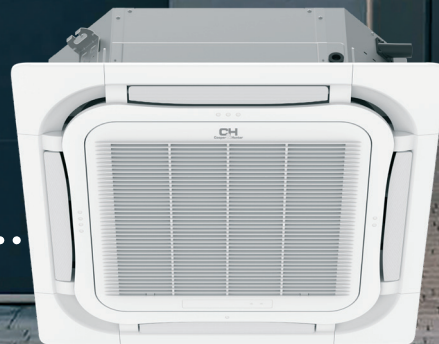
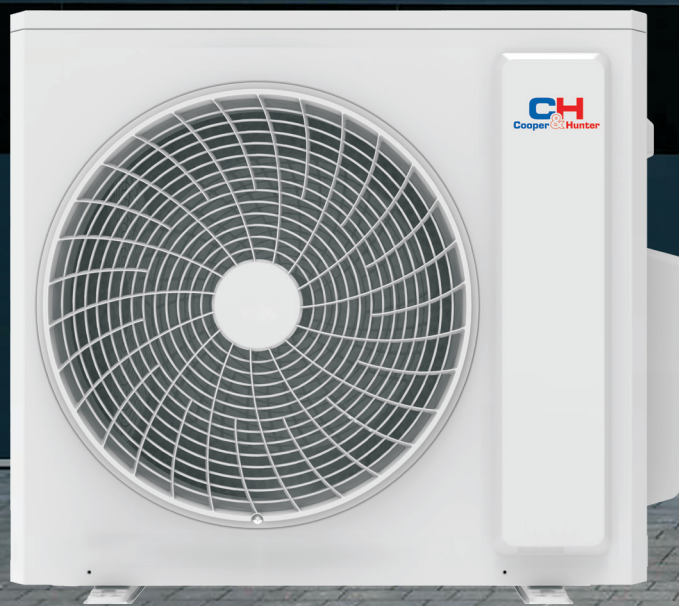


CH
Cooper & Hunter

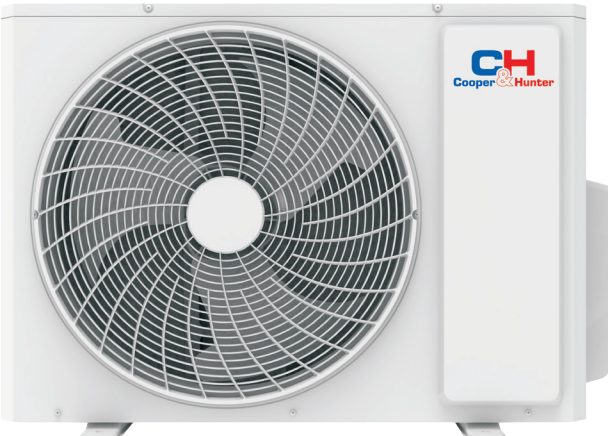


MULTI-SPLIT SYSTEMS

NORDIC MULTI LIGHT is a DC-inverter multi-split system of free combination, which allows connecting to one outdoor unit from one to five indoor units of different types.

Series

NORDIC MULTI LIGHT



INVERTER

CE RoHS

FUNCTION

INTELLIGENT CONTROL					TECHNOLOGICAL					Energy efficiency			
													
Anti Freeze protection	Auto restart	Self diagnostics	BMS connection	Wired controller connection	R32 Refrigerant	Multi-split	Auto protection	Function 8°C	Technology I-Action	BLUE-FIN	Warm start	Energy Efficiency	Generation 6

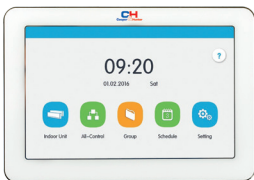
CONTROLS AND ACCESSORIES (OPTIONAL)



