



FRIEDRICH

1883

Floating Air Select Extended Capacity Charts

DUCTLESS SPLIT SYSTEMS



Single Zone Wall Mounted Systems

THE EXPERTS IN ROOM AIR CONDITIONING

Capacity characteristic charts

The following charts show the characteristics of outdoor unit capacity, which corresponds with the operating ambient temperature of outdoor unit. This data is obtained with Free-Spin of the Condenser and not in a testing mode

Conditions:

- 1- Pipelength / height difference: 25 ft. (7.6m) / 0 ft. (0m)
- 2- Compressor at rated inverter frequency
- 3- Indoor fan speed at high fan speed
- 4- Capacity loss due to frost accumulation and defrost operation is not included.

Cooling Template

Indoor units(Btu)	Outdoor Air Temp. (°F DB)	Indoor Air Temp. °F DB / °F WB																	
		64 / 54			70 / 60			75 / 83			80 / 67			85 / 71			90 / 73		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
		kBtu/h	kW		kBtu/h	kW		kBtu/h	kW		kBtu/h	kW		kBtu/h	kW		kBtu/h	kW	
FSSW09A1A	14	3.83	2.81	0.60	4.55	3.34	0.63	4.86	3.57	0.65	5.22	3.84	0.67	5.40	3.97	0.68	4.95	3.64	0.68
	23	4.19	3.10	0.63	4.91	3.63	0.66	5.22	3.86	0.67	5.58	4.13	0.69	5.76	4.26	0.70	5.31	3.93	0.71
	32	4.37	3.25	0.65	5.09	3.79	0.68	5.40	4.02	0.70	5.76	4.29	0.72	5.94	4.43	0.73	5.49	4.09	0.74
	41	4.91	3.68	0.67	5.63	4.22	0.71	5.94	4.46	0.72	6.30	4.73	0.75	6.48	4.86	0.76	6.03	4.52	0.77
	50	5.45	4.11	0.70	6.17	4.65	0.74	6.48	4.89	0.75	6.84	5.16	0.77	7.02	5.30	0.78	6.57	4.96	0.79
	59	5.90	4.48	0.72	6.62	5.03	0.76	6.93	5.27	0.78	7.29	5.54	0.80	7.47	5.68	0.81	7.02	5.34	0.82
	67	6.08	4.65	0.75	6.80	5.20	0.79	7.11	5.44	0.80	7.47	5.71	0.83	7.65	5.85	0.84	7.20	5.51	0.85
	77	7.97	6.13	0.77	8.69	6.69	0.81	9.00	6.93	0.83	9.36	7.21	0.86	9.54	7.35	0.86	9.09	7.00	0.87
	87	8.42	6.52	0.80	9.14	7.08	0.84	9.45	7.32	0.86	9.81	7.60	0.88	9.99	7.74	0.89	9.54	7.39	0.90
	95	7.61	5.93	0.81	8.33	6.49	0.86	8.64	6.74	0.87	9.00	7.02	0.90	9.18	7.16	0.91	8.73	6.81	0.92
	104	6.66	5.23	0.89	7.38	5.79	0.94	7.74	6.08	0.96	8.10	6.36	0.99	8.28	6.50	1.00	7.83	6.15	1.01
	115	6.300	4.977	0.975	7.020	5.546	1.026	7.380	5.830	1.048	7.740	6.115	1.080	7.920	6.257	1.089	7.470	5.901	1.098

Heating Template

Indoor units(Btu)	Outdoor Air		Indoor Air Temp. °F DB									
	°F DB	°F WB	60		65		70		75		78	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
			kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW
FSSW09A1A	-15	-17	3.61	0.67	3.71	0.68	3.99	0.70	4.09	0.71	4.13	0.71
	-5	-7	4.18	0.68	4.28	0.69	4.56	0.71	4.66	0.73	4.70	0.73
	5	3	5.13	0.71	5.23	0.72	5.51	0.74	5.61	0.75	5.65	0.76
	10	8	5.32	0.73	5.42	0.73	5.70	0.76	5.80	0.77	5.84	0.77
	14	12	5.80	0.74	5.89	0.75	6.18	0.77	6.27	0.79	6.32	0.79
	23	19	7.32	0.77	7.41	0.78	7.70	0.80	7.79	0.82	7.84	0.82
	32	28	7.98	0.79	8.08	0.79	8.36	0.82	8.46	0.84	8.50	0.84
	41	37	8.65	0.80	8.74	0.81	9.03	0.84	9.12	0.85	9.17	0.86
	47	43	9.12	0.84	9.22	0.84	9.50	0.87	9.60	0.89	9.64	0.89
	50	47	9.22	0.86	9.31	0.87	9.60	0.90	9.69	0.91	9.74	0.92
	59	50	9.31	0.89	9.41	0.90	9.69	0.92	9.79	0.94	9.83	0.95
	68	59	9.93	0.94	10.02	0.95	10.31	0.98	10.40	1.00	10.45	1.00
75	65	10.17	0.97	10.26	0.98	10.55	1.01	10.64	1.03	10.69	1.03	

