

ComfortStar®

Air Conditioning & Heating Products



24V INVERTER HEAT PUMP SYSTEMS RESIDENTIAL PRODUCTS CATALOG

MRH32 Series

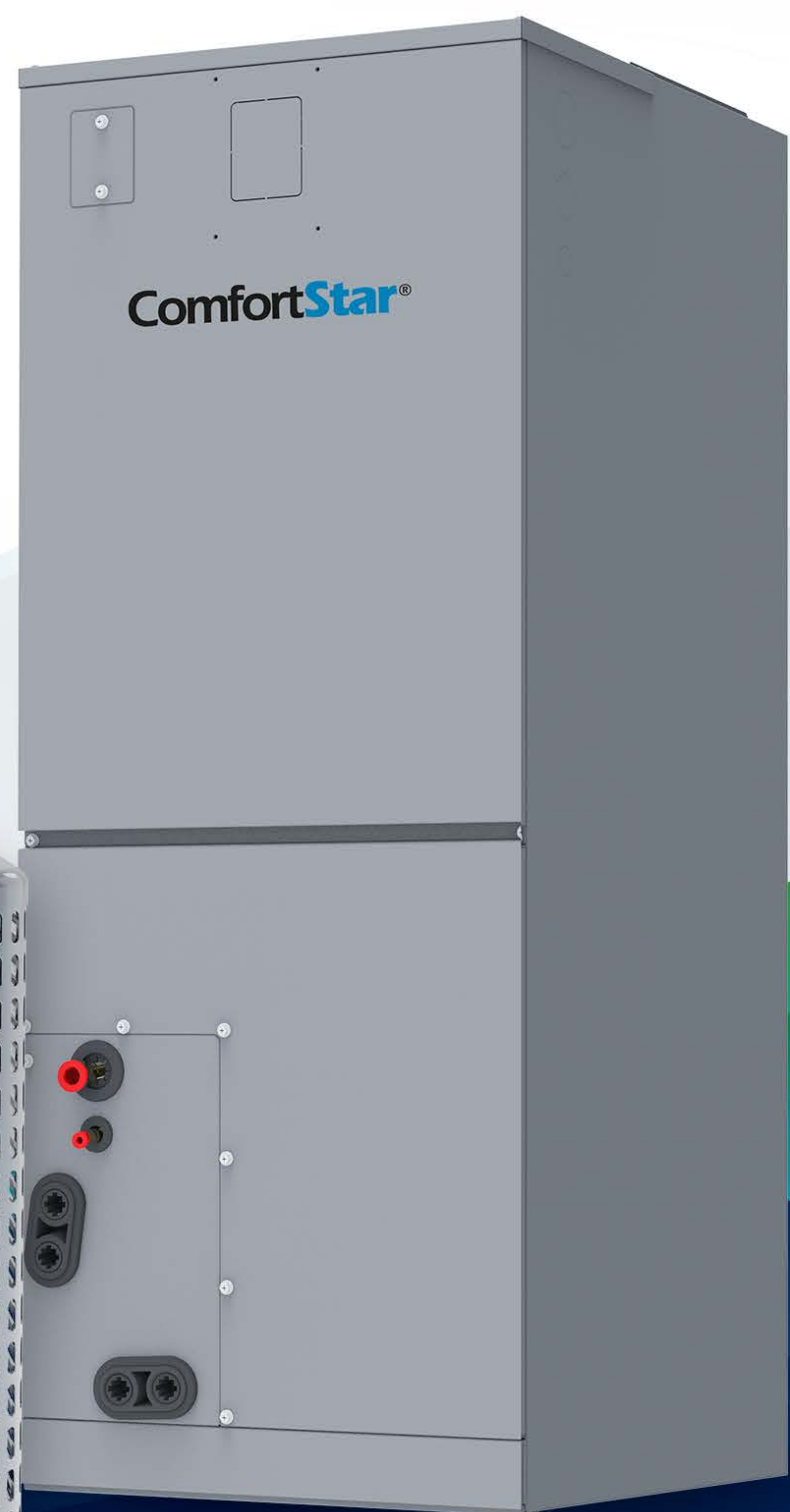
INVERTER HEAT PUMP
TOP DISCHARGE
CONDENSING UNIT

2 TO 5 TONS
LOW AMBIENT
TEMPERATURE -13 °F

UP TO
19.7 SEER2



Wi Fi OPTIONAL



10 YEARS
WARRANTY
COMPRESSOR

10 YEARS
WARRANTY
PARTS

Comfort, it's in our name.

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Toll Free: 1-866-524-9898 | Phone: 1-305-500-9898 | Fax: 1-305-500-9896 | Email us: info@comfortstarusa.com

www.comfortstarusa.com



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24 VOLT CONNECTION
HEAT PUMP SYSTEMS

Wi Fi OPTIONAL





MRH32 Series

HEAT PUMP
TOP DISCHARGE
CONDENSING UNIT

2 TO 5 TONS
LOW AMBIENT
TEMPERATURE -13 °F

24 VOLT CONNECTION

HEAT PUMP SYSTEMS

Wi Fi **OPTIONAL**



UP TO
19.7 SEER2



FEATURES:

- R32 Refrigerant: Environmentally friendly, high-efficiency refrigerant with a lower Global Warming Potential (GWP).
- DC Inverter Rotary Compressor: Provides faster cooling/heating, improved energy savings, and quieter operation.
- Brushless DC Fan Motor: Ensures smooth, efficient airflow with reduced noise and longer service life.
- Refrigerant-Cooled PCB: Maintains stable performance regardless of outdoor temperature and extends the lifespan of internal electronics.
- Refrigerant Leak Detection System: Automatically monitors for leaks to protect the compressor and improve safety.
- Precise Temperature Control: Delivers consistent comfort with low noise levels.
- High Static Pressure Indoor Fan: Allows flexible ducting and installation options.
- Multiple Control Modes: Compatible with 24V thermostats, wired control, and Wi-Fi smart control.



