










PURCHASER	P.O. #	DATE
PROJECT	LOCATION	
ENGINEER	ARCHITECT	
SUBMITTED BY	FOR APPROVAL	FOR REFERENCE

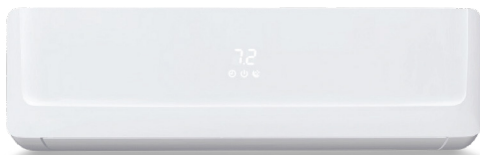
ITEM	PLAN DESIGNATION	QUANTITY	COOLING BTU/H	VOLTAGE	FRIEDRICH MODEL

Key Features

 Indicates sustainability feature

- **FastPro®** design for the fastest access for maintenance of any wall-mounted ductless systems
-  **Precision Inverter®** technology (variable speed compressor)
-  Soft-Start™ compressor
-  BLDC motor
-  Built-in Wi-Fi on indoor models
-  Sleep mode
-  All ENERGY STAR® certified models
-  All ENERGY STAR® Cold-Climate Heat Pump certified models
- Easy-to-read temperature display
-  Extreme cold climate heat pump performance: 100% of rated capacity at 5°F
-  Extreme low ambient heat pump operation
 - Wireless Remote
 - Ultra quiet operation

FEATURING **FastPro®** DESIGN

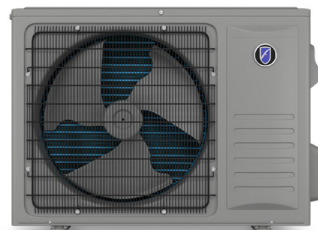


FAHFW09A3D, FAHFW12A3D,
FAHFW18A3D, FAHFW24A3D

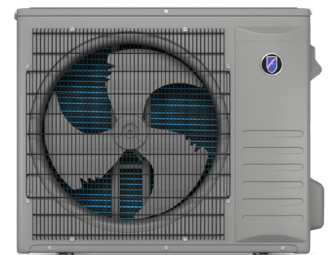


ProX **EXTREME**
TEMPERATURE
HEAT PUMP

- Low ambient heat pump operation down to -22°F
- Low ambient cooling operation down to 5°F
- Low temperature compressor start-up protection



