

SOPHIA HYPER MINI SPLIT SYSTEMS







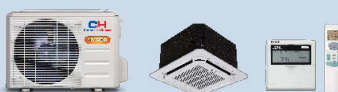
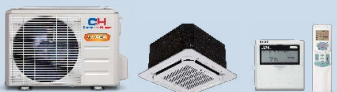
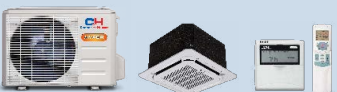
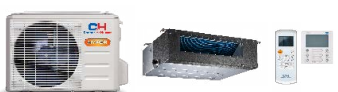
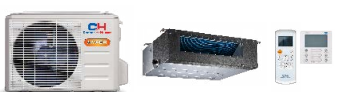
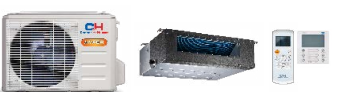





















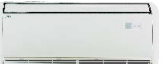
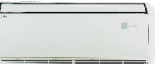
Check your C&H combination on the NEEP Directory for rebate eligibility












Single Zone | Multi Zone | Light Commercial







Model Lineup

Single Zone and Light Commercial Hyper Heat Systems			
Capacity (Btu/h)	9,000	12,000	18,000
SOPHIA Series Wall Mount	 CH-09MSPHWM-230VI/CH-HYP09SPH-230VO	 CH-12MSPHWM-230VI/CH-HYP12SPH-230VO	 CH-18MSPHWM-230VI/CH-HYP18SPH-230VO
SOPHIA D Series Wall Mount	 CH-D09MSPHWM-230VI/CH-HYP09SPH-230VO	 CH-D12MSPHWM-230VI/CH-HYP12SPH-230VO	 CH-D18MSPHWM-230VI/CH-HYP18SPH-230VO
Ceiling Cassette	 CH-09MSPHCT-230VI/CH-HYP09SPH-230VO	 CH-12MSPHCT-230VI/CH-HYP12SPH-230VO	 CH-18MSPHCT-230VI/CH-HYP18SPH-230VO
Slim Duct	 CH-M09DTUI-230VI/CH-HYP09SPH-230VO	 CH-M12DTUI-230VI/CH-HYP12SPH-230VO	 CH-M18DTUI-230VI/CH-HYP18SPH-230VO
Floor Console		 CH-12MSPHMC-230VI/CH-HYP12SPH-230VO	
Universal Floor&Ceiling			 CH-18MSPHFC-230VI/CH-HYP18SPH-230VO

Multi Zone Heat Pump Indoor Units				
Capacity (Btu/h)	9,000	12,000	18,000	24,000
SOPHIA Series Wall Mount	 CH-09MSPHWM-230VI	 CH-12MSPHWM-230VI	 CH-18MSPHWM-230VI	 CH-24MSPHWM-230VI
SOPHIA D Series Wall Mount	 CH-D09MSPHWM-230VI	 CH-D12MSPHWM-230VI	 CH-D18MSPHWM-230VI	 CH-D24MSPHWM-230VI
Ceiling Cassette	 CH-09MSPHCT-230VI	 CH-12MSPHCT-230VI	 CH-18MSPHCT-230VI	 CH-24MSPHCT-230VI
Slim Duct	 CH-M09DTUI-230VI	 CH-M12DTUI-230VI	 CH-M18DTUI-230VI	 CH-M24DTUI-230VI
Floor Console		 CH-12MSPHMC-230VI		
Universal Floor&Ceiling			 CH-18MSPHFC-230VI	 CH-D24MSPHWM-230VI

Hyper Heat Multi Zone Outdoor Units			
Capacity (Btu/h)	24,000	36,000	48,000
	 CH-24MSPHWM-230VI/CH-HYP24SPH-230VO		
	 CH-D24MSPHWM-230VI/CH-HYP24SPH-230VO		
	 CH-24MSPHCT-230VI/CH-HYP24SPH-230VO/CH-24CLUO	 CH-36LCCT-230VI/CH-HYP36LCUO	 CH-48LCCT-230VI/CH-HYP48LCUO
	 CH-M24DTUI-230VI/CH-HYP24SPH-230VO/CH-24CLUO	 CH-36LCDTUI/CH-HYP36LCUO	 CH-48LCDTUI/CH-HYP48LCUO
	 CH-D24MSPHWM-230VI/CH-HYP24SPH-230VO/CH-24CLUO	 CH-36LCFCI/CH-HYP36LCUO	 CH-48LCFCI/CH-HYP48LCUO