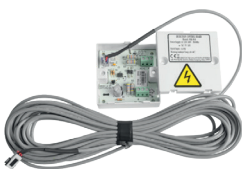
Wired Controller
XK76



Wired Controller
CE50-24/E



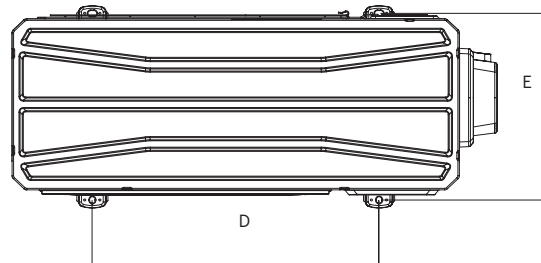
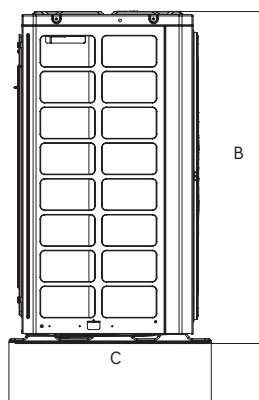
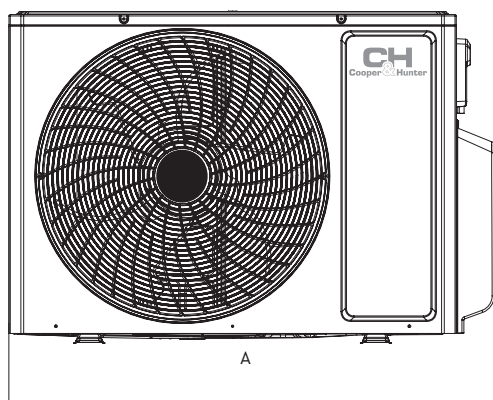
Wired Controller
CE52-24/F



Detection Control Board
MK010

OUTDOOR UNITS WITH PRODUCTIVITY FROM 14,000 TO 42,000 BTU

MODEL			CHML-U14RK2-NG	CHML-U18RK2-NG	CHML-U21RK3-NG	CHML-U24RK3-NG	CHML-U28RK4-NG	CHML-U36RK4-NG	CHML-U42RK5-NG
Quantity IDU to connect			1-2	1-2	2-3	2-3	2-4	2-4	2-5
Capacity	Cooling	kW	4.10	5.30	6.10	7.10	8.00	10.60	12.10
	Heating	kW	4.40	5.65	6.50	8.60	9.50	12.00	13.00
Power supply			~220-240V/50Hz/1 Ph						
Air flow volume		m³/h	2300	2300	3800	3800	3800	5800	5800
Sound pressure level		dB (A)	52	54	58	58	58	60	60
Weight (net/gross)		kg	30/32.5	32/34.5	47.5/52	47.5/52	51/55.5	72/79	73/80
Refrigerant type			R32						
Refrigerant Charge		kg	0.75	0.90	1.60	1.70	1.80	2.40	2.4
Refrigerant load		g/m	20	20	20	20	20	20	20
Standard filling length		m	10	10	30	30	40	40	50
Diameter of the liquid/gas line		mm/inch	2x 6.35/1/4"-9.52/3/8"	2x 6.35/1/4"-9.52/3/8"	3x 6.35/1/4"-9.52/3/8"	3x 6.35/1/4"-9.52/3/8"	4x 6.35/1/4"-9.52/3/8"	4x 6.35/1/4"-9.52/3/8"	5x 6.35/1/4"-9.52/3/8"
Temperature range	Cooling	°C	-15 ... +43						
	Heating	°C	-22 ... +20						
The maximum length of the trunk (total line length / maximum distance to the indoor unit)		m	40/20	40/20	60/20	60/20	70/20	80/25	100/25
Maximum pipeline level difference		m	15	15	15	15	15	25	25



MODEL	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
CHML-U14RK2-NG	822	550	352	512	332
CHML-U18RK2-NG	822	550	352	512	332
CHML-U21RK3-NG	964	660	402	570	371
CHML-U24RK3-NG	964	660	402	570	371
CHML-U28RK4-NG	964	660	402	570	371
CHML-U36RK4-NG	1020	826	427	635	396
CHML-U42RK5-NG	1020	826	427	635	396

