962 Main Street
Jay, ME 04239
Ph : 207-645-5109

Submittal

Job: 1606
Mixed Use York St HVAC
York Street Mixed Use
101 York Street
Portland, ME 04101

Spec Section No: M3.01 OU/AH
Submittal No: 1
Revision No: 0
Sent Date: 9/1/2016
Due Date: 9/16/2016

Spec Section Title:

Submittal Title: Heat Pumps

Contractor:
Ranor Mechanical
Aaron St. Pierre

Contractor's Stamp

General Contractor:
Opechee Construction

Architect's Stamp

Engineer's Stamp

Submittal Information Form

Specifications Dated: JUNE 07, 2016

Drawings Dated (if applicable): 05/27/2016

1 Project: YORK ST MIXED USE DEVELOPMENT

2 Specification Title: 15-05 HVAC SCOPE OF WORK

3 Description: MULTIPEE IVI HEAT PUMP SYSTEMS

4 Section: —

5 Page/Sheet #: —

6 Article/Paragraph: —

7 Basis of Design: ☑ Yes ☐ No (if no please fill out 8-12)

8 Proposed Substitution: NA

9 Manufacturer: SAMSUNG

10 Trade Name: SAMSUNG

11 Model #: VARIES

12 Please list SPECIFICALLY the deviations from the basis of design:

13 Equipment Lead Time (after approved submittals) 4 WEEKS

AirCon Inc.

PO Box 615
Windham, ME 04062
207-504-1194 Ph

SUBMITTAL COVER SHEET

TO

RANOR INC

AirCon Inc. Contact
Todd M. Flaherty
hvac@airconsales.net

JOB NAME
YORK ST MIXED USE DEVELOPMENT

DATE
07/08/2016

SPECIFICATION SECTION

15.05 HVAC SCOPE OF WORK

SUBMITTAL CONTENTS (FOR APPROVAL)

SIXTY THREE (63)-SAMSUNG SPLIT HEATPUMPS
TWO (2)- SAMSUNG DUCTLESS SPLIT SYSTEMS

SAMSUNG 1.5 TON SYSTEMS

SAMSUNG INDOOR UNIT MODEL NUMBER: AC018KNZDCH/AA

SAMSUNG OUTDOOR UNIT MODEL NUMBER: AC018JXADCH/AA

TAGS: AH-A1, AH-A2, AH-A3, AH-4

TOTAL QUANTITY = 16

SAMSUNG

SUBMITTAL AC018KNZDCH/AA

Samsung Multi-position Air Handler, Single Zone, Split System

Job Name _____ Location _____

Purchaser _____ Engineer _____

Submitted to _____ Reference ☐ Approval ☐ Construction ☐

Unit Designation _____ Schedule # _____

Specifications

Model	Indoor Unit Model Number		AC018KNZDCH/AA
	Outdoor Unit Model Number		AC018JXADCH/AA
Performance	Nominal Capacity [1]	Cooling / Heating (Btu/h)	18,000 / 20,000
	Capacity Range	Cooling (Btu/h)	5,000 - 21,000
		Heating (Btu/h)	4,400 - 24,000
	SEER / EER		20.1 / 11.25
	COP (nominal heating)		2.92
	HSPF		10.0
	AHRI Certification Number		8950555
	Condensate (pints/hour)		4.44
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)	2.4 / 7.1 / 9.6
		Heating (A)	2.2 / 8.7 / 10.0
	Max. Breaker	Amps	15
	Min. Circuit Ampacity (A)		9.4
Dimensions	W X H X D (inches)	Indoor Unit	17 1/2 X 43 X 21
		Outdoor Unit	34 5/8 X 25 1/8 X 12 1/4
	Weight (lbs.)	Indoor Unit	98.1
		Outdoor Unit	99.2
Sound Pressure Level	Indoor Unit dB(A)	L / M / H	32 / 35 / 38
	Outdoor Unit dB(A)	Cooling / Heating (high)	48 / 48
Operating Temperatures (^{0}F)	Outdoor	Cooling	23 ≤ T ≤ 115
			0 ≤ T ≤ 115 W/Baffle
		Heating	-4 ≤ T ≤ 76
	Indoor	Cooling	61 ≤ T ≤ 90
		Heating	T ≤ 80
Pipe Connections	Indoor & Outdoor	High side (flare)	1/4"
		Low side (flare)	1/2"
	Maximum (ft.)		98
	Maximum Vertical Separation (ft.)		66
	Condensate Connection		3/4" FNPT
Refrigerant	Factory Charge	oz.	45.86
	Charged for		25 feet
	Additional Refrigerant		0.11 oz./ft. over 25 feet
Compressor	Type		Inverter Driven, Twin BLDC Rotary
	RLA	A	6.1
Evaporator Fan	Type		Double-inlet, forward curve, centrifugal (with ECM motor)
	Air Volume	CFM (L/M/H)	494 / 530 / 600 (at standard ESP)
		Total CFM Range [2]	130 - 682
	HP		1/3
	Motor Amps	A	0.72
	External Static Pressure ("WC)	Standard	0.2
		Min. / Max.	0 / 0.8
Condenser Fan	Motor		BLDC With Axial Type Fan (1)
	FLA / Watts / CFM (max.)		0.13 A / 39 W / 1,550 CFM
Optional Accessories	Wired Controller	Simplified	☐ MWR-SH00N
		Premium w/scheduling	☐ MWR-WE10N
		Simplified Touch Controller	☐ MWR-SH10N
	Wi-Fi Adapter		☐ MIM-H03UN
	Wireless Signal Control	Wireless Signal Receiver	☐ MRK-A10N
		Wireless Controller	☐ MR-EH00U
	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-1
	Supplemental Electric Heat Kits	3kW	☐ VHK-103A
		5kW	☐ VHK-105A
	Wall Bracket (for outdoor unit)		☐ CKN-250
	Wind Baffles	Front	☐ WBMF-9/12/18
		Back	☐ WBMB-9/12/18/36
	Line Sets - insulated and flared, interconnect cables included		☐ 25' - ILS2507
			☐ 50' - ILS5007
Safety	Certifications		ETL, ETLc
	Devices: PCB fuses, indoor unit terminal block thermal fuse, current transformer, over-voltage protection, crankcase heating, temperature limit protection logic, compressor overload sensing		

[1] Nominal cooling capacities are based on: Indoor temperature: 80^{0}F DB, 67^{0}F WB. Outdoor temperature: 95^{0}F DB, 75^{0}F WB.
Nominal heating capacities are based on: Indoor temperature: 70^{0}F DB, 60^{0}F WB. Outdoor temperature: 47^{0}F DB, 43^{0}F WB.

[2] Refer to installation manual for full fan curve details

General Information
- Auto-restart after power loss

- 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

- 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 indoor unit shall be 16AWG X 2 shielded

Controls must be purchased separately

Connection to optional wired controllers shall be 2 X 16AWG shielded wire

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

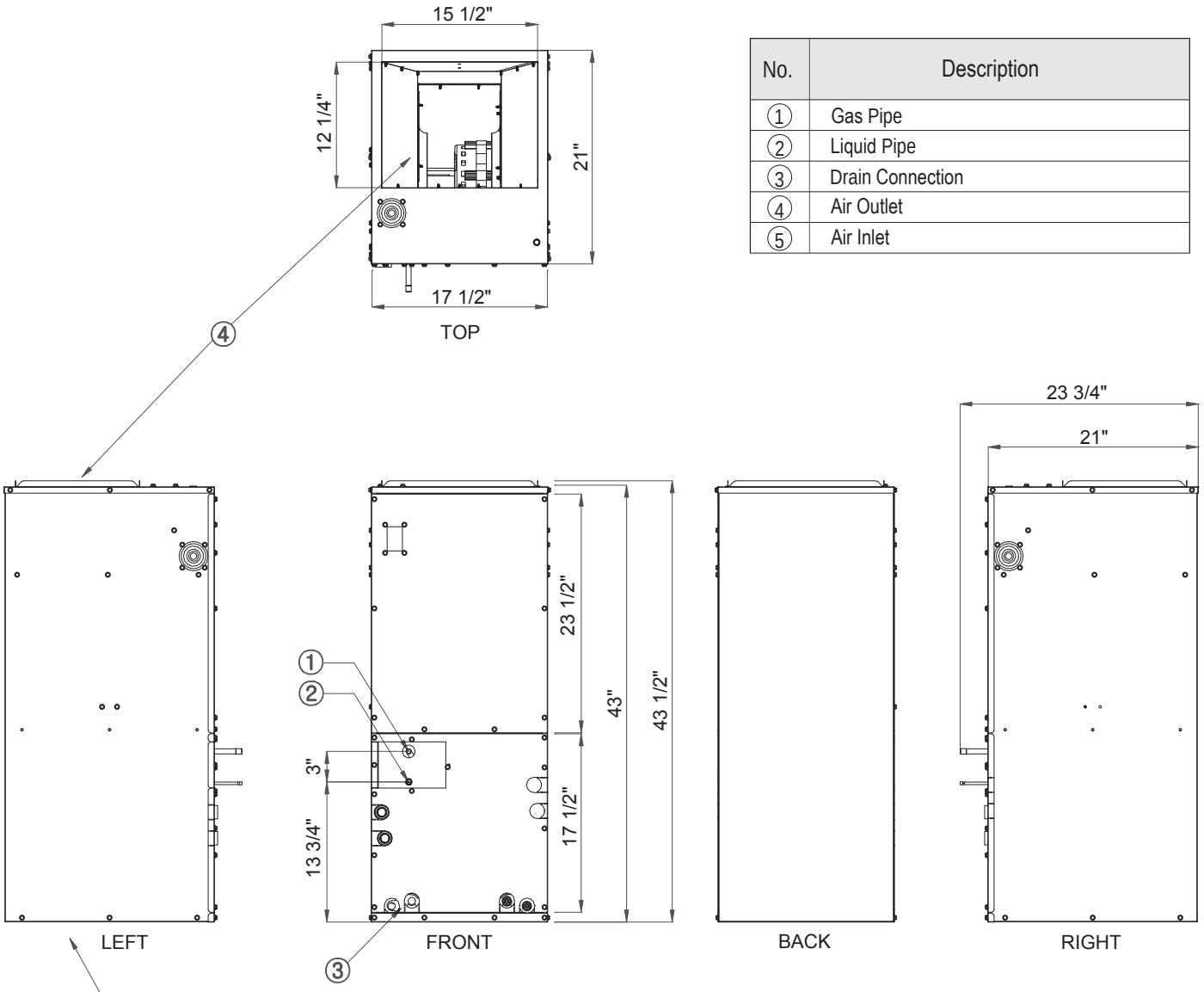
Warranty
10 Years compressor, 10 years parts, 1 year limited labor when registered (conditions apply)

SAMSUNG

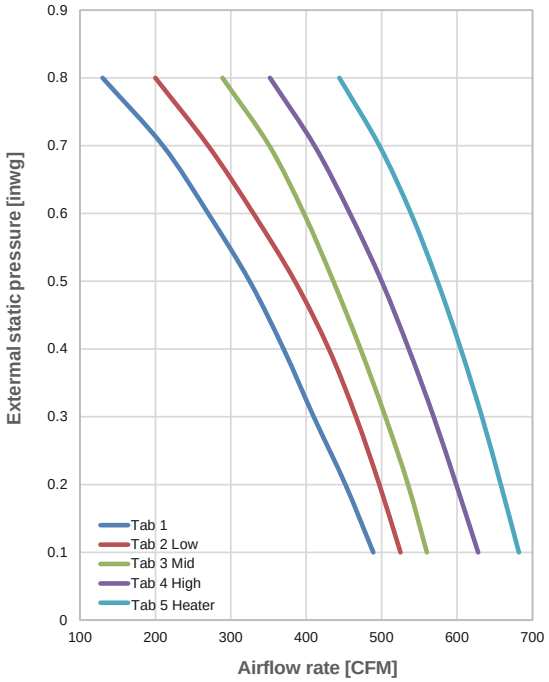
SUBMITTAL AC018KNZDCH/AA

Samsung Multi-position Air Handler, Single Zone, Split System

AC018KNZDCH/AA Dimensional Drawing



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

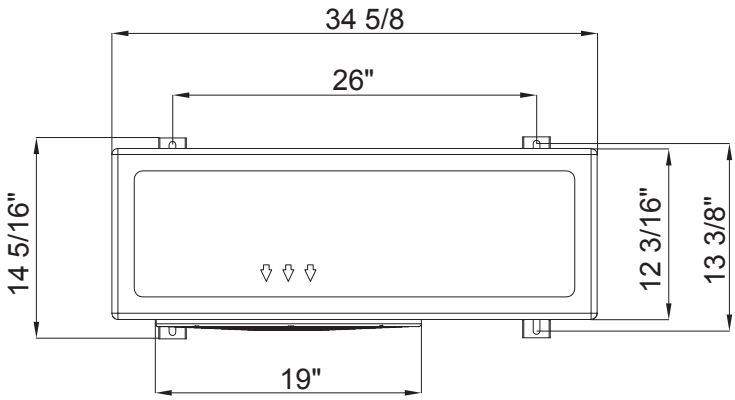


SAMSUNG

SUBMITTAL AC018KNZDCH/AA

Samsung Multi-position Air Handler, Single Zone, Split System

AC018JXADCH/AA Dimensional Drawing



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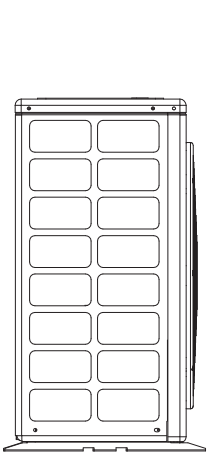

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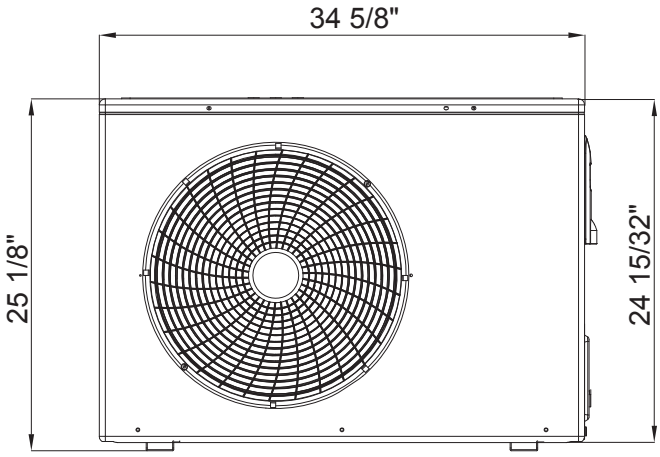

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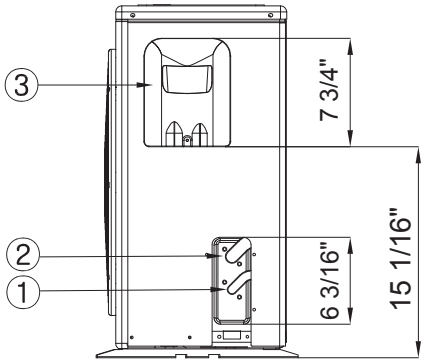

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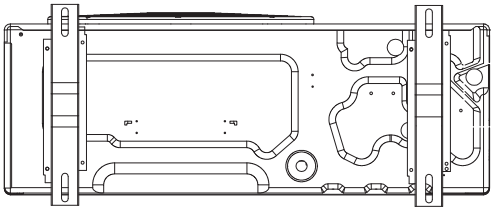


BOTTOM

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

SAMSUNG 2.0 TON SYSTEMS

SAMSUNG INDOOR UNIT MODEL NUMBER: AC024KNZDCH/AA

SAMSUNG OUTDOOR UNIT MODEL NUMBER: AC024JXADCH/AA

TAGS: AH-B1,B2,B3,B5

TOTAL QUANTITY = 40

SAMSUNG

SUBMITTAL AC024KNZDCH/AA

Samsung Multi-position Air Handler, Single Zone, Split System

Job Name _____ Location _____

Purchaser _____ Engineer _____

Submitted to _____ Reference ☐ Approval ☐ Construction ☐

Unit Designation _____ Schedule # _____

Specifications

Model	Indoor Unit Model Number		AC024KNZDCH/AA
	Outdoor Unit Model Number		AC024JXADCH/AA
Performance	Nominal Capacity [1]	Cooling / Heating (Btu/h)	24,000 / 27,000
	Capacity Range	Cooling (Btu/h)	7,000 - 27,000
		Heating (Btu/h)	6,700 - 29,000
	SEER / EER		19.5 / 11.00
	COP (nominal heating)		10.23
	HSPF		11.5
	AHRI Certification Number		8950560
	Condensate (pints/hour)		6.13
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)	3.8 / 9.8 / 12.0
		Heating (A)	3.6 / 11.6 / 12.8
	Max. Breaker	Amps	20
	Min. Circuit Ampacity (A)		13.58
Dimensions	W X H X D (inches)	Indoor Unit	17 1/2 X 43 X 21
		Outdoor Unit	37 X 39 11/16 X 13
	Weight (lbs.)	Indoor Unit	98.1
		Outdoor Unit	142.2
Sound Pressure Level	Indoor Unit dB(A)	L / M / H	35 / 38 / 41
	Outdoor Unit dB(A)	Cooling / Heating (high)	50 / 50
Operating Temperatures (^{0}F)	Outdoor	Cooling	23 ≤ T ≤ 115
			0 ≤ T ≤ 115 W/Baffle
		Heating	-4 ≤ T ≤ 76
	Indoor	Cooling	61 ≤ T ≤ 90
		Heating	T ≤ 80
Pipe Connections	Indoor & Outdoor	High side (flare)	1/4"
		Low side (flare)	5/8"
	Maximum (ft.)		164
	Maximum Vertical Separation (ft.)		98
	Condensate Connection		3/4" FNPT
Refrigerant	Factory Charge	oz.	74.08
	Charged for		25 feet
	Additional Refrigerant		0.11 oz./ft. over 25 feet
Compressor	Type		Inverter Driven, Twin BLDC Rotary
	RLA	A	9.0
Evaporator Fan	Type		Double-inlet, forward curve, centrifugal (with ECM motor)
	Air Volume	CFM (L/M/H)	547 / 636 / 760 (at standard ESP)
		Total CFM Range [2]	262 - 888
	HP		1/3
	Motor Amps	A	0.72
	External Static Pressure ("WC)	Standard	0.2
		Min. / Max.	0 / 0.8
Condenser Fan	Motor		BLDC With Axial Type Fan (1)
	FLA / Watts / CFM (max.)		0.48 A / 125 W / 2,190 CFM
Optional Accessories	Wired Controller	Simplified	☐ MWR-SH00N
		Premium w/scheduling	☐ MWR-WE10N
		Simplified Touch Controller	☐ MWR-SH10N
	Wi-Fi Adapter		☐ MIM-H03UN
	Wireless Signal Control	Wireless Signal Receiver	☐ MRK-A10N
		Wireless Controller	☐ MR-EH00U
	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-1
	Supplemental Electric Heat Kits	3kW	☐ VHK-103A
		5kW	☐ VHK-105A
	Wall Bracket (for outdoor unit)		☐ CKN-250
	Wind Baffles	Front	☐ WBF-1
		Back	☐ WBB-3
	Line Sets - insulated and flared, interconnect cables included		☐ 25' - ILS2509
			☐ 50' - ILS5009
Safety	Certifications		ETL, ETLc
	Devices: PCB fuses, indoor unit terminal block thermal fuse, current transformer, over-voltage protection, crankcase heating, temperature limit protection logic, compressor overload sensing		

[1] Nominal cooling capacities are based on: Indoor temperature: 80^{0}F DB, 67^{0}F WB. Outdoor temperature: 95^{0}F DB, 75^{0}F WB.
Nominal heating capacities are based on: Indoor temperature: 70^{0}F DB, 60^{0}F WB. Outdoor temperature: 47^{0}F DB, 43^{0}F WB.

