

ComfortStar®

Air Conditioning & Heating Products

 **STAR PRO™**
SERIES

INVERTER

24 VOLT CENTRAL HEAT PUMP SYSTEMS

CSS Series

UP TO
18.4 SEER2



10 YEARS
WARRANTY
COMPRESSOR

10 YEARS
WARRANTY
PARTS



Comfort, it's in our name.

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24 VOLT CONNECTION HEAT PUMP SYSTEMS



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**LOW AMBIENT
TEMPERATURE -4 °F**

**24 VOLT CONNECTION
HEAT PUMP SYSTEMS**

Wi Fi OPTIONAL

LOW NOISE LEVEL ➔

CSS Series

Central Heat Pump Systems

24 Volt

This compressor is compatible with both R410A and R32 systems, allowing for replacement without the need to modify or alter the existing line sets or wiring.

Features:

- The 24-volt control enables this condensing unit to connect effortlessly with any indoor unit managed by various Heat Pump Thermostats.
- Inverter Compressor technology offers significantly enhanced reliability compared to conventional models.
- Sound levels are impressively low, reaching as quiet as 54 DBA.
- This unit occupies 50% less space than a standard condensing unit.
- Features self-diagnostic capabilities.
- It can be paired with a standard air handler or A coil (TXV required).



54 DBA

CSS System



59 DBA

Conventional System





CSS Series

HEAT PUMP CONDENSING UNIT

1.5 Up To 5 Tons
Up To 18.4 SEER2



SPECIFICATIONS

24 VOLT CONNECTION

HEAT PUMP SYSTEMS

Wi Fi OPTIONAL

Outdoor Unit			CSS18CD(0)	CSS24CD(0)	CSS30CD(0)	CSS36CD(0)	CSS48CD(0)	CSS60CD(0)
Power Supply		V-Ph-Hz	208/230V, 1Ph, 60Hz	208/230V, 1Ph, 60Hz	208/230V, 1Ph, 60Hz	208/230V, 1Ph, 60Hz	208/230V, 1Ph, 60Hz	208/230V, 1Ph, 60Hz
Cooling	Capacity	Btu/h	18000	24000	30000	36000	48000	53000
	Input	W	1565	2308	2679	3462	5333	6625
Heating	Capacity	Btu/h	19000	26000	31000	36000	48000	55000
	Input	W	1450	2265	2550	3050	4100	4550
Outdoor Minimum Circuit Ampacity		A	16.0	20.0	22.5	25.0	37.0	42.00
Outdoor Max. Fuse		A	20.0	25.0	25.0	30.0	40.0	50.0
Outdoor Air Flow		CFM	2000	2000	2650	2650	29 50	2950
Outdoor Noise Level		dB(A)	54	55	56	56	60	60
Connecting 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	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	24V / 485	24V / 485
Throttle Type			Capillary	Capillary	Capillary	Capillary	Capillary	Capillary
Outdoor Unit	Unpacking (W*H*D)	inch	36-1/32-25-19/32* 13-37/64	36-1/32-25-19/32* 13-37/64	37-63/64-31-57/64* 15-3/4	37-63/64-31-57/64* 15-3/4	37-63/64-31-57/64* 15-3/4	37-63/64-31-57/64* 15-3/4
	Packing (W*H*D)	inch	40-5/32-28-15/16* 17-1/8	40-5/32-28-15/16* 17-1/8	42-1/8-34-41/64* 20-43/64	42-1/8-34-41/64* 20-43/64	42-1/8-34-41/64* 20-43/64	42-1/8-34-41/64* 20-43/64
	Net/Gross Weight	lbs	84/92	93/100	132/140	132/140	152/160	152/160
Refrigeration	Type/Charge		R32/56.44	R32/58.20	R32/84.66	R32/84.66	R32/105.82	R32/105.82
	Outdoor Additional Charge	oz/ft	0.52	0.52	0.52	0.52	0.52	0.52
	N.A.Design Pressure	PSI	174/609	174/609	174/609	174/609	174/609	174/609
Refrigerant Piping	Liquid / Vapor Valve Size	inch	(3/8) / (3/4)	(3/8) / (3/4)	(3/8) / (3/4)	(3/8) / (3/4)	(3/8) / (3/4)	(3/8) / (3/4)
	Max. Refrigerant Pipe Length	ft	98	164	164	246	246	246
	Max. Height Difference	ft	66	82	82	98	98	98
Ambient Temp	Cooling	°F	5-131	5-131	5-131	5-131	5-131	5-131
	Heating	°F	-4-75	-4-75	-4-75	-4-75	-4-75	-4-75



