



## Charmo 19

### Ductless Single Zone Heat Pump



#### Performance up to



Cooling



Heating

#### Up to



### Features

**Operation mode**  
**Nominal capacity**  
**Voltage**  
**Indoor unit**

- Cooling, heating, dehumidifying, fan and auto.
- 9000, 12000, 18000, 24000 BTU/hr.
- 230/208V, 60 Hz, 1-phase.

**Outdoor unit**

- High wall installation, dual side connection.
- Plastic housing, standard white.
- 7-speed cross-flow fan (auto, turbo, high, medium-high, medium, low and very low).
- Washable filters.

**Connection piping**

- Variable speed rotary compressor (INVERTER), with overload protection.
- Electronic expansion valve for precise control of refrigerant flow.
- Condenser fins covered with a hydrophilic coating for improved corrosion resistance.
- Large diameter quiet axial-flow fan for more efficient heat exchange.
- Smart pan heater to prevent ice formation.
- Minimum piping length of 10 ft. (3 m).
- Flared connections.

**Control**

- Wireless remote included.
- Wired wall controller available.
- Wi-Fi.
- Set temperature: 16 to 30 °C (61 to 86 °F).
- Temperature display format: °C or °F.

**Warranty**

- **10-year basic warranty on parts and 10-year basic warranty on the compressor (labour not included).**

**Application**

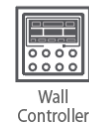
- Dining room-kitchen, living room, family room, commercial building, office building, condo, restaurant.

<sup>1</sup> Validate your eligibility for government programs base on your regions and heat pump model.

#### Includes



#### Optional



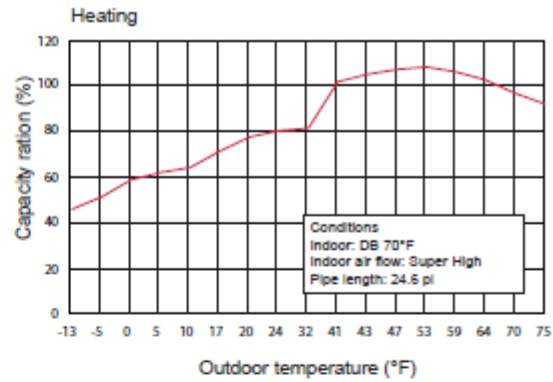
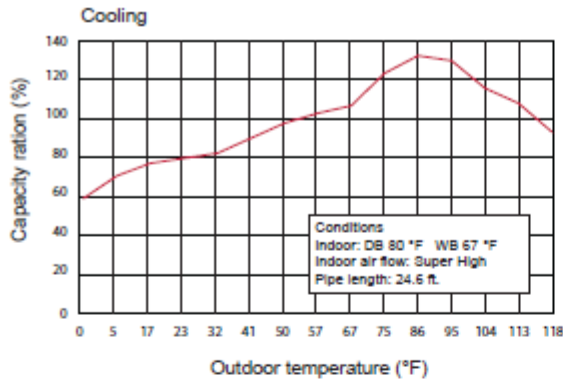
## Models