Cooling Template

Indoor units(Btu)	Outdoor Air Temp. (°F DB)	Indoor Air Temp. °F DB / °F WB																	
		64 / 54			70 / 60			75 / 83			80 / 67			85 / 71			90 / 73		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
		kBtu/h	kW		kBtu/h	kW		kBtu/h	kW		kBtu/h	kW		kBtu/h	kW		kBtu/h	kW	
FSSW12A1A	14	5.10	3.75	0.80	6.06	4.45	0.84	6.48	4.76	0.86	6.96	5.12	0.88	7.20	5.29	0.90	6.60	4.85	0.91
	23	5.58	4.13	0.83	6.54	4.84	0.87	6.96	5.15	0.89	7.44	5.51	0.92	7.68	5.68	0.93	7.08	5.24	0.94
	32	5.82	4.34	0.86	6.78	5.05	0.91	7.20	5.36	0.93	7.68	5.72	0.96	7.92	5.90	0.97	7.32	5.45	0.98
	41	6.54	4.91	0.89	7.50	5.63	0.94	7.92	5.94	0.96	8.40	6.30	0.99	8.64	6.48	1.00	8.04	6.03	1.01
	50	7.26	5.48	0.93	8.22	6.21	0.98	8.64	6.52	1.00	9.12	6.89	1.03	9.36	7.07	1.04	8.76	6.61	1.05
	59	7.86	5.97	0.96	8.82	6.70	1.01	9.24	7.02	1.03	9.72	7.39	1.06	9.96	7.57	1.07	9.36	7.11	1.09
	67	8.10	6.20	0.99	9.06	6.93	1.04	9.48	7.25	1.07	9.96	7.62	1.10	10.20	7.80	1.11	9.60	7.34	1.12
	77	10.62	8.18	1.02	11.58	8.92	1.08	12.00	9.24	1.10	12.48	9.61	1.13	12.72	9.79	1.15	12.12	9.33	1.16
	87	11.22	8.70	1.06	12.18	9.44	1.11	12.60	9.77	1.14	13.08	10.14	1.17	13.32	10.32	1.18	12.72	9.86	1.19
	95	10.14	7.91	1.08	11.10	8.66	1.13	11.52	8.99	1.16	12.00	9.36	1.19	12.24	9.55	1.21	11.64	9.08	1.22
	104	8.88	6.97	1.19	9.84	7.72	1.25	10.32	8.10	1.27	10.80	8.48	1.31	11.04	8.67	1.33	10.44	8.20	1.34
	115	8.40	6.64	1.29	9.36	7.39	1.36	9.84	7.77	1.39	10.32	8.15	1.43	10.56	8.34	1.44	9.96	7.87	1.46

Heating Template

Indoor units(Btu)	Outdoor Air		Indoor Air Temp. °F DB									
	°F DB	°F WB	60		65		70		75		78	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
			kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW
FSSW12A1A	-15	-17	4.94	0.96	5.07	0.97	5.46	1.00	5.59	1.02	5.66	1.03
	-5	-7	5.72	0.98	5.85	0.99	6.24	1.02	6.37	1.04	6.44	1.05
	5	3	7.02	1.02	7.15	1.03	7.54	1.06	7.67	1.08	7.74	1.09
	10	8	7.28	1.04	7.41	1.05	7.80	1.09	7.93	1.11	8.00	1.11
	14	12	7.93	1.06	8.06	1.07	8.45	1.11	8.58	1.13	8.65	1.13
	23	19	10.01	1.11	10.14	1.12	10.53	1.15	10.66	1.18	10.73	1.18
	32	28	10.92	1.13	11.05	1.14	11.44	1.18	11.57	1.20	11.64	1.21
	41	37	11.83	1.15	11.96	1.16	12.35	1.20	12.48	1.22	12.55	1.23
	47	43	12.48	1.20	12.61	1.21	13.00	1.25	13.13	1.28	13.20	1.28
	50	47	12.61	1.24	12.74	1.25	13.13	1.29	13.26	1.31	13.33	1.32
	59	50	12.74	1.27	12.87	1.29	13.26	1.33	13.39	1.35	13.46	1.36
	68	59	13.59	1.35	13.72	1.36	14.11	1.41	14.24	1.44	14.30	1.44
75	65	13.91	1.39	14.04	1.41	14.43	1.45	14.56	1.48	14.63	1.49	