FPHFR09A3D, FPHFR12A3D



FPHFR18A3D, FPHFR24A3D



FLOATING AIR™ PRO X | SINGLE-ZONE | WALL-MOUNTED HEAT PUMPS

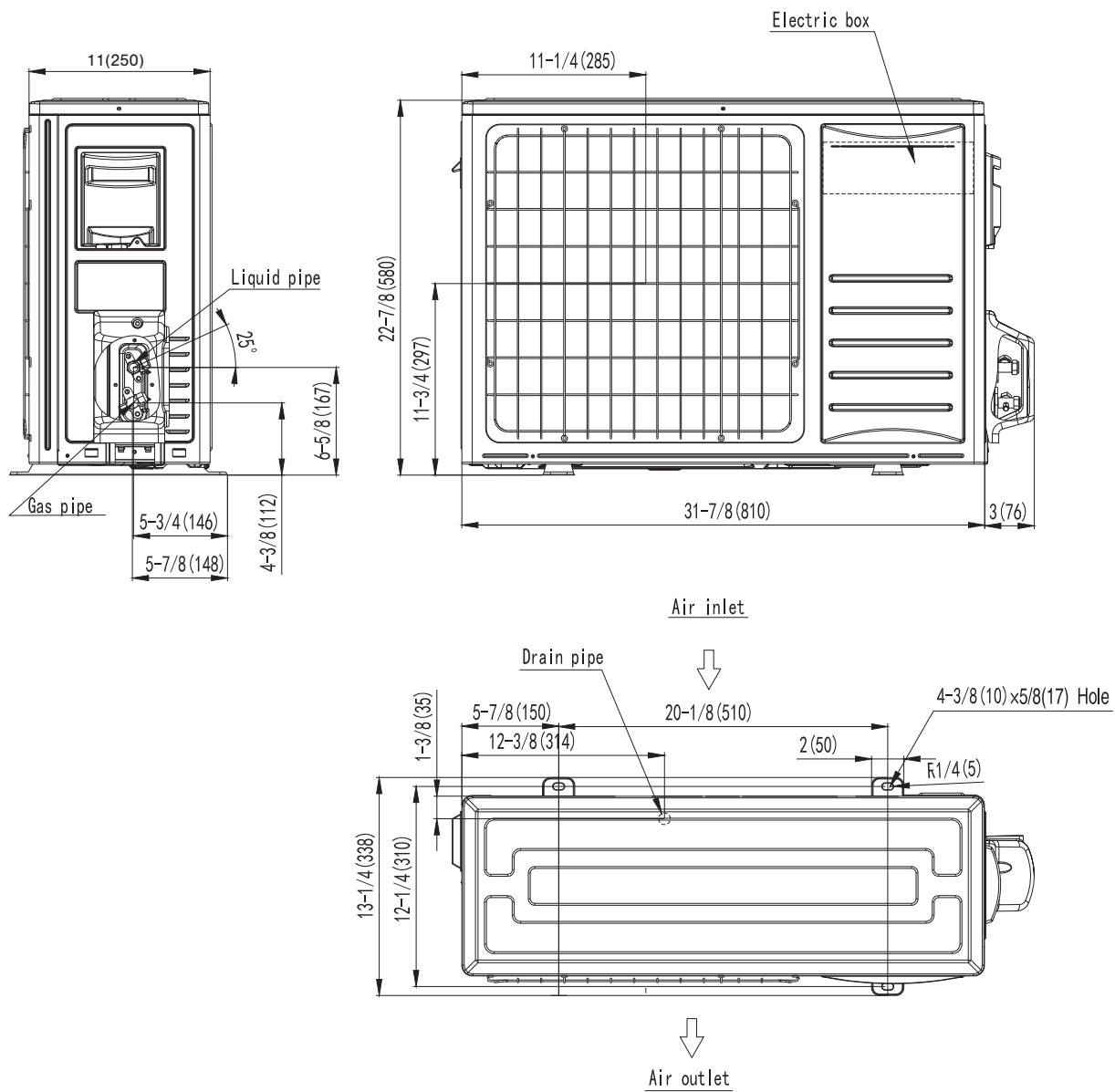
MODEL	Model Set	Unit	FXHW093D	FXHW123D	FXHW183D	FXHW243D
	Indoor Model		FAHFW09A3D	FAHFW12A3D	FAHFW18A3D	FAHFW24A3D
	Outdoor Model		FPHFR09A3D	FPHFR12A3D	FPHFR18A3D	FPHFR24A3D
	Power Supply		208V/230V~,60Hz,1P			
	ENERGY STAR® Standard		Y/N	Y	Y	Y
	ENERGY STAR – Cold Climate	Y/N	Y	Y	Y	Y
COOLING	Rated Capacity @ 95°F	Btu/h	9,000	12,000	18,000	24,000
	Cooling Capacity Range (Min.–Max.)	Btu/h	4,600-12,700	4,600-12,700	7,800-22,000	10,000-28,000
	EER2 @ 95°F	Btu/h/W	12.00	12.00	12.00	12.00
	SEER2	Btu/h/W	22.00	22.00	21.00	21.00
	Cooling Operating Range	°F	5°F–125°F	5°F–125°F	5°F–125°F	5°F–125°F
HEATING	Rated Capacity @ 47°F	Btu/h	9,000	12,000	18,000	24,000
	Heating Capacity Range (Min.–Max.)	Btu/h	5,500-16,000	5,500-16,000	7,800-23,000	6,700-30,000
	COP2 @ 47°F	W/W	12.00	12.00	3.66	3.52
	COP @ 5°F	W/W	1.80	1.80	1.80	1.80
	HSPF2	Btu/h/W	10.50	10.50	10.00	10.00
	Rated Capacity Heating @ 17°F (-8.3°C)	Btu/h	6,500	8,700	14,100	19,100
	Maximum Heating Capacity @ 5°F (-15°C)	Btu/h	12,000	12,000	18,000	24,000
	Maximum Heating Capacity @ -13F	Btu/h	8,400	8,400	12,600	16,200
	(-25°C) Heating Operating Range	°F	-22°F–75°F	-22°F–75°F	-22°F–75°F	-22°F–75°F
INDOOR AIRFLOW	Air Circulation (Max/H/M/L) Sound Rating - Indoor (Max/H/M/L/Quiet)	ft3 CFM dB (A)	382/341/294/247 42/39/37/35/32	394/365/312/253 42/39/37/35/32	647/588/482/382 48/45/41/39/36	706/647/559/441 50/48/43/41/39
INDOOR FAN MOTOR	Output Speed (Hi/Med/Lo)	W r/min	25 1101/938/800	25 1154/992/800	35 1100/960/800	35 1200/1040/880
OUTDOOR AIRFLOW	Air Circulation (Hi) for Outdoor Sound Rating - Outdoor (Hi)	ft3 CFM dB (A)	1,354 64.0	1,354 64.0	1,853 68.0	2,235 71.0