[2] Refer to installation manual for full fan curve details

General Information
- Auto-restart after power loss

- 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 inter the chassis through the front, right side, bottom, or back.

- 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 indoor unit shall be 16AWG X 2 shielded

Controls must be purchased separately

Connection to optional wired controllers shall be 2 X 16AWG shielded wire

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

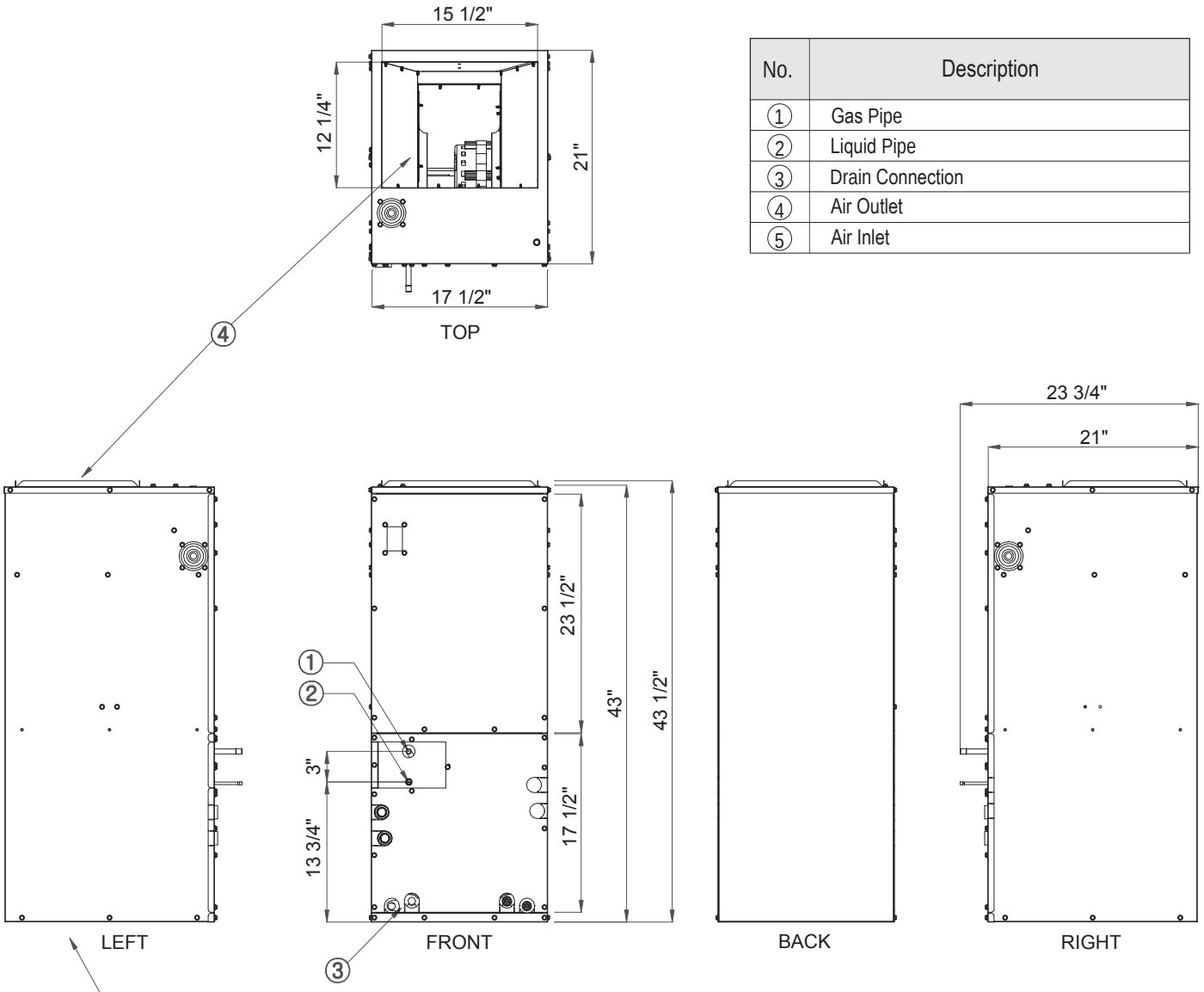
Warranty
10 Years compressor, 10 years parts, 1 year limited labor when registered (conditions apply)

SAMSUNG

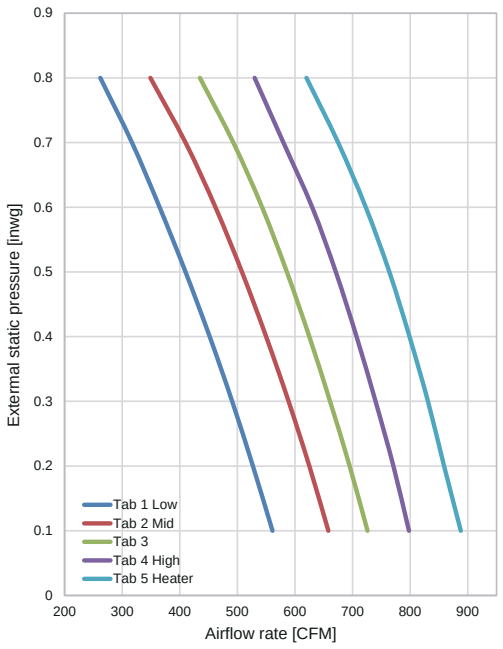
SUBMITTAL AC024KNZDCH/AA

Samsung Multi-position Air Handler, Single Zone, Split System

AC024KNZDCH/AA Dimensional Drawing



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

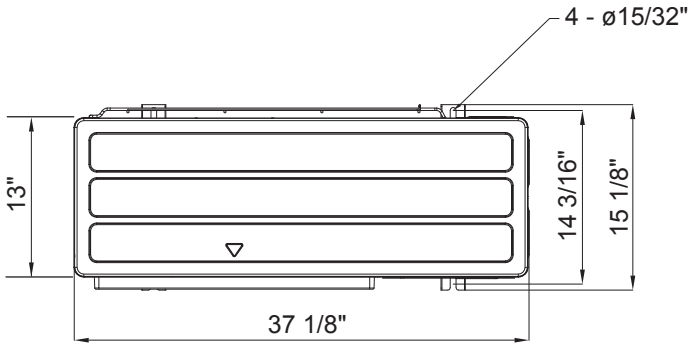


SAMSUNG

SUBMITTAL AC024KNZDCH/AA

Samsung Multi-position Air Handler, Single Zone, Split System

AC024JXADCH/AA Dimensional Drawing



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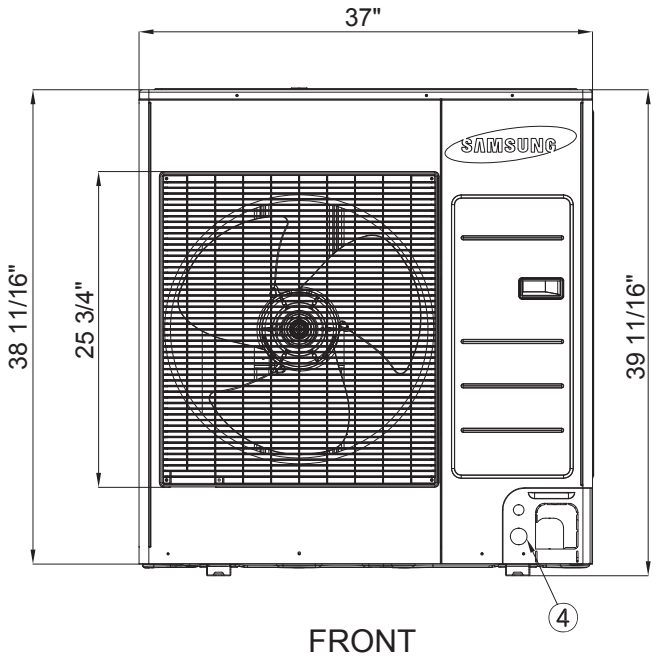

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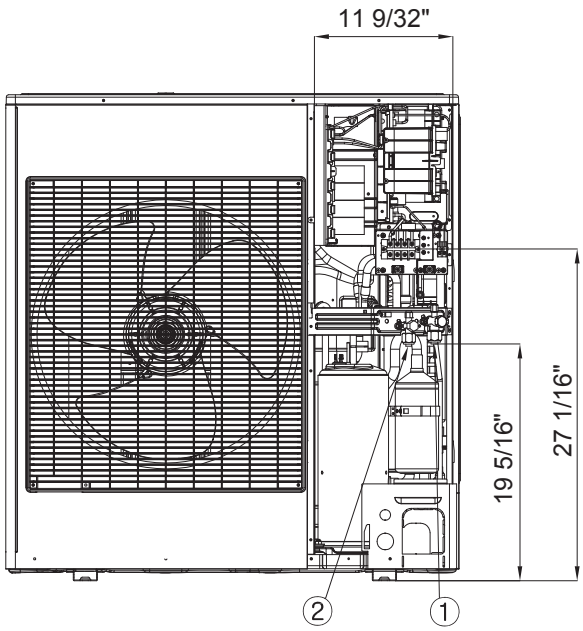
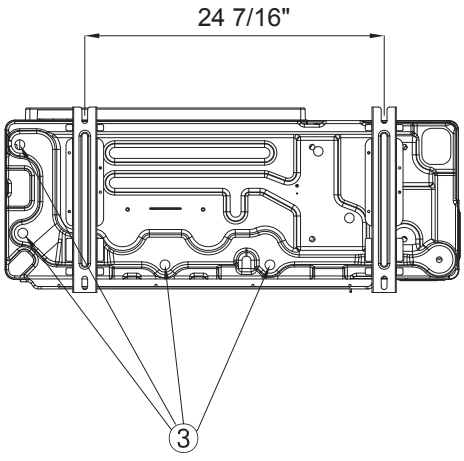


FRONT WITHOUT SERVICE COVER



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

SAMSUNG 2.5 TON SYSTEMS

SAMSUNG INDOOR UNIT MODEL NUMBER: AC030KNZDCH/AA

SAMSUNG OUTDOOR UNIT MODEL NUMBER: AC030JXADCH/AA

TAGS: AH-B4,AH-C1

TOTAL QUANTITY = 7

SAMSUNG

SUBMITTAL AC030KNZDCH/AA

Samsung Multi-position Air Handler, Single Zone, Split System

Job Name _____ Location _____

Purchaser _____ Engineer _____

Submitted to _____ Reference ☐ Approval ☐ Construction ☐

Unit Designation _____ Schedule # _____

Specifications

Model	Indoor Unit Model Number		AC030KNZDCH/AA
	Outdoor Unit Model Number		AC030JXADCH/AA
Performance	Nominal Capacity [1]	Cooling / Heating (Btu/h)	30,000 / 32,000
	Capacity Range	Cooling (Btu/h)	10,000 - 33,000
		Heating (Btu/h)	9,000 - 36,000
	SEER / EER		19.6 / 10.5
	COP (nominal heating)		11.35
	HSPF		10.4
	AHRI Certification Number		8950561
	Condensate (pints/hour)		6.76
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)	4.5 / 13.0 / 17.2
		Heating (A)	4.1 / 12.3 / 20.2
	Max. Breaker	Amps	35
	Min. Circuit Ampacity (A)		21.7
Dimensions	W X H X D (inches)	Indoor Unit	21 X 48 X 21
		Outdoor Unit	37 X 39 11/16 X 13
	Weight (lbs.)	Indoor Unit	123.5
		Outdoor Unit	154.8
Sound Pressure Level	Indoor Unit dB(A)	L / M / H	35 / 38 / 41
	Outdoor Unit dB(A)	Cooling / Heating (high)	50 / 52
Operating Temperatures (^{0}F)	Outdoor	Cooling	23 ≤ T ≤ 115
			0 ≤ T ≤ 115 W/Baffle
		Heating	-4 ≤ T ≤ 76
	Indoor	Cooling	61 ≤ T ≤ 90
		Heating	T ≤ 80
Pipe Connections	Indoor & Outdoor	High side (flare)	3/8"
		Low side (flare)	5/8"
	Maximum (ft.)		164
	Maximum Vertical Separation (ft.)		98
	Condensate Connection		3/4" FNPT
Refrigerant	Factory Charge	oz.	91.71
	Charged for		25 feet
	Additional Refrigerant		0.24 oz./ft. over 25 feet
Compressor	Type		Inverter Driven, Twin BLDC Rotary
	RLA	A	15.1
Evaporator Fan	Type		Double-inlet, forward curve, centrifugal (with ECM motor)
	Air Volume	CFM (L/M/H)	848 / 918 / 1,007 (at standard ESP)
		Total CFM Range [2]	419 - 1,314
	HP		1/2
	Motor Amps	A	1.66
	External Static Pressure ("WC)	Standard	0.24
		Min. / Max.	0 / 1.0
Condenser Fan	Motor		BLDC With Axial Type Fan (1)
	FLA / Watts / CFM (max.)		0.48 A / 125 W / 2,200 CFM
Optional Accessories	Wired Controller	Simplified	☐ MWR-SH00N
		Premium w/scheduling	☐ MWR-WE10N
		Simplified Touch Controller	☐ MWR-SH10N
	Wi-Fi Adapter		☐ MIM-H03UN
	Wireless Signal Control	Wireless Signal Receiver	☐ MRK-A10N
		Wireless Controller	☐ MR-EH00U
	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-2
	Supplemental Electric Heat Kits	5kW	☐ VHK-205A
		10kW	☐ VHK-210A
	Wall Bracket (for outdoor unit)		☐ CKN-250
	Wind Baffles	Front	☐ WBF-1
		Back	☐ WBB-3
	Line Sets - insulated and flared, interconnect cables included		☐ 25' - ILS2510
			☐ 50' - ILS5010
Safety	Certifications		ETL, ETLc
	Devices: PCB fuses, indoor unit terminal block thermal fuse, current transformer, over-voltage protection, crankcase heating, temperature limit protection logic, compressor overload sensing		

[1] Nominal cooling capacities are based on: Indoor temperature: 80^{0}F DB, 67^{0}F WB. Outdoor temperature: 95^{0}F DB, 75^{0}F WB.
Nominal heating capacities are based on: Indoor temperature: 70^{0}F DB, 60^{0}F WB. Outdoor temperature: 47^{0}F DB, 43^{0}F WB.

[2] Refer to installation manual for full fan curve details

General Information
- Auto-restart after power loss

- 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 inter the chassis through the front, right side, bottom, or back.

- 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 indoor unit shall be 16AWG X 2 shielded

Controls must be purchased separately

Connection to optional wired controllers shall be 2 X 16AWG shielded wire

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

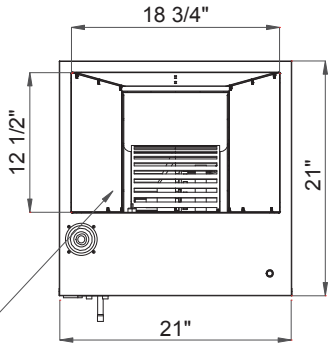
Warranty
10 Years compressor, 10 years parts, 1 year limited labor when registered (conditions apply)

SAMSUNG

SUBMITTAL AC030KNZDCH/AA

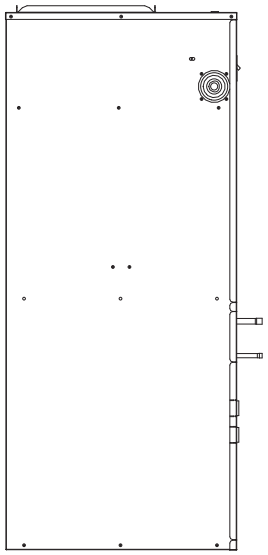
Samsung Multi-position Air Handler, Single Zone, Split System

AC030KNZDCH/AA Dimensional Drawing

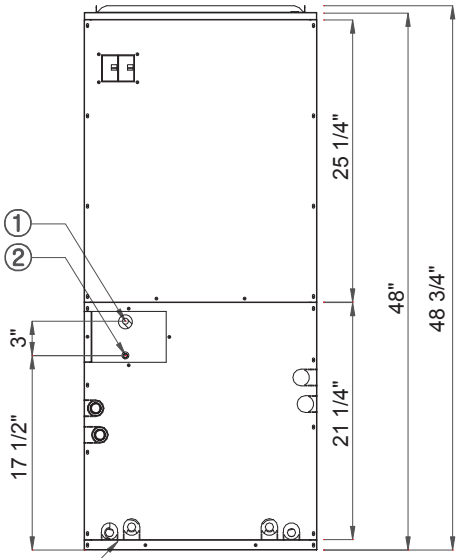


TOP

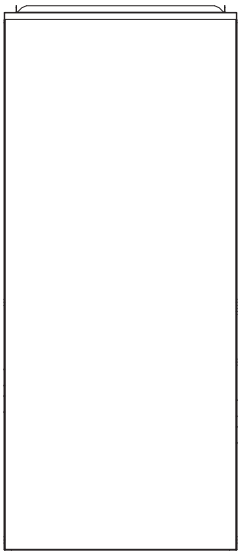
No.	Description
①	Gas Pipe
②	Liquid Pipe
③	Drain Connection
④	Air Outlet
⑤	Air Inlet