MRH32 Series

INVERTER HEAT PUMP TOP DISCHARGE CONDENSING UNIT 1.5 TO 5 TONS

24 VOLT CONNECTION
HEAT PUMP SYSTEMS

Wi Fi **OPTIONAL**

UP TO
19.7 SEER2



Outdoor Unit			MRH32-24	MRH32-36	MRH32-48	MRH32-60
Power Supply	Rated Voltage	V, Ph, Hz	208/230, 1, 60,	208/230, 1, 60,	208/230, 1, 60,	208/230, 1, 60,
Cooling	Capacity	Btu/h	24000	36000	48000	54000
	Input	W	1950	3400	4900	6300
Heating	Capacity	Btu/h	24000	34200	48000	54000
	Input	W	2050	3000	4000	4700
Outdoor Minimum Circuit Ampacity		A	19.0	24.0	36.0	39.0
Outdoor Max. Fuse		A	20	30	40	40
Outdoor Air Flow (CFM)		CFM	2100.0	2800.0	3050.0	3050.0
Outdoor Noise Level (Hi)		dB(A)	58.0	58.0	60.0	60.0
Connection Wiring			485: AWG 25*3 Shielded, 24V: AWG 20	485: AWG 25*3 Shielded, 24V: AWG 20	485: AWG 25*3 Shielded, 24V: AWG 20	485: AWG 25*3 Shielded, 24V: AWG 20
Communication Type			24V / 485	24V / 485	24V / 485	24V / 485
Throttle type			EXV	EXV	EXV	EXV
Outdoor Unit	Dimension (W×D×H)	inch	29-9/64×29-9/64×25	29-9/64×29-9/64×25	29-9/64×29-9/64×32-7/8	29-9/64×29-9/64×32-7/8
	Packing Dimension (W×D×H)	inch	30-5/16×30-5/16×26-3/16	30-5/16×30-5/16×26-3/16	30-5/16×30-5/16×34-1/16	30-5/16×30-5/16×34-1/16
	Net/Gross Weight	lbs.	143/151	143/151	187/196	187/196
Refrigerant	Type/Charge	oz	R32/84.72	R32/84.72	R32/105.9	R32/105.9
	Additional Refrigerant per ft	oz/ft	0.52	0.52	0.52	0.52
	N.A. Design Pressure	PSI	609/174	609/174	609/174	609/174
Refrigerant Piping	Liquid Side/Gas Side	inch	(3/8) / (3/4)	(3/8) / (3/4)	(3/8) / (3/4)	(3/8) / (3/4)
	Max. Refrigerant Pipe Length	ft	164	246	246	246
	Max. Difference in Level	ft	82	98.4	98.4	98.4
Ambient Temp. Operation Range	Cooling	°F	5~131	5~131	5~131	5~131
	Heating	°F	-13~75	-13~75	-13~75	-13~75