FAN MOTOR	Output Speed (Hi)	W r/min	40 880	40 880	60 880	110 870
ELECTRICAL	Rated Current	Cooling (A)	3.9	4.5	6.7	8.9
		Cooling (W)	750	1,000	1,500	2,000
		Heating (A)	3.9	4.5	6.4	8.5
		Heating (W)	750	1,000	1,440	2,069
	MOP (Rating of Overcurrent Protective Device)	A	20	20	25	30
	MCA (Minimum Circuit Ampacity)	A	12.0	12.0	16.0	22.0
	Communication Wire Size and Type		4 x 18AWG	4 x 18AWG	4 x 18AWG	4 x 18AWG
REFRIGERATION (R454B)	Moisture Removal	pints/hr	2.4	3.7	4.2	6.3
	Refrigerant Charge Volume	oz.	38.1	38.1	56.4	74.1
	Liquid Pipe	in.	0.25	0.25	0.25	0.375
	Gas Pipe	in.	0.375	0.375	0.5	0.625
	Max. Pipe Length (Total)	ft.	130.0	130.0	150.0	165.0
	Max. Elevation (Indoor Units Higher Than Outdoor Unit)	ft.	50.0	50.0	80.0	100.0
	Pre-charge Pipe Length	ft.	25.0	25.0	25.0	25.0
	Additional Refrigerant Charge per Foot after 25 ft.	oz./ft.	0.16	0.16	0.16	0.38
	INDOOR UNIT	Dimension (W×H×D)	in.	33-7/8×11-2/8×8-4/8	33-7/8×11-2/8×8-4/8	45-2/8×13-2/8×10-1/8
mm			860×285×216	860×285×216	1,148×336×256	1,148×336×256
Packing (L×H×W)		in.	36-5/8×15×11-2/8	36-5/8×15×11-2/8	47-7/8×16-1/8×13	47-7/8×16-1/8×13
		mm	930×380×285	930×380×285	1,215×410×330	1,215×410×330
Net Weight		lbs.	22.1	22.05	34.2	34.2
		kg	10.0	10.0	15.5	15.5
Shipping Weight		lbs.	26.5	26.5	39.7	39.7
	kg	12.0	12.0	18.0	18.0	
OUTDOOR UNIT	Dimension (W×H×D)	in.	31-7/8×22-7/8×11	31-7/8×22-7/8×11	33-7/8×26-3/8×12-1/4	35-3/8×29-1/2×13-3/8
		mm	810×580×280	810×580×280	860×670×310	900×750×340
	Packing (L×H×W)	in.	37×16-1/2×25-1/4	37×16-1/2×25-1/4	39×17-3/4×28-3/4	41×32-5/8×18-1/8
		mm	940×420×640	940×420×640	990×450×730	1,040×830×460
	Net Weight	lbs.	79.4	79.4	97.0	116.8
		kg	36.0	36.0	46.0	53.0
	Shipping Weight	lbs.	86.0	86.0	105.8	125.7
		kg	39.0	39.0	50.0	57.0