Product # <sup>1</sup>	Indoor Unit		CHD09KCH19S-I	CHD12KCH17S-I	CHD18KCH17S-I	CHD24KCH18S-I
	Outdoor Unit		CHD09KCH19S-O	CHD12KCH17S-O	CHD18KCH17S-O	CHD24KCH18S-O
<b>Qty</b>						
<b>Technical Performance</b>						
<b>Voltage</b>		Volts	230/208	230/208	230/208	230/208
<b>Cooling capacity</b>	<b>Nominal</b>	W (BTU/hr)	2667 (9100)	3517 (12000)	5159 (17600)	6450 (22000)
	<b>Min. – max.</b>	W (BTU/hr)	820 - 3018 (2800 - 10300)	700 - 3700 (2388 - 13307)	1100 - 5850 (3753 - 19960)	2000 - 7400 (6824 - 25249)
<b>Heating capacity</b>	<b>Nominal</b>	W (BTU/hr)	2931 (10000)	3517 (12000)	5598 (19100)	7040 (24000)
	<b>Min. – max.</b>	W (BTU/hr)	655 - 3575 (2200 - 12200)	700 - 4400 (2388 - 15013)	800 - 6600 (2730 - 22519)	1750 - 8000 (5971 - 27296)
<b>Used cooling power input</b>	<b>Nominal</b>	W	805	1334	1750	1896
	<b>Min. – max.</b>	W	180 - 1350	180 - 1500	200 - 2300	340 - 2350
<b>Used heating power input</b>	<b>Nominal</b>	W	781	1004	1750	2051
	<b>Min. – max.</b>	W	150 - 1450	260 - 1650	260 - 2300	370 - 2400
<b>Used rated input</b>		W	1450	1650	2300	2400
<b>Rated current</b>		A	6.5	6.7	9.5	12
<b>MCA</b>		A	9	11	14	15
<b>Max. over-current protection (MOCP)</b>		A	15	15	20	20
<b>SEER2 (SEER)</b>		-	19.5 (19.5)	17.5 (17.5)	17.5 (17.5)	18 (18)
<b>HSPF2 (HSPF)</b>		-	8.8 (10)	8.5 (10)	8.5 (9)	8.5 (10)
<b>EER</b>		W/W	3.30	2.64	2.95	3.40
<b>COP</b>		W/W	3.75	3.50	3.20	3.43
<b>AHRI number</b>		-	210410121	210410122	210410123	210410124
<b>ENERGY STAR</b>		-	-	-	-	-
<b>Indoor Unit</b>						
<b>Dehumidification</b>		pt/hr (l/hr)	1.69 (0.80)	2.96 (1.40)	3.8 (1.80)	5.28 (2.50)
<b>Air flow volume</b>		cfm	353 / 282.5 / 264.8 / 229.5 / 211.86 / 194.2 / 158.8	424 / 353 / 324 / 277 / 247 / 224 / 182	618 / 512 / 471 / 436 / 395 / 336 / 283	677 / 588 / 559 / 500 / 471 / 441 / 412
<b>Sound level</b>		dB (A)	51 / 47 / 44 / 42 / 41 / 38 / 36	57 / 49 / 48 / 45 / 43 / 42 / 37	60 / 56 / 54 / 52 / 50 / 46 / 42	61 / 57 / 55 / 52 / 50 / 48 / 46
<b>Fan motor power output</b>		W	20	15	45	60
<b>Fan motor RLA</b>		A	0.30	0.40	0.70	0.45
<b>Deflector stepper motor power output</b>		W	1.5	1.5	2.5	2.5
<b>Net weight</b>		lb (kg)	19.8 (9)	19.8 (9)	28.7 (13)	33 (18)
<b>Outdoor Unit</b>						
<b>Air flow volume</b>		m <sup>3</sup> /hr	1950	1950	2520	3200
<b>Sound level</b>		dB (A)	51	52	57	57
<b>Compressor power input</b>		W	756	857	1295	1330
<b>Compressor LRA</b>		A	-	-	25	35
<b>Compressor RLA</b>		A	5.20	7.30	9.35	10.45
<b>Fan motor power output</b>		W	30	30	30	60
<b>Fan motor RLA</b>		A	0.4	0.6	0.9	0.6
<b>Refrigerant volume (R410A)</b>		oz (g)	24.7 (700)	27.5 (750)	44.1 (1150)	52.9 (1500)
<b>Net weight</b>		lb (kg)	56.22 (25.5)	57.33 (26)	71.70 (32.5)	97 (44)
<b>Operating ambient temperature</b>	<b>Cooling</b>	°C (°F)	-18 to 46 (0 to 115)			
	<b>Heating</b>	°C (°F)	-25 to 24 (-4 to 75)			
<b>Connection Piping/Refrigerant</b>						
<b>Pre-charge length</b>		ft. (m)	25 (7.5)	25 (7.5)	25 (7.5)	25 (7.5)
<b>Additional refrigerant charge</b>		oz/ft. (g/m)	0.2 (20)	0.2 (20)	0.2 (20)	0.5 (50)
<b>Liquid pipe outer diameter</b>		in.	1/4	1/4	1/4	1/4
<b>Gas pipe outer diameter</b>		in.	3/8	3/8	1/2	5/8
<b>Maximum height difference</b>		ft. (m)	66 (20)	66 (20)	66 (20)	66 (20)
<b>Maximum total length</b>		ft. (m)	66 (20)	66 (20)	82 (25)	82 (25)

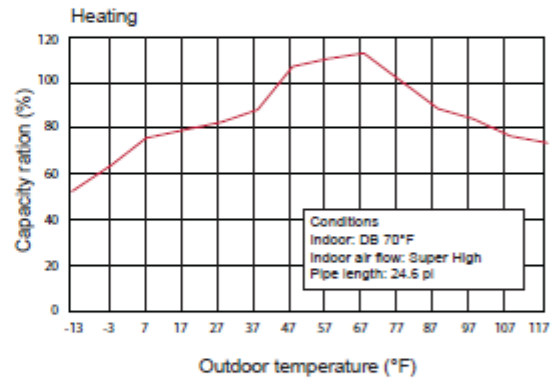
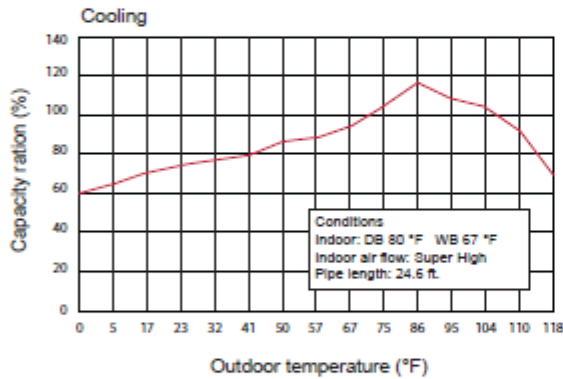
<sup>1</sup> 1 indoor unit and 1 outdoor unit. Note that each unit is individually packaged