UNIT DIMENSIONS

MRH32 Series

INVERTER
HEAT PUMP TOP DISCHARGE
CONDENSING UNIT

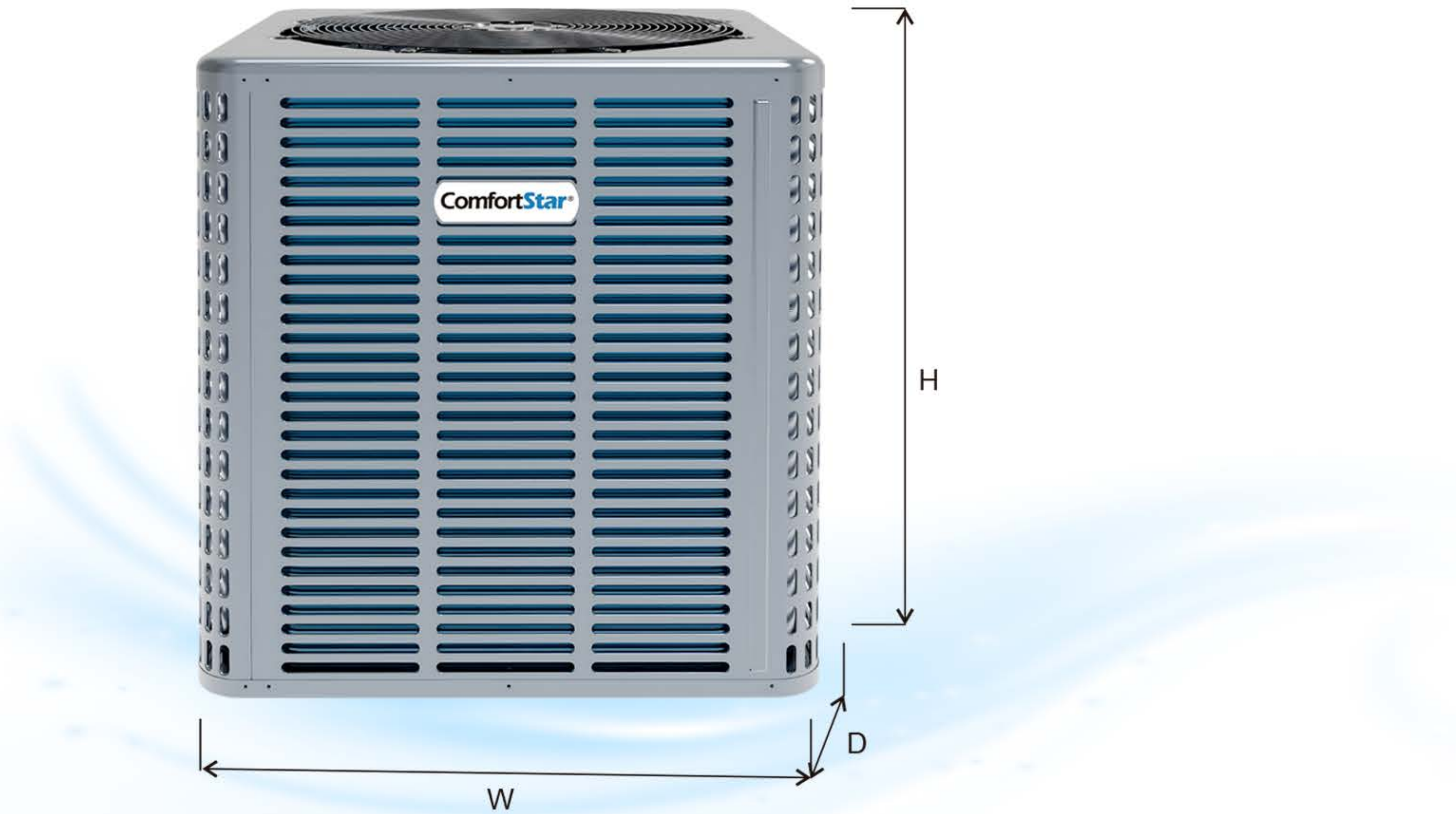
2 TO 5 TONS

24 VOLT CONNECTION
HEAT PUMP SYSTEMS

Wi Fi OPTIONAL



UP TO
19.7 SEER2



Model	Unit Width: "W" Inches	Unit Depth: "D" Inches	Unit Height: "H" Inches
MRH32-24	29-9/64	29-9/64	25
MRH32-36	29-9/64	29-9/64	25
MRH32-48	29-9/64	29-9/64	32-7/8
MRH32-60	29-9/64	29-9/64	32-7/8





