FRIEDRICH

Floating Air™ Pro Series

DUCTLESS MINI-SPLIT SYSTEMS

WALL-MOUNTED, SINGLE-ZONE HEAT PUMPS

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
- All models ENERGY STAR® and ENERGY STAR® Cold Climate Heat Pump certified
- **Precision Inverter**® technology (variable speed compressor)
- Soft-Start™ compressor
- BLDC motor
- Built-in Wi-Fi
- Sleep mode
- Ultra quiet operation
- Low ambient heat pump operation down to 13°
- Easy-to-read temperature display
- Wireless remote control included

FEATURING OUR ***FastPro***® DESIGN





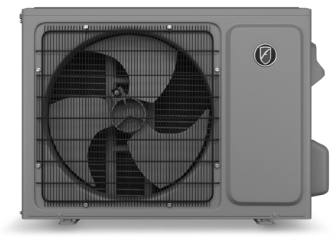
115V: FAHSW09A1C and FAHSW12A1C
230V: FAHFW09A3D, FAHFW12A3D, FAHFW18A3D, FAHFW24A3D

HIGH EFFICIENCY
HEATING & COOLING

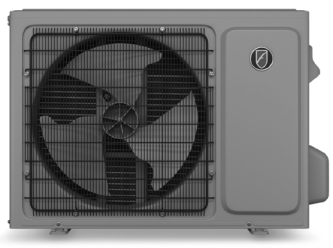
- Efficiencies of up to 25.0 SEER2
- Efficiencies of up to 11.0 HSPF2

works with Google Home

works with alexa



FPHSR09A1C, FPHSR12A1C,
FPHSR09A3D, FPHSR12A3D



FPHSR18A3D



FPHSR24A3D

PRECISION INVERTER® | ComfortPRO MOBILE APP | DIAMONDBLUE™ Advanced Corrosion Protection | FreshAire® IAQ READY | ENERGY STAR | ENERGY STAR COLD CLIMATE