Hyper Heat Multi Zone Outdoor Units				
Capacity (Btu/h)	19,000	28,000	36,000	48,000
Hyper Series	 CH-HYP19MSPH230VO	 CH-HYP28MSPH230VO	 CH-HYP36MSPH230VO	 CH-HYP48MSPH230VO

Single Zone




Single Zone Light Commercial



Compatibility table




		Outdoor	Wall Mount	Duct	Ceiling Cassette	Floor Console	Universal Floor&Ceiling
		CH-HYP09SPH-230VO	✓	✓	✓		
		CH-HYP12SPH-230VO	✓	✓	✓	✓	
		CH-HYP18SPH-230VO	✓	✓	✓		✓
		CH-HYP24SPH-230VO	✓	✓	✓		✓

OUTDOOR UNIT			CH-HYP09SPH-230VO	CH-HYP12SPH-230VO	CH-HYP18SPH-230VO	CH-HYP24SPH-230VO
Power supply	V-Hz-Ph		208-230V/60Hz, 1Ph	208-230V/60Hz, 1Ph	208-230V/60Hz, 1Ph	208-230V/60Hz/1Ph
Cooling	Capacity	Btu/h	9,000	12,000	17,000	24,000
	EER		14.5	13	12.5	13
	SEER		25	22.5	20	20.5
Heating	Capacity	Btu/h	10,900	12,000	18,000	24,000
	COP		3.83	3.55	3.13	2.81
	HSPF4		11.2	12	10.3	11.5
	HSPF5		9	9.9	8.8	9.6
Minimum Circuit Ampacity (MCA)	A		9	9	18	20
MAX. FUSE	A		15	15	25	30
Air Flow (max)	CFM		1,177	1,177	1,355	2,354
Noise Level	dB(A)		55.5	56	57.5	60
Unit Dimension (WxDxH)	in		31.5x13.1x21.8	31.5x13.1x21.8	33.3x14.3x27.6	37.2x16.1x31.9
Packing Dimension (WxDxH)	in		36.2x15.4x24.2	36.2x15.4x24.2	41.9x11.8x15.8	42.9x19.7x34.5
Net/Gross weight	lb		88.2/93.7	88.2/93.7	107.4/115.1	135.6/148.8
Refrigerant type/Quantity	oz		R410A/52.9	R410A/52.9	R410A/68.8	R410A/91.7
Refrigerant precharge (Total pipe length)	ft		25	25	25	25
Additional charge for each ft	oz		0.16	0.16	0.16	0.32
Design pressure	PSIG		550/340	550/340	550/340	550/340
Refrigerant piping	Liquid side/Gas side	in	1/4" - 3/8"	1/4" - 1/2"	1/4" - 1/2"	3/8" - 5/8"
	Max. pipe length	ft	82	82	98	164
	Max. difference in level	ft	33	33	66	82
Ambient temperature	cooling	F°	-22-122	-22-122	-22-122	-13-122
	heating	F°	-22-86	-22-86	-22-86	-13-86

