

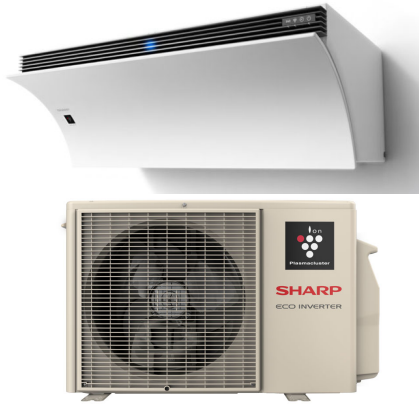


Submittal Data Sheet

AY-XP12CPU / AE-X12CPU

12,000 BTU Inverter Single Zone Heat Pump with Air Purifying MERV 14 Filter

Job Name:	
Reference:	Date:



Sharp Air app available in Apple® App Store and Google® Play Store.

Product Features

- MERV 14 Filter with Active Carbon
- CADR (Clear Air Delivery Rate)
Suggested room size: 471 sqft.
Smoke (304), Dust (333), Pollen (336)
- A2L refrigerant R32
- Energy Star Cold Climate certified
- High efficiency operation
down to -17°F (-27°C)
- Safe "Hot Gas Pipe" de-icing system
- 43ft long "Coanda Airflow"
- "Multi Space" air circulation
- Built-in Wi-Fi Adapter

CAPACITIES and POWER INPUT			
Cooling at 95°F	Max. Capacity	BTU/H	13,600
	Rated Capacity	BTU/H	12,500
	Min. Capacity	BTU/H	2,800
	Max. Power Input	W	1,200
	Rated Power Input	W	1,030
	Moisture Removal	Pints/h	3.2
	Sensible Heat Factor	%	72.6
	Power Factor	%	77
Heating at 47°F	Max. Capacity	BTU/H	17,000
	Rated Capacity	BTU/H	14,000
	Min. Capacity	BTU/H	3,200
	Max. Power Input	W	1,450
Heating at 17°F	Max. Capacity	BTU/H	15,000
	Rated Capacity	BTU/H	15,000
	Max. Power Input	W	1,900
	Rated Power Input	W	1,900
Heating at 5°F	Max. Capacity	BTU/H	12,500
	Max. Power Input	W	1,745
Heating at -4°F	Max. Capacity	BTU/H	10,600
Heating at -13°F	Max. Capacity	BTU/H	9,000
Heating at -17°F	Max. Capacity	BTU/H	8,200

NOTE: Test conditions are based on AHRI 210/240.

Cooling at 95°F	Indoor: 80°F (26.7°C) DB / 67°F (19.4°C) WB Outdoor: 95°F (35.0°C) DB / 75°F (23.9°C) WB
Heating at 47°F	Indoor: 70°F (21.1°C) DB / 60°F (15.6°C) WB Outdoor: 47°F (8.3°C) DB / 43°F (6.1°C) WB
Heating at 17°F	Indoor: 70°F (21.1°C) DB / 60°F (15.6°C) WB Outdoor: 17°F (-8.3°C) DB / 15°F (-9.4°C) WB
Heating at 5°F	Indoor: 70°F (21.1°C) DB / 60°F (15.6°C) WB Outdoor: 5°F (-15.0°C) DB / -3°F (-16.1°C) WB
Heating at -4°F	Indoor: 70°F (21.1°C) DB / 60°F (15.6°C) WB Outdoor: -4°F (-20.0°C) DB / -°F (-°C) WB
Heating at -13°F	Indoor: 70°F (21.1°C) DB / 60°F (15.6°C) WB Outdoor: -13°F (-25.0°C) DB / -°F (-°C) WB
Heating at -17°F	Indoor: 70°F (21.1°C) DB / 60°F (15.6°C) WB Outdoor: -17°F (-27.2°C) DB / -°F (-°C) WB

EFFICIENCIES	
SEER/SEER2	20.0 / 21.0
EER2	12.1
HSPF (IV) /HSPF2 (IV)	11.5 / 10.5
HSPF (V) /HSPF2 (V)	9.0 / 8.0
COP at 47F at Max. Capacity	3.66
COP at 17F at Max. Capacity	2.32
COP at 5F at Max. Capacity	2.1
COP at -17F at Max. Capacity	1.6

ELECTRICAL		
Voltage, Phase, Frequency		208/230, 1, 60
Guaranteed Voltage Range	V AC	187 - 253
Voltage: Indoor - Outdoor, S1-S2	V AC	208/230
Voltage: Indoor - Outdoor, S2-S3	V DC	24
Short-circuit Current Rating (SCCR)	KA	5.0
Rated Running Current (Cool/Heat)	A	5.8 / 6.2
MCA (Indoor/Outdoor)	A	0.5 / 11.0
Maximum Fuse Size (MOCP)	A	20
Circuit Breaker	A	15
Wire Size (Indoor - Outdoor)	AWG	14