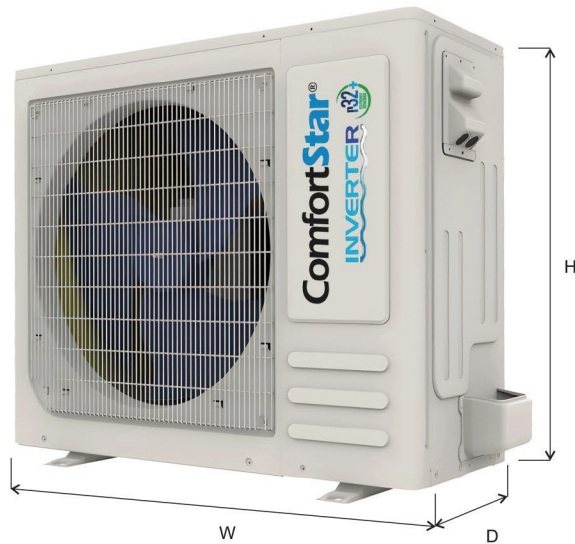
CSS Series

HEAT PUMP CONDENSING UNIT

1.5 Up To 5 Tons
Up To 18.4 SEER2

24 VOLT CONNECTION
HEAT PUMP SYSTEMS

Wi Fi OPTIONAL



UNIT DIMENSIONS

Model	Unit Width "W" inches	Unit Height "H" inches	Unit Depth "D" inches
CSS18CD(O)	36-1/32	25-19/32	13-37/64
CSS24CD(O)	36-1/32	25-19/32	13-37/64
CSS30CD(O)	37-63/64	31-57/64	15-3/4
CSS36CD(O)	37-63/64	31-57/64	15-3/4
CSS48CD(O)	37-63/64	31-57/64	15-3/4
CSS60CD(O)	37-63/64	31-57/64	15-3/4



1.5 UP TO 3 TONS
18.4 SEER2

24 VOLT CONNECTION
HEAT PUMP SYSTEMS

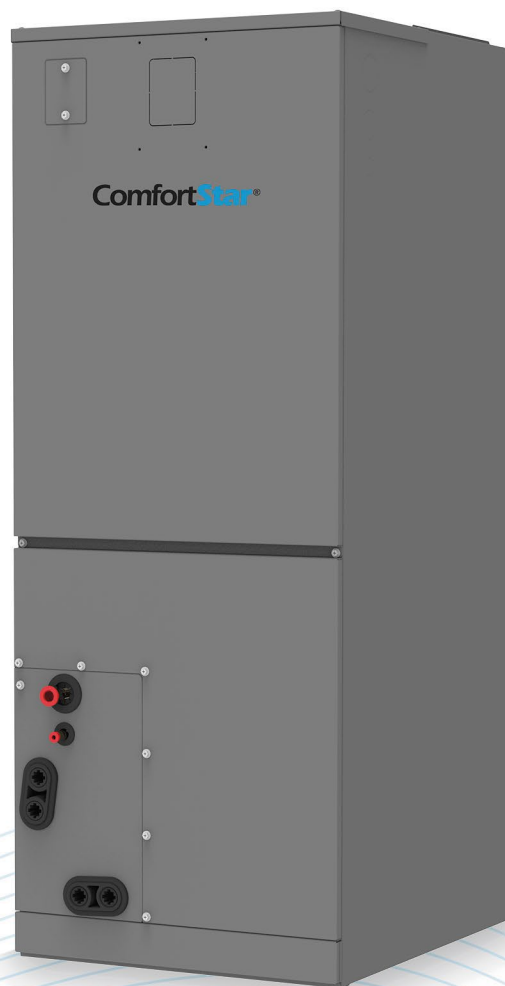
Wi Fi OPTIONAL

ASH32 Series

Universal Multi-Position Air Handler

Features:

- **Multiposition**
 - Upflow
 - Downflow
 - Horizontal Left
 - Horizontal Right
- **Size:** Compact
- **Controls:** Highly versatile, compatible with any 24-volt heat pump thermostat
- Wi-Fi enabled
- **Constant Torque Motor:** Automatically adjusts for optimal performance
- Compatible with existing refrigerant line set; no insulation needed for both lines
- **Heating:** Optional field-installed auxiliary electric heat strips available in 5kW to 20kW
- Compatible with UV lamp and humidifier
- Easy to maintain