AHH32 Series

INVERTER HIGH EFFICIENCY
AIR HANDLER

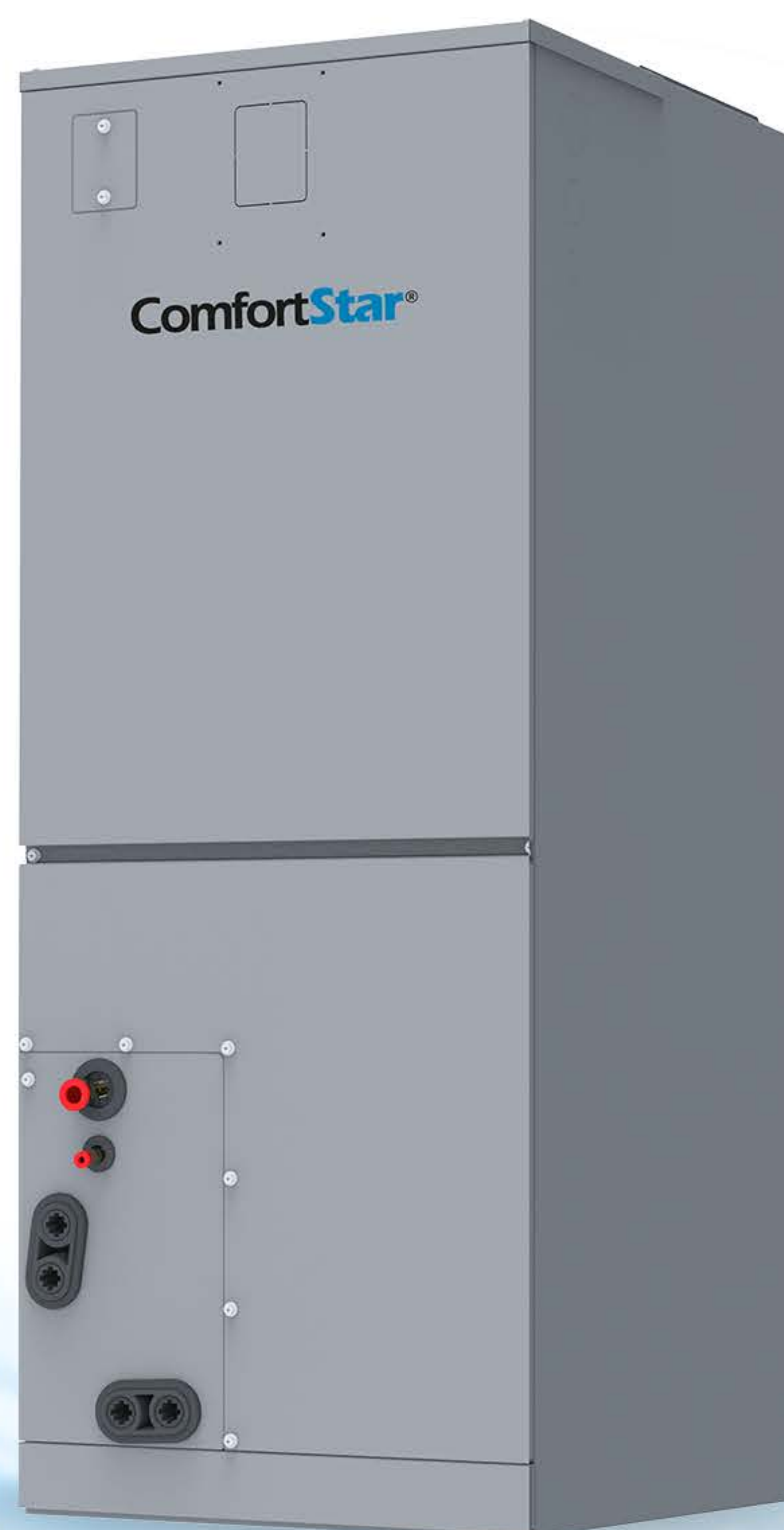
2 TO 5 TONS

24 VOLT CONNECTION
HEAT PUMP SYSTEMS

Wi Fi OPTIONAL



UP TO
19.7 SEER2



FEATURES:

- Real-Time Leak Monitoring: Continuously detects refrigerant leakage to ensure safe system operation.
- DC Inverter Compressor System: Works together with a high-precision temperature sensor and a thermostatic expansion valve to deliver accurate capacity adjustment and maintain a stable room temperature.
- ECM Fan Motor: Low-noise, constant-torque motor creates a quiet and comfortable indoor environment.
- Long Duct Capability: Supports duct lengths up to 82 ft (25 m), ideal for larger homes.
- High Static Pressure: Up to 0.8" w.g. (200 Pa), enabling longer duct runs and greater installation flexibility.
- Whole-Home Comfort: A single unit connected to the duct system can efficiently meet the cooling and heating needs of all rooms.
- Continuous Indoor Fan Operation: The indoor fan remains running to maintain airflow, helping reduce the concentration of R32 refrigerant in the room to a safe level.
- RS485 Communication With Indoor PCB: When a leak is detected, the system immediately stops the compressor to prevent refrigerant from flowing into the indoor space.