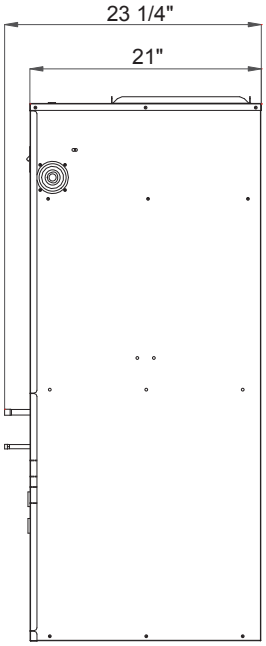
LEFT



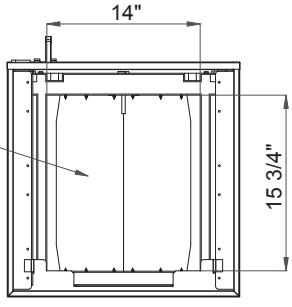
FRONT



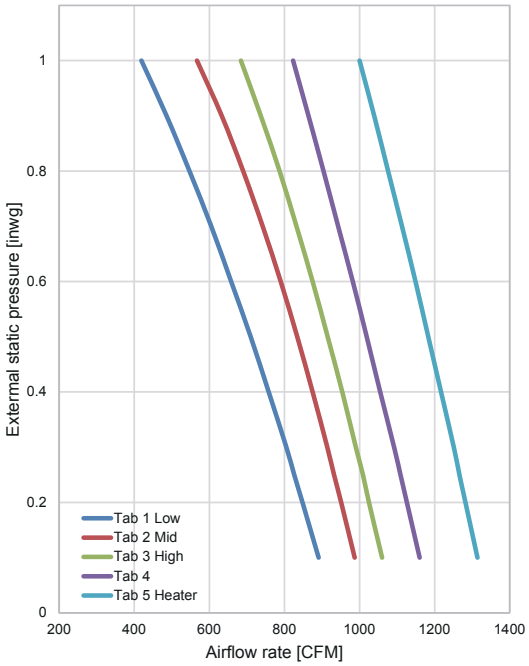
BACK



RIGHT



BOTTOM

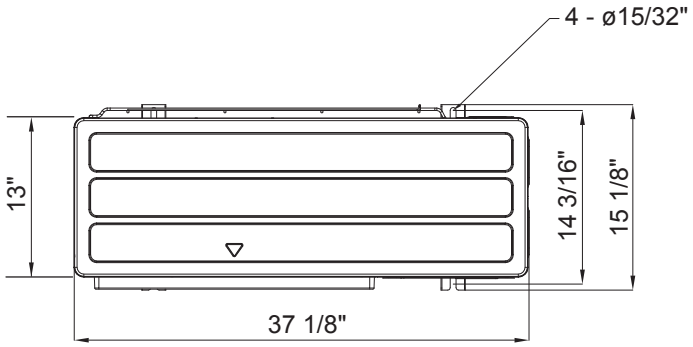


SAMSUNG

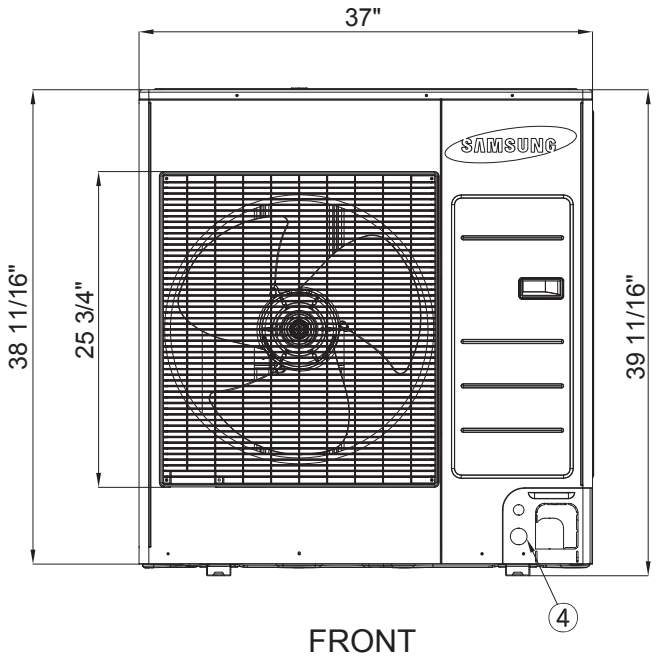
SUBMITTAL AC030KNZDCH/AA

Samsung Multi-position Air Handler, Single Zone, Split System

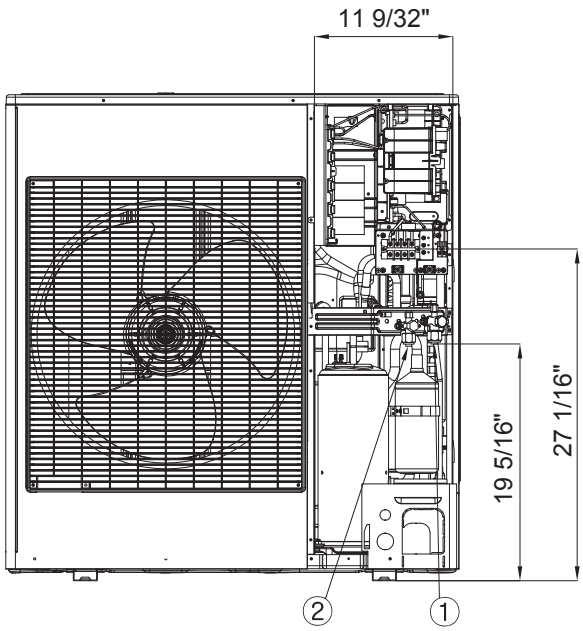
AC030JXADCH/AA Dimensional Drawing



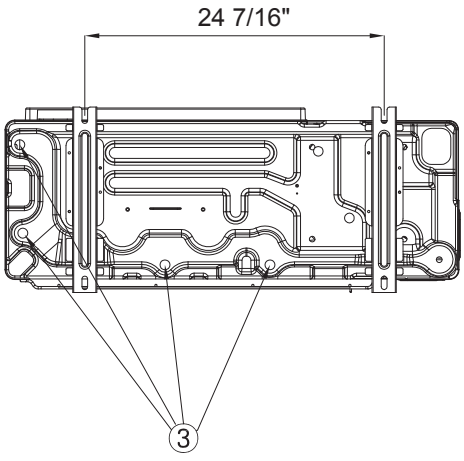
TOP



FRONT



FRONT WITHOUT SERVICE COVER



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

SAMSUNG MULTI-POSITION AIR HANDLER

ACCESSORIES

ELECTRIC HEAT

- MODEL # VHK-103A
- MODEL # VHK-105A

WIND BAFFLES

- FRONT BAFFLES
  - WBMF-18
  - WBF-1
- REAR BAFFLES
  - WBMB-18
  - WBB-3

PREMIUM WIRED CONTROLLERS

- MODEL # MWR-WE10N

Wi-Fi ADAPTERS

- MODEL MIM-H03UN

FILTER BASES

- VFB-1
- VFB-2

SUBMITTAL MIM-H03UN

Samsung Wi-Fi Adapter for DVM S and CAC Systems

Job Name _____ Location _____

Purchaser _____ Engineer _____

Submitted to _____ Reference ☐ Approval ☐ Construction ☐

Unit Designation _____ Schedule # _____

Specifications

• Wi-Fi adapter to allow remote control of Samsung DVM S indoor units (AM****N***/AA), single zone 4-way cassette systems (AC0**JN4DCH/AA) and sing zone duct systems (AC0**JNHDCH/AA) from a mobile device (Android or iOS)

• Single system connection with up to 16 indoor units.

• Control and monitoring will be done via Samsung Smart Home app available on Google Play or iTunes app stores

• Control/monitor indoor unit: power status, mode, set temperature, room temperature, fan speed, and supply air louver position.

• 7 Day scheduling for a single unit or multiple indoor units.

• Basic daily, weekly, and monthly energy consumption checking[1]

• Group configuration option for simple control of multiple units at the same time

Connection

• 4 wire connection to an indoor unit (F1/F2, V1/V2)

• 12VDC

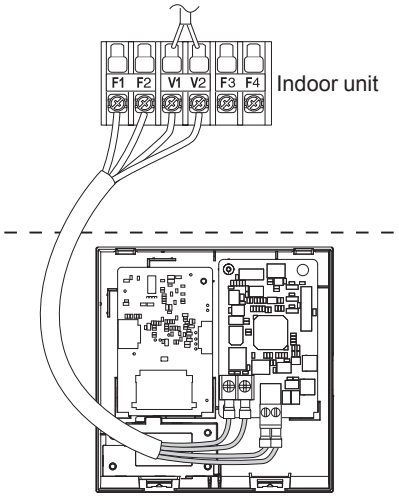
• Can be used with other Samsung central control options.

• Requires a local Wi-Fi router with DHCP enabled and an internet connection.

• Mobile device must be on the local network for initial Wi-Fi adapter configuration and connection.

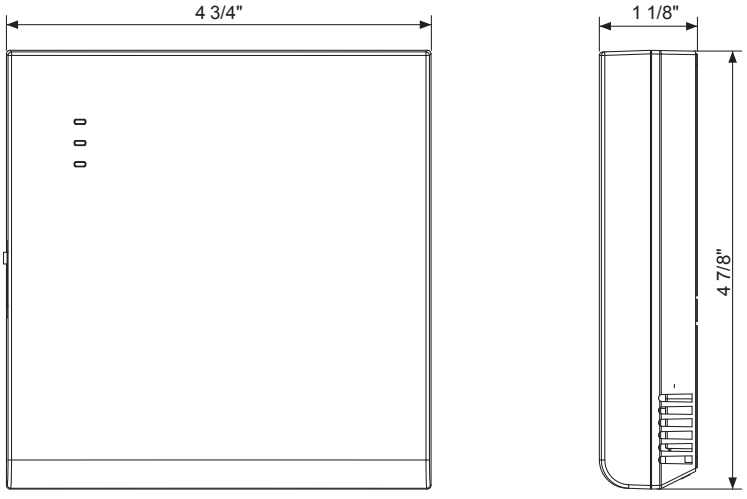
[1] Energy consumption data is for general reference only and should not be used for billing purposes. Data provided will not necessarily match your utility bill.

Basic Connection

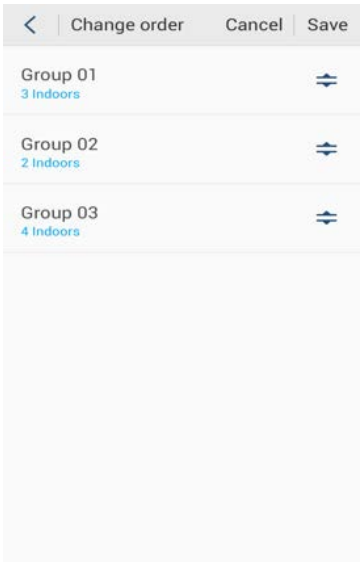


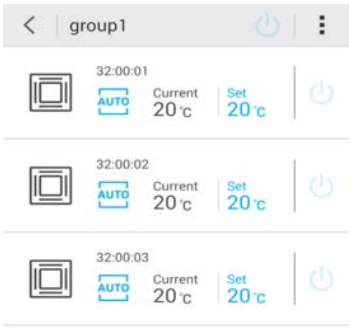
MIM-H03UN

Dimensions

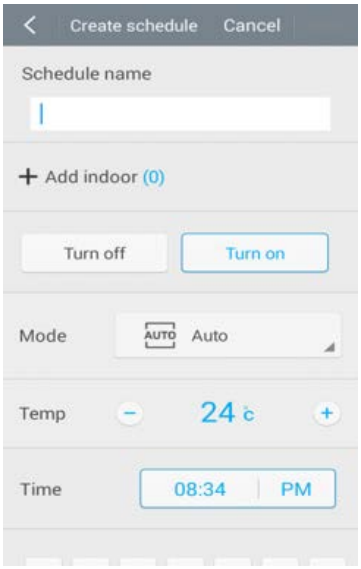


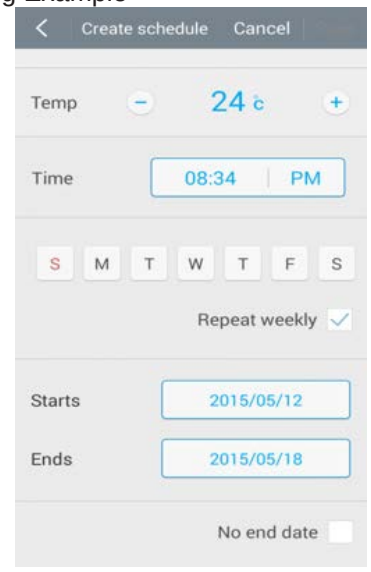
Group Setting Example



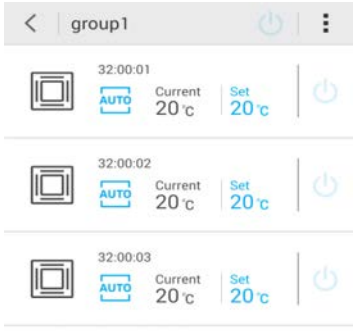


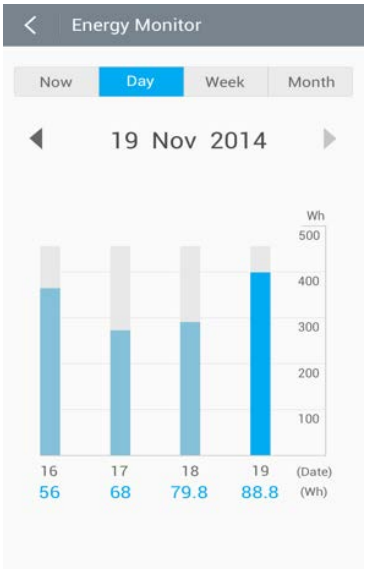
Schedule Setting Example

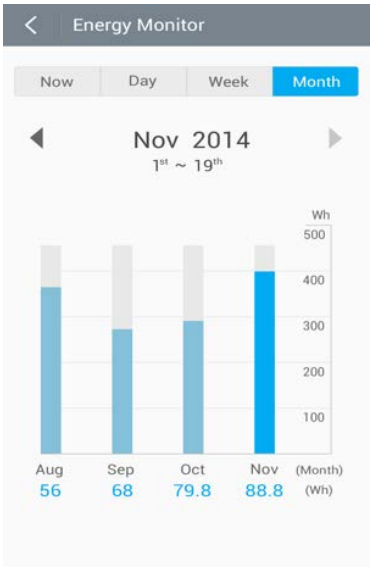




Energy Consumption Example







NOTE: Temperature display can be set to Fahrenheit or Celsius.

SAMSUNG

SUBMITTAL VFB-1, VFB-2, VFB-3

Filter Base For Samsung Multi-position Air Handlers

Job Name _____ Location _____

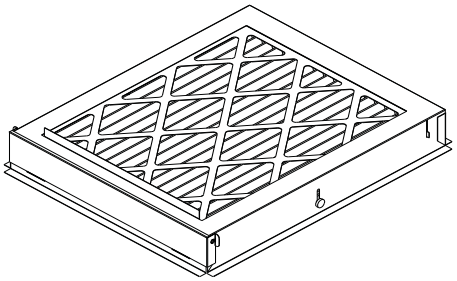
Purchaser _____ Engineer _____

Submitted to _____ Reference ☐ Approval ☐ Construction ☐

Unit Designation _____ Schedule # _____

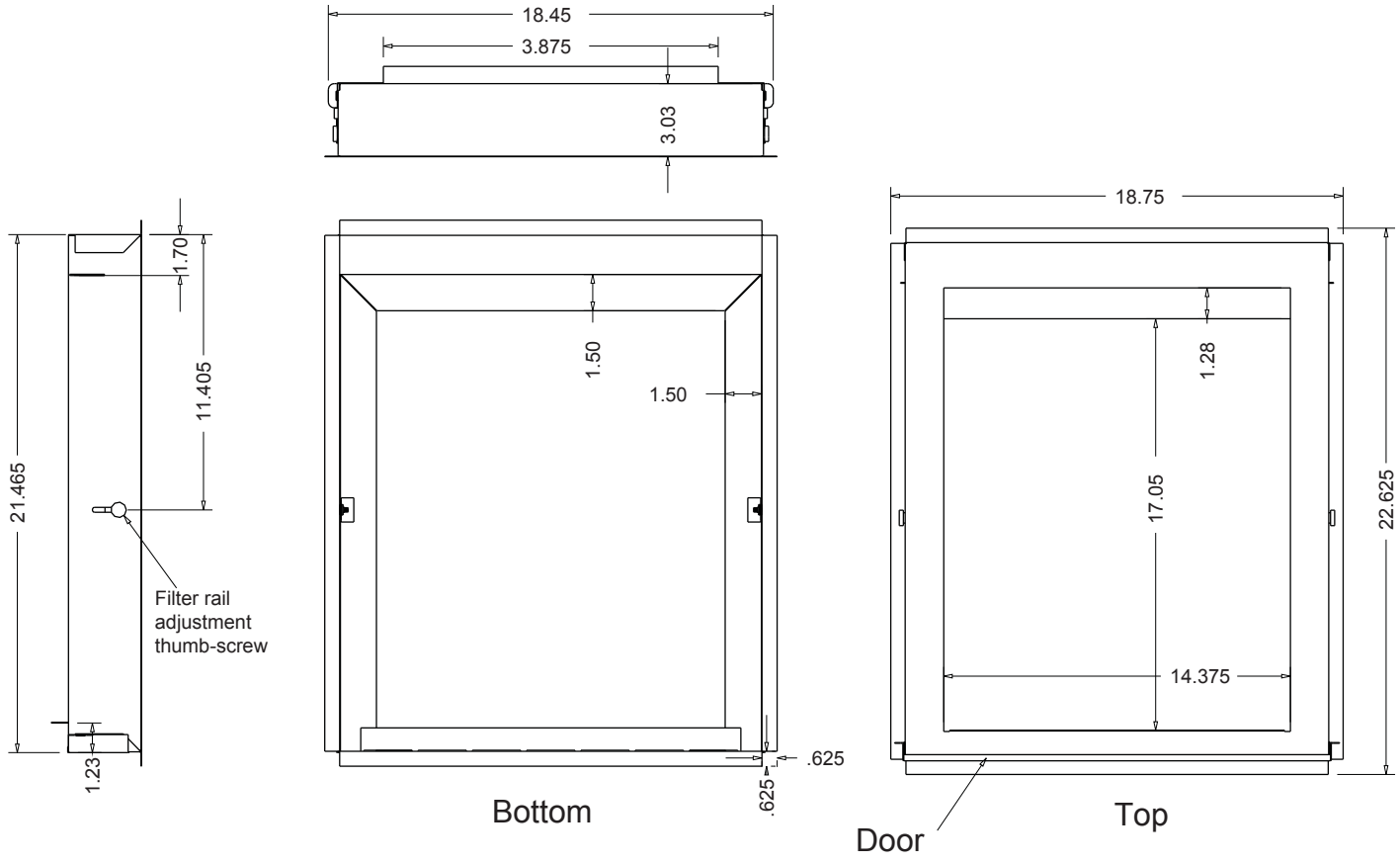
Description

- Filter base for Samsung multi-position air handlers (AM0**GNVQCH, AM0**JNZDCH/AA, AC0**KNZDCH/AA)
- For use in vertical installation applications
- Includes 1", disposable, pleated filter
- Adjustable filter rails to accept 1" or 2" filters
- Hinged filter access door
- Galvanized steel construction