Due to continuing research in new energy-saving technology, specifications are subject to change without notice.



OUTDOOR UNITS / FPHFR09A3D, FPHFR12A3D

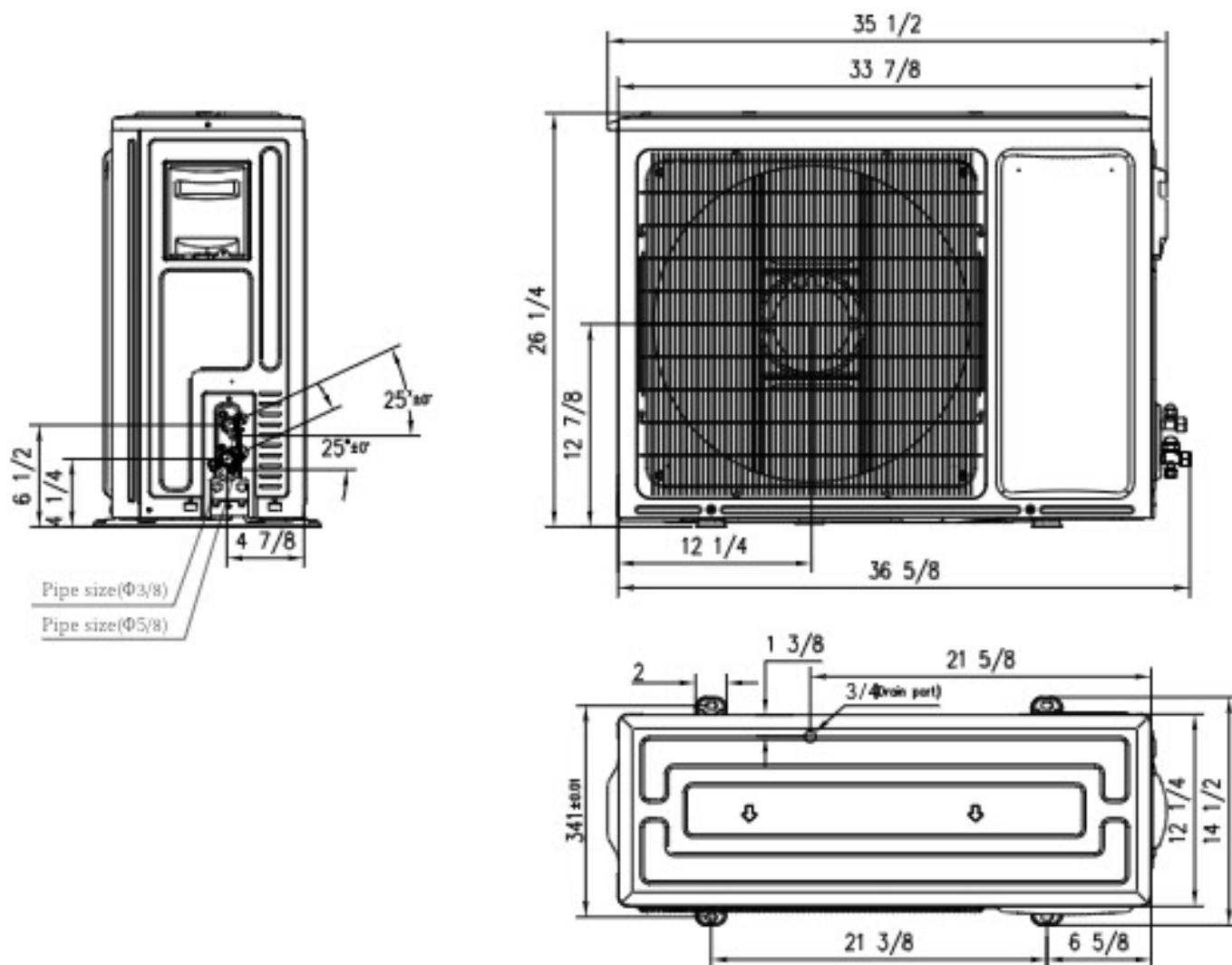
UNITS: INCHES (MM)