## Capacity Variation Ratio According to Temperature

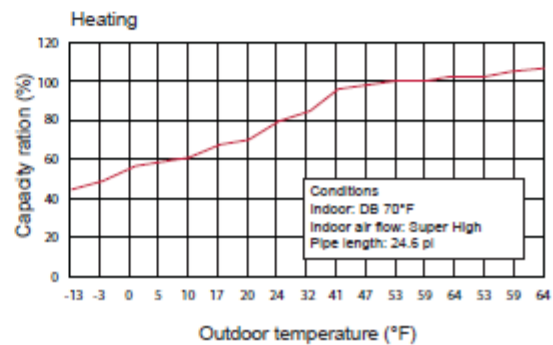
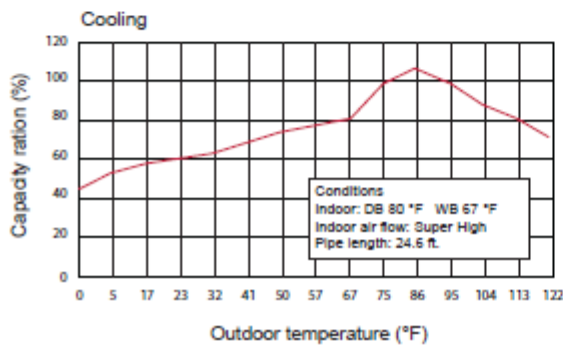
### CHD09 & CHD12



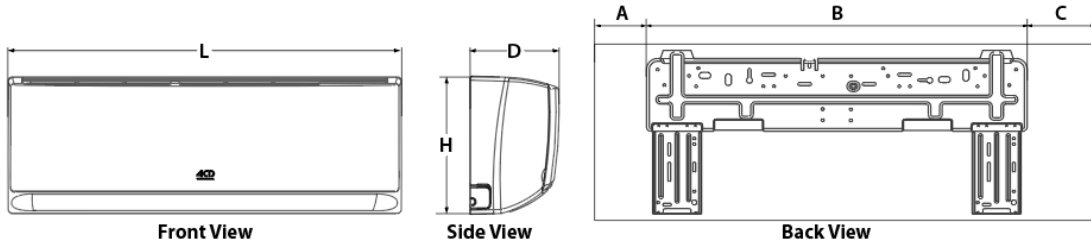
### CHD18



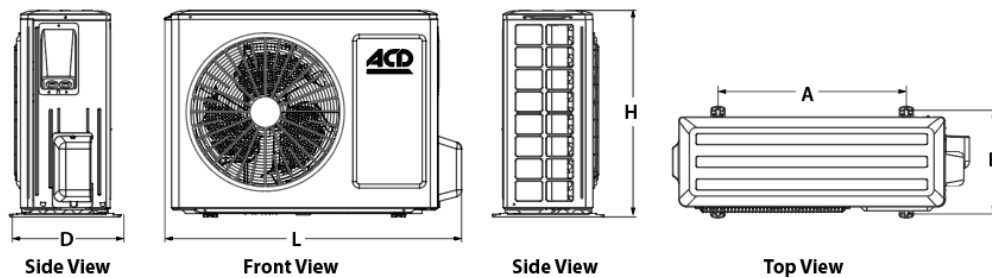
### CHD24



### Indoor Unit



### Outdoor Unit



Indoor Unit	L		H		D		A		B		C	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
CHD09KCH19S-I CHD12KCH17S-I	32 7/8	835	10 7/8	275	7 7/8	200	7 1/16	119	18 5/32	542	7 11/16	184
CHD18KCH17S-I	37 1/8	943	13 1/8	333	9 11/16	246	7 17/32	102	22 1/16	686	7 1/2	183
CHD24KCH18S-I	42 7/16	1078	13 1/8	333	9 11/16	246	10 3/16	206	22 1/16	686	10 5/32	186

Outdoor Unit	L		H		D		A		B		
	in.	mm	in.	mm	in.	in.	mm	in.	mm	in.	
CHD09KCH19S-O CHD12KCH17S-O	28 13/16	732	21 54/64	555	13	330	17 15/16	540	12 3/16	286	
CHD18KCH17S-O	31 37/64	802	21 54/64	555	13 50/64	350	20 5/32	559	13 2/32	364	
CHD24KCH18S-O	37 3/4	958	26	660	15 53/64	402	22 13/32	610	14 19/32	395	

### Specifications may change without prior notice

Project:	Approval Information
Consultant Engineer:	
Electrical Contractor:	
Distributor:	
Date:	
Contact at Dettson:	
Comments:	