AHH32 Series

INVERTER HIGH EFFICIENCY AIR HANDLER

2 TO 5 TONS

24 VOLT CONNECTION
HEAT PUMP SYSTEMS

Wi Fi OPTIONAL

UP TO 19.7 SEER2



Indoor Unit			AHH32-24	AHH32-36	AHH32-48	AHH32-60
Power Supply	Rated Voltage	V, Ph, Hz	208/230, 1, 60,	208/230, 1, 60,	208/230, 1, 60,	208/230, 1, 60,
Cooling	Capacity	Btu/h	24000	36000	48000	54000
Heating	Capacity	Btu/h	24000	34200	48000	54000
Indoor Minimum Circuit Ampacity		A	5.0	5.0	7.0	7.0
Indoor Max. Fuse		A	15	15	15	15
Indoor Air Flow (H/L)		CFM	880/600	980/600	1400/1050	1500/1050
Indoor Noise Level (H/L)		dB(A)	42/38	50/38	51/44	52.5/44
N.A. Design Pressure		PSI	609/174	609/174	609/174	609/174
Indoor Unit	Dimension (W×D×H)	inch	(21-1/32")×(21-1/32")×(49-7/32")	(21-1/32")×(21-1/32")×(49-7/32")	(24-31/64")×(21-1/32")×(52-63/64")	(24-31/64")×(21-1/32")×(52-63/64")
	Packing Dimension (W×D×H)	inch	(24-13/32")×(26-37/64")×(50-13/64")	(24-13/32")×(26-37/64")×(50-13/64")	(27-7/8")×(26-37/64")×(54-9/64")	(27-7/8")×(26-37/64")×(54-9/64")
	Net Weight/Gross Weight	lbs.	125/149	130/154	165/190	165/190
Refrigerant Piping	Liquid Side/Gas Side	inch	(3/8) / (3/4)	(3/8) / (3/4)	(3/8) / (3/4)	(3/8) / (3/4)
Connection Wiring			485: AWG 25*3 Shielded, 24V: AWG 20	485: AWG 25*3 Shielded, 24V: AWG 20	485: AWG 25*3 Shielded, 24V: AWG 20	485: AWG 25*3 Shielded, 24V: AWG 20
Communication Type			24V / 485	24V / 485	24V / 485	24V / 485
Throttle type			TXV	TXV	TXV	TXV
Setting Temperature		°F	62~90	62~90	62~90	62~90

COMBINATION TABLES

MRH32 & AHH32 Series

INVERTER CONDENSING UNIT
+ AIR HANDLER SYSTEMS

24 VOLT CONNECTION