COMPRESSOR		
Type		Single Rotary
Model	A	KSN98D42UFZA
Rated Load Amps	A	9.0
Oil Type		Ester Oil VG74
Oil Charge	oz (ml)	10.1 (300)

PIPING		
Gas Pipe Size O.D. (Flared)	In. (mm)	3/8 (9.52)
Liquid Pipe Size O.D. (Flared)	In. (mm)	1/4 (6.35)
Chargeless Piping Length	Ft. (m)	25 (7.6)
Min.-Max Pipe Length	Ft. (m)	10 (3) - 66 (20)
Maximum Height Difference	Ft. (m)	33 (10)

REFRIGERANT		
Type		R32
Refrigerant Control		Expansion Valve
Charge	oz. (g)	35.3 (1000)
Additional Charge of Refrigerant	oz./Ft. (g/m)	0.09 (8)
Defrost Method		Reverse Cycle
De-icing System		Hot Gas Pipe

FAN and SOUND		Indoor Unit	Outdoor Unit
Fan		Cross Flow Fan	Propeller Fan
Fan Motor Full Load Amperage	A	0.3	0.7
Fan Motor Output	W	58	41
Airflow Rate at Cooling, Dry	CFM	406 / 378 / 290 / 219 / 124	
Airflow Rate at Cooling, Wet	CFM	365 / 340 / 261 / 197 / 111	1102
Airflow Rate at Heating, Dry	CFM	406 / 378 / 290 / 233 / 208	
Sound Pressure Level (Cooling)	dB(A)	48 / 42 / 36 / 25	49
Sound Pressure Level (Heating)	dB(A)	48 / 42 / 37 / 34	50

DIMENSION and WEIGHT		Indoor Unit	Outdoor Unit
Unit Dimensions	W x H x D: In. (mm)	31.4 x 10.9 x 17.6 (798 x 278 x 447)	30.7 x 21.3 x 10.6 (780 x 540 x 269)
Package Dimensions	W x H x D: In. (mm)	34.4 x 20.3 x 14.6 (875 x 515 x 370)	36.3 x 23.7 x 15.5 (922 x 603 x 393)
Unit Weight	lbs. (kg)	38 (17)	66 (30)
Package Weight	lbs. (kg)	42 (19)	71 (32)

OPERATING TEMPERATURE		Indoor Unit	Outdoor Unit
Cooling (Max. / Min.)	°F (°C)	90 / 70 (32.2 / 21.1)	115 / 14 (46.1 / -10)
Cooling Thermal Lock-out / Re-start Temperatures	°F (°C)	-	-
Heating (Max. / Min.)	°F (°C)	81 / - (27.2 / -)	75 / -17 (23.9 / -27)
Heating Thermal Lock-out / Re-start Temperatures	°F (°C)	-	-17 (-27)

AIR PURIFICATION		Indoor Unit	Outdoor Unit
Type of Filter		Pre-filter x 2 pcs, Main Filter x 2 pcs	-
Filter Grade		MERV 14 (Main Filter)	-
CADR (Clean Air Delivery Rate)		Smoke 300, Dust 310, Pollen 320	-

OTHERS		Indoor Unit	Outdoor Unit
Drain Pipe Size	In. (mm)	-	φ0.67 and φ0.79 (φ17 and φ20)
External Finish Color		Premium White	Warm Beige
Coating on Heat Exchanger		Normal Coating	Blue Fin Coating
Optional kit		AZ-F120CPU (replacement filter)	-