Cooling Template

Indoor units(Btu)	Outdoor Air Temp. (°F DB)	Indoor Air Temp. °F DB / °F WB																	
		64 / 54			70 / 60			75/ 83			80 / 67			85 / 71			90 / 73		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
		kBtu/h	kW		kBtu/h	kW		kBtu/h	kW		kBtu/h	kW		kBtu/h	kW		kBtu/h	kW	
FSSW18A3A	14	9.82	6.23	1.20	10.17	7.32	1.23	10.74	7.74	1.25	12.13	8.73	1.27	12.49	9.37	1.30	13.67	10.25	1.32
	23	10.85	6.88	1.22	11.50	8.28	1.26	12.31	8.86	1.27	14.10	10.15	1.30	14.52	10.89	1.32	15.51	11.63	1.34
	32	12.03	8.86	1.23	12.93	9.31	1.29	13.83	9.95	1.30	15.84	11.41	1.33	16.32	12.24	1.35	17.43	13.07	1.37
	41	12.52	9.03	1.32	13.46	9.69	1.43	14.40	10.37	1.44	16.50	11.88	1.47	17.00	12.75	1.50	18.15	13.61	1.52
	50	13.00	9.38	1.36	14.03	10.10	1.46	15.00	10.80	1.47	17.19	12.37	1.50	17.70	13.28	1.53	18.91	14.18	1.55
	59	14.53	10.53	1.37	15.28	11.00	1.48	16.35	11.77	1.50	17.91	12.89	1.53	18.44	13.83	1.56	20.61	15.46	1.58
	67	17.00	12.12	1.56	17.92	12.90	1.65	19.04	13.71	1.67	20.35	14.65	1.70	20.96	15.72	1.74	23.33	17.50	1.76
	77	16.23	11.65	1.60	17.18	12.37	1.69	18.28	13.16	1.70	19.56	14.09	1.74	20.15	15.11	1.77	22.46	16.85	1.79
	87	15.02	11.08	1.63	16.16	11.64	1.72	17.24	12.41	1.74	18.81	13.54	1.77	19.38	14.53	1.81	21.53	16.15	1.83
	95	14.31	10.56	1.65	15.44	11.12	1.75	15.77	11.35	1.77	18.09	13.02	1.81	18.63	13.97	1.84	20.82	15.62	1.86
	104	14.00	10.02	1.70	15.04	11.28	1.78	15.37	11.53	1.80	17.18	12.37	1.84	17.70	13.27	1.88	19.69	14.77	1.89
	115	13.52	10.23	1.77	14.45	10.84	1.89	15.00	11.25	1.91	16.15	12.11	1.95	16.63	12.48	1.99	19.16	14.37	2.01

Heating Template

Indoor units(Btu)	Outdoor Air		Indoor Air Temp. °F DB									
	°F DB	°F WB	60		65		70		75		78	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
			kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW
FSSW18A3A	-15	-17	6.98	1.62	6.75	1.65	6.56	1.70	6.39	1.78	6.13	1.81
	-5	-7	8.75	1.70	8.60	1.76	8.51	1.82	8.42	1.86	8.23	1.90
	5	3	10.33	1.73	10.13	1.80	10.01	1.86	9.91	1.91	9.80	1.93
	10	8	11.85	1.80	11.60	1.86	11.43	1.91	11.28	1.95	11.23	1.98
	14	12	12.96	1.83	12.75	1.90	12.52	1.94	12.31	1.98	12.11	2.01
	23	19	14.94	1.86	14.74	1.92	14.46	1.96	14.02	2.00	13.88	2.04
	32	28	16.77	1.90	16.48	1.96	16.16	2.00	15.67	2.04	15.51	2.08
	41	37.00	18.63	1.94	18.46	2.00	18.10	2.04	17.56	2.08	17.38	2.12
	47	43.00	20.80	1.97	20.60	2.04	20.20	2.08	19.59	2.12	19.39	2.16
	50	47.00	21.22	1.99	21.02	2.06	20.60	2.10	19.98	2.14	19.78	2.18
	59	50	21.67	2.01	21.44	2.08	21.02	2.12	20.38	2.16	20.17	2.20
	68	59	18.45	1.71	18.22	1.77	17.86	1.80	17.33	1.84	17.15	1.87
	75	65	18.70	1.75	18.58	1.80	18.22	1.84	17.67	1.87	17.49	1.91