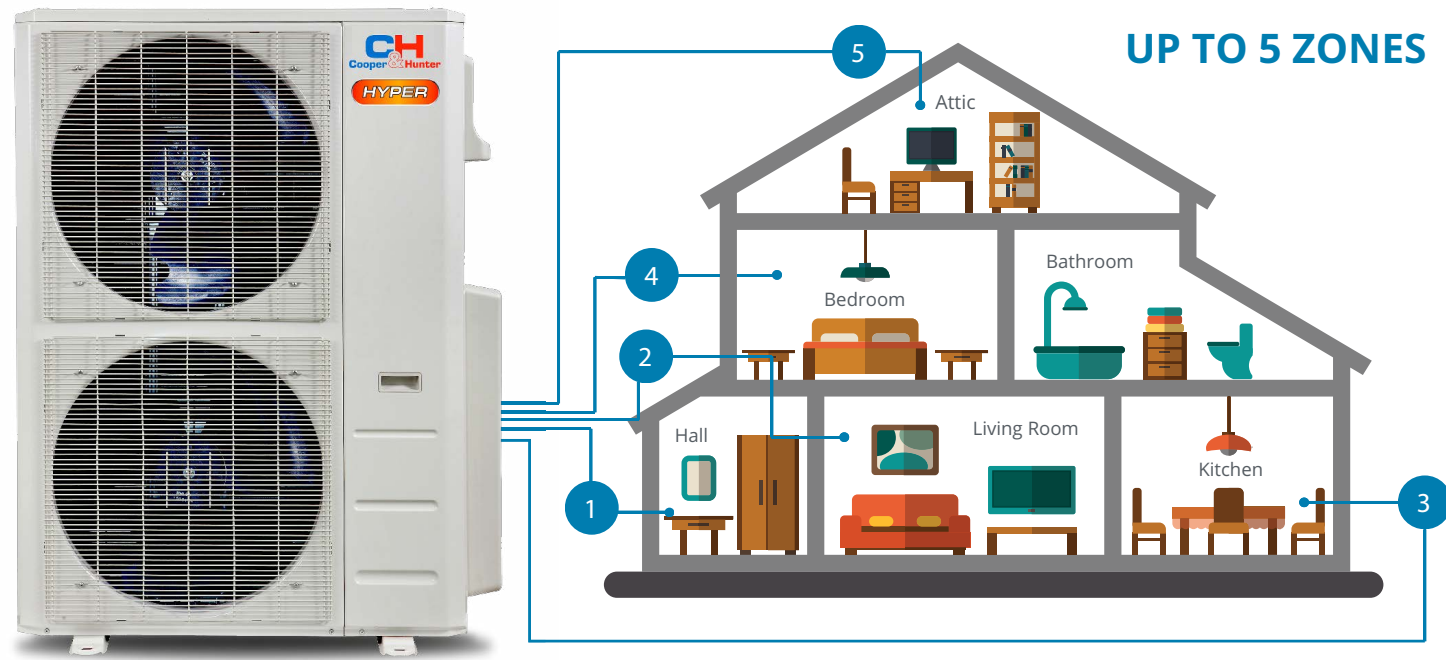
Compatibility table



		Outdoor	Duct	Ceiling Cassette	Universal Floor&Ceiling
		CH-24CLUO	✓	✓	✓
		CH-HYP36CLUO	✓	✓	✓
		CH-HYP48CLUO	✓	✓	✓

OUTDOOR UNIT			CH-24CLUO	CH-HYP36CLUO	CH-HYP48CLUO
Power supply	V-Hz-Ph		208-230V/60Hz/1Ph	208-230V/60Hz/1Ph	208-230V/60Hz/1Ph
Cooling	Capacity	Btu/h	24,000	36,000	48,000
	EER		13	9	8.3
	SEER		20.5	17.5	16.5
Heating	Capacity	Btu/h	24,000	38,000	50,000
	COP		2.81	3.01	2.93
	HSPF4		11.5	10.5	10.7
	HSPF5		9.6	9.1	9.2
Minimum Circuit Ampacity (MCA)	A		20	39	36.3
MAX. FUSE	A		30	50	50
Air Flow (max)	CFM		2,354	4,470	4,470
Noise Level	dB(A)		60	65	65
Unit Dimension (WxDxH)	in		37.2x16.1x31.9	37.5x16.3x52.5	37.5x16.3x52.5
Packing Dimension (WxDxH)	in		42.9x19.7x34.5	43.1x19.5x58.3	43.1x19.5x58.3
Net/Gross weight	lb		135.6/148.8	222.3/248	227.1/255.7
Refrigerant type/Quantity	oz		R410A/91.7	R410A/148	R410A/148
Refrigerant precharge (Total pipe length)	ft		25	25	25
Additional charge for each ft	oz		0.32	0.32	0.32
Design pressure	PSIG		550/340	550/340	550/340
Refrigerant piping	Liquid side/Gas side	in	3/8" - 5/8"	3/8" - 5/8"	3/8" - 5/8"
	Max. refrigerant pipe length	ft	164	213	213
	Max. difference in level	ft	82	98	98
Ambient temperature	cooling	F°	-13-122	-22-122	-22-122
	heating	F°	-13-86	-22-86	-22-86