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

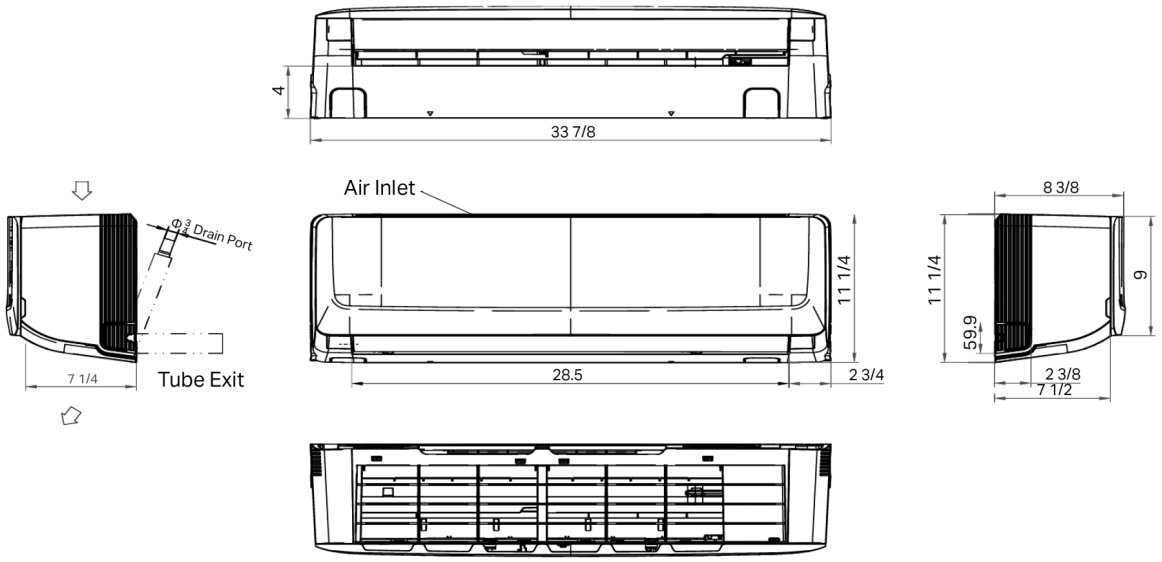
MODEL	**Model Set**	**Unit**	**FPHW091C**	**FPHW121C**	**FPHW093D**	**FPHW123D**	**FPHW183D**	**FPHW243D**
	Indoor Model		**FAHSW09A1C**	**FAHSW12A1C**	**FAHFW09A3D**	**FAHFW12A3D**	**FAHFW18A3D**	**FAHFW24A3D**
	Outdoor Model		**FPHSR09A1C**	**FPHSR12A1C**	**FPHSR09A3D**	**FPHSR12A3D**	**FPHSR18A3D**	**FPHSR24A3D**
	Power Supply	V/Hz/ph	115V~, 60Hz, 1P		208V/230V~, 60Hz, 1P			
	ENERGY STAR® Standard	Y/N	Y	Y	Y	Y	Y	Y
	ENERGY STAR – Cold Climate	Y/N	Y	Y	Y	Y	Y	Y
COOLING	Rated Capacity @ 95°F	Btu/h	9,000	12,000	9,000	12,000	18,000	24,000
	Cooling Capacity Range (Min.–Max.)	Btu/h	3,600–10,000	4,000–13,000	3,600–10,000	4,000–13,000	6,500–19,000	8,000–25,000
	EER2 @ 95°F	Btu/h/W	12.25	12.25	13.65	12.25	12.95	12.25
	SEER2	Btu/h/W	23.00	22.00	25.00	23.00	21.00	22.50
	Cooling Operating Range (Min.–Max.)	°F	5–118	5–118	5–118	5–118	5–118	5–118
HEATING	Rated Capacity @ 47°F	Btu/h	9,500	12,000	9,000	12,000	18,000	24,000
	Heating Capacity Range (Min.–Max.)	Btu/h	3,600–10,000	4,000–13,000	3,600–10,000	4,000–13,000	6,500–19,000	8,000–25,000
	COP @ 47°F	W/W	3.98	3.98	4.00	3.80	3.70	3.60
	COP @ 5°F	W/W	1.90	1.90	2.10	2.00	1.90	1.80
	HSPF2	Btu/h/W	10.00	9.50	11.00	10.00	10.00	9.50
	Rated Capacity Heating @ 17°F (-8.3°C)	Btu/h	9,500	9,300	9,000	10,800	18,000	22,000
	Maximum Heating Capacity @ 5°F (-15°C)	Btu/h	8,700	9,200	9,000	11,000	18,000	19,800
	Maximum Heating Capacity @ -13F (-25°C)	Btu/h	4,600	5,900	5,400	6,100	11,500	12,100
	Heating Operating Range (Min.–Max.)	°F	-13–75	-13–75	-13–75	-13–75	-13–75	-13–75
INDOOR AIRFLOW	Air Circulation (Max./H/M/L)	ft^3 CFM	382/341/294/247	394/365/312/253	382/341/294/247	394/365/312/253	647/588/482/382	706/647/559/441
	Sound Rating – Indoor (Max./H/M/L/Quiet)	dB(A)	42/39/37/35/32	42/39/37/35/32	42/39/37/35/32	42/39/37/35/32	48/45/41/39/36	50/48/43/41/39
INDOOR FAN MOTOR	Output	W	46	46	25	25	35	35
	Speed (High/Med/Low)	r/min	1,100/940/800	1,154/992/800	1,101/938/800	1,154/992/800	1,100/960/800	1,200/1,040/880
OUTDOOR AIRFLOW	Air Circulation (High) for Outdoor	ft^3 CFM	1,471	1,471	1,471	1,471	1,942	2,531