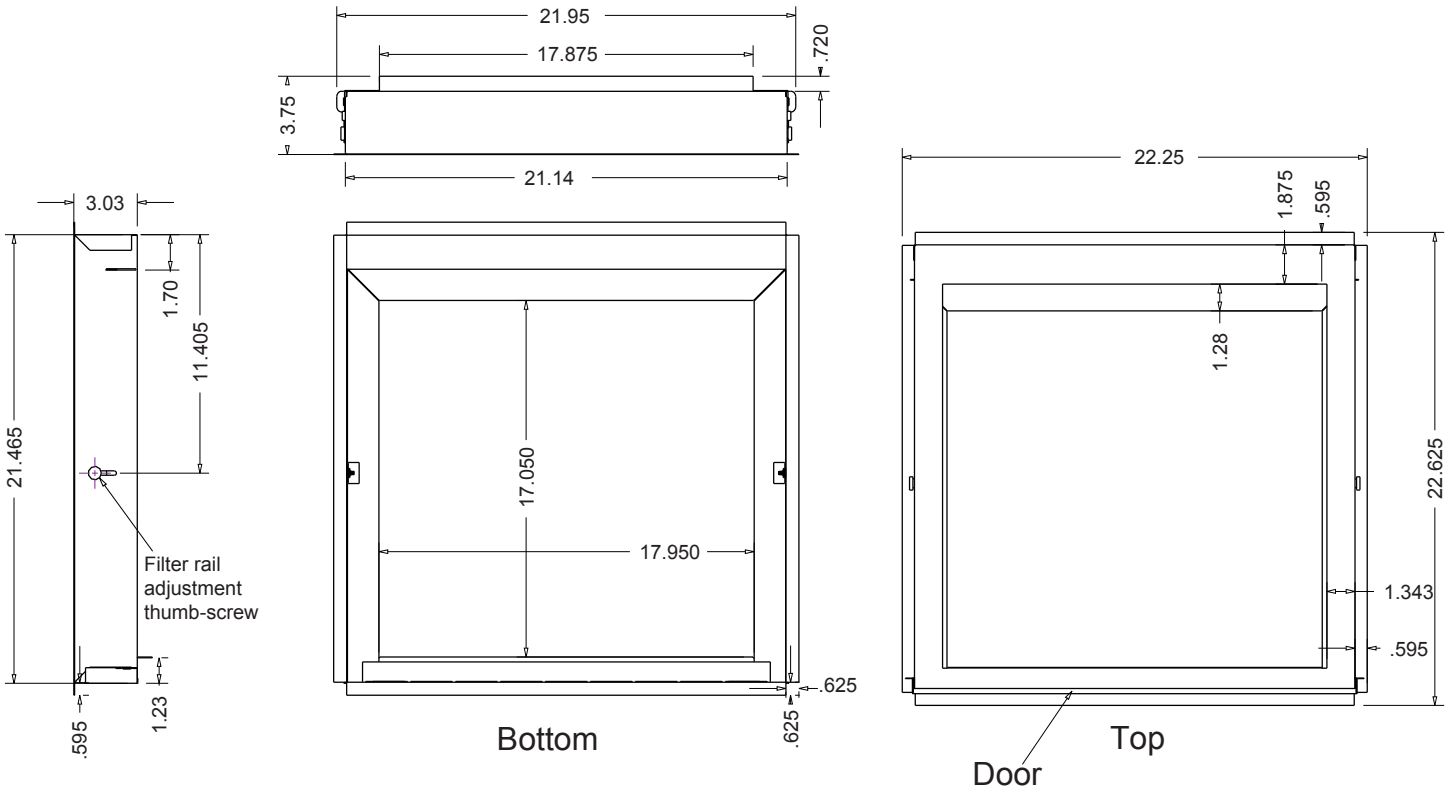
	Model Number	Indoor Unit Nominal Capacity	Compatible Indoor Units	Filter Sizes (inches)
☐	VFB-1	12,000 btu/h	AM012JNZDCH/AA, AM012GNVQCH	16 X 20 X 1 16 X 20 X 2
		18,000 btu/h	AM018JNZDCH/AA, AM018GNVQCH, AC018KNZDCH/AA	
		24,000 btu/h	AM024JNZDCH/AA, AM024GNVQCH, AC024KNZDCH/AA	
☐	VFB-2	30,000 btu/h	AM030JNZDCH/AA, AM030GNVQCH, AC030KNZDCH/AA	20 X 20 X 1 20 X 20 X 2
		36,000 btu/h	AM036JNZDCH/AA, AM036GNVQCH, AC036KNZDCH/AA	
☐	VFB-3	42,000 btu/h	AC042KNZDCH/AA	20 X 24 X 1 20 X 24 X 2
		48,000 btu/h	AM048JNZDCH/AA, AM048GNVQCH, AC048KNZDCH/AA	
		54,000 btu/h	AM054JNZDCH/AA, AM054GNVQCH, AC054KNZDCH/AA	
		60,000 btu/h	AM060JNZDCH/AA, AM060GNVQCH	
		72,000 btu/h	AM072JNZDCH/AA, AM072GNVQCH	

VFB-1 Dimensions (inches)

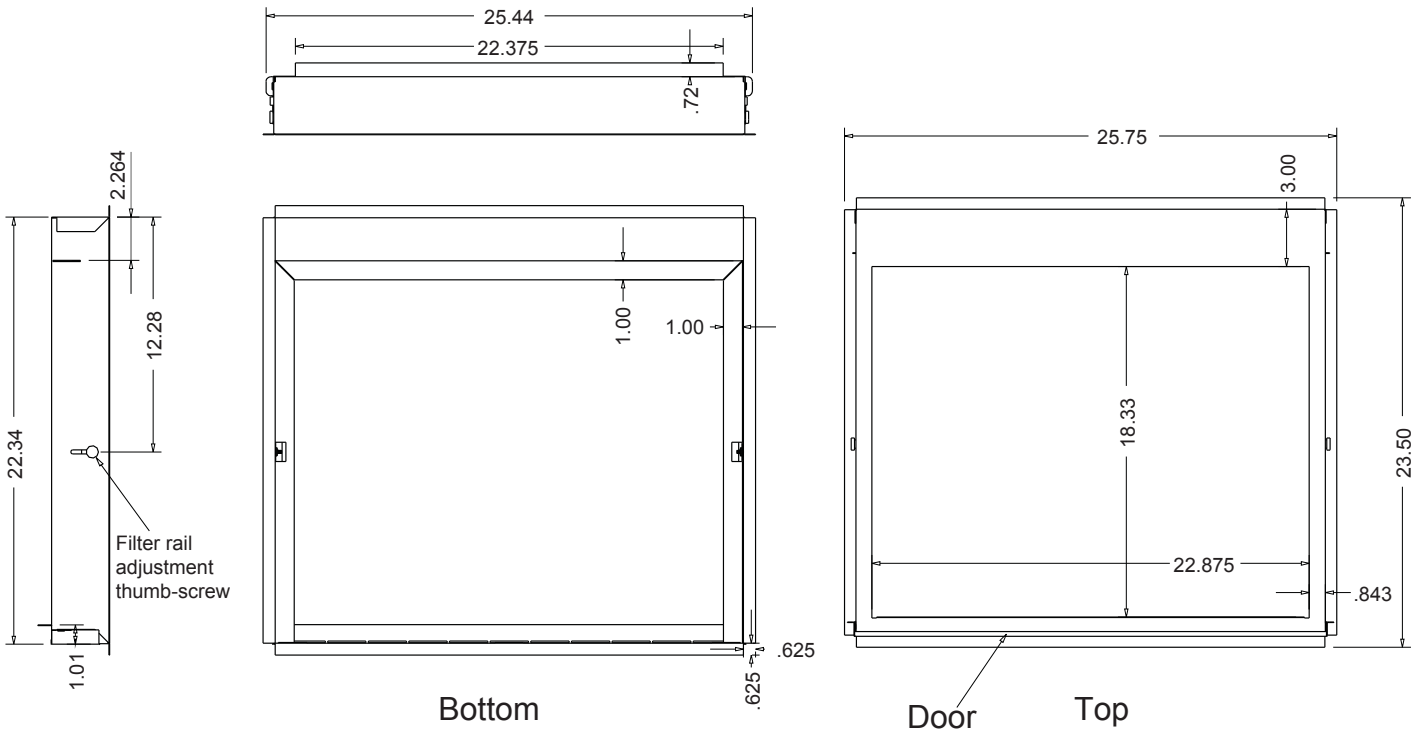


Samsung HVAC and Quietside maintains a policy of ongoing development,specifications are subject to change without notice.

VFB-2 Dimensions (inches)



VFB-3 Dimensions (inches)



SAMSUNG

SUBMITTAL WBMB-9/12/18/36, WBMB-24

Back Wind Baffle for Samsung Outdoor Units

Job Name _____ Location _____

Purchaser _____ Engineer _____

Submitted to _____ Reference ☐ Approval ☐ Construction ☐

Unit Designation _____ Schedule # _____

☐ WBMB-9/12/18/36

☐ WBMB-24

Unit Compatibility

Model number	Description	WBMB-9/12/18/36	WBMB-24
AR09JSFDHWKX	9,000 Btu/h, "Pearl", outdoor unit	X	
AR12JSFDHWKX	12,000 Btu/h, "Pearl", outdoor unit	X	
AR09KSWDHWKX	9,000 Btu/h, "Smart Pearl", outdoor unit	X	
AR12KSWDHWKX	12,000 Btu/h, "Smart Pearl", outdoor unit	X	
AR09HSFSJWKX	9,000 Btu/h, "Whisper" outdoor unit	X	
AR12HSFSJWKX	12,000 Btu/h, "Whisper" outdoor unit	X	
AR18HSFSJWKX	18,000 Btu/h, "Whisper" outdoor unit	X	
AR24HSFSJWKX	24,000 Btu/h, "Whisper" outdoor unit		X
AR09KSWSJWKX	9,000 Btu/h, "Smart Whisper" outdoor unit	X	
AR12KSWSJWKX	12,000 Btu/h, "Smart Whisper" outdoor unit	X	
AR18KSWSJWKX	18,000 Btu/h, "Smart Whisper" outdoor unit	X	
AR24KSWSJWKX	24,000 Btu/h, "Smart Whisper" outdoor unit		X
AR09KSWSPWKX	9,000 Btu/h, "Smart Whisper - Max Heat" outdoor unit	X	
AR12KSWSPWKX	12,000 Btu/h, "Smart Whisper - Max Heat" outdoor unit	X	
AR09KSFPDWQX	9,000 Btu/h, "Quantum" outdoor unit	X	
AR12KSFPDWQX	12,000 Btu/h, "Quantum" outdoor unit	X	
AR18KSFPDWQX	18,000 Btu/h, "Quantum" outdoor unit	X	
AR24KSFPDWQX	24,000 Btu/h, "Quantum" outdoor unit	X	
AQX09VFUAGM	9,000 Btu/h, "Max" outdoor unit	X	
AQX12VFUAGM	12,000 Btu/h, "Max" outdoor unit	X	
AQX18VFUAGM	18,000 Btu/h, "Max" outdoor unit	X	
AQX24VFUAGM	24,000 Btu/h, "Max" outdoor unit		X
AQX36VFUAGM	36,000 Btu/h, "Max" outdoor unit	X (requires 2)	
AC018JXADCH/AA	18,000 Btu/h, single zone, CAC outdoor unit	X	
AC009KXADCH/AA	9,000 Btu/h, single zone, CAC Slim Duct outdoor unit	X	
AC012KXADCH/AA	12,000 Btu/h, single zone, CAC Slim Duct outdoor unit	X	
AC018KXADCH/AA	18,000 Btu/h, single zone, CAC Slim Duct outdoor unit	X	
UH070CAV1	24,000 CAC outdoor unit		X
UH105CAV	36,000 CAC outdoor unit	X (requires 2)	
UH140CAV	48,000 CAC outdoor unit	X (requires 2)	

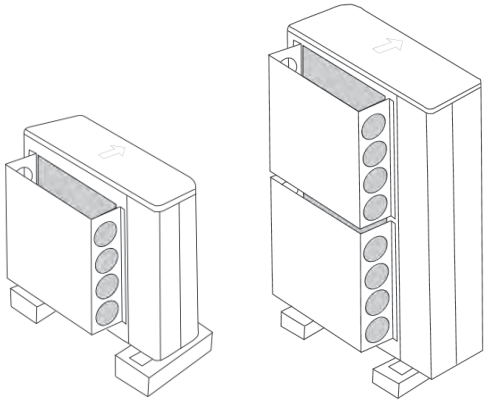
Designed to be placed on the coil intake side of the unit (back).

Note: This back shield is only required for applications where the mini split is not adjacent to a structure that would protect the intake side from prevailing wind (ex: roof top).

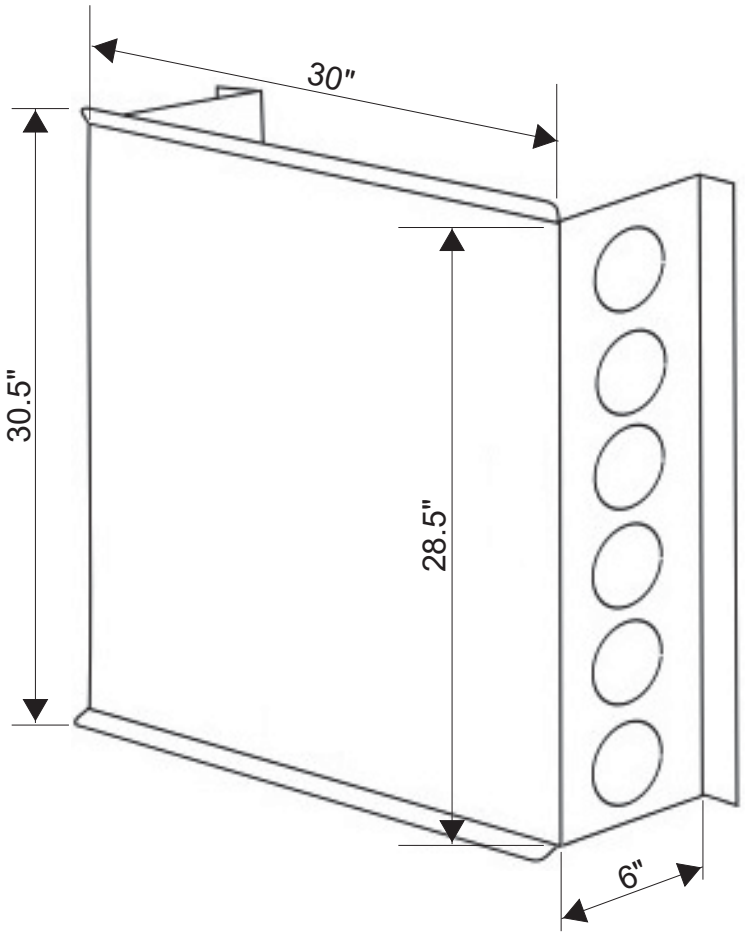
CONTENTS INCLUDED (WBMB-9/12/18/36): 2 side panels, 1 top/outer panel, 6 sheet metal screws, 6 washers, 6 spacers, 8 female fasteners, 8 male fasteners, and 1 tube thread locker.

CONTENTS INCLUDED (WBMB-24): 2 side panels, 1 top/outer panel, 8 sheet metal screws, 8 washers, 8 spacers, 10 female fasteners, 10 male fasteners, and 1 tube thread locker.

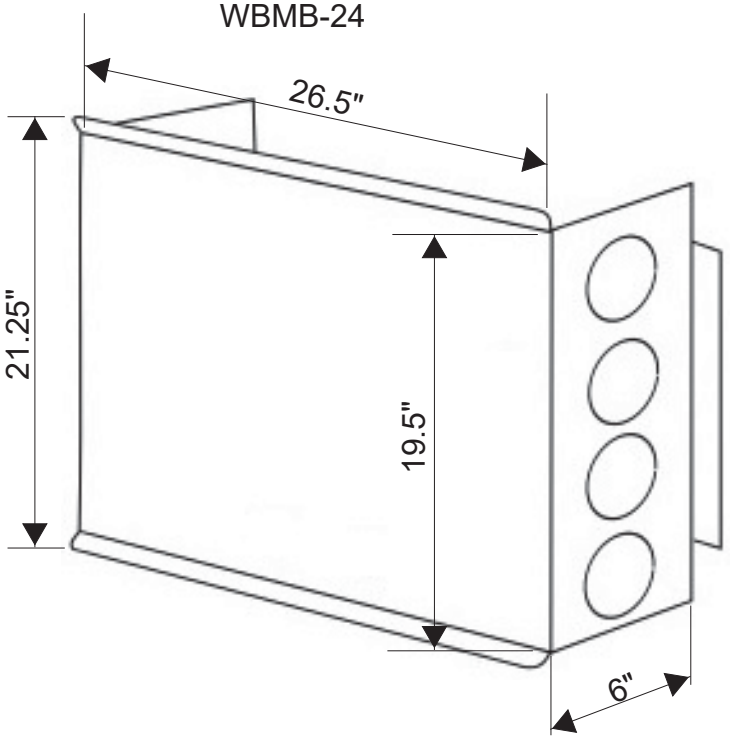
Material: clear plastic



WBMB-9/12/18/36



WBMB-24



SAMSUNG

SUBMITTAL WBMF-9/12/18, WBMF-24/36

Front Wind Baffle for Samsung Outdoor Units

Job Name _____ Location _____

Purchaser _____ Engineer _____

Submitted to _____ Reference ☐ Approval ☐ Construction ☐

Unit Designation _____ Schedule # _____

☐ WBMF-9/12/18

☐ WBMF-24/36

Unit Compatibility

Model number	Description	WBMF-9/12/18	WBMF-24/36
AR09JSFDHWKX	9,000 Btu/h, "Pearl", outdoor unit	X	
AR12JSFDHWKX	12,000 Btu/h, "Pearl", outdoor unit	X	
AR09KSWDHWKX	9,000 Btu/h, "Smart Pearl", outdoor unit	X	
AR12KSWDHWKX	12,000 Btu/h, "Smart Pearl", outdoor unit	X	
AR09HSFSJWKX	9,000 Btu/h, "Whisper" outdoor unit	X	
AR12HSFSJWKX	12,000 Btu/h, "Whisper" outdoor unit	X	
AR18HSFSJWKX	18,000 Btu/h, "Whisper" outdoor unit	X	
AR24HSFSJWKX	24,000 Btu/h, "Whisper" outdoor unit		X
AR09KSWSJWKX	9,000 Btu/h, "Smart Whisper" outdoor unit	X	
AR12KSWSJWKX	12,000 Btu/h, "Smart Whisper" outdoor unit	X	
AR18KSWSJWKX	18,000 Btu/h, "Smart Whisper" outdoor unit	X	
AR24KSWSJWKX	24,000 Btu/h, "Smart Whisper" outdoor unit		X
AR09KSWSPWKX	9,000 Btu/h, "Smart Whisper - Max Heat" outdoor unit	X	
AR12KSWSPWKX	12,000 Btu/h, "Smart Whisper - Max Heat" outdoor unit	X	
AR09KSFPDWQX	9,000 Btu/h, "Quantum" outdoor unit	X	
AR12KSFPDWQX	12,000 Btu/h, "Quantum" outdoor unit	X	
AR18KSFPDWQX	18,000 Btu/h, "Quantum" outdoor unit	X	
AR24KSFPDWQX	24,000 Btu/h, "Quantum" outdoor unit	X	
AQX09VFUAGM	9,000 Btu/h, "Max" outdoor unit	X	
AQX12VFUAGM	12,000 Btu/h, "Max" outdoor unit	X	
AQX18VFUAGM	18,000 Btu/h, "Max" outdoor unit	X	
AQX24VFUAGM	24,000 Btu/h, "Max" outdoor unit		X
AQX36VFUAGM	36,000 Btu/h, "Max" outdoor unit		X (requires 2)
AJ020JCJ2CH/AA	17,000 Btu/h, FJM, 2 port, outdoor unit		X
AJ024JCJ3CH/AA	20,000 Btu/h, FJM, 3 port, outdoor unit		X
AC018JXADCH/AA	18,000 Btu/h, single zone, CAC outdoor unit	X	
AC009KXADCH/AA	9,000 Btu/h, single zone, CAC Slim Duct outdoor unit	X	
AC012KXADCH/AA	12,000 Btu/h, single zone, CAC Slim Duct outdoor unit	X	
AC018KXADCH/AA	18,000 Btu/h, single zone, CAC Slim Duct outdoor unit	X	
MH050FXCA2A	18,000 Btu/h, FJM outdoor unit	X	
MH080FXCA4A	30,000 Btu/h, FJM outdoor unit		X
UH070CAV1	24,000 CAC outdoor unit		X
UH105CAV	36,000 CAC outdoor unit		X (requires 2)
UH140CAV	48,000 CAC outdoor unit		X (requires 2)