Cooling Template

Indoor units(Btu)	Outdoor Air Temp. (°F DB)	Indoor Air Temp. °F DB / °F WB																	
		64 / 54			70 / 60			75/ 83			80 / 67			85 / 71			90 / 73		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
		kBtu/h	kW		kBtu/h	kW		kBtu/h	kW		kBtu/h	kW		kBtu/h	kW		kBtu/h	kW	
FSSW24A3A	14	7.48	5.50	1.07	9.46	6.95	1.25	11.22	8.25	1.32	12.98	9.54	1.38	13.42	9.86	1.46	13.86	10.19	1.50
	23	8.36	6.19	1.13	9.90	7.33	1.32	11.66	8.63	1.39	13.42	9.93	1.46	14.08	10.42	1.48	14.74	10.91	1.56
	32	9.02	6.72	1.21	10.34	7.70	1.37	12.10	9.01	1.44	13.86	10.33	1.52	14.74	10.98	1.58	15.40	11.47	1.62
	41	9.68	7.26	1.27	11.66	8.75	1.41	13.42	10.07	1.48	15.18	11.39	1.56	15.84	11.88	1.64	16.50	12.38	1.68
	50	10.78	8.14	1.33	12.98	9.80	1.50	14.74	11.13	1.57	16.50	12.46	1.66	17.16	12.96	1.70	17.38	13.12	1.74
	59	11.44	8.69	1.42	13.86	10.53	1.55	15.62	11.87	1.63	17.38	13.21	1.72	17.60	13.38	1.76	18.04	13.71	1.77
	67	12.32	9.42	1.48	14.52	11.11	1.60	16.28	12.45	1.69	18.04	13.80	1.77	18.26	13.97	1.81	18.92	14.47	1.83
	77	14.96	11.52	1.54	18.48	14.23	1.62	20.24	15.58	1.70	22.00	16.94	1.79	22.22	17.11	1.85	22.66	17.45	1.87
	87	15.84	12.28	1.66	20.02	15.52	1.67	21.78	16.88	1.76	23.54	18.24	1.85	22.66	17.56	1.89	23.10	17.90	1.93
	95	13.42	10.47	1.76	18.48	14.41	1.76	20.24	15.79	1.85	22.00	17.16	1.95	23.32	18.19	2.01	23.98	18.70	2.05
	104	12.98	10.19	1.85	16.06	12.61	1.92	17.82	13.99	2.02	19.58	15.37	2.13	21.78	17.10	2.18	22.22	17.44	2.24
	115	10.56	8.34	1.99	14.74	11.64	2.04	16.50	13.04	2.15	18.26	14.43	2.26	20.02	15.82	2.34	20.24	15.99	2.36

Heating Template

Indoor units(Btu)	Outdoor Air		Indoor Air Temp. °F DB									
	°F DB	°F WB	60		65		70		75		78	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
			kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW
FSSW24A3A	-15	-17	8.88	1.56	9.36	1.59	10.32	1.66	10.80	1.69	11.28	1.72
	-5	-7	10.08	1.59	10.56	1.62	11.52	1.69	12.00	1.73	12.48	1.76
	5	3	12.48	1.66	12.96	1.69	13.92	1.76	14.40	1.80	14.88	1.83
	10	8	12.96	1.69	13.44	1.73	14.40	1.80	14.88	1.83	15.36	1.87
	14	12	14.56	1.73	15.04	1.76	16.00	1.83	16.48	1.87	16.96	1.91
	23	19	17.76	1.80	18.24	1.83	19.20	1.91	19.68	1.95	20.16	1.99
	32	28	19.68	1.83	20.16	1.87	21.12	1.95	21.60	1.99	22.08	2.03
	41	37	21.36	1.87	21.84	1.91	22.80	1.99	23.28	2.03	23.76	2.07
	47	43	22.56	1.95	23.04	1.99	24.00	2.07	24.48	2.11	24.96	2.15
	50	47	22.80	2.01	23.28	2.05	24.24	2.13	24.72	2.17	25.20	2.22
	59	50	23.04	2.07	23.52	2.11	24.48	2.20	24.96	2.24	25.44	2.28
	68	59	24.48	2.19	24.96	2.24	25.92	2.33	26.40	2.38	26.88	2.42
	75	65	25.20	2.26	25.68	2.30	26.64	2.40	27.12	2.45	27.60	2.50