HEAT PUMP SYSTEMS

Wi Fi OPTIONAL

UP TO
19.7 SEER2



Outdoor Unit			MRH32-24	MRH32-36	MRH32-48	MRH32-60
Indoor Unit			AHH32-24	AHH32-36	AHH32-48	AHH32-60
Power Supply	Rated Voltage	V, Ph, Hz	208/230, 1, 60,	208/230, 1, 60,	208/230, 1, 60,	208/230, 1, 60,
Cooling	Capacity	Btu/h	24000	36000	48000	54000
	SEER2	Btu/h/W	19.7	19.3	18.5	17.7
	EER2	Btu/h/W	12.5	11.0	9.7	8.6
Heating	Capacity	Btu/h	24000	34200	48000	54000
	HSPF2-4	Btu/h/W	8.5	8.1	8.1	8.0
	HSPF2-5	Btu/h/W	/	/	/	/
Indoor Minimum Circuit Ampacity		A	5.0	5.0	7.0	7.0
Indoor Max. Fuse		A	15	15	15	15
Indoor Air Flow (H/L)		CFM	880/600	980/600	1400/1050	1500/1050
Indoor Noise Level (H/L)		dB(A)	42/38	50/38	51/44	52.5/44
N.A. Design Pressure		PSI	609/174	609/174	609/174	609/174
Indoor Unit	Dimension (W×D×H)	inch	(21-1/32")×(21-1/32")×(49-7/32")	(21-1/32")×(21-1/32")×(49-7/32")	(24-31/64")×(21-1/32")×(52-63/64")	(24-31/64")×(21-1/32")×(52-63/64")
	Packing Dimension (W×D×H)	inch	(24-13/32")×(26-37/64")×(50-13/64")	(24-13/32")×(26-37/64")×(50-13/64")	(27-7/8")×(26-37/64")×(54-9/64")	(27-7/8")×(26-37/64")×(54-9/64")
	Net Weight/Gross Weight	lbs.	125/149	130/154	165/190	165/190
Refrigerant Piping	Liquid Side/Gas Side	inch	(3/8) / (3/4)	(3/8) / (3/4)	(3/8) / (3/4)	(3/8) / (3/4)
Connection Wiring			485: AWG 25*3 Shielded, 24V: AWG 20	485: AWG 25*3 Shielded, 24V: AWG 20	485: AWG 25*3 Shielded, 24V: AWG 20	485: AWG 25*3 Shielded, 24V: AWG 20
Communication Type			24V / 485	24V / 485	24V / 485	24V / 485
Throttle Type			TXV	TXV	TXV	TXV
Setting Temperature		°F	62~90	62~90	62~90	62~90