Specifications

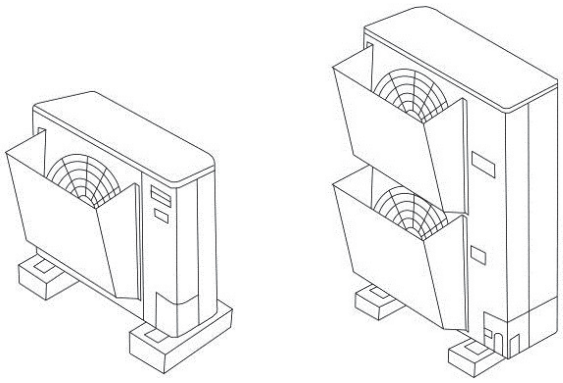
Designed to be placed on fan discharge side (front).

Note: Only a front shield is required for applications where the mini split is adjacent to a structure that would protect the intake side from prevailing wind. Applications without this protection would require a back shield (ex: roof top).

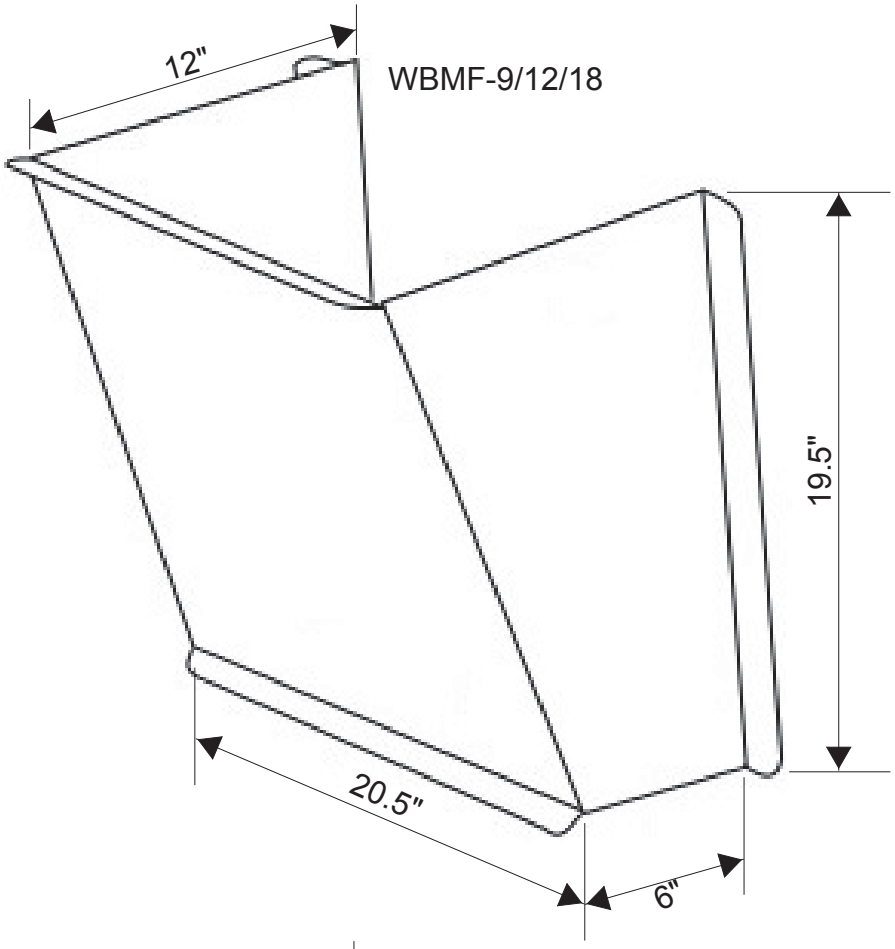
CONTENTS INCLUDED (WBMB-9/12/18): 2 side panels, 1 top/outer panel, 6 sheet metal screws, 6 washers, 6 spacers, 8 female fasteners, 8 male fasteners, and 1 tube thread locker.

CONTENTS INCLUDED (WBMB-24/36): 2 side panels, 1 top/outer panel, 8 sheet metal screws, 8 washers, 8 spacers, 8 female fasteners, 8 male fasteners, and 1 tube thread locker.

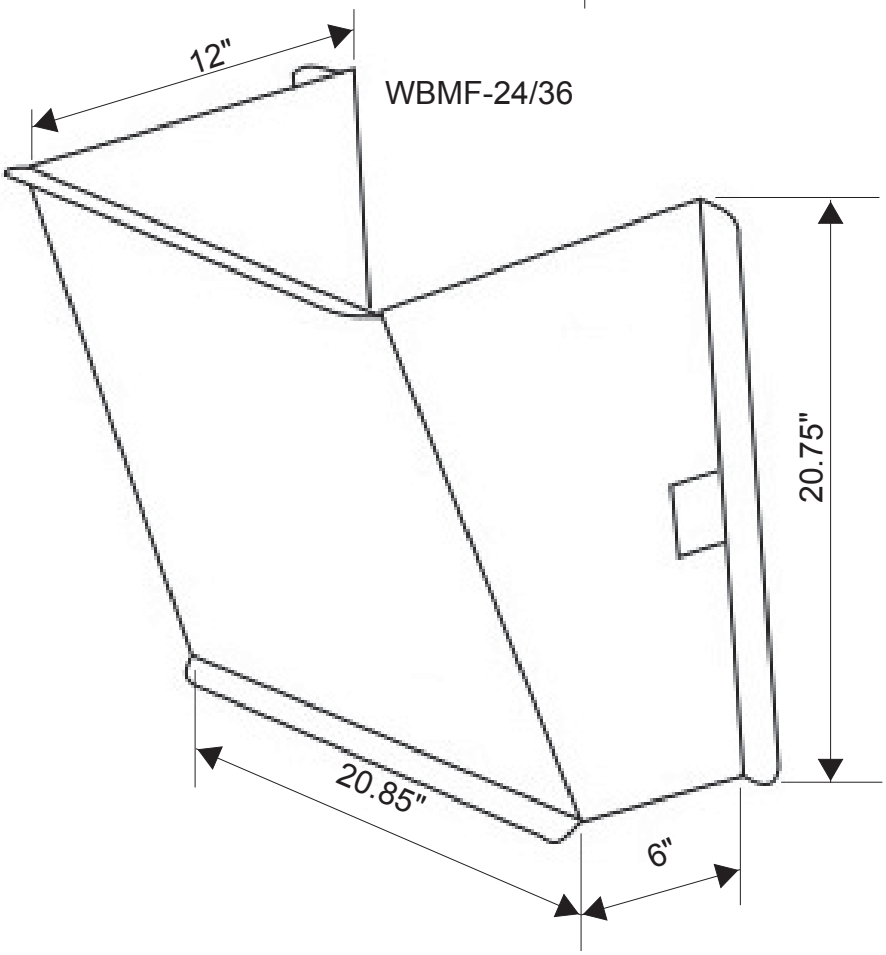
Material: clear plastic



WBMF-9/12/18



WBMF-24/36



SAMSUNG

SUBMITTAL WBB-3

Back Wind Baffle for Samsung Outdoor Units

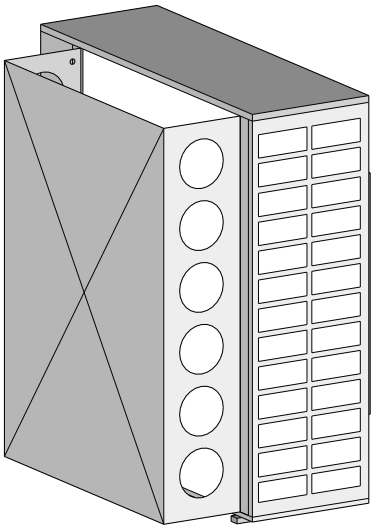
Job Name _____ Location _____

Purchaser _____ Engineer _____

Submitted to _____ Reference ☐ Approval ☐ Construction ☐

Unit Designation _____ Schedule # _____

Specifications



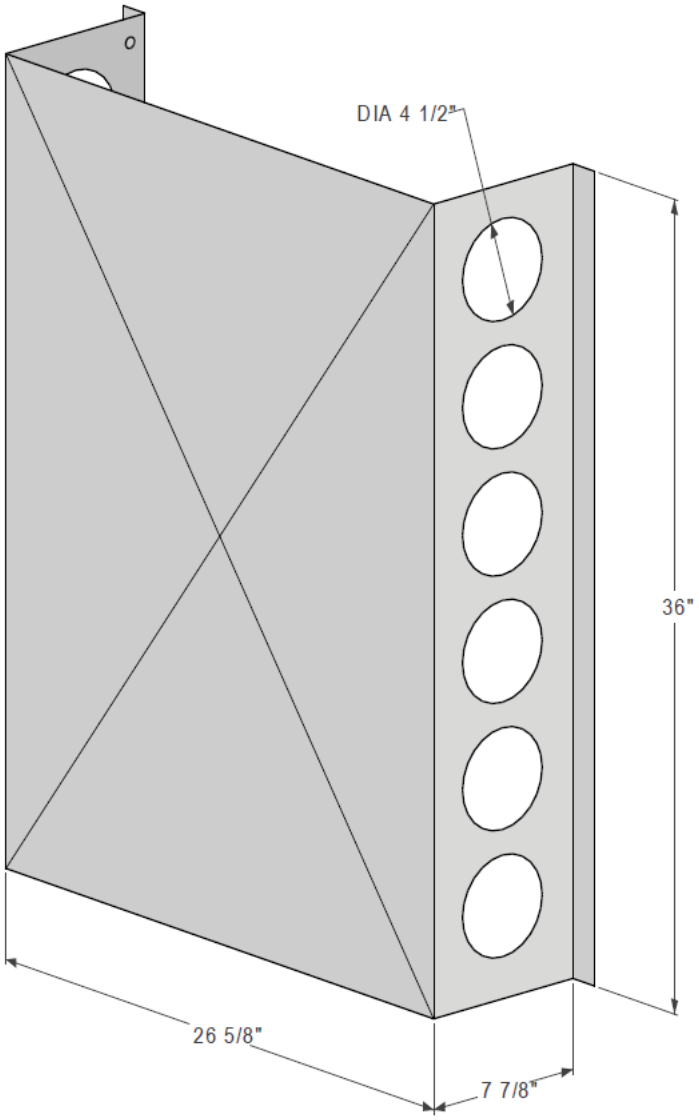
• Designed to be placed on the coil intake side of the unit.

• Note: This back shield is only required for applications for which the outdoor unit is not adjacent to a structure that would protect the intake side from prevailing wind, such as a roof top.

• CONTENTS INCLUDED: 2 side panels (R and L), 2 outer panels, 9 sheet metal screws, 9 washers, 9 spacers, 16 female & 16 male fasteners and 1 tube thread lock.

• WBB-3 back wind baffle is compatible with: AJ036JCJ5CH/AA, AC024JXADCH/AA, AC030JXADCH/AA

• Material: clear plastic



SAMSUNG

SUBMITTAL WBF-1

Front Wind Baffle for Samsung Outdoor Units

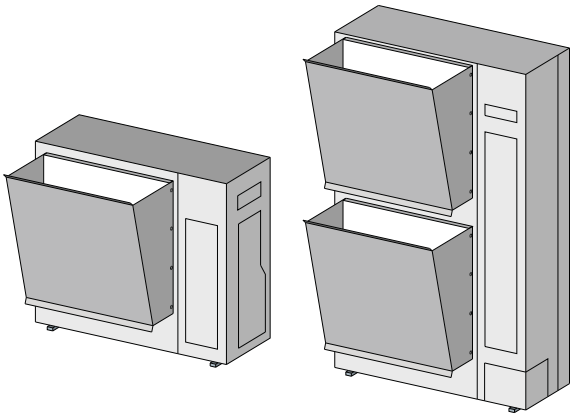
Job Name _____ Location _____

Purchaser _____ Engineer _____

Submitted to _____ Reference ☐ Approval ☐ Construction ☐

Unit Designation _____ Schedule # _____

Specifications



• Designed to be placed on fan discharge side (front).

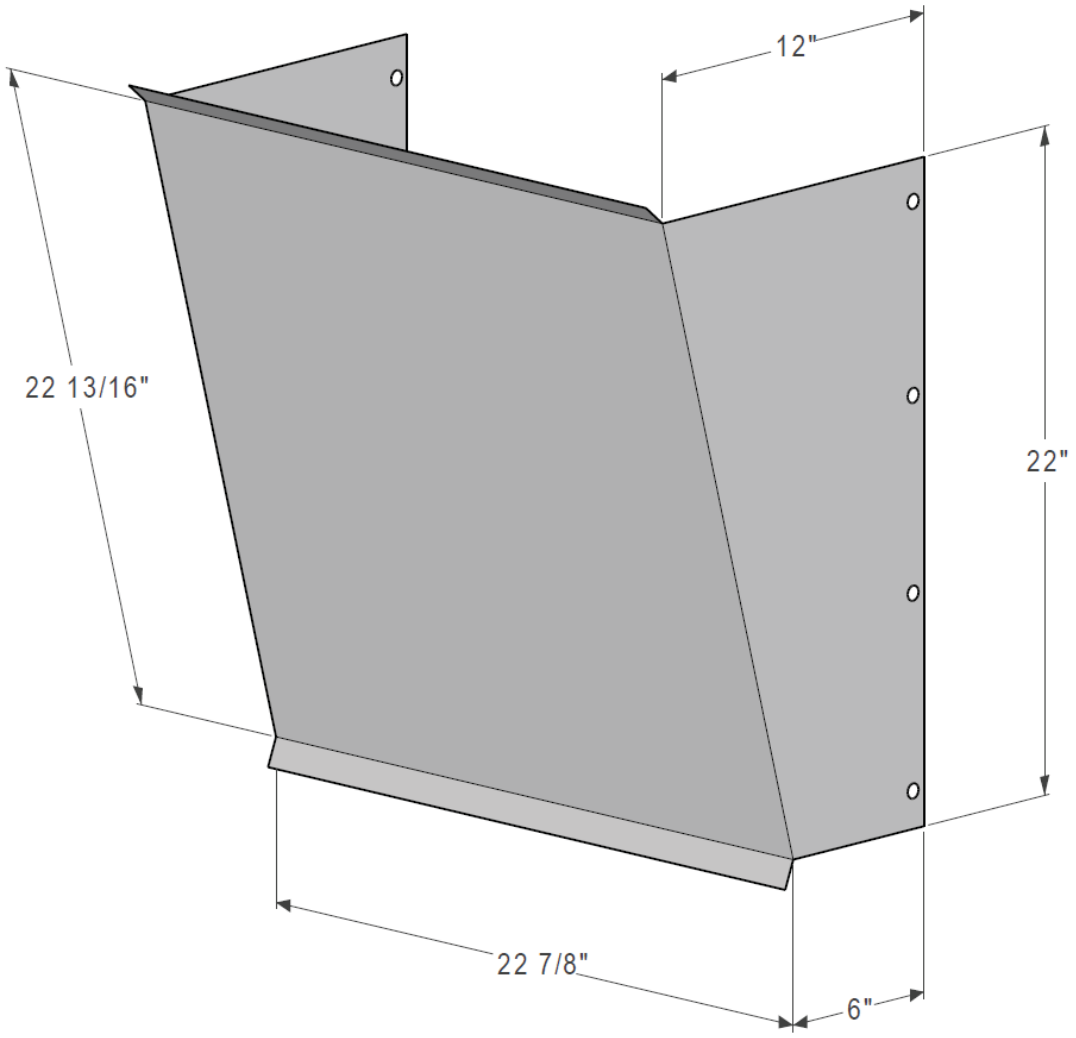
• Note: Only a front shield is required for applications where the outdoor unit is adjacent to a structure that would protect the intake side from prevailing wind. Applications without this protection would require a back shield (ex: roof top).

• CONTENTS INCLUDED: 2 side panels, 1 top or outer panel, 8 sheet metal screws, 8 washers, 8 spacers, 8 female & 8 male fasteners and 1 tube thread locke.

• Material: clear plastic

• WBF-1 Front wind baffle is compatible with: AJ036JCJ5CH/AA, AC024JXADCH/AA, AC030JXADCH/AA, AC030JXSCCH/AA, AC036JXADCH/AA, AC036JXSCCH/AA, AC042JXADCH/AA, AC048JXADCH/AA, AM036FXMDCH/AA, AM048FXMDCH/AA, AC054KXADCH, and AM053FXMDCH/AA.

• AC030JXSCCH/AA, AC036JXADCH/AA, AC036JXSCCH/AA, AC042JXADCH/AA, AC048JXADCH/AA, AM036FXMDCH/AA, AM048FXMDCH/AA, AM053FXMDCH/AA, and AC054KXADCH/AA outdoor units require two WBF-1 front wind baffles.