CSS & ASH32 Series

Condensing Unit
+ Air Handler Systems



SPECIFICATIONS

24 VOLT CONNECTION

HEAT PUMP SYSTEMS

Wi Fi OPTIONAL

Indoor Unit			ASH18SG32	ASH24SG32	ASH30SG32	ASH36SG32	ASH48SG32	ASH60SG32
Outdoor Unit			CSS18CD(0)	CSS24CD(0)	CSS30CD(0)	CSS36CD(0)	CSS48CD(0)	CSS60CD(0)
Power Supply	Rated Voltage	V, Ph, Hz	208/230V, 1Ph, 60Hz	208/230V, 1Ph, 60Hz	208/230V, 1Ph, 60Hz	208/230V, 1Ph, 60Hz	208/230V, 1Ph, 60Hz	208/230V, 1Ph, 60Hz
Cooling	Capacity	Btu/h	18000	24000	30000	36000	48000	60000
	SEER2	Btu/h/W	18.4	17.7	17.0	17.0	16.5	15.8
	EER2	Btu/h/W	11.5	10.4	11.2	10.4	9.0	8.0
Heating	Capacity	Btu/h	19000	26000	31000	36000	48000	55000
	HSPF2-5	Btu/h/W	8.6	8.5	8.4	8.4	8.5	8.5
Indoor Minimum Circuit Ampacity		A	3.5	3.5	5.0	5.0	7.0	7.0
Indoor Max. Fuse		A	6.0	6.0	6.0	6.0	10.0	10.0
Indoor Air Flow (H/L)		CFM	650/420	830/420	950/520	1110/520	1690/750	1740/750
Indoor Noise Level (H/L)		dB(A)	38.5/34	42/38	40/36	50/42.5	53/46	53/46
N.A. Design Pressure		PSI	174/609	174/609	174/609	174/609	174/609	174/609
Indoor Unit	Unpacking (W×D×H)	inch	17-33/64×21-1/32×45	17-33/64×21-1/32×45	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 (W×D×H)	inch	26-37/64×20-55/64×46-17/64	26-37/64×20-55/64×46-17/64	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/Gross Weight	lbs	114/127	114/127	137/151	137/151	165/184	165/184
Refrigerant Piping	Liquid Side/Gas Side	inch	(3/8) / (3/4)	(3/8) / (3/4)	(3/8) / (3/4)	(3/8) / (3/4)	(3/8) / (3/4)	(3/8) / (3/4)
Connecting 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"	"485: AWG 25*3 Shielded, 24V: AWG 20"	"485: AWG 25*3 Shielded, 24V: AWG 20"
Communication Type			24V Thermostat / 485	24V Thermostat / 485	24V Thermostat / 485	24V Thermostat / 485	24V Thermostat / 485	24V Thermostat / 485
Throttle Type			TXV	TXV	TXV	TXV	TXV	TXV
Setting Temperature		°F	62-90	62-90	62-90	62-90	62-90	62-90



ASH32 Series

MUTLI-POSITION AIR HANDLER

1.5 Up To 5 Tons
Up To 18.4 SEER2



24 VOLT CONNECTION
HEAT PUMP SYSTEMS

Wi Fi OPTIONAL

UNIT DIMENSIONS

Model	Unit Width "W" inches	Unit Depth "D" inches	Unit Height "H" Inches
ASH18SG32	17-33/64	21-1/32	45
ASH24SG32	17-33/64	21-1/32	45
ASH30SG32	21-1/32	21-1/32	49-7/32
ASH36SG32	21-1/32	21-1/32	49-7/32
ASH48SG32	24-31/64	21-1/32	52-63/64
ASH60SG32	24-31/64	21-1/32	52-63/64



1.5 UP TO 3 TONS
16.0 SEER2

24 VOLT CONNECTION
HEAT PUMP SYSTEMS

Wi Fi **OPTIONAL**

CWM32 Series

Wall Mounted PSC Air Handler

Features:

- Direct-drive, multi-speed motors for adjusting air volume during heating or cooling.
- Multi-speed PSC motor.
- Includes a thermoplastic drain pan with primary and secondary drain connections at the bottom.
- Equipped with a built-in filter rack.
- Includes a wall-hanging bracket.
- Offers the option of front or bottom return.
- Optional heating elements available in 5kW, 7.5kW, and 10kW.
- Features an all-aluminum coil.
- AHRI listed and ETL listed.