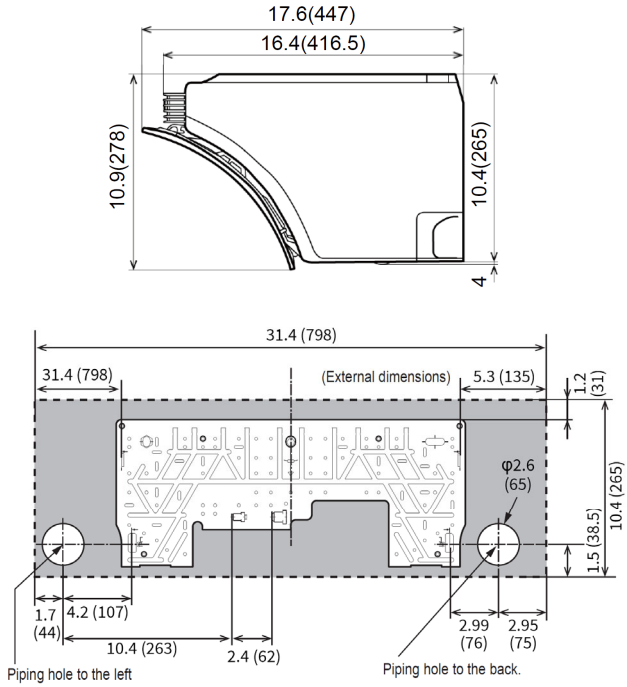
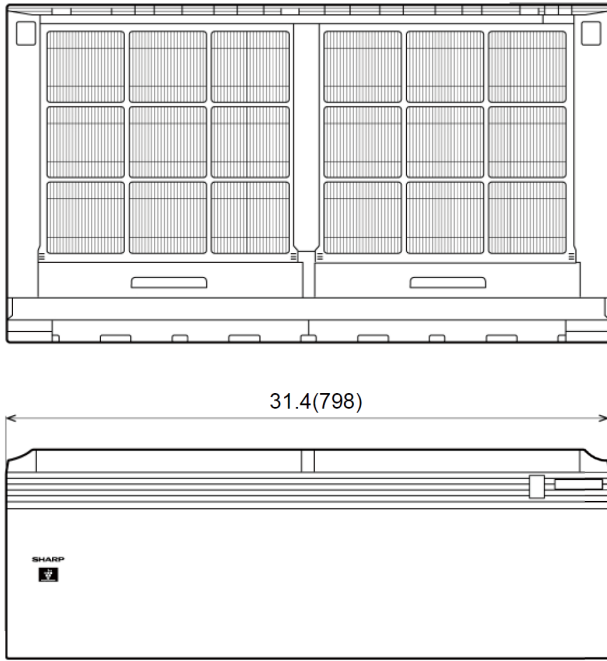
NOTE: Heat pump test conditions are based on AHRI 210/240.

Air purifier test conditions are based on ANSI/AHAM AC-1-2020, AHAM AC-7-2022

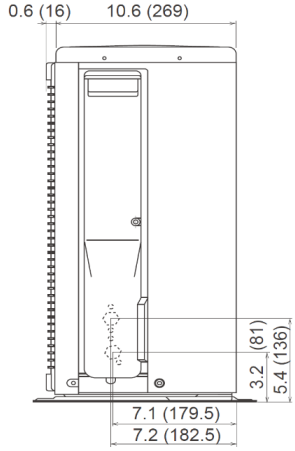
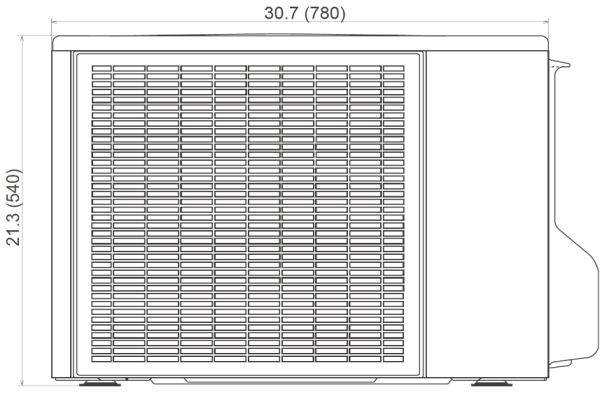
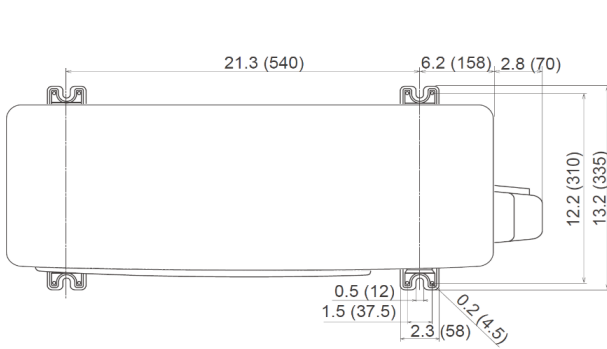
DIMENSIONS: AY-XP12CPU / AE-X12CPU

Indoor Unit

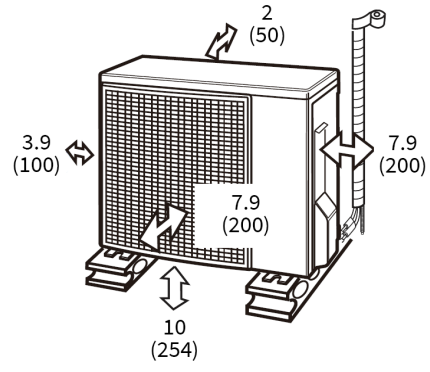
Length unit: inch (mm)



Outdoor Unit



Required Space



SHARP

Sharp Corporation, Japan
2-1-25, Kyutaromachi, Chuo-ku, Osaka
541-8522