Cooling Template

Indoor units(Btu)	Outdoor Air Temp. (°F DB)	Indoor Air Temp. °F DB / °F WB																	
		64 / 54			70 / 60			75/ 83			80 / 67			85 / 71			90 / 73		
		TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
		kBtu/h	kW		kBtu/h	kW		kBtu/h	kW		kBtu/h	kW		kBtu/h	kW		kBtu/h	kW	
FSHSW36A3A	14	11.40	8.40	2.01	14.40	10.60	2.34	17.10	12.60	2.46	19.80	14.60	2.59	20.50	15.10	2.74	21.20	15.60	2.81
	23	12.80	9.50	2.12	15.10	11.20	2.47	17.80	13.20	2.60	20.50	15.20	2.74	21.50	15.90	2.77	22.50	16.70	2.92
	32	13.80	10.30	2.26	15.80	11.80	2.57	18.50	13.80	2.70	21.20	15.80	2.85	22.50	16.80	2.96	23.50	17.50	3.03
	41	14.80	11.10	2.37	17.80	13.40	2.64	20.50	15.40	2.77	23.20	17.40	2.92	24.20	18.20	3.07	25.20	18.90	3.14
	50	16.50	12.50	2.48	19.80	14.90	2.80	22.50	17.00	2.95	25.20	19.00	3.10	26.20	19.80	3.18	26.50	20.00	3.25
	59	17.50	13.30	2.66	21.20	16.10	2.90	23.90	18.20	3.05	26.50	20.10	3.21	26.90	20.40	3.29	27.60	21.00	3.32
	67	18.80	14.40	2.77	22.20	17.00	3.00	24.90	19.00	3.16	27.60	21.10	3.32	27.90	21.30	3.39	28.90	22.10	3.43
	77	22.80	17.60	2.88	28.20	21.70	3.03	30.90	23.80	3.19	33.60	25.90	3.36	33.90	26.10	3.47	34.60	26.60	3.50
	87	24.20	18.80	3.10	30.60	23.70	3.13	33.30	25.80	3.29	36.00	27.90	3.47	34.60	26.80	3.54	35.30	27.40	3.61
	95	20.50	16.00	3.29	28.20	22.00	3.29	30.90	24.10	3.47	33.60	26.20	3.65	35.60	27.80	3.76	36.60	28.50	3.83
	104	19.80	15.50	3.47	24.50	19.20	3.59	27.20	21.40	3.78	29.90	23.50	3.98	33.30	26.10	4.09	33.90	26.60	4.20
	115	16.10	12.70	3.72	22.50	17.80	3.82	25.20	19.90	4.02	27.90	22.00	4.23	30.60	24.20	4.38	30.90	24.40	4.42

Heating Template

Indoor units(Btu)	Outdoor Air		Indoor Air Temp. °F DB									
	°F DB	°F WB	60		65		70		75		78	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
			kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW
FSHSW36A3A	-15	-17	12.80	2.73	13.50	2.78	14.20	2.84	14.90	2.90	16.30	3.02
	-5	-7	14.50	2.78	15.20	2.84	15.90	2.90	16.60	2.96	18.00	3.08
	5	3	18.00	2.90	18.70	2.96	19.40	3.02	20.10	3.08	21.50	3.20
	10	8	18.70	2.96	19.40	3.02	20.10	3.08	20.80	3.14	22.10	3.27
	14	12	21.00	3.02	21.70	3.08	22.40	3.14	23.10	3.21	24.50	3.34
	23	19	25.60	3.14	26.30	3.21	27.00	3.27	27.70	3.34	29.10	3.47
	32	28	28.40	3.21	29.10	3.27	29.80	3.34	30.40	3.41	31.80	3.54
	41	37	30.80	3.27	31.50	3.34	32.20	3.41	32.90	3.48	34.30	3.62
	47	43	32.50	3.41	33.20	3.48	33.90	3.55	34.60	3.62	36.00	3.77
	50	47	32.90	3.51	33.60	3.58	34.30	3.65	34.90	3.73	36.30	3.88
	59	50	33.20	3.61	33.90	3.69	34.60	3.76	35.30	3.84	36.70	4.00
	68	59	35.30	3.83	36.00	3.91	36.70	3.99	37.40	4.07	38.80	4.24
	75	65	36.30	3.95	37.00	4.03	37.70	4.11	38.40	4.20	39.80	4.37