CWM32 Series

WALL MOUNTED PSC AIR HANDLER

1.5 Up To 3 Tons
16.0 SEER2



SPECIFICATIONS

24 VOLT CONNECTION

HEAT PUMP SYSTEMS

Wi Fi OPTIONAL

Indoor Unit			CWM32-18-16	CWM32-24-16	CWM32-30-16	CWM32-36-16
Outdoor Unit			CSS18CD(0)	CSS24CD(0)	CSS30CD(0)	CSS36CD(0)
Power Supply	Rated Voltage	V, Ph, Hz	208/230V, 1Ph, 60Hz	208/230V, 1Ph, 60Hz	208/230V, 1Ph, 60Hz	208/230V, 1Ph, 60Hz
Cooling Range	Range	Btu/h	5400-21600	7200-28800	9000-36000	10800-43200
Cooling	Capacity	Btu/h	18000	24000	30000	36000
	SEER2	Btu/h/W	16.0	16.0	16.0	16.0
	EER2	Btu/h/W	10.0	9.5	9.5	9.0
Heating	Capacity	Btu/h	19000	26000	31000	36000
	HSPF2-5	Btu/h/W	8.2	8.0	7.8	7.6
Indoor Minimum Circuit Ampacity		A	1.6	2.5	2.9	2.9
Indoor Max. Fuse		A	3.0	3.0	3.0	3.0
Indoor Air Flow (H/L)		CFM	605/512	796/660	965/766	1160/930
Indoor Noise Level (H/L)		dB(A)	49	52	49	52
N.A. Design Pressure		PSI	174/609	174/609	174/609	174/609
Indoor Unit	Unpacking (W×D×H)	inch	20-25/32×15-13/64×36-1/32	20-25/32×15-13/64×36-1/32	22-1/8×19-1/16×39-41/64	22-1/8×19-1/16×39-41/64
	Packing (W×D×H)	inch	23-15/64×17-23/32×39-11/64	23-15/64×17-23/32×39-11/64	24-21/64×21-9/64×42-53/64	24-21/64×21-9/64×42-53/64
	Net/Gross Weight	lbs	88/95	88/95	108/121	108/121
	Liquid Side/Gas Side	inch	(3/8)/(3/4)	(3/8)/(3/4)	(3/8)/(3/4)	(3/8)/(3/4)
Refrigerant Piping			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 Thermostat / Wire Control	24V Thermostat / Wire Control	24V Thermostat / Wire Control	24V Thermostat / Wire Control
Throttle Type			Piston	Piston	Piston	Piston
Setting Temperature		°F	62-90	62-90	62-90	62-90



CWM32 Series

WALL MOUNTED PSC AIR HANDLER

1.5 Up To 2 Tons
16.0 SEER2

24 VOLT CONNECTION
HEAT PUMP SYSTEMS

Wi Fi OPTIONAL



UNIT DIMENSIONS

Model	Unit Width "W" inches	Unit Depth "D" inches	Unit Height "H" Inches
CWM32-18-16	20-25/32	15-13/64	36-1/32
CWM32-24-16	20-25/32	15-13/64	36-1/32
CWM32-30-16	22-1/8	19-1/16	39-41/64
CWM32-36-16	22-1/8	19-1/16	39-41/64

INSTALLATION

EVAPORATOR COIL

Can be effortlessly removed by sliding out and adjusted to meet the requirements of various installation positions.



BLOWER FAN

The conveniently removable top panel provides easy access to the blower assembly mounted on the slide rail. Additionally, there is a readily accessible screw for detaching the blower assembly from the unit.

Effortlessly installable with straightforward accessibility.



HEATER

Easy to install with simple accessibility

ASH32 Series

Heater Part No.

EHK-05E

EHK-08E

EHK-10E

EHK-15E

EHK-20E

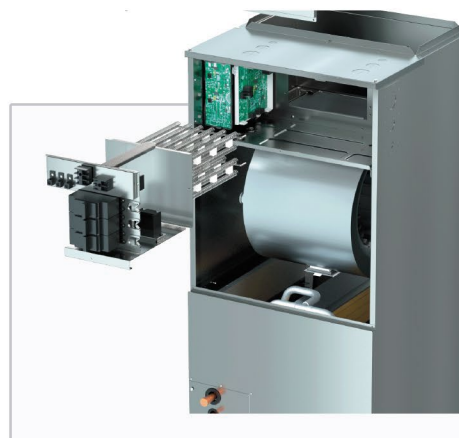
CWM32 Series

Heater Part No.