SAMSUNG

SUBMITTAL VHK-1**A, VHK-2**A, VHK-3**A

Supplemental Electric Heat Kits for DVM S Multi-position Air Handlers

Job Name _____ Location _____

Purchaser _____ Engineer _____

Submitted to _____ Reference ☐ Approval ☐ Construction ☐

Unit Designation _____ Schedule # _____

Description

- Supplemental electric heat kit used with Samsung DVM S (AM0**JNZDCH/AA) and CAC (AC0**KNZDCH/AA) multi-position air handlers to provide supplemental heat when the compressor cannot provide enough capacity due to low ambient conditions or for primary heat with cooling-only systems.
- Installs inside the air handling unit.
- The electric heat kit shall include breakers for overcurrent protection and to turn off the air handler.
- The electric heat kit control wiring shall plug directly into the electric heat kit control plug inside the air handling unit.
- The electric heat kit shall contain limit switches to prevent overheating.
- The supplemental electric heat kit shall include an external temperature sensor that must be connected to the suction pipe during installation. This sensor will not allow the heat kit to activate when the supplied refrigerant temperature is above 109°F to prevent unnecessary use.
- When installed in DVM S multi-position air handlers, the indoor unit can be programmed to activate the supplemental electric heat kits based on set temperature and room temperature difference along with a time delay of up to 20 minutes (see indoor unit installation manual for more details).
- The supplemental electric heat kit shall include all components necessary for heat kit installation.

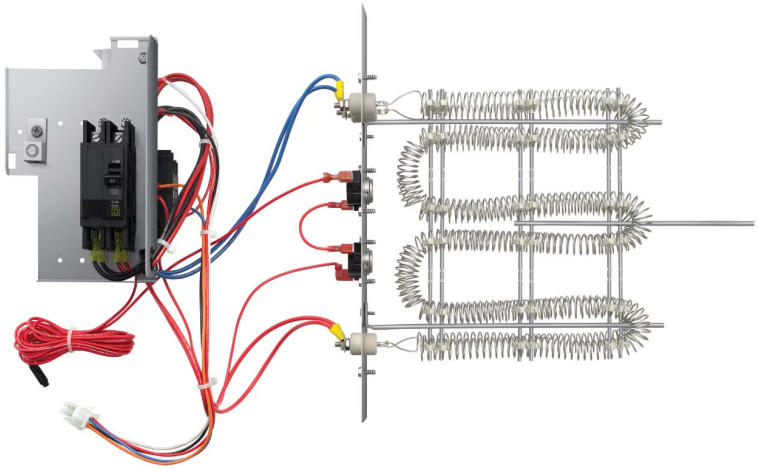
Compatibility

DVM S Multi-position AHU Models

AHU Model	Heat Kit Compatibility
AM012JNZDCH/AA	VHK-103A
AM018JNZDCH/AA	VHK-103A, VHK-105A
AM024JNZDCH/AA	VHK-103A, VHK-105A, VHK-110A
AM030JNZDCH/AA	VHK-205A, VHK-210A, VHK-215A
AM036JNZDCH/AA	VHK-205A, VHK-210A, VHK-215A
AM048JNZDCH/AA	VHK-305A, VHK-310A
AM054JNZDCH/AA	VHK-305A, VHK-310A, VHK-315A
AM060JNZDCH/AA	VHK-305A, VHK-310A, VHK-315A, VHK-320A
AM072JNZDCH/AA	VHK-305, VHK-310, VHK-315, VHK-320

CAC Multi-position AHU Models (single zone)

AHU Model	Heat Kit Compatibility
AC018KNZDCH/AA	VHK-103A, VHK-105A
AC024KNZDCH/AA	VHK-103A, VHK-105A
AC030KNZDCH/AA	VHK-205A, VHK-210A
AC036KNZDCH/AA	VHK-205A, VHK-210A
AC042KNZDCH/AA	VHK-305A, VHK-310A
AC048KNZDCH/AA	VHK-305A, VHK-310A
AC054KNZDCH/AA	VHK-305A, VHK-310A, VHK-315A



(5 kW kit pictured, actual product appearance may vary)

Supplemental Electric Heat Kits for Samsung Multi-position Air Handlers

Electrical Data

DVM S Multi-position AHU Models

ELECTRICAL DATA																						
Indoor Unit Model	Electric Heater Data						Minimum Circuit Ampacity (MCA)				Maximum Overcurrent Protection (MOCP)				Minimum Wire Size (AWG)				Short-Circuit Current Rating	
	Circuit Qty.	Kw (2)	Amps 208V Circuit 1	Amps 208V Circuit 2	Amps 240V Circuit 1	Amps 240V Circuit 2	208V Circuit 1	208V Circuit 2	240V Circuit 1	240V Circuit 2	208V (3,4) Circuit 1	208V (3,4) Circuit 2	240V (3,4) Circuit 1	240V (3,4) Circuit 2	Circuit 1		Circuit 2		"SCCR"	
															75°C / 90°C	60°C	75°C / 90°C	60°C	kA rms symmetrical	V maximum
SMALL CABINET-NOMINAL1.0, 1.5 & 2.0 TONS (0 To 5 Kw)																				
AM012JNZDCH/AA	1	0	0	-	0	-	0.90	-	0.90	-	10.0	-	10.0	-	#14	#14	-	-	n/a	n/a
	1	3	10.90	-	12.50	-	13.63	-	15.63	-	15.0	-	20.0	-	#12	#12	-	-	n/a	n/a
AM018JNZDCH/AA AM024JNZDCH/AA	0	0	0	-	0	-	0.90	-	0.90	-	10.0	-	10.0	-	#14	#14	-	-	n/a	n/a
	1	3	10.90	-	12.50	-	13.63	-	15.63	-	15.0	-	20.0	-	#12	#12	-	-	n/a	n/a
	1	5	18.03	-	20.83	-	23.26	-	26.76	-	30.0	-	30.0	-	#10	#10	-	-	n/a	n/a
MEDIUM CABINET-NOMINAL 2.5, 3.0 TONS (0 To 10 Kw)																				
AM030JNZDCH/AA AM036JNZDCH/ AA	1	0	-	-	-	-	2.08	-	2.08	-	10.0	-	10.0	-	#14	#14	-	-	n/a	n/a
	1	5	18.03	-	20.83	-	24.20	-	27.70	-	30.0	-	30.0	-	#10	#10	-	-	n/a	n/a
	1	10	36.06	-	41.67	-	46.73	-	53.74	-	50.0	-	60.0	-	#6	#4	-	-	n/a	n/a
LARGE CABINET-NOMINAL 4.0, 4.5, 5.0, 6.0 TONS (0 To 20 Kw)																				
AM048JNZDCH/ AA	1	0	-	-	-	-	2	-	2.6	-	15.06	-	15.0	-	#14	#14	-	-	n/a	n/a
	1	5	18.0	-	20.8	-	24.6	-	26.0	-	30.0	-	30.0	-	#10	#10	-	-	n/a	n/a
	1	10	36.1	-	41.7	-	45.1	-	52.1	-	50.0	-	60.0	-	#6	#4	-	-	n/a	n/a
AM054JNZDCH/AA AM060JNZDCH/AA	1	0	-	-	-	-	2	-	2.6	-	15.06	-	15.0	-	#14	#14	-	-	n/a	n/a
	1	5	18.0	-	20.8	-	24.6	-	26.0	-	30.0	-	30.0	-	#10	#10	-	-	n/a	n/a
	1	10	36.1	-	41.7	-	45.1	-	52.1	-	50.0	-	60.0	-	#6	#4	-	-	n/a	n/a
	2	15	18.0	36.1	20.8	41.7	24.6	47.2	28.1	54.2	30.0	50.0	30.0	60.0	#6	#4	#10	#10	5	240
AM072JNZDCH/AA	1	0	-	-	-	-	7	-	7.2	-	15.02	-	15.0	-	#14	#14	-	-	n/a	n/a
	1	5	18.0	-	20.8	-	28.3	-	26.0	-	30.0	-	30.0	-	#10	#10	-	-	n/a	n/a
	1	10	36.1	-	41.7	-	45.1	-	52.1	-	50.0	-	60.0	-	#6	#4	-	-	n/a	n/a
	2	15	18.0	36.1	20.8	41.7	28.2	50.8	31.7	57.8	30.0	60.0	35.0	60.0	#6	#4	#10	#10	5	240
	2	20	36.1	36.1	41.7	41.7	50.8	50.8	57.8	57.8	60.0	60.0	60.0	60.0	#6	#4	#6	#4	5	240

1. Rated Motor Amps (at DOE External Static Rating Point)
2. Nominal Kw At 240V (Derate 25% For 208V)
3. Fuse or HACR Breaker
4. Maximum Overcurrent Device, Overcurrent Protection Installed On Breaker Models Are Sized Per MCA

• To prevent damage, carefully insert the electric heating assembly through the rectangular opening in the front of the discharge opening so the heat element support rod is seated into the hole on the back side of the discharge opening.

• After installing the electric heater, a one inch clearance must be maintained on all sides of the supply air duct and/or plenum for a minimum of thirty six inches from the air handler discharge opening.

CAC Multi-position AHU Models (single zone)

ELECTRICAL DATA																				
Indoor Unit Model	Electric Heater Data						Minimum Circuit Ampacity (MCA)				Maximum Overcurrent Protection (MOCP)				Minimum Wire Size (AWG)				Short-Circuit Current Rating	
	Circuit Qty.	Kw (2)	Amps 208V Circuit 1	Amps 208V Circuit 2	Amps 240V Circuit 1	Amps 240V Circuit 2	208V Circuit 1	208V Circuit 2	240V Circuit 1	240V Circuit 2	208V (3,4) Circuit 1	208V (3,4) Circuit 2	240V (3,4) Circuit 1	240V (3,4) Circuit 2	Circuit 1		Circuit 2		"SCCR"	
															75°C / 90°C	60°C	75°C / 90°C	60°C	kA rms symmetrical	V maximum
SMALL CABINET-NOMINAL1.0, 1.5 & 2.0 TONS (0 To 5 Kw)																				
AC018KNZDCH/AA AC024KNZDCH/AA	1	3	10.90	-	12.50	-	13.63	-	15.63	-	15.0	-	20.0	-	#12	#12	-	-	n/a	n/a
	1	5	18.03	-	20.83	-	23.26	-	26.76	-	30.0	-	30.0	-	#10	#10	-	-	n/a	n/a
MEDIUM CABINET-NOMINAL 2.5, 3.0 TONS (0 To 10 Kw)																				
AC030KNZDCH/AA AC036KNZDCH/AA	1	5	18.03	-	20.83	-	24.20	-	27.70	-	30.0	-	30.0	-	#10	#10	-	-	n/a	n/a
	1	10	36.06	-	41.67	-	46.73	-	53.74	-	50.0	-	60.0	-	#6	#4	-	-	n/a	n/a
LARGE CABINET-NOMINAL 4.0, 4.5, 5.0, 6.0 TONS (0 To 20 Kw)																				
AC042KNZDCH/AA AC048KNZDCH/AA	1	5	18.0	-	20.8	-	24.6	-	26.0	-	30.0	-	30.0	-	#10	#10	-	-	n/a	n/a
	1	10	36.1	-	41.7	-	45.1	-	52.1	-	50.0	-	60.0	-	#6	#4	-	-	n/a	n/a
AC054KNZDCH/AA	1	5	18.0	-	20.8	-	24.6	-	26.0	-	30.0	-	30.0	-	#10	#10	-	-	n/a	n/a
	1	10	36.1	-	41.7	-	45.1	-	52.1	-	50.0	-	60.0	-	#6	#4	-	-	n/a	n/a
	2	15	18.0	36.1	20.8	41.7	24.6	47.2	28.1	54.2	30.0	50.0	30.0	60.0	#6	#4	#10	#10	5	240

1. Rated Motor Amps (at DOE External Static Rating Point)
2. Nominal Kw At 240V (Derate 25% For 208V)
3. Fuse or HACR Breaker
4. Maximum Overcurrent Device, Overcurrent Protection Installed On Breaker Models Are Sized Per MCA

• To prevent damage, carefully insert the electric heating assembly through the rectangular opening in the front of the discharge opening so the heat element support rod is seated into the hole on the back side of the discharge opening.

• After installing the electric heater, a one inch clearance must be maintained on all sides of the supply air duct and/or plenum for a minimum of thirty six inches from the air handler discharge opening.

SAMSUNG WALL HUNG SYSTEMS

1.5 TON SYSTEM

SAMSUNG INDOOR MODEL NUMBER: AR18HSFSJWKX

SAMSUNG OUTDOOR MODEL NUMBER: AR18HSFSJWKN

TAG: AH-1

TOTAL QUANTITY = 1

2.0 TON SYSTEM

SAMSUNG INDOOR MODEL NUMBER: AR24HSFSJWKX

SAMSUNG OUTDOOR MODEL NUMBER: AR24HSFSJWKN

TAG: AH-2

TOTAL QUANTITY = 1

SUBMITTAL AR18HSFSJWKX / AR18HSFSJWKN

Samsung "Wi-Fi Whisper", wall mounted evaporator, split system

Job Name _____ Location _____

Purchaser _____ Engineer _____

Submitted to _____ Reference ☐ Approval ☐ Construction ☐

Unit Designation _____ Schedule # _____

Specifications

Model	System Model Number		AR18HSFSJWK
	Indoor Unit Model Number		AR18HSFSJWKN
	Outdoor Unit Model Number		AR18HSFSJWKX
Performance	Nominal Capacity	Cooling / Heating (Btu/h)	18,000 / 20,600
	Capacity Range	Cooling (Btu/h)	5,459 - 23,884
		Heating (Btu/h)	4,094 - 27,296
	SEER / EER		20.5 / 13.2
	COP		3.84
	HSPF		9.0
	Condensate (pints/hour)		4.4
Power	Voltage	ø / V / Hz	1 / 208-230 / 60
	Working Voltage Range (VAC)		176 - 254 (max. 3% deviation from each)
	Operating Current (Low/Std./High)	Cooling (A)	1.8 / 6.2 / 9.7
		Heating (A)	1.5 / 7.3 / 10.5
	Maximum Current	Cooling/Heating (A)	14.0 / 17.5
	Max. Breaker	Amps	20
	Min. Circuit Ampacity (A)		17.7
Dimensions	W X H X D (inches)	Indoor Unit	41 7/8 X 11 9/16 X 12 1/2
		Outdoor Unit	34 5/8 X 31 9/32 X 12 3/16
	Weight (lbs.)	Indoor Unit	31
		Outdoor Unit	117
	Condensate Connection		11/16" OD
Heat Exchanger	Indoor & Outdoor Unit	Type	Aluminum Fin - Copper Tube
		FPI	18
		Pipe Diameter	1/4"
	Indoor Unit	Main and Sub coils	2 row / 14 step
		Upper Coil	1 row / 10 step
	Outdoor Unit		2 row / 24 step
Sound Pressure Level	Indoor Unit (dB)	Quiet / High	25 / 41
	Outdoor Unit (dB)	High	51
Operating Temperatures (^{0}F)	Outdoor	Cooling	Standard: 14 ≤ T ≤ 115
			0 ≤ T ≤ 115 with wind baffle accessory
		Heating	5 ≤ T ≤ 75
	Indoor	Cooling	61 ≤ T ≤ 90
		Heating	T ≤ 80
Pipe Connections	Indoor & Outdoor	High side (flare)	1/4"
		Low side (flare)	1/2"
	Maximum / Minimum Line Set Length (ft.)		98 / 10
	Maximum Vertical Separation (ft.)		50
Refrigerant	Type		R410A
	Control Method		Electronic Expansion Valve
	Factory Charge	oz.	70.5
	Charged for		25'
	Additional Refrigerant		0.16 oz./ft. over 25 ft.
Compressor	Manufacturer		Samsung
	Type		DC, Inverter Driven, Rotary
	RLA	A	8.3
	Operating Frequency (Hz)	Cooling (low/std./high)	15 / 47 / 73
		Heating (low/std./high)	15 / 54 / 72
Evaporator Fan	Type		BLDC motor with cross-flow fan (1)
	Air Volume	CFM (L / M / H)	350 / 460 / 640
	Consumption	Watts	27
	Operating Current	Amps	0.12
Condenser Fan	Motor		BLDC motor with axial fan (1)
	Output	Watts	97.5
	FLA	Amps	0.37
Optional Accessories	Condensate pump		☐ ASP-MO-UNIV 110-250
	Wired Controller	Standard	☐ AR-WRS (includes sub-PCB and MWR-WH00 controller)
		Premium	☐ AR-WRP (includes sub-PCB and MWR-WE10 controller with scheduling)
	Line sets - insulated and flared, interconnect cables included		☐ 25' - ILS2507
			☐ 50' - ILS5007
	Wall bracket (for outdoor unit)		☐ CKN-250 or CKN-500
	Wind Baffle / Guard	Front	☐ WBMF-9/12/18
		Back	☐ WBMB-9/12/18/36
Safety	Certifications		ETL & ETLc
	Devices		PCB fuses, indoor unit terminal block thermal fuse, current transformer, over-voltage protection, crankcase heating, temperature limit protection logic, compressor overload sensing
Warranty	10 Years compressor, 10 Year Parts, 1 Year Limited Labor (registration required)		

* Nominal cooling capacities are based on: Indoor temperature: 80^{0}F DB, 67^{0}F WB. Outdoor temperature: 95^{0}F DB, 75^{0}F WB.
* Nominal heating capacities are based on: Indoor temperature: 70^{0}F DB, 60^{0}F WB. Outdoor temperature: 47^{0}F DB, 43^{0}F WB.

Quietside maintains a policy of ongoing development, specifications are subject to change without notice.
Refer to www.AHRIdirectory.org for current reference numbers.