DIMENSIONAL DRAWINGS: OUTDOOR HEAT PUMP

OUTDOOR UNIT / FPHFR18A3D

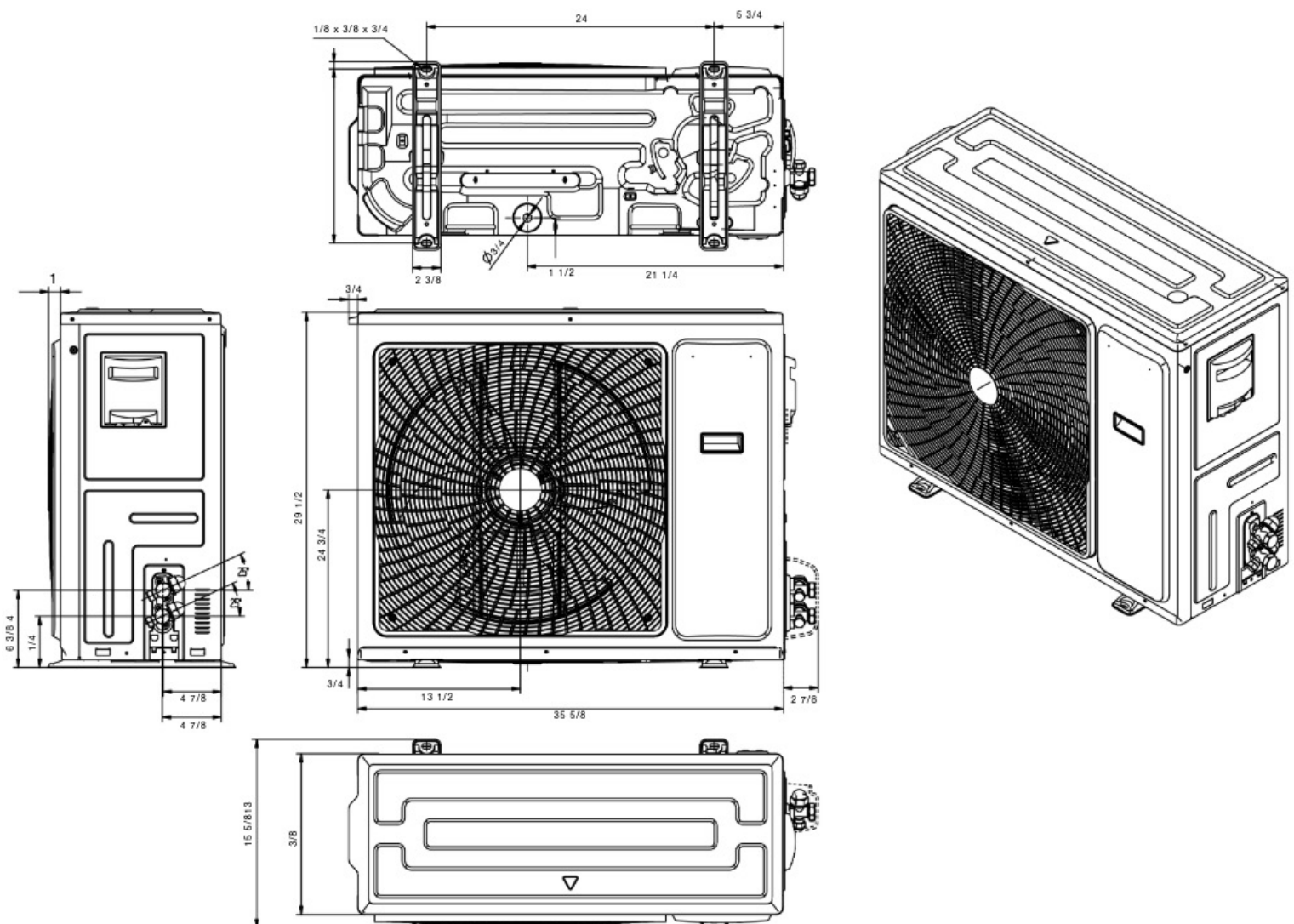
UNITS: INCHES (MM)



DIMENSIONAL DRAWINGS: OUTDOOR HEAT PUMP

OUTDOOR UNIT / FPHFR24A3D

UNITS: INCHES (MM)



OUTDOOR UNIT / FPHFR24A3D

Technical drawings of the ECH-10000 unit, showing dimensions in inches (mm) and labels for components.