Multi Zone



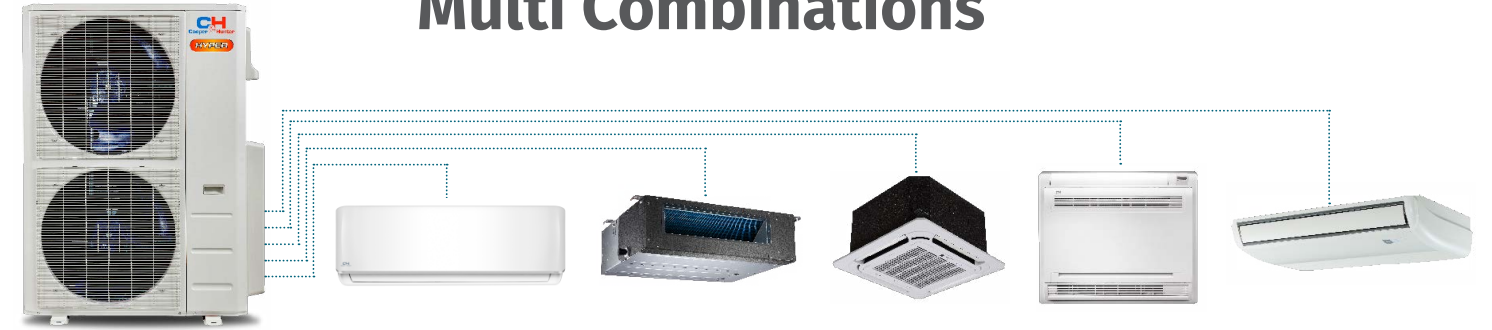
Compatibility table



Outdoor	Wall Mount	Duct	Ceiling Cassette	Floor Console	Universal Floor&Ceiling
CH-HYP19MSPH230VO	✓	✓	✓	✓	
CH-HYP28MSPH230VO	✓	✓	✓	✓	✓
CH-HYP36MSPH230VO	✓	✓	✓	✓	✓
CH-HYP48MSPH230VO	✓	✓	✓	✓	✓

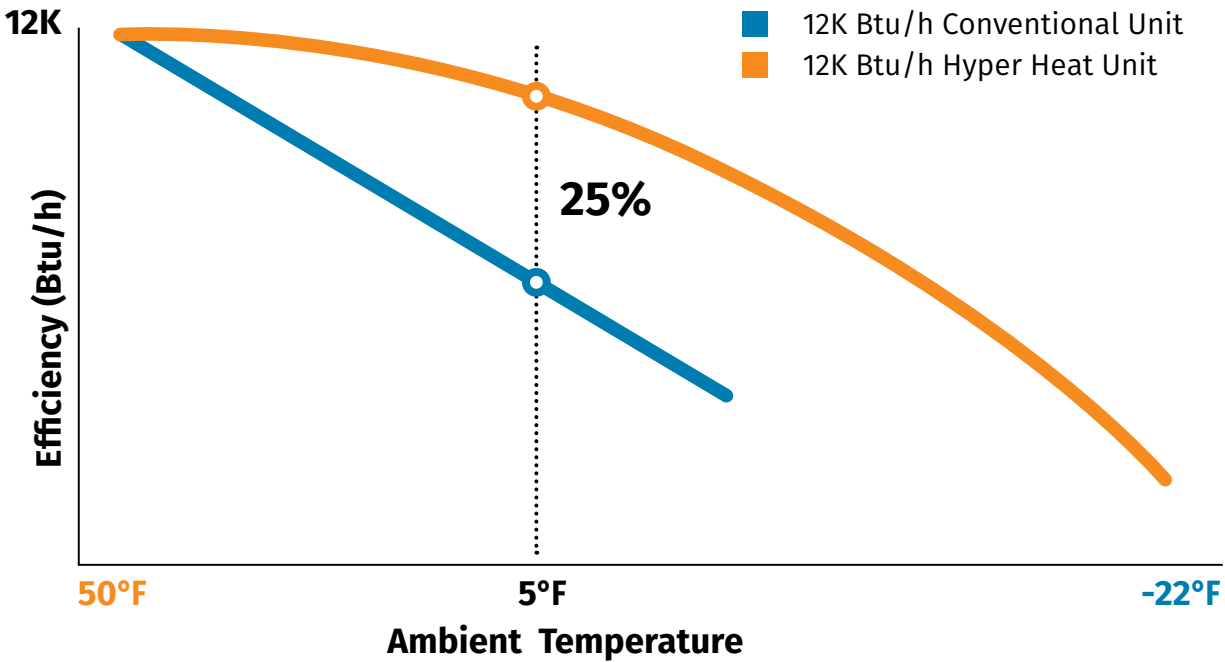
OUTDOOR UNIT		CH-HYP19MSPH230VO	CH-HYP28MSPH230VO	CH-HYP36MSPH230VO	CH-HYP48MSPH230VO	
Power supply	V-Hz-Ph	208-230V/60Hz, 1Ph	208-230V/60Hz, 1Ph	208-230V/60Hz, 1Ph	208-230V,60Hz, 1Ph	
Cooling	Capacity	Btu/h	19,000	28,000	36,000	48,000
	EER		12.5	13	13.5	11.6
	SEER		21.5	22	21.5	21.5
Heating	Capacity	Btu/h	20,000	28,000	36,000	49,000
	COP		3.4	3.5	3.8	3.59
	HSPF4		9.8	10.4	10.5	10.3
	HSPF5		8.5	9	8.8	8.6
Minimum Circuit Ampacity (MCA)	A	25	30	35	35	
MAX. FUSE	A	35	45	50	50	
Air Flow (max)	CFM	2,130	2,130	4,500	4,500	
Noise Level	dB(A)	63.4	62.3	64	64	
Unit Dimension (WxDxH)	in	37.2x16.1x31.9	37.2x16.1x31.9	37.5x16.3x52.5	37.5x16.3x52.5	
Packing Dimension (WxDxH)	in	42.9x19.7x34.8	42.9x19.7x34.8	43.1x19.5x58.3	43.1x19.5x58.3	
Net/Gross weight	lb	152.1/160.9	156.5/167.6	223.8/255.1	238.3/269.8	
Refrigerant type/Quantity	oz	R410A/98.8	R410A/105.8	R410A/162.3	R410A/162	
Refrigerant precharge (Total pipe length)	ft	50	75	100	125	
Additional charge for each ft	oz	0.16	0.16	0.16	0.16 for 1/4" or 0.32 for 3/8"	
Design pressure	PSIG	550/340	550/340	550/340	550/340	
Refrigerant piping	Liquid side/Gas side	in	2x (1/4" - 3/8")	3x1/4" / 2x3/8" - 1x1/2"	4x1/4" / 2x3/8" - 2x1/2"	5x1/4" / 3x3/8" - 2x1/2"
	Max. length for all rooms	ft	131	197	262	262
	Max. length for one indoor unit	ft	82	98	115	115
Ambient temperature	cooling	F°	-22-122	-22-122	-22-122	-22-122
	heating	F°	-22-86	-22-86	-22-86	-22-86