(actual equipment appearance may vary)

General Information
- Outdoor unit shall provide 208/230V power to indoor unit via 14 AWG X 3 interconnect power cable (seperate communication wire required)
- Electro-static, washable, main filter as standard accessible from the front/top of unit

Construction
- Indoor unit chassis shall be UL94 V0 with a galvanized steel mounting bracket
- The outdoor unit shall be galvanized steel with a baked on powder coated finish for durability
- The indoor unit shall have easy-access pipe and drain connections via access panel on front of unit for easier installation and service

Heat Exchanger
- The heat exchanger shall be mechanically bonded fin to copper tube

Refrigerant System
- The compressor shall be hermetically sealed, inverter controlled, Twin BLDC Rotary
- Refrigerant flow shall be controlled by electronic expansion valve at outdoor unit

Indoor Fan
- The indoor fan shall be a single, antibacterial cross-flow type
- Three fan speed settings and auto setting
- Automatic (motorized) vertical swing (up/down) louver

General Control
- Control signal shall be DDC type signal
- Unit shall have a built-in Wi-Fi adapter as standard to allow control with mobile devices (details on page 4)
- Interconnect control wiring shall be 16 AWG X 2 shielded wire between outdoor and indoor units
- The indoor unit shall ship with a wireless controller and batteries as standard
- Optional wired control available

Convenience
- Auto restart
- Digital display on the front of indoor unit (hidden behind louver when off) to display temperature and service codes
- "Fast Comfort" mode to quickly reach set temperature
- Auto changeover
- 24 hour, single event timer
- Good'sleep mode
- Quiet mode
- Dry mode
- Single event, ON/OFF timer
- Single User Mode to reduce energy consumption during low demand operation
- Air filter cleaning can be done easily without opening the indoor unit
- Filter cleaning reminder indicator
- Display ON/OFF and beep ON/OFF with wireless controller
- Smart install mode - startup system diagnostics operation to ensure system readiness during initial operation

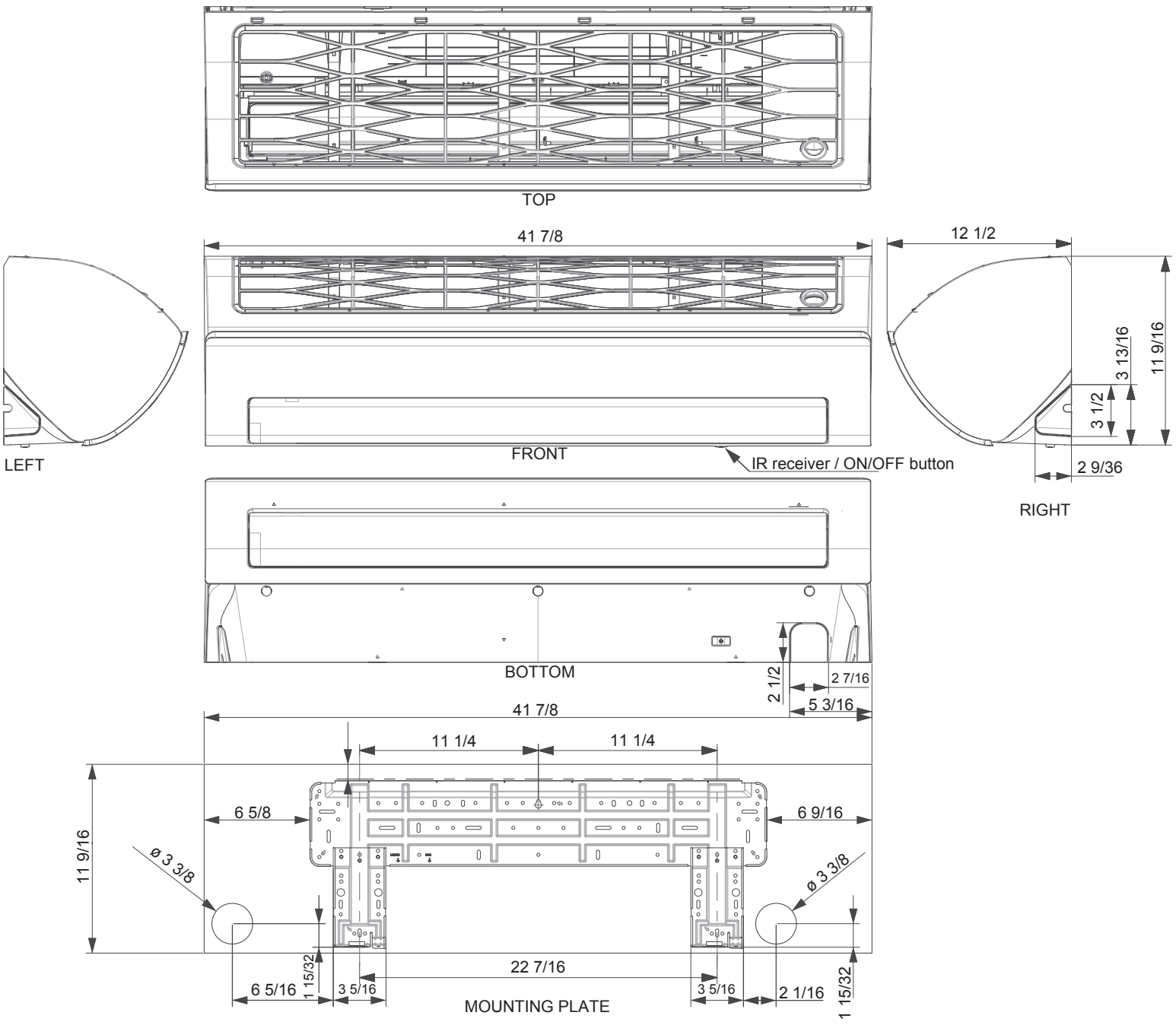
IMPORTANT - This product has been designed and manufactured to meet ENERGY STAR criteria for energy efficiency when matched with appropriate coil components. However, proper refrigerant charge and proper air flow are critical to achieve rated capacity and efficiency. Installation of this product should follow the manufacturer's refrigerant charging and air flow instructions. **Failure to confirm proper charge and airflow may reduce energy efficiency and shorten equipment life.**

SUBMITTAL AR18HSFSJWKX / AR18HSFSJWKN

Samsung "Wi-Fi Whisper", wall mounted evaporator, split system

Indoor unit dimensional drawing

Unit: inches

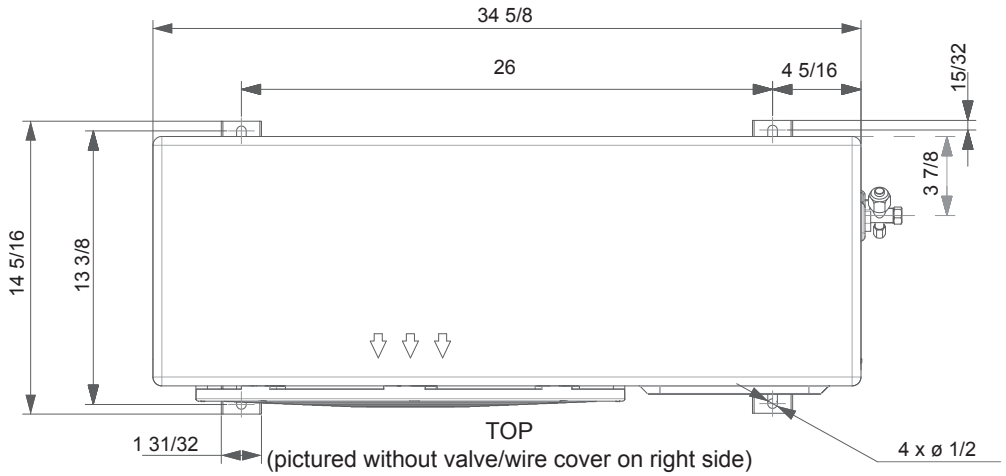


SUBMITTAL AR18HSFSJWKX / AR18HSFSJWKN

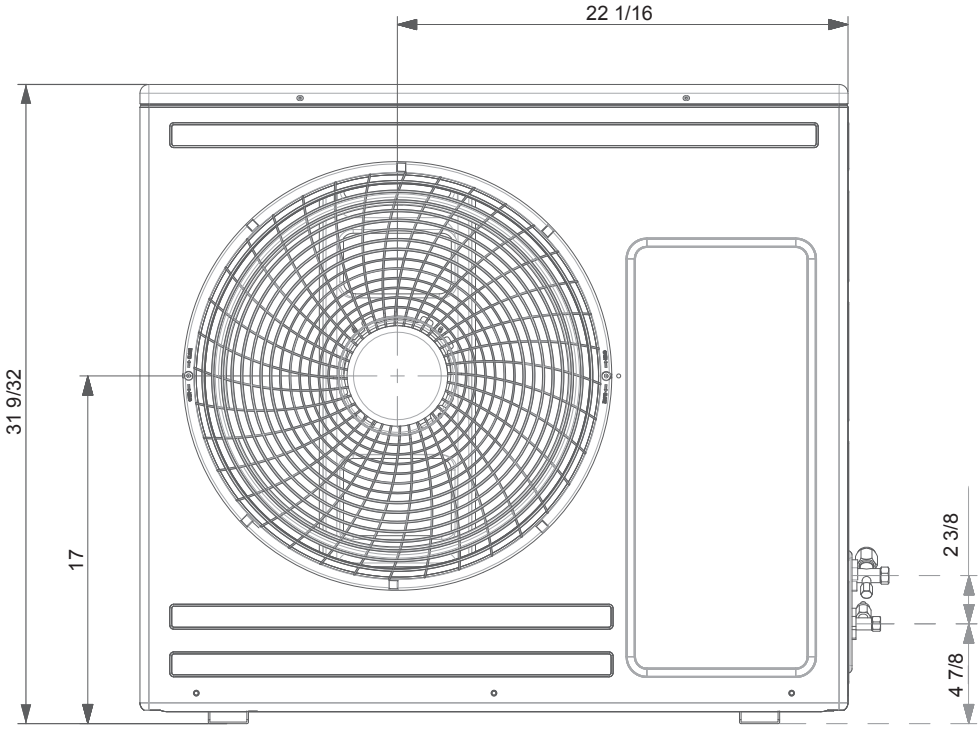
Samsung "Wi-Fi Whisper", wall mounted evaporator, split system

Outdoor unit dimensional drawing

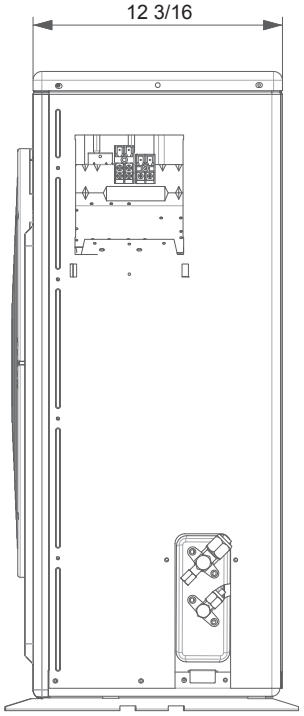
Unit: inches



TOP
(pictured without valve/wire cover on right side)



FRONT
(pictured without valve/wire cover on right side)



RIGHT
(pictured without valve/wire cover)

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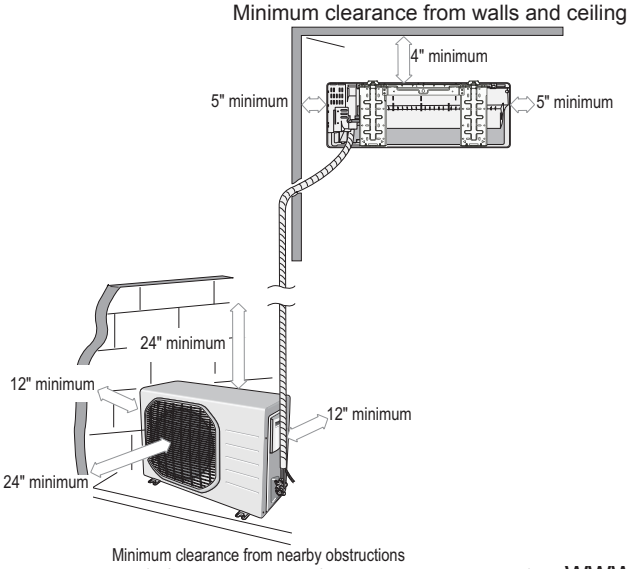
Minimum clearance from walls and ceiling



Minimum clearance from nearby obstructions
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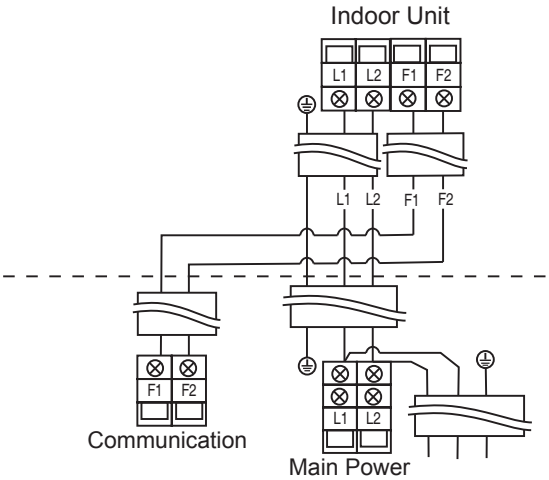
Basic power and communication wiring between indoor and outdoor units



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Samsung "Wi-Fi Whisper", wall mounted evaporator, split system

Wi-Fi Control Details

General Wi-Fi Control Information

• Allows control of system on a local network via Wi-Fi or through the internet when outside of home/office with Samsung's "Smart Air Conditioner" app (available in Android and Apple app stores).

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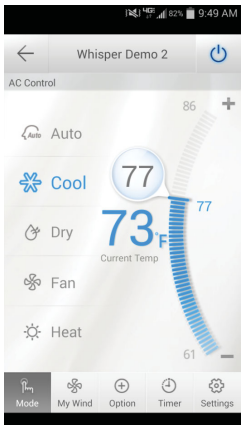
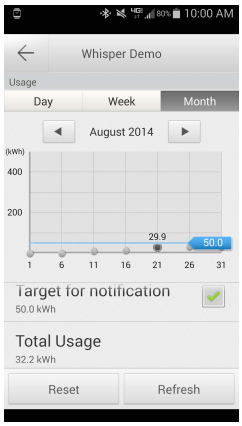
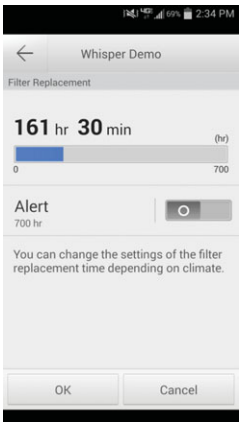
Samsung "Smart Air Conditioner" App Examples



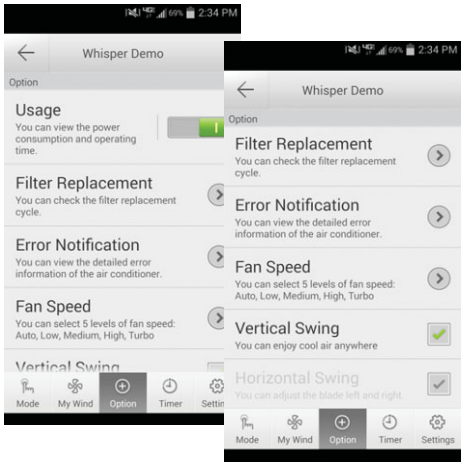
Main control page



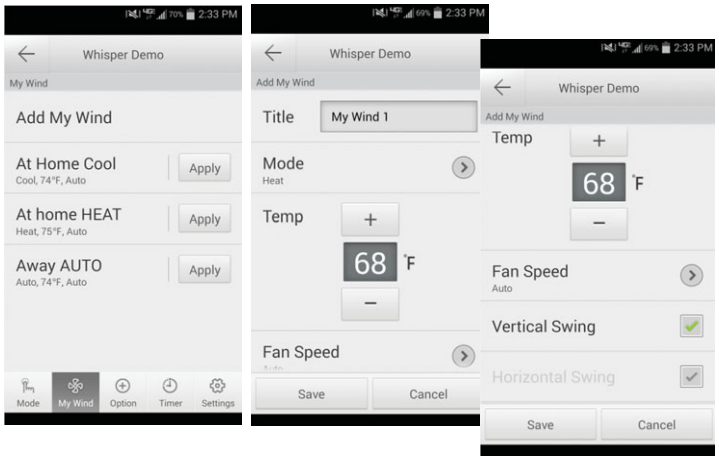
Energy usage page



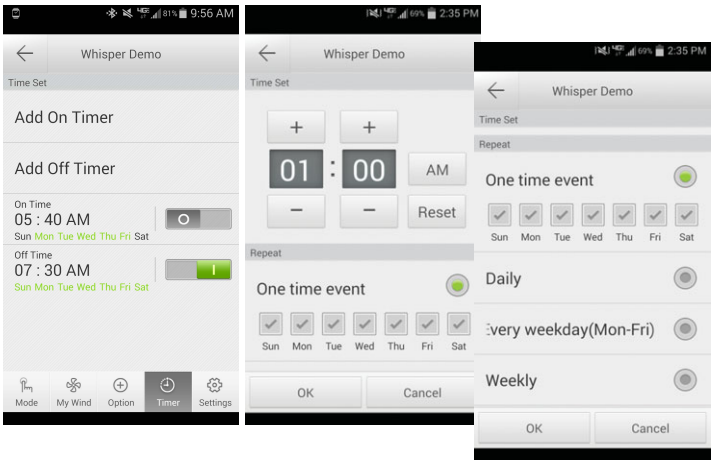
Filter reminder setting page



Options page



"My Wind" settings page



Timer setting page example

SUBMITTAL AR24HSFSJWKX / AR24HSFSJWKN

Samsung "Wi-Fi Whisper", wall mounted evaporator, split system

Job Name _____ Location _____

Purchaser _____ Engineer _____

Submitted to _____ Reference ☐ Approval ☐ Construction ☐

Unit Designation _____ Schedule # _____

Specifications

Model	System Model Number		AR24HSFSJWK
	Indoor Unit Model Number		AR24HSFSJWKN
	Outdoor Unit Model Number		AR24HSFSJWKX
Performance	Nominal Capacity	Cooling / Heating (Btu/h)	22,000 / 27,000
	Capacity Range	Cooling (Btu/h)	8,871 - 31,732
		Heating (Btu/h)	7,506 - 40,944
	SEER / EER		20.0 / 12.2
	COP		3.68
	HSPF		10.0
	Condensate (pints/hour)		6.0
Power	Voltage	ø / V / Hz	1 / 208-230 / 60
	Working Voltage Range (VAC)		176 - 254 (max. 3% deviation from each)
	Operating Current (Low/Std./High)	Cooling (A)	3.2 / 8.3 / 14.0
		Heating (A)	2.6 / 11.5 / 19.0
	Maximum Current	Cooling/Heating (A)	17.0 / 19.0
	Max. Breaker	Amps	30
	Min. Circuit Ampacity (A)		18.5
Dimensions	W X H X D (inches)	Indoor Unit	41 7/8 X 11 9/16 X 12 1/2
		Outdoor Unit	34 5/8 X 37 31/32 X 12 5/8
	Weight (lbs.)	Indoor Unit	31
		Outdoor Unit	158
	Condensate Connection		11/16" OD
Heat Exchanger	Indoor & Outdoor Unit	Type	Aluminum Fin - Copper Tube
		FPI	18
		Pipe Diameter	1/4"
	Indoor Unit	Main and Sub coils	2 row / 14 step
		Upper Coil	1 row / 10 step
	Outdoor Unit		2 row / 24 step
Sound Pressure Level	Indoor Unit (dB)	Quiet / High	30 / 44
	Outdoor Unit (dB)	High	54
Operating Temperatures (^{0}F)	Outdoor	Cooling	Standard: 14 ≤ T ≤ 115
			0 ≤ T ≤ 115 with wind baffle accessory
		Heating	5 ≤ T ≤ 75
	Indoor	Cooling	61 ≤ T ≤ 90
		Heating	T ≤ 80
Pipe Connections	Indoor & Outdoor	High side (flare)	1/4"
		Low side (flare)	5/8"
	Maximum / Minimum Line Set Length (ft.)		98 / 10
	Maximum Vertical Separation (ft.)		50
Refrigerant	Type		R410A
	Control Method		Electronic Expansion Valve
	Factory Charge	oz.	81.13
	Charged for		25'
	Additional Refrigerant		0.16 oz./ft. over 25 ft.
Compressor	Manufacturer		Samsung
	Type		DC, Inverter Driven, Rotary
	RLA	A	13.7
	Operating Frequency (Hz)	Cooling (low/std./high)	15 / 41 / 69
		Heating (low/std./high)	15 / 48 / 75
Evaporator Fan	Type		BLDC motor with cross-flow fan (1)
	Air Volume	CFM (L / M / H)	390 / 480 / 670
	Consumption	Watts	27
	Operating Current	Amps	0.12
Condenser Fan	Motor		BLDC motor with axial fan (1)
	Output	Watts	95
	FLA	Amps	0.5
Optional Accessories	Condensate pump		☐ ASP-MO-UNIV 110-250
	Wired Controller	Standard	☐ AR-WRS (includes sub-PCB and MWR-WH00 controller)
		Premium	☐ AR-WRP (includes sub-PCB and MWR-WE10 controller with scheduling)
	Line sets - insulated and flared, interconnect cables included		☐ 25' - ILS2509
			☐ 50' - ILS5009
	Wall bracket (for outdoor unit)		☐ CKN-250 or CKN-500
	Wind Baffle / Guard	Front	☐ WBMF-24/36
		Back	☐ WBMB-24
Safety	Certifications		ETL & ETLc
	Devices		PCB fuses, indoor unit terminal block thermal fuse, current transformer, over-voltage protection, crankcase heating, temperature limit protection logic, compressor overload sensing
Warranty	10 Years compressor, 10 Year Parts, 1 Year Limited Labor (registration required)		

* Nominal cooling capacities are based on: Indoor temperature: 80^{0}F DB, 67^{0}F WB. Outdoor temperature: 95^{0}F DB, 75^{0}F WB.
* Nominal heating capacities are based on: Indoor temperature: 70^{0}F DB, 60^{0}F WB. Outdoor temperature: 47^{0}F DB, 43^{0}F WB.