Front View (Top Left):

- Dimensions: 1-3/8(35) (left side), 1-3/16(30) (right side).

Top View (Top Right):

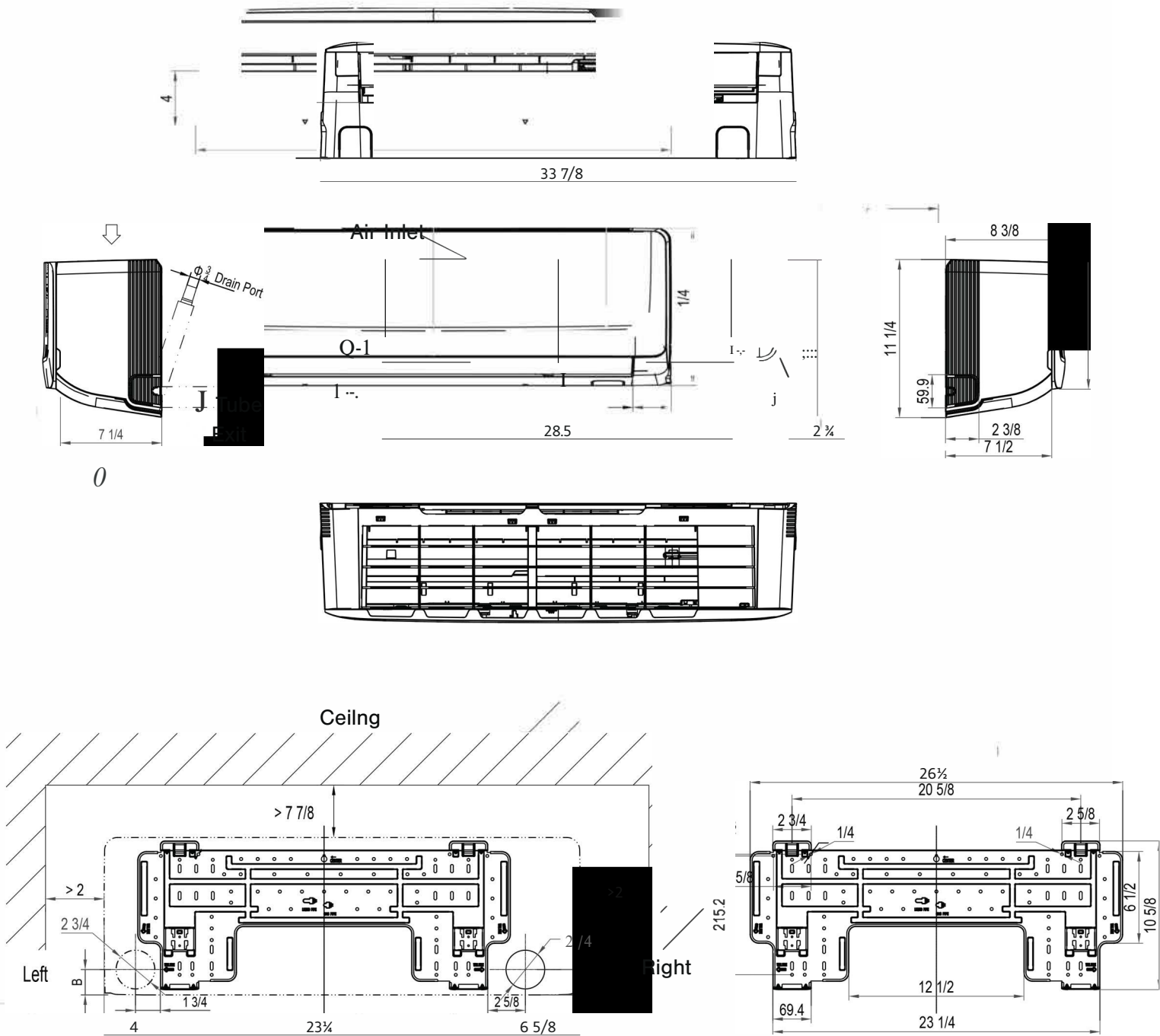
- Dimensions: 34-7/16(875) (left side), 17-1/2(444) (middle left), 11-1/16(17) (bottom left), 16-1/16(408) (bottom center), 43-5/16(1100) (bottom right), 9-1/4(235) (far right).
- Label: Electric box (pointing to the top right component).