	Sound Rating – Outdoor	dB(A)	53.0	53.0	53.0	53.0	58.0	61.0
OUTDOOR FAN MOTOR	Output	W	36	36	36	36	60	102
	Speed (High)	r/min	850	880	880	880	840	880
ELECTRICAL	Rated Current	Cooling (A)	6.0	6.0	2.5	4.3	6.1	8.7
		Cooling (W)	641	980	659	980	1,390	1,959
		Heating (A)	6.4	6.4	3.1	4.1	6.5	9.3
		Heating (W)	696	960	659	926	1,426	1,954
	MOP (Rating of Overcurrent Protective Device)	A	25	25	15	15	30	35
	MCA (Minimum Circuit Ampacity)	A	16.0	16.0	9.5	10.5	20.0	22.0
	Communication Wire Size and Type		4 × 14AWG	4 × 14AWG	4 × 14AWG	4 × 14AWG	4 × 14AWG	4 × 14AWG
REFRIGERATION (R-454B)	Moisture Removal	pints/hr	1.9	2.5	1.9	2.5	3.2	4.7
	Refrigerant Charge Volume	oz.	33.5	35.3	35.3	38.1	53.0	70.6
	Liquid Pipe	in.	1/4	1/4	1/4	1/4	1/4	3/8
	Gas Pipe	in.	3/8	3/8	3/8	3/8	1/2	5/8
	Max. Pipe Length (Total)	ft.	65.6	65.6	65.6	65.6	98.4	98.4
	Max. Elevation (Indoor Units Higher Than Outdoor Unit)	ft.	49.2	49.2	49.2	49.2	49.2	49.2
	Pre-charge Pipe Length	ft.	24.6	24.6	24.6	24.6	24.6	24.6
	Additional Refrigerant Charge per Foot After 25 ft.	oz./ft.	0.22	0.22	0.22	0.22	0.22	0.32
INDOOR UNIT DIMENSIONS & WEIGHTS	Dimension (W×H×D)	in.	33-7/8×11-2/8×8-4/8	33-7/8×11-2/8×8-4/8	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	45-2/8×13-2/8×10-1/8
		mm	860×285×216	860×285×216	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	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	930×380×285	930×380×285	1,215×410×330	1,425×460×395
	Net Weight	lbs.	22.1	22.05	22.1	22.05	34.2	34.2
		kg	10.0	10.0	10.0	10.0	16.0	16.0
	Shipping Weight	lbs.	26.5	26.5	26.5	26.5	39.7	39.7
		kg	12.0	12.0	12.0	12.0	18.0	18.0
OUTDOOR UNIT DIMENSIONS & WEIGHTS	Dimension (W×H×D)	in.	31-7/8×23×11	31-7/8×23×11	31-7/8×23×11	31-7/8×23×11	33-7/8×25-5/8×12-2/8	35-3/8×29-4/8×13-3/8
		mm	810×585×280	810×585×280	810×585×280	810×585×280	860×650×310	900×750×340
	Packing (L×H×W)	in.	37×24-6/8×15-1/8	37×24-6/8×15-1/8	37×24-6/8×15-1/8	37×24-6/8×15-1/8	39-1/8×28-3/8×16-4/8	41-6/8×32-2/8×17-6/8
		mm	940×630×385	940×630×385	940×630×385	940×630×385	995×720×420	1,060×820×450
	Net Weight	lbs.	75.0	77.2	70.6	70.6	97.0	112.5
		kg	34.0	35.0	32.0	32.0	44.0	51.0
	Shipping Weight	lbs.	86.0	86.0	81.6	81.6	105.8	121.3
		kg	39.0	39.0	37.0	37.0	48.0	55.0