EHK-05D

EHK-08D

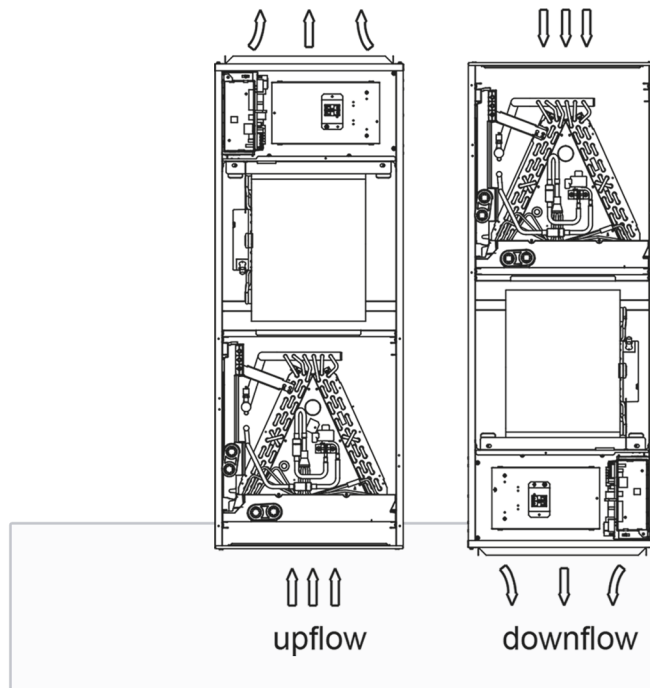
EHK-10D



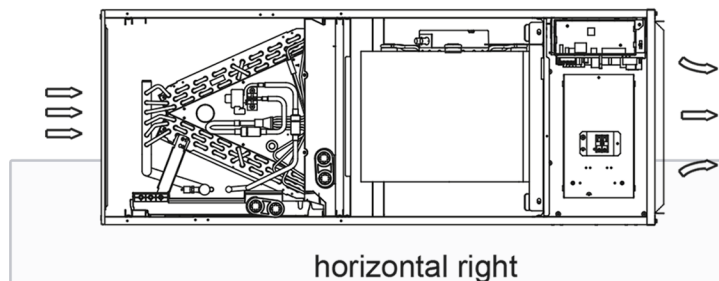
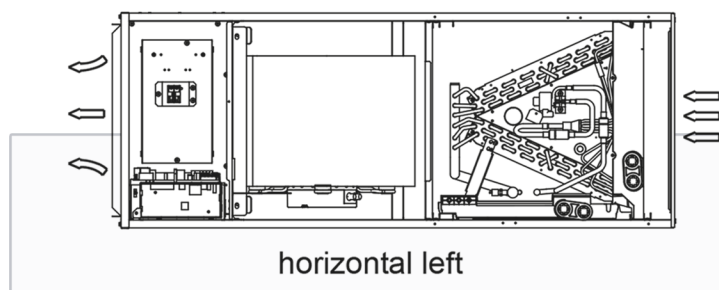
INSTALLATION

NOTE:

For vertical upward and horizontal left installations, there is no need to alter the direction of the evaporator.



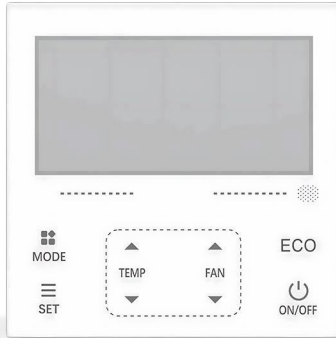
The unit may be installed as upflow, downflow, horizontal left or horizontal right orientations.





CONTROLS

Wi-Fi OPTIONAL



Part No. CW32-WIFI:

Features of 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
ASH32	Optional	/
CWM32	Optional	/
CSS	/	Optional



MATCH UP TABLES

ASH32 Series

Indoor unit	Outdoor unit	Capacity (Btu/h)	SEER2 (Btu/h/W)	EER2 (Btu/h/W)	Capacity (Btu/h)	HSPF2-5 (Btu/h/W)
ASH18SG32	CSS18CD(0)	18000	18.4	11.5	19000	8.6
ASH24SG32	CSS24CD(0)	24000	17.7	10.4	26000	8.5
ASH30SG32	CSS30CD(0)	30000	17.0	11.2	31000	8.4
ASH36SG32	CSS36CD(0)	36000	17.0	10.4	36000	8.4
ASH48SG32	CSS48CD(0)	48000	16.5	9.0	48000	8.5
ASH60SG32	CSS60CD(0)	53000	15.8	8.0	55000	8.5



CWM32 Series

Indoor unit	Outdoor unit	Capacity (Btu/h)	SEER2 (Btu/h/W)	EER2 (Btu/h/W)	Capacity (Btu/h)	HSPF2-5 (Btu/h/W)
CWM32-18-16	CSS18CD(0)	18000	16.0	10.0	19000	8.2
CWM32-24-16	CSS24CD(0)	24000	16.0	9.5	26000	8.0
CWM32-30-16	CSS30CD(0)	30000	16.0	9.5	31000	7.8
CWM32-36-16	CSS36CD(0)	36000	16.0	9.0	36000	7.6



ComfortStar®

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CSS&ASH32&CWM32