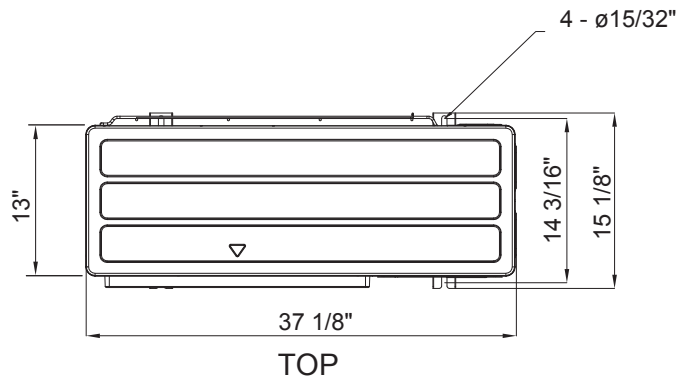
² Refer to installation manual for full fan curve details





No.	Description
①	Gas Pipe
②	Liquid Pipe
③	Drain Connection
④	Air Outlet
⑤	Air Inlet





No.	Description
1	Suction service valve
2	Liquid service valve
3	Drainage hole
4	Power and communication conduit openings