Standard **With Registration**

7YR. PARTS WARRANTY | 10YR. COMPRESSOR WARRANTY | 10YR. PARTS WARRANTY | 10YR. COMPRESSOR WARRANTY

DIMENSIONAL DRAWINGS: WALL-MOUNTED HEAT PUMP

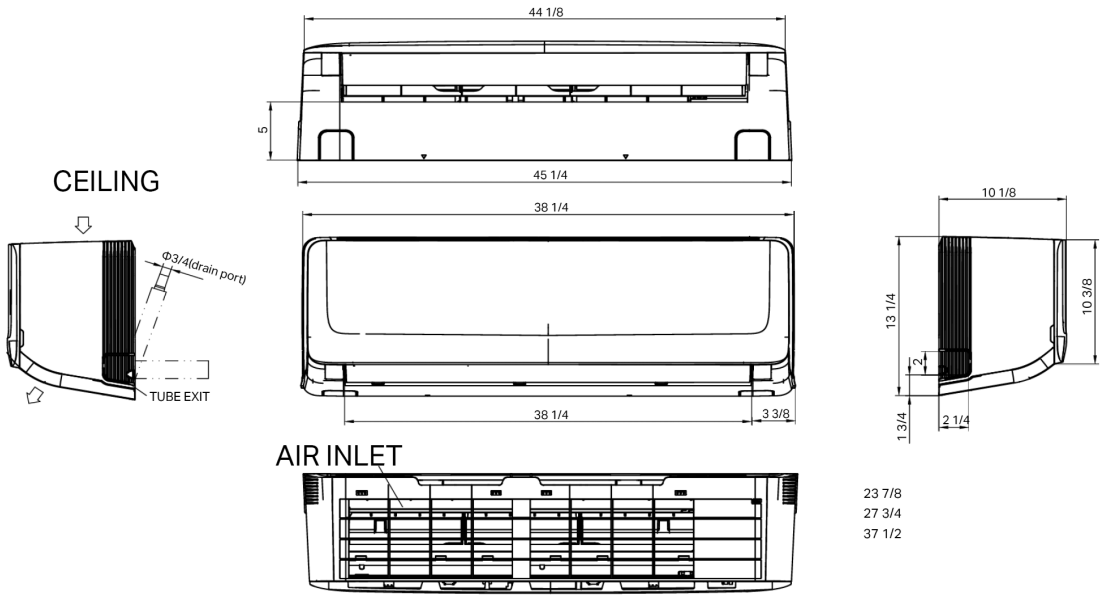
INDOOR UNITS/ FAHSW09A1C, FAHFW09A3D, FAHSW12A1C, FAHFW12A3D



Model	W	H	D
FAHSW09A1C, FAHFW09A3D, FAHSW12A1C, FAHFW12A3D	33 7/8"	11 2/8"	8 3/8"