Series **SUPREME CONTINENTAL**



TECHNICAL PARAMETERS

MODEL			CH-S09FTXAL-* (I)	CH-S12FTXAL-* (I)	CH-S18FTXAL-* (I)	CH-S24FTXAL-* (I)
Capacity	Cooling	kW	2.70	3.50	5.30	7.00
	Heating	kW	2.93	3.81	5.57	7.20
Power supply			~220-240V/50Hz/1 Ph			
Liquid pipeline diameter		mm/inch	6.35/1/4"	6.35/1/4"	6.35/1/4"	6.35/1/4"
Gas pipeline diameter		mm/inch	9.52/3/8"	9.52/3/8"	12.7/1/2"	15.88/5/8"
Air flow volume		m³/h	390/420/450/490/540/590/660	390/420/450/490/540/590/680	306/520/580/610/750/800/850	750/850/900/950/1000/1100/1250
Sound pressure level		dB (A)	18/22/26/35/37/39/41	19/24/28/35/37/39/43	30/33/36/41/43/45/49	32/35/38/42/44/47/49
Dehumidification		l/h	0.8	1.4	1.8	2.4
Weight		kg	10.5	11	13.5	16.5

performance in four different color types: white(WP), silver(SC), gold(GD), full-black(FB)

FUNCTION

HEALTH

COMFORT MANAGEMENT

Mode SLEEP

Technology CH 7-SKY

ECO-FRESH

CH SMART-ION Filter

Locking the remote control

Timer

LED display

Turbo mode

Multi speed fan

SWING mode

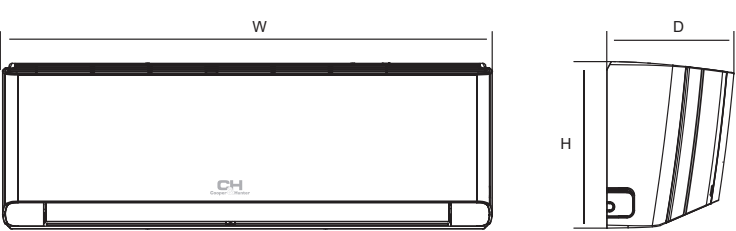
Dehumidification mode

Self-clean

Wi-Fi

I FEEL

DIMENSIONS



MODEL	W (mm)	H (mm)	D (mm)
CH-S09FTXAL-GD/SC/BL/WP/FB (I)	865	290	210
CH-S12FTXAL-GD/SC/BL/WP/FB (I)	865	290	210
CH-S18FTXAL-GD/SC/BL/WP/FB (I)	996	301	225
CH-S24FTXAL-GD/SC/BL/WP/FB (I)	1101	327	249

Series DAYTONA



TECHNICAL PARAMETERS

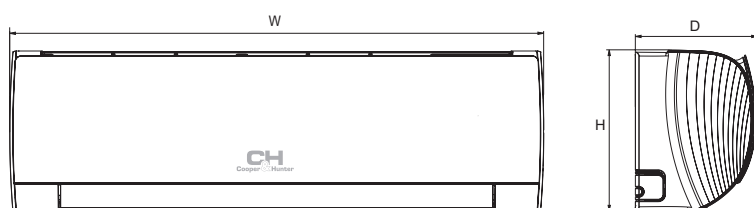
MODEL		CH-S09FTXD2-* (I)		CH-S12FTXD2-* (I)		CH-S18FTXD2-* (I)		CH-S24FTXD2-* (I)	
Capacity	Cooling	kW	2.70 (0.80-3.80)	3.51 (0.90-4.40)	5.20 (1.00-6.10)	7.10 (2.00-8.85)			
	Heating	kW	3.00 (0.90- 4.25)	3.81 (0.90-4.70)	5.60 (1.10-6.60)	7.80 (1.80-9.45)			
Power supply			~220-240V/50Hz/1 Ph						
Liquid pipeline diameter		mm/inch	6.35/1/4"	6.35/1/4"	6.35/1/4"	6.35/1/4"			
Gas pipeline diameter		mm/inch	9.52/3/8"	9.52/3/8"	12.7/1/2"	15.88/5/8"			
Air flow volume		m³/h	610/570/540/470/440/420/390	700/650/600/540/480/420/360/300	850/750/680/610/570/520/460	1250/1100/1000/950/900/850/800/600			
Sound pressure level		dB (A)	38/36/34/31/29/27/25/18	42/38/35/32/29/27/25	44/43/41/38/36/34/30/23	48/44/41/40/38/36/33/27			
Dehumidification		l/h	1.69	1.40	1.9	2.4			
Weight		kg	11	11	13.5	16.5			

performance in three different color types: white(WP), black(BL), silver(SC)