Bottom View (Bottom):

- Dimensions: 8-7/8(225) (top left), 25-1/4(640) (top center), 18-1/2(471) (middle left), 17-3/4(450) (left side), 19-1/16(485) (right side), 20-3/4(515) (far right), 2-12x20 2-1/4 (70) (bottom right).
- Labels: Drain pipe (pointing to the top left), Air inlet (pointing to the top center), Air outlet (pointing to the bottom center).

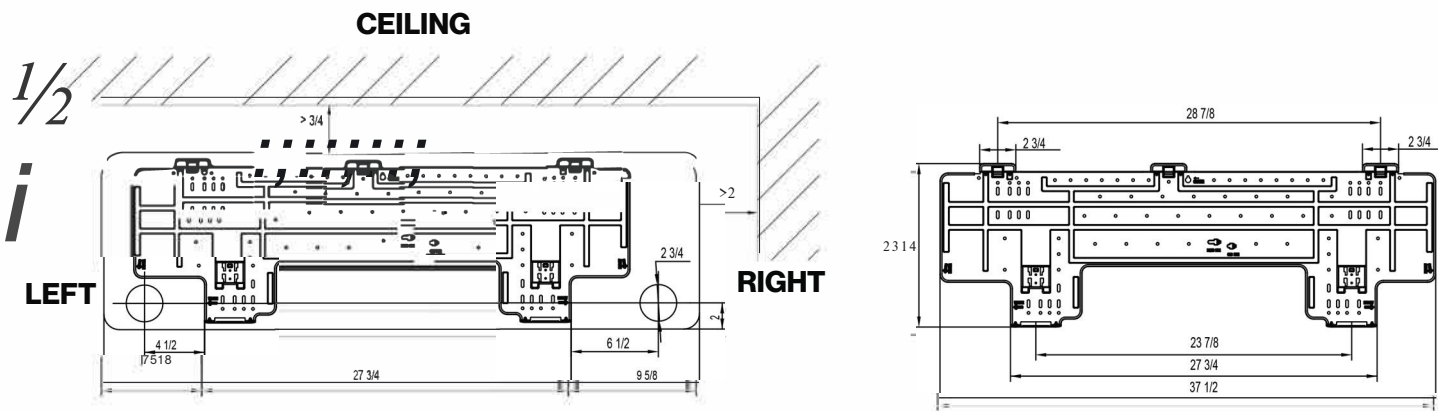
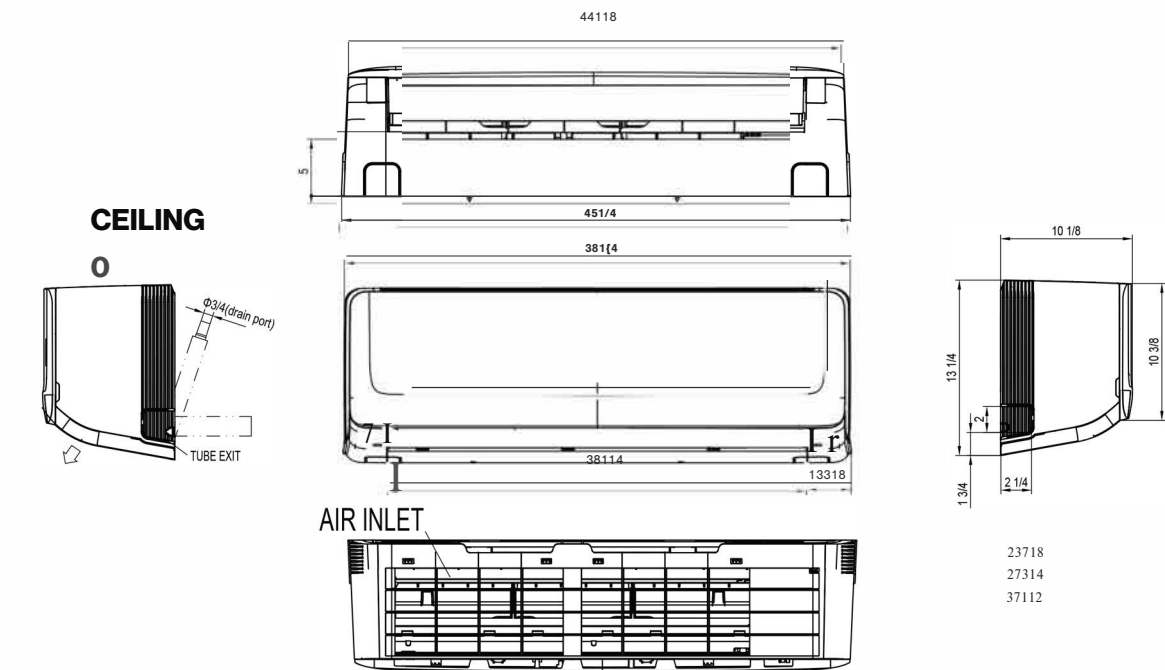
DIMENSIONAL DRAWINGS: WALL-MOUNTED HEAT PUMP
INDOOR UNITS / FAHFW09A3D, FAHFW12A3D