UNITS: INCHES

INDOOR UNITS/ FAHFW18A3D, FAHFW24A3D

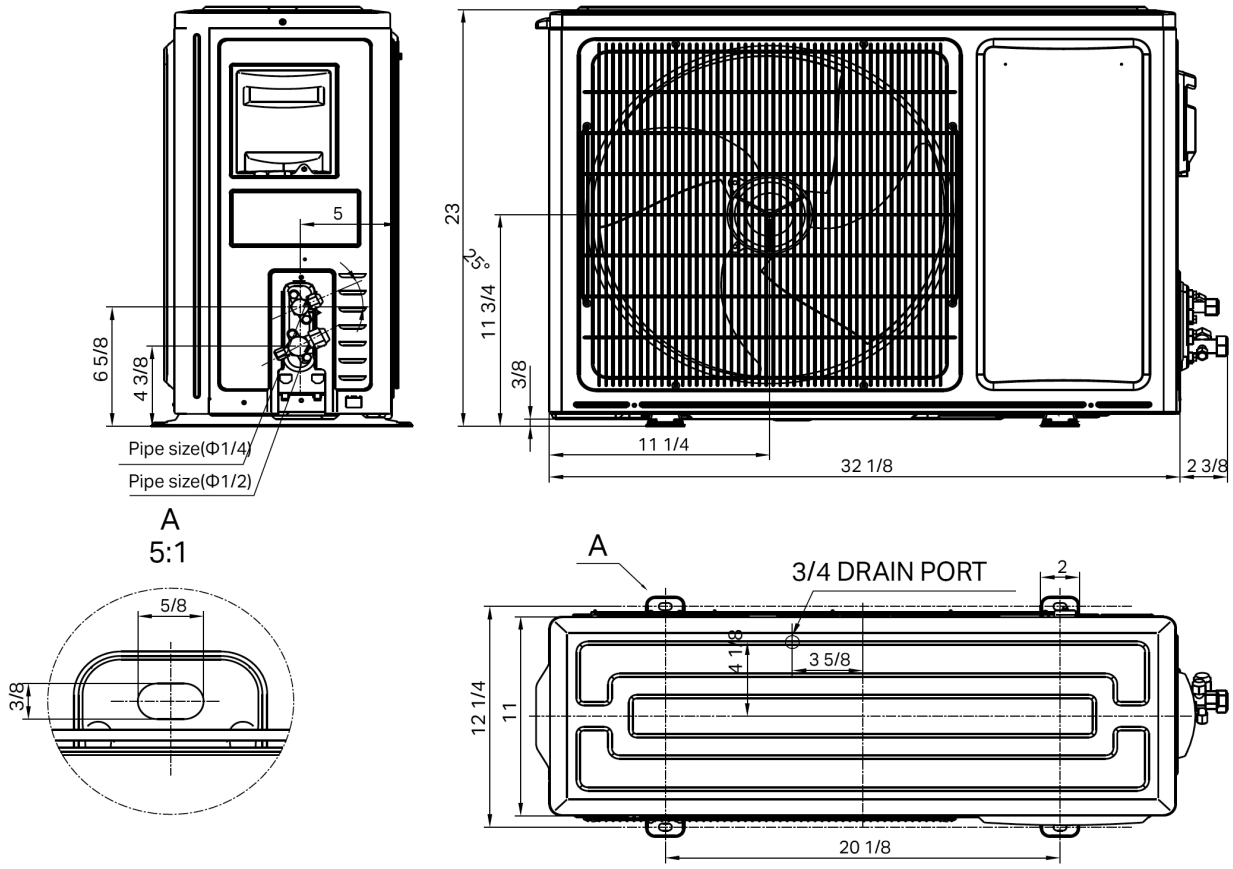


Model	W	H	D
FAHFW18A3D, FAHFW24A3D	45 2/8"	13 2/8"	10 1/8"