FUNCTION

HEALTH						COMFORT MANAGEMENT									
Mode SLEEP	Technology CH 7-SKY	ECO-FRESH	CH SMART-ION Filter	Double Self-clean	Locking the remote control	Timer	LED display	Turbo mode	Multi speed fan	SWING mode	Dehumidification mode	Self-clean	Wi-Fi	I FEEL	

DIMENSIONS



MODEL	W (mm)	H (mm)	D (mm)
CH-S09FTXD2-WP/BL/SC (I)	889	294	212
CH-S12FTXD2-WP/BL/SC (I)	889	294	212
CH-S18FTXD2-WP/BL/SC (I)	1013	307	221
CH-S24FTXD2-WP/BL/SC (I)	1122	329	247

Series VERITAS NG



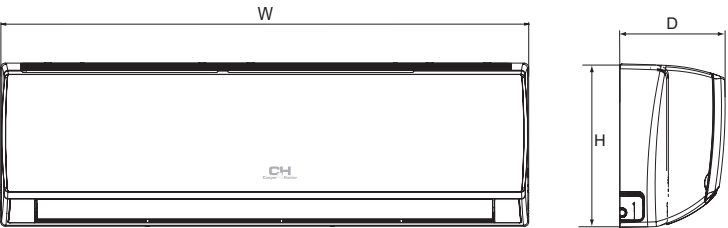
TECHNICAL PARAMETERS

MODEL			CH-S07FTXQ2-NG (I)	CH-S09FTXQ2-NG (I)	CH-S12FTXQ2-NG (I)	CH-S18FTXQ2-NG (I)	CH-S24FTXQ2-NG (I)
Capacity	Cooling	kW	2.35 (0.37-2.53)	2.50 (0.50-3.35)	3.20 (0.60-3.60)	4.60 (0.65-5.20)	7.10 (2.00-8.85)
	Heating	kW	2.50 (0.51-2.60)	2.80 (0.50-3.30)	3.40 (0.60-3.80)	5.20 (0.70-5.40)	7.80 (1.80-9.45)
Power supply			~220-240V/50Hz/1 Ph				
Liquid pipeline diameter		mm/inch	6.35/1/4"	6.35/1/4"	6.35/1/4"	6.35/1/4"	6.35/1/4"
Gas pipeline diameter		mm/inch	9.52/3/8"	9.52/3/8"	9.52/3/8"	9.52/3/8"	15.88/5/8"
Air flow volume		m³/h	300/390/420/500	300/390/420/500	420/490/620/680	600/700/800/850	800/850/900/950/1050/1150/1250
Sound pressure level		dB (A)	38/35/33/28/20	39/36/32/25	23/29/32/35/36/38/41	44/42/38/34	48/44/41/40/38/36/33
Dehumidification		l/h	0.8	0.8	1.4	1.8	2.4
Weight		kg	8.2	8	10,5	13.5	16

FUNCTION

HEALTH					COMFORT MANAGEMENT									
Mode SLEEP	Technology CH 7-SKY	ECO-FRESH	CH SMART-ION Filter	Double Self-clean	Locking the remote control	Timer	LED display	Turbo mode	Multi speed fan	Dehumidification mode	Self-clean	Wi-Fi	I FEEL	

DIMENSIONS



MODEL	W (mm)	H (mm)	D (mm)
CH-S07FTXQ2-NG (I)	713	270	195
CH-S09FTXQ2-NG (I)	713	270	195
CH-S12FTXQ2-NG (I)	845	289	209
CH-S18FTXQ2-NG (I)	970	300	224
CH-S24FTXQ2-NG (I)	1078	325	246