UNIT DIMENSIONS

AHH32 Series

INVERTER HIGH EFFICIENCY
AIR HANDLER

2 TO 5 TONS

24 VOLT CONNECTION
HEAT PUMP SYSTEMS

Wi Fi OPTIONAL



UP TO
19.7 SEER2

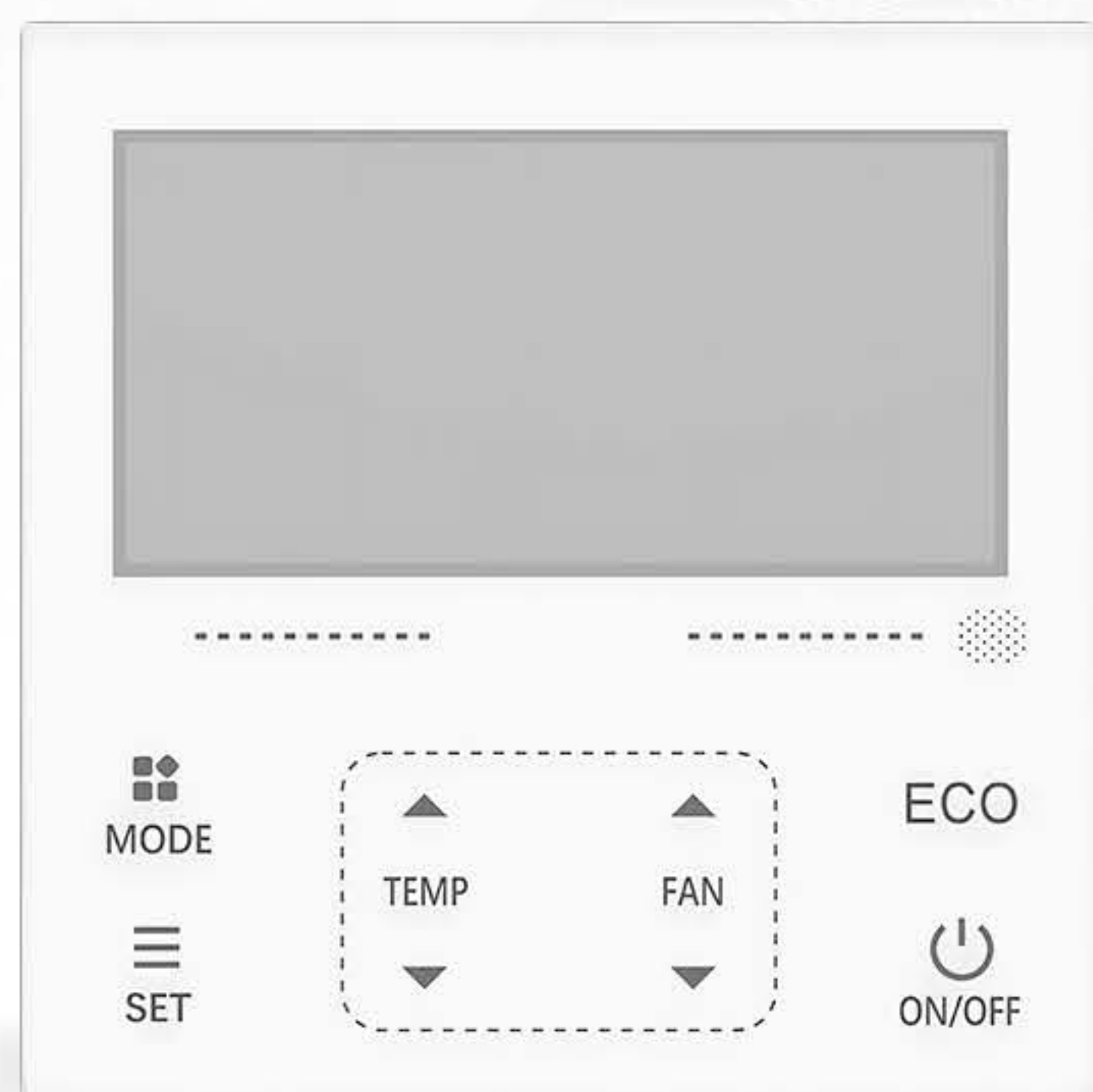


Model	Unit Width: "W" Inches	Unit Depth: "D" Inches	Unit Height: "H" Inches
AHH32-24	21-1/32	21-1/32	49-7/32
AHH32-36	21-1/32	21-1/32	49-7/32
AHH32-48	24-31/64	21-1/32	52-63/64
AHH32-60	24-31/64	21-1/32	52-63/64



CONTROLS

Wi-Fi OPTIONAL



Part No. CW32-WIFI:

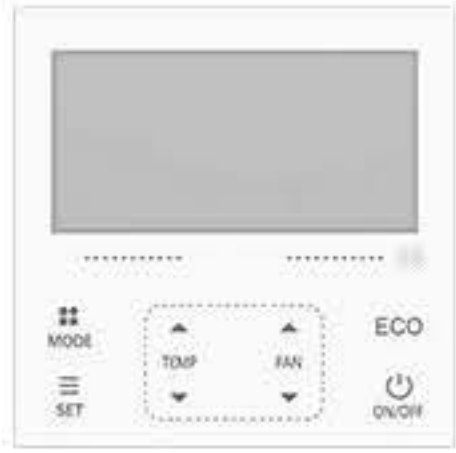
Features with WI-FI & Programmable:

- Cooling, Heating, Fan, and Dehumidify Modes.
- Adjustable Temperature and Fan Speed.
- On/Off Timer.
- Built-in Wi-Fi for Smart Control.
- Weekly Scheduling via Smart Life App.
- System Info and Settings Check.
- Error Code Display.
- Remote Receiver Range: Works with wired connections up to 100 meters.
- Smartphone Control: Download the “Smart Life” app to control the unit from your phone.

Part No. LDSK32A:

Features of Leakage Detector Sensor Kit:

- 24V Signal Input from Thermostat.