UNITS: INCHES

DIMENSIONAL DRAWINGS: OUTDOOR HEAT PUMPS

OUTDOOR UNITS/ FPHSR09A1C, FPHSR09A3D, FPHSR12A1C, FPHSR12A3D

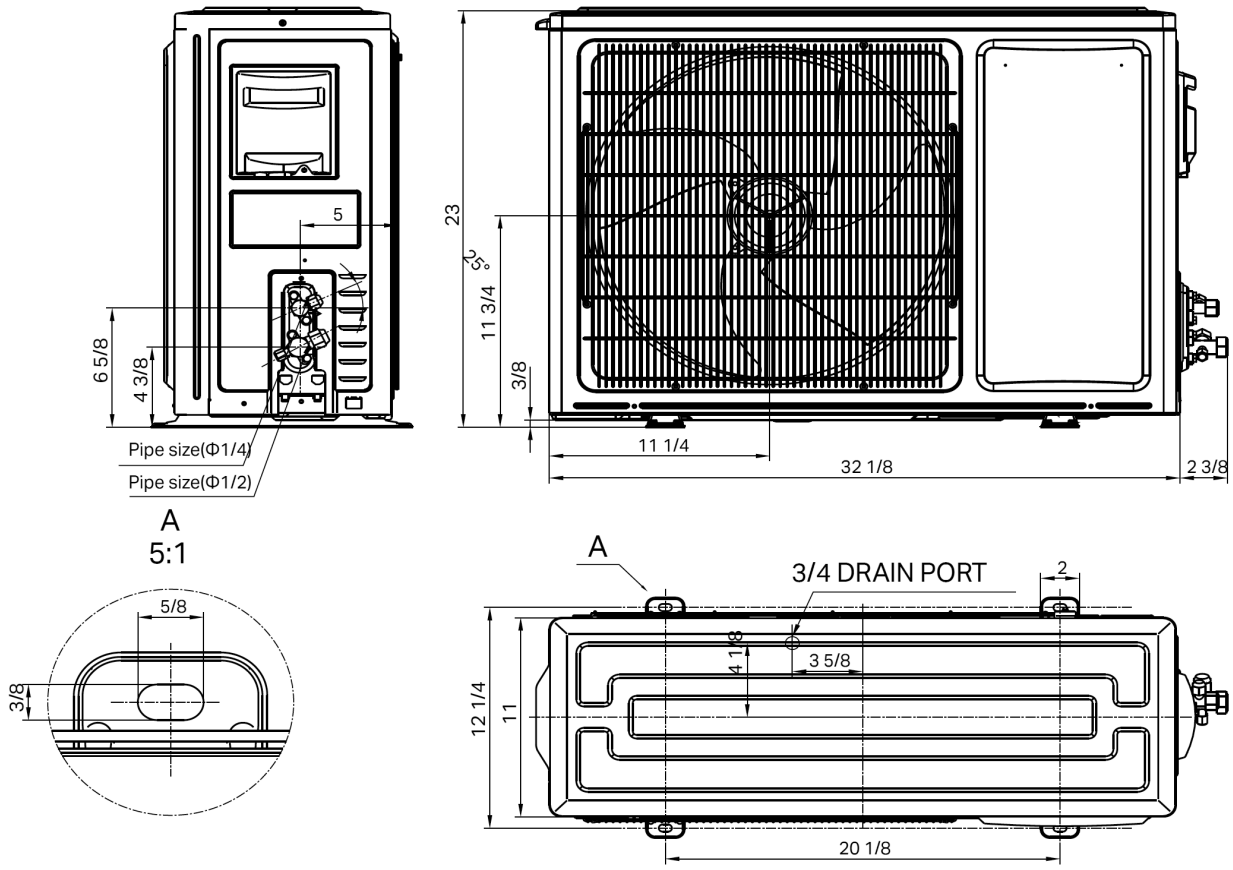


Model	W	H	D
FPHSR09A1C, FPHSR09A3D, FPHSR12A1C, FPHSR12A3D	32 1/8"	23"	11"