UNITS: INCHES (MM)



DIMENSIONAL DRAWINGS: WALL-MOUNTED HEAT PUMP
INDOOR UNITS / FAHFW18A3D, FAHFW24A3D

UNITS: INCHES (MM)



REFRIGERATION LINE SETS*

Kit#	Length (ft.)	Liquid	Suction	System Model
T32150	15'	1/4"	3/8"	FPHMR18A3D, FPHMR27A3D, FPHMR36A3D, FPHMR42A3D
T32350	35'	1/4"	3/8"	

*Insulated line sets are available for all Friedrich split systems in 15 ft. and 35 ft. lengths. Each line set is equipped with flare nuts on both ends. Both liquid and suction lines are insulated. Line sets can be joined together with field supplied double male connectors. Each system requires one line set for each indoor unit installed.

REFRIGERATION LINE SETS MIN./MAX. LENGTHS

System Model	Min. (ft.)	Max. Each/ Total(ft.)
FPHMR18A3D	25	82/164
FPHMR27A3D	25	66/230
FPHMR36A3D	25	66/230
FPHMR42A3D	25	66/262

TORQUE WRENCH SETTINGS

Outside Diameter		Torque	
mm	inch	ft.-lbs.	N·m
6.35	1/4	13 – 18	17.6 – 24.5
9.52	3/8	25 – 30	33.3 – 41.2
12.7	1/2	40 – 47	53.9 – 64.7
15.88	5/8	45 – 59	61.7 – 80.4

ACCESSORIES



FPWC1 – Optional hard-wired controller for Floating Air wall-mounted and cassette indoor models. Included with concealed ducted models. Not compatible with AHU indoor models. See your Friedrich representative for options.



DSSXEMWRTA4 – Optional wireless energy management thermostat with occupancy sensor. For Floating Air Pro, Pro X single- and multi-zone models.



ADS01 – Optional A2L sensor for Floating Air FAHMW07A3D, FAHFW09A3D, and FAHFW12A3D 230V indoor wall-mounted. See Installation and Operational Manual for additional information & requirements.



FreshAir Purifier APWM1 by iWave® – Optional accessory for all wall-mounted ductless models that kills mold, bacteria and viruses—while effectively removing odors and VOCs.