- 24V Signal Output to Indoor and Outdoor Units.
- Communication Port for Refrigerant Leakage Detector.
- Built-in Alarm: LED light and buzzer alert for system issues.

Model	Wired Control with Wi-Fi & Programmable	Leakage Detector Sensor Kit
	 CW32-WIFI	 LDSK32A
AHH32	Optional	/
MRH32	/	Optional

MATCH UP TABLES

MRH32 SERIES



Outdoor Unit	Indoor Unit	Capacity (Btu/h)	SEER2 (Btu/h/W)	EER2 (Btu/h/W)	Capacity (Btu/h)	HSPF2-4 (Btu/h/W)
MRH32-24	AHH32-24	24000	19.7	12.5	24000	8.5
MRH32-36	AHH32-36	36000	19.3	11.0	34200	8.1
MRH32-48	AHH32-48	48000	18.5	9.7	48000	8.1
MRH32-60	AHH32-60	54000	17.7	8.6	54000	8.0



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TOP DISCHARGE
CONDENSING UNIT

2 TO 5 TONS
LOW AMBIENT
TEMPERATURE -13 °F

UP TO
19.7 SEER2



Wi Fi OPTIONAL



12201 N.W. 107TH AVENUE, MEDLEY, FL 33178
TOLL FREE: 1-866-524-9898 | PHONE: 305-500-9898 | FAX: 305-500-9896

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e-mail: info@comfortstarusa.com
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