UNITS: INCHES

DIMENSIONAL DRAWINGS: OUTDOOR HEAT PUMPS

OUTDOOR UNITS/ FPHSR09A1C, FPHSR09A3D, FPHSR12A1C, FPHSR12A3D

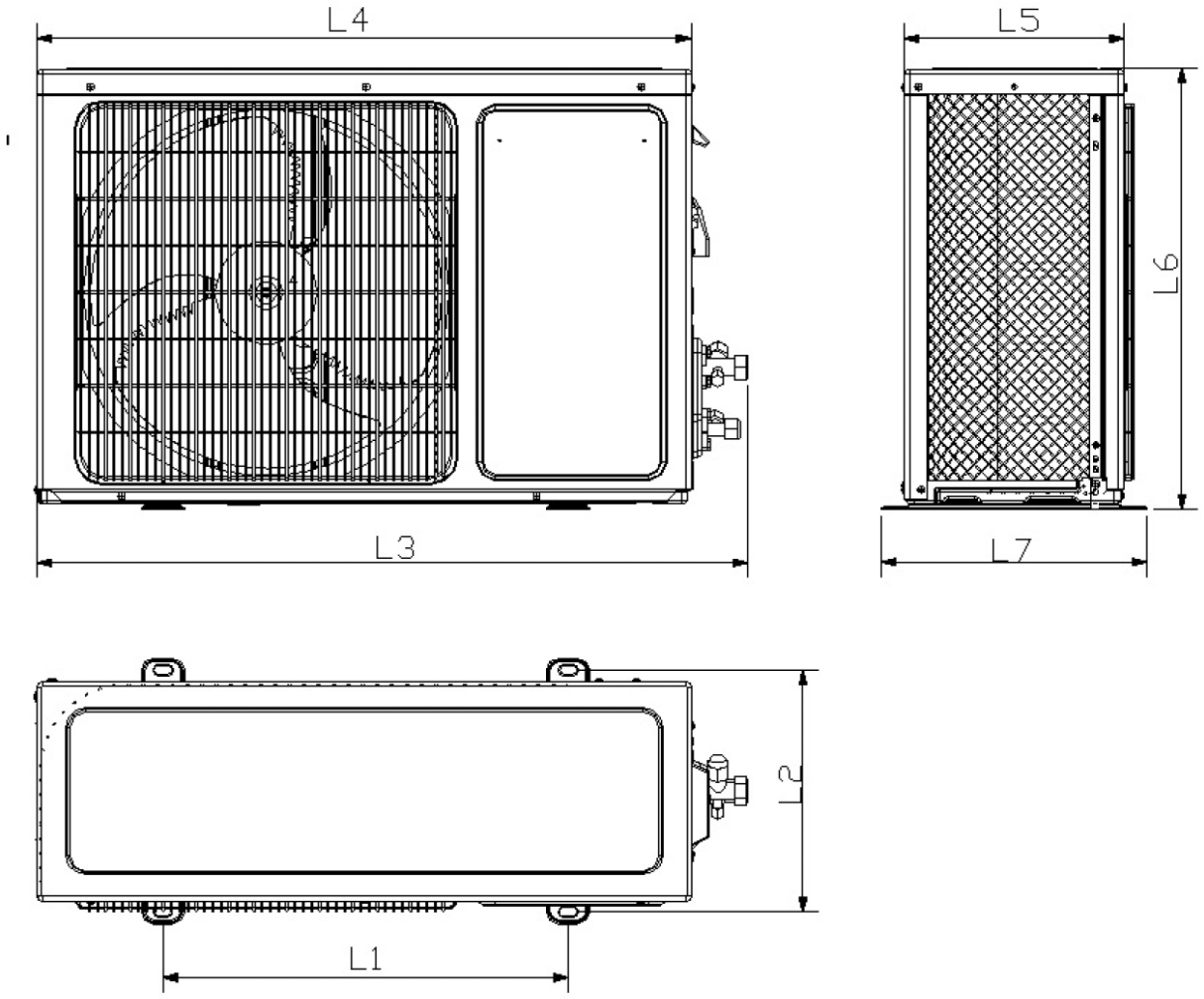


Model	W	H	D
FPHSR09A1C, FPHSR09A3D, FPHSR12A1C, FPHSR12A3D	32 1/8""	23"	11"

