



SOPHIA

Innovative Ductless Mini Split Solutions
Split Air Conditioner with Heat Pump



Bedrooms | Living Rooms | Dining Rooms | Home Offices | Sunrooms | Basements | Computer / Server Rooms

www.cooperandhunter.us

SOPHIA

Single-Zone System

up to 22.8 SEER



Features

- High Density Filter
- Mute Operation
- Double Level Air Flaps
- Anti Cold Air
- Turbo Operation
- Two Direction Airflow
- Sleep Mode
- 12 Grades Indoor Fan Speeds
- Louver Position Memory Function
- Auto Restart
- Timer
- Two-way Draining Connection
- Self Diagnosis Function
- Refrigerant Leakage Detect
- Emergency Using Function

Model		CH-09SPH-115V/ CH-09SPH-115VO *	CH-12SPH-115V/ CH-12SPH-115VO *	CH-09SPH-230V/ CH-09SPH-230VO *	CH-12SPH-230V/ CH-12SPH-230VO *	CH-18SPH-230V/ CH-18SPH-230VO *	CH-24SPH-230V/ CH-24SPH-230VO *	CH-30SPH-230V/ CH-30SPH-230VO *	CH-36SPH-230V/ CH-36SPH-230VO *	
System type		Heat Pump		Heat Pump		Heat Pump		Heat Pump		
Power supply		Ph-V-Hz 115V/60Hz, 1Ph		115V/60Hz, 1Ph		208-230V/60Hz,		208-230V/60Hz, 1Ph		
Cooling	Capacity	Btu/h	9000	12000	9000	12000	18000	24000	30000	36000
	Input	W	665	960	640	923	1384	1920	2857	4235
	Rated current	A	5.8	8.4	2.9	4.05	6.1	8.4	12.5	18.5
	EER	Btu/w	13.5	12.5	14	13	13	12.5	10.5	8.5
	SEER	Btu/w	22.5	21.5	22.8	21.5	20.8	20.5	18	16
	Heating	Capacity	Btu/h	9800	11800	9800	12000	18000	25000	30000
Input	W	790	1120	930	1085	1570	2315	3110	3835	
Rated current	A	6.9	9.8	4.2	4.72	6.82	10.1	13.5	16.7	
COP	W/W	3.64	3.09	3.09	3.24	3.36	3.17	2.83	2.75	
HSPF4	Btu/w	10.5	11.2	10.5	9.8	10	10	9.6	10	
HSPF5	Btu/w	8.6	9	8.6	7.7	8	8.3	8.1	8.4	
Application area (cooling standard)		sq.ft	215-269	301-377	215-269	301-377	430-516	538-613	861-915	990-1076
MINIMUM CIRCUIT AMPACITY (MCA)		A	15	15	10	12	15	18	20	25
MOCP		A	23	24.5	13	16	23.5	28	34.9	39.4
MAX.FUSE		A	20	20	15	15	20	25	30	35
Compressor	Type	ROTARY								
	Rated current (RLA)	A	9.8	10.5	5.5	6.8	10	12	15	17
Indoor unit	Air flow (Hi/Mi/Lo)	CFM	294/212/147	306/212/147	265/205/141	306/212/147	559/365/306	618/471/324	795/618/471	853/647/471
	Sound Pressure level (Hi/Mi/Lo)	dB(A)	36/32/23	36/32/23	36.5/30/25	36.5/30/25	43/38/32	47.5/42/33	52/44/35	52/44/36
	Dimension(W*D*H)	inch	31.57x7.44x11.69	31.57x7.44x11.69	31.57x7.44x11.69	31.57x7.44x11.69	42.52x8.90x13.19	42.52x8.90x13.19	49.57x11.10x14.25	49.57x11.10x14.25
	Packing (W*D*H)	inch	34.45x11.22x14.76	34.45x11.22x14.76	34.45x11.22x14.76	34.45x11.22x14.76	45.47x16.34x12.40	45.47x16.34x12.40	52.76x17.72x14.96	52.76x17.72x14.96
	Net/Gross weight	lbs.	18.1/22.0	18.1/22.0	18.1/22.0	18.1/22.0	29.1/37.0	29.1/37.0	43.2/55.6	43.2/55.6
Outdoor unit	Air flow	CFM	1060	1120	1060	1120	1470	2355	2530	2943
	Sound Pressure level	dB(A)	52.5	52.5	55.5	57.5	61	61	62	63
	Dimension(W*D*H)	inch	30.31x11.81x21.85	31.50x13.11x21.81	30.31 x 11.81 x21.85	31.50x13.11x21.81	33.27x14.29x27.64	37.24/16.14/31.89	37.24/16.14/31.89	37.24/16.14/31.89
	Packing (W*D*H)	inch	35.43x13.58x23.03	36.22x15.35x24.21	35.43 x 13.58 x23.03	36.22x15.35x24.21	38.00x15.55x29.72	42.91x19.69x34.45	42.91x19.69x34.45	42.91x19.69x34.45
	Net/Gross weight	lbs.	63.9/69.4	81.6/88.2	63.9/69.4	81.6/88.2	101.0/108.2	136.69/147.27	137.79/147.71	143.3/153.22
Refrigerant type		oz	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Refrigerant precharge		ft	25	25	25	25	25	25	25	25
Additional charge for each ft		oz	0.16	0.16	0.16	0.16	0.16	0.322	0.322	0.322
Refrigerant piping	Liquid side - Gas side	inch	1/4" - 3/8"	1/4" - 1/2"	1/4" - 3/8"	1/4" - 1/2"	1/4" - 1/2"	3/8" - 5/8"	3/8" - 5/8"	3/8" - 5/8"
	Max. refrigerant pipe length	ft	82	82	82	82	98	164	164	213
	Max difference in level	ft	33	33	33	33	66	82	82	98
Connection wiring			16 AWG/4	16 AWG/4	16 AWG/4	16 AWG/4	16 AWG/4	16 AWG/4	16 AWG/4	16 AWG/4
Power supply wiring			14 AWG/3	14 AWG/3	14 AWG/3	14 AWG/3	14 AWG/3	12 AWG/3	12 AWG/3	10 AWG/3
Control type			Remote Control	Remote Control	Remote Control	Remote Control	Remote Control	Remote Control	Remote Control	Remote Control
Operation temperature	Indoor (cooling/heating)	°F	62~90 / 32~86	62~90 / 32~86	62~90 / 32~86	62~90 / 32~86	62~90 / 32~86	62~90 / 32~86	62~90 / 32~86	62~90 / 32~86
	Outdoor (cooling/heating)	°F	-13~-+122 / -13~-+86	-13~-+122 / -13~-+86	-13~-+122 / -13~-+86	-13~-+122 / -13~-+86	-13~-+122 / -13~-+86	-13~-+122 / -13~-+86	+5~-+122 / -5~-+86	+5~-+122 / -5~-+86

* Energy Star certified