Quietside maintains a policy of ongoing development, specifications are subject to change without notice.
Refer to www.AHRIdirectory.org for current reference numbers.

(actual equipment appearance may vary)

General Information
- Outdoor unit shall provide 208/230V power to indoor unit via 14 AWG X 3 interconnect power cable (seperate communication wire required)
- Electro-static, washable, main filter as standard accessible from the front/top of unit

Construction
- Indoor unit chassis shall be UL94 V0 with a galvanized steel mounting bracket
- The outdoor unit shall be galvanized steel with a baked on powder coated finish for durability
- The indoor unit shall have easy-access pipe and drain connections via access panel on front of unit for easier installation and service

Heat Exchanger
- The heat exchanger shall be mechanically bonded fin to copper tube

Refrigerant System
- The compressor shall be hermetically sealed, inverter controlled, Twin BLDC Rotary
- Refrigerant flow shall be controlled by electronic expansion valve at outdoor unit

Indoor Fan
- The indoor fan shall be a single, antibacterial cross-flow type
- Three fan speed settings and auto setting
- Automatic (motorized) vertical swing (up/down) louver

General Control
- Control signal shall be DDC type signal
- Unit shall have a built-in Wi-Fi adapter as standard to allow control with mobile devices (details on page 4)
- Interconnect control wiring shall be 16 AWG X 2 shielded wire between outdoor and indoor units
- The indoor unit shall ship with a wireless controller and batteries as standard
- Optional wired control available

Convenience
- Auto restart
- Digital display on the front of indoor unit (hidden behind louver when off) to display temperature and service codes
- "Fast Comfort" mode to quickly reach set temperature
- Auto changeover
- 24 hour, single event timer
- Good'sleep mode
- Quiet mode
- Dry mode
- Single event, ON/OFF timer
- Single User Mode to reduce energy consumption during low demand operation
- Air filter cleaning can be done easily without opening the indoor unit
- Filter cleaning reminder indicator
- Display ON/OFF and beep ON/OFF with wireless controller
- Smart install mode - startup system diagnostics operation to ensure system readiness during initial operation

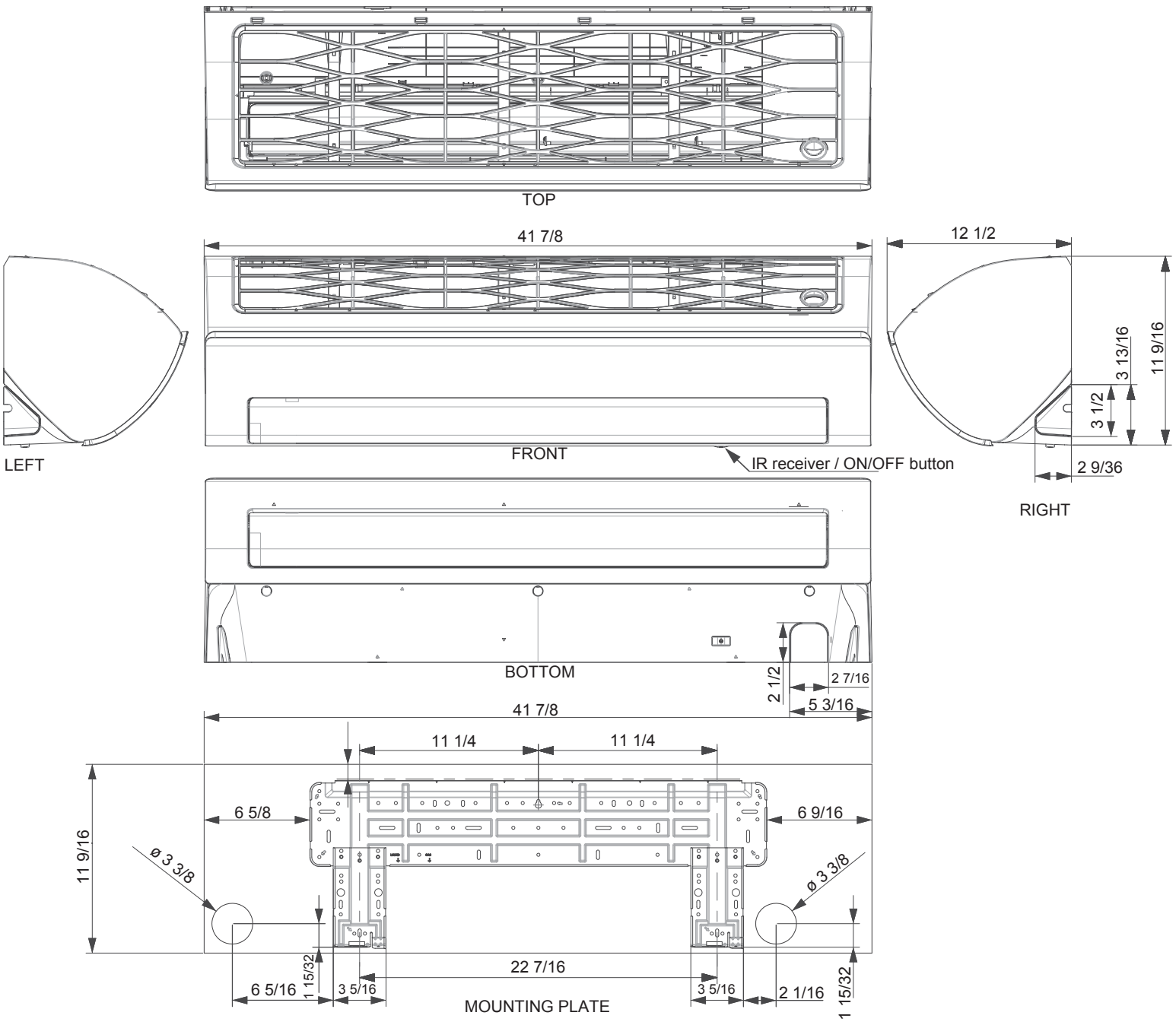
IMPORTANT - This product has been designed and manufactured to meet ENERGY STAR criteria for energy efficiency when matched with appropriate coil components. However, proper refrigerant charge and proper air flow are critical to achieve rated capacity and efficiency. Installation of this product should follow the manufacturer's refrigerant charging and air flow instructions. **Failure to confirm proper charge and airflow may reduce energy efficiency and shorten equipment life.**

SUBMITTAL AR24HSFSJWKX / AR24HSFSJWKN

Samsung "Wi-Fi Whisper", wall mounted evaporator, split system

Indoor unit dimensional drawing

Unit: inches



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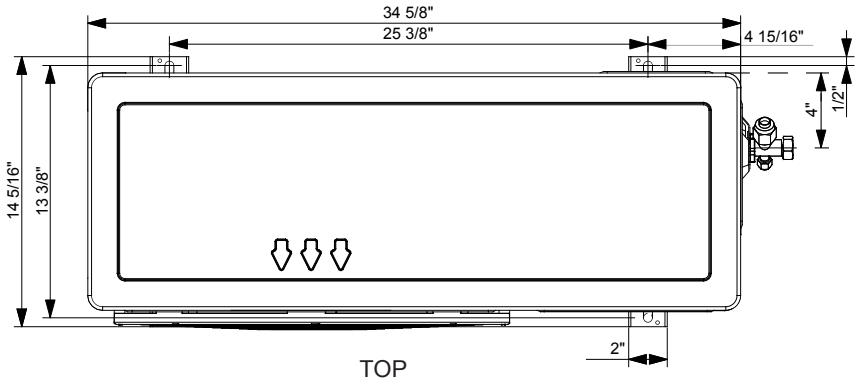
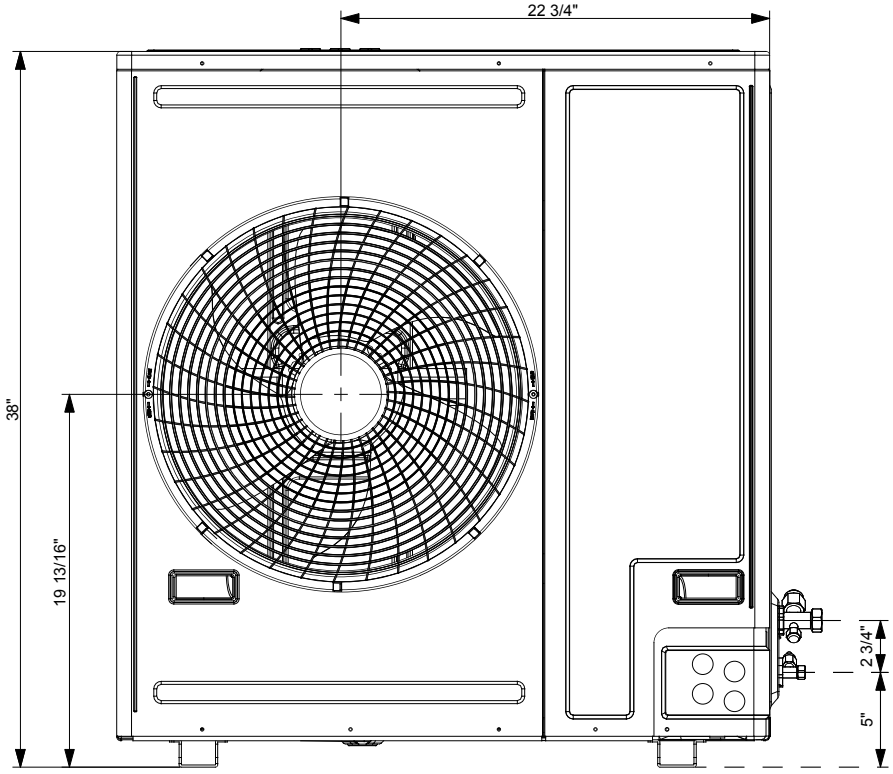


TOP



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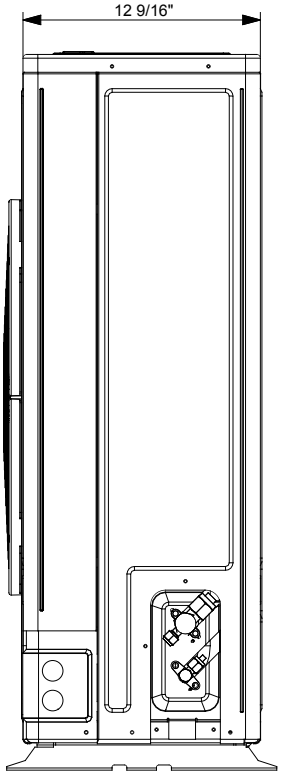

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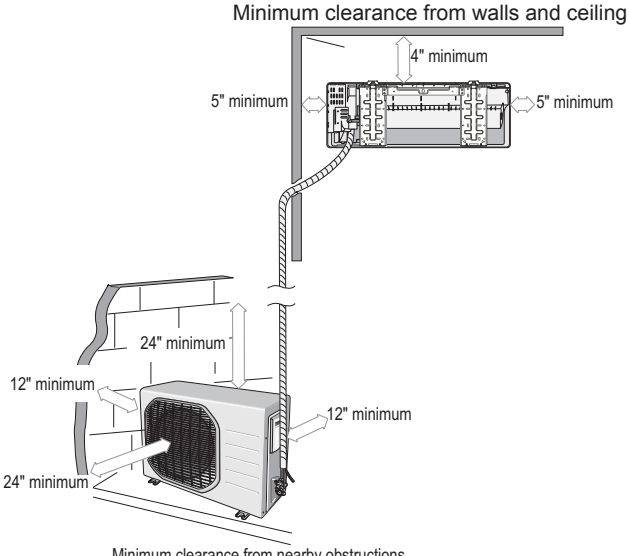

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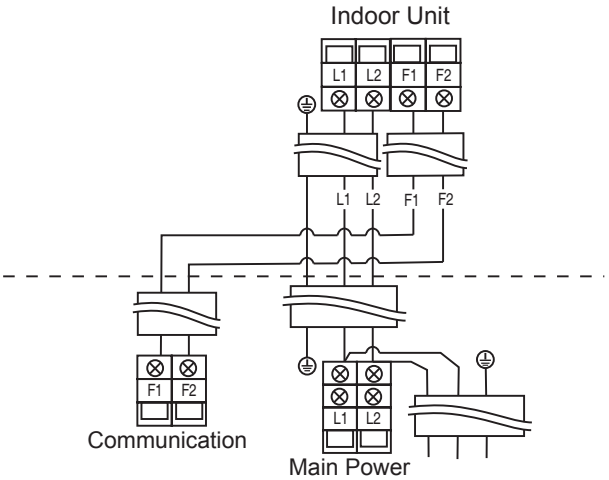

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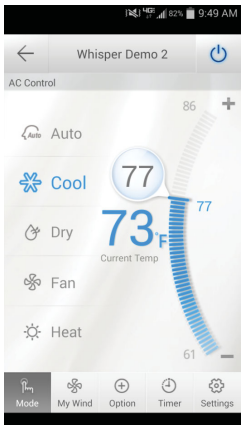
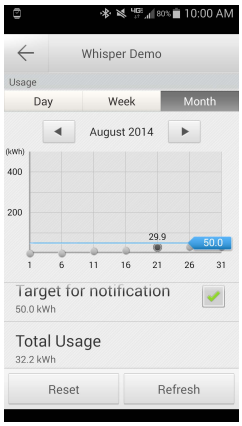
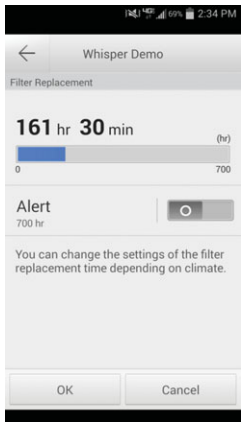


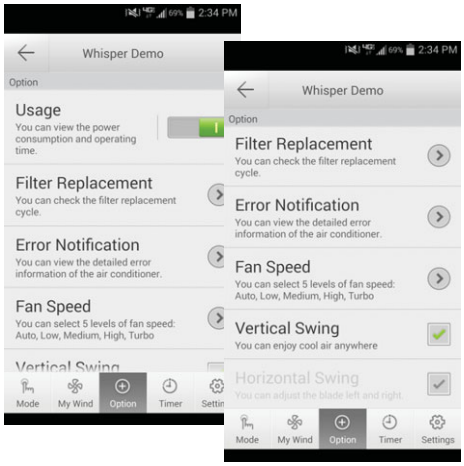
Main control page



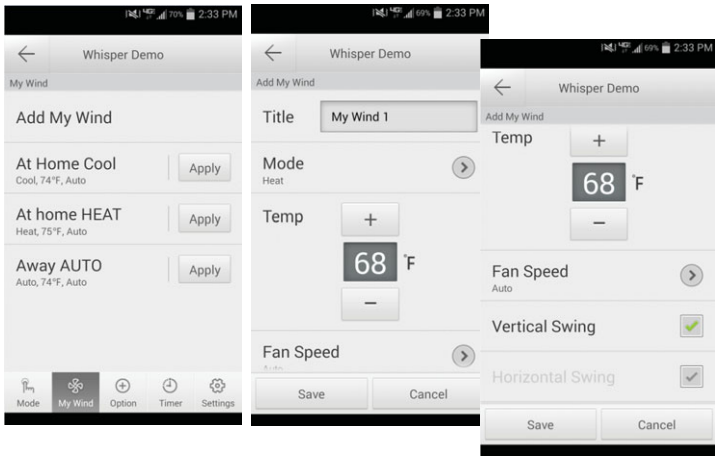
Energy usage page



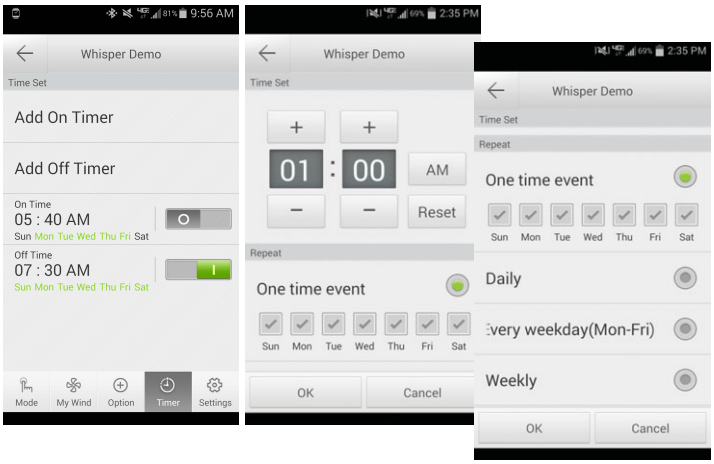
Filter reminder setting page



Options page



"My Wind" settings page



Timer setting page example