UNITS: INCHES

DIMENSIONAL DRAWINGS: OUTDOOR HEAT PUMPS

OUTDOOR UNITS/ FPHSR18A3D

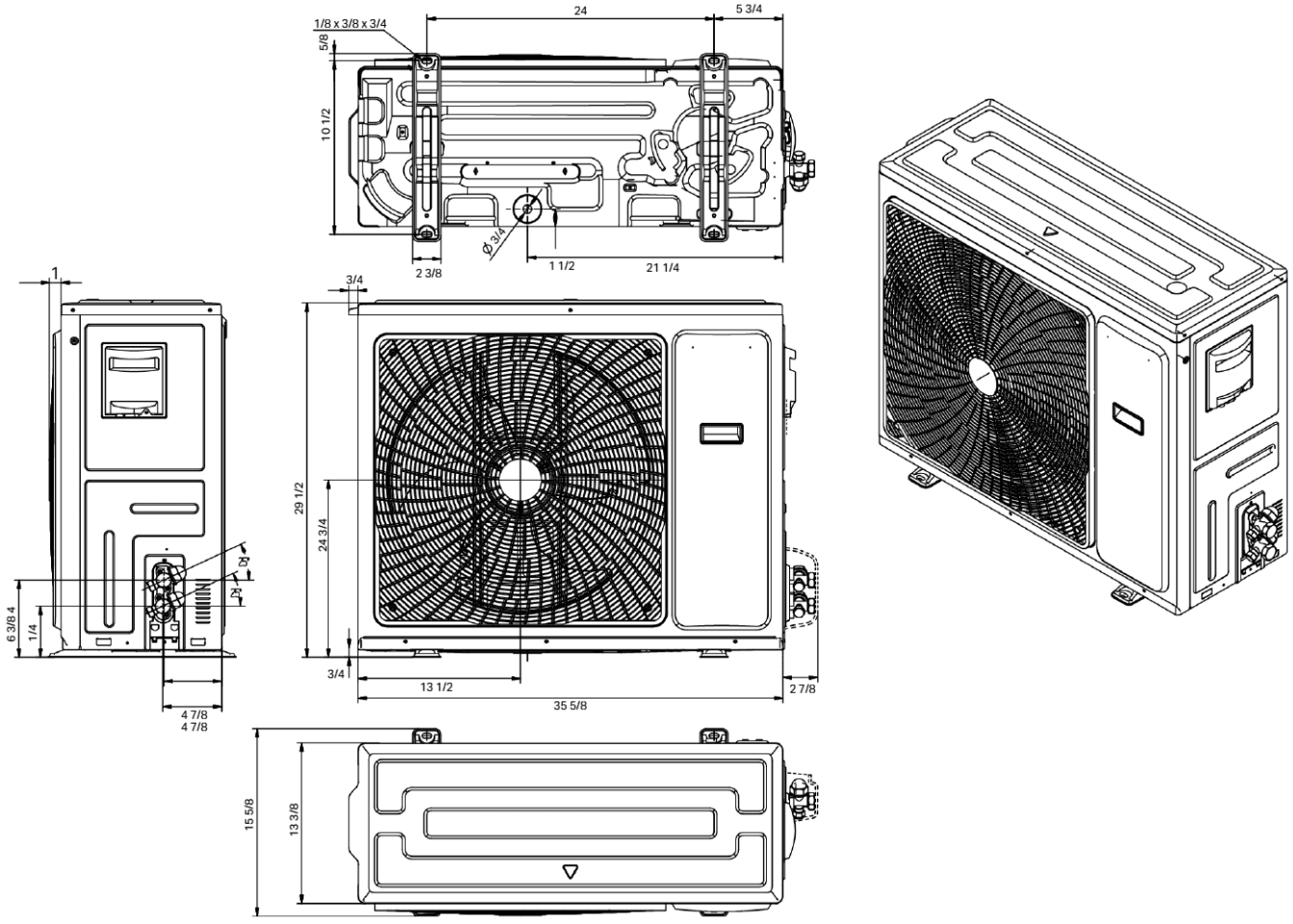


				Width	Depth	Height	
Model	L1	L2	L3	L4	L5	L6	L7
FPHSR18A3D	21 11/32	12 19/32"	34 7/8"	33 7/8"	12 1/8"	25 1/2"	13"

UNITS: INCHES

DIMENSIONAL DRAWINGS: OUTDOOR HEAT PUMPS

OUTDOOR UNITS/ FPHSR24A3D



Model	W	H	D
FPHSW24A3D	35 5/8"	29 4/8"	13 3/8"

UNITS: INCHES

REFRIGERATION LINE SETS*

Kit#	Length (ft.)	Liquid	Suction	System Model
T32150	15'	1/4"	3/8"	FPHW091C, FPHW121C, FPHW093D, FOHW123D
T32350	35'	1/4"	3/8"	

Kit#	Length (ft.)	Liquid	Suction	System Model
T42150	15'	1/4"	1/2"	FPHW183D
T53250	25'	3/8"	5/8"	FPHW243D

*Insulated line sets are available for all Friedrich split sysmets 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. (ft.)
FPHW091C, FPHW121C, FPHW093D, FPHW123D	10	66
FPHW183D	10	98
FPHW243D	15	98

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.



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



DSSXEMWRTA4 – Optional wireless energy management thermostat with occupancy sensor. For Floating Air Pro, single- and multi-zone models. See your Friedrich representative for options.



ADS01 – Field-installed A2L sensor for Floating Air R-454B wall-mounted applications.

ADS02 – Field-installed A2L sensor for Floating Air R-32 wall-mounted applications. Seee Installation and Operational Manual for additional information & requirements.