Connectivity for Multi Combinations



Multi DC Outdoor Unit	Two Units	Three Units	Four Units	Five Units
1 drive 2 CH-HYP19MSPH230VO	9+9			
	9+12			
	12+12			
1 drive 3 CH-HYP28MSPH230VO	9+9	9+9+9		
	9+12	9+9+12		
	9+18	9+9+18		
	12+12	9+12+12		
	12+18	12+12+12		
1 drive 4 CH-HYP36MSPH230VO	9+18	9+9+9	9+9+9+9	
	9+24	9+9+12	9+9+9+12	
	12+12	9+9+18	9+9+9+18	
	12+18	9+12+12	9+9+12+12	
	12+24	9+12+18	9+9+12+18	
	18+18	9+18+18	9+12+12+12	
		12+12+12	12+12+12+12	
		12+12+18		
1 drive 5 CH-HYP48MSPH230VO	9+24	9+9+18	9+9+9+9	9+9+9+9+9
	12+24	9+9+24	9+9+9+12	9+9+9+9+12
	18+18	9+12+12	9+9+9+18	9+9+9+9+18
	18+24	9+12+18	9+9+9+24	9+9+9+9+24
	24+24	9+12+24	9+9+12+12	9+9+9+12+12
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	12+24+24	9+18+18+18		
	18+18+18	12+12+12+12		
		12+12+12+18		

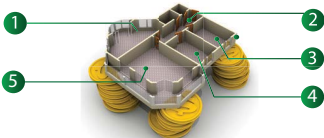
- Note:**
- If total load of indoor units exceeds nominal capacity of outdoor unit, the practical output capacity of every indoor unit will be attenuated correspondingly. This is most evident in heating mode.
 - Outdoor Unit Capacity 0.66 <= Indoor Unit Capacity <= Outdoor Unit Capacity 1.33
 - All outdoor unit specs are based on maximum number of zones with 9K Btu/h units.



NOTE:
Refer to submittal sheets for performance data of specific combinations

Benefits:

up to 5 zones



Easy Installation and Comfort

Up to 5 independently controlled zones can be paired with a variety of indoor model types to fit any room design. Due to small size and flexibility for zoning, mini splits are convenient, affordable and easy to install.

up to 30%



High Energy Efficiency

Mini-splits have no ducts, so they avoid the energy loss associated with the ductwork of central forced air systems, which can account for up to 30% of energy consumption.



Hyper Heat

Hyper Heat assures consistent warmth and comfort **specialized for** extreme climates. The condenser heat output capacity allows the unit to work efficiently **as** a primary heat source, even when the temperature drops to a sub-zero level of -22°F.