Series VITAL INVERTER



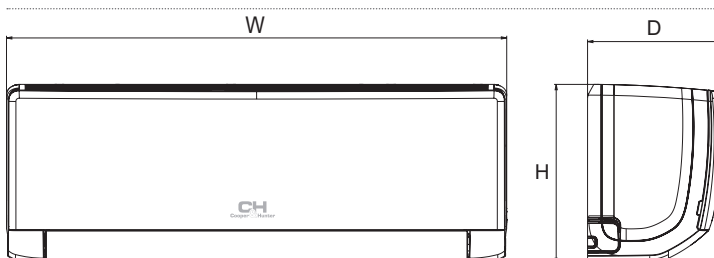
TECHNICAL PARAMETERS

MODEL		CH-S07FTXF2-NG (I)	CH-S09FTXF2-NG (I)	CH-S12FTXF2-NG (I)	CH-S18FTXF2-NG (I)	CH-S24FTXF2-NG (I)	
Capacity	Cooling	kW	2.35 (0.37-2.53)	2.70 (0.50-3.35)	3.20 (0.60-3.60)	4.60 (0.65-5.20)	6.20 (1.80-6.90)
	Heating	kW	2.50 (0.51-2.60)	2.80 (0.50-3.30)	3.40 (0.60-3.80)	5.20 (0.70-5.40)	6.50 (1.30-7.03)
Power supply			~220-240V/50Hz/1 Ph				
Liquid pipeline diameter		mm/inch	6.35/1/4"	6.35/1/4"	6.35/1/4"	6.35/1/4"	6.35/1/4"
Gas pipeline diameter		mm/inch	9.52/3/8"	9.52/3/8"	9.52/3/8"	9.52/3/8"	12.7/1/2"
Air flow volume		m³/h	300/390/420/500	280/310/340/400/480/520/550	280/320/350/400/480/520/590	600/700/800/850	400/600/800/900
Sound pressure level		dB (A)	27/33/38/40	21/26/29/33/35/37/40	24/26/30/33/35/37/41	31/38/42/44	30/37/45/48
Dehumidification		l/h	0.6	0.8	1.4	1.8	1.8
Weight		kg	8.2	8.5	8.0	13.5	13

FUNCTION

HEALTH					COMFORT MANAGEMENT								
													
Mode SLEEP	Technology CH 7-SKY	ECO-FRESH	CH SMART-ION Filter	Double Self-clean	Locking the remote control	Timer	LED display	Turbo mode	Multi speed fan	Dehumidification mode	Self-clean	Wi-Fi	I FEEL

DIMENSIONS



MODEL	W (mm)	H (mm)	D (mm)
CH-S07FTXF2-NG (I)	713	270	195
CH-S09FTXF2-NG (I)	773	250	185
CH-S12FTXF2-NG (I)	773	250	185
CH-S18FTXF2-NG (I)	970	300	225
CH-S24FTXK2-NG (I)	970	300	225

Series ALPHA NG



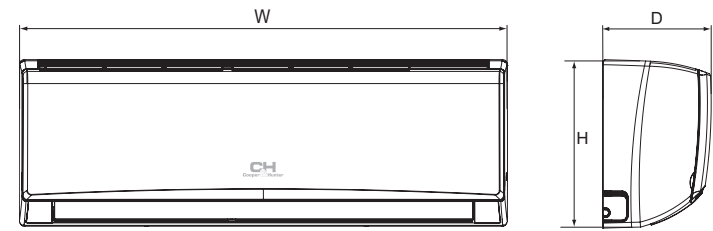
TECHNICAL PARAMETERS

MODEL		CH-S07FTXE2-NG (I)	CH-S09FTXE-NG (I)	CH-S12FTXE-NG (I)	CH-S18FTXE-NG (I)	CH-S24FTXE2-NG (I)	
Capacity	Cooling	kW	2.35	2.60	3.50	5.00	7.10
	Heating	kW	2.50	2.80	3.60	5.30	7.80
Power supply		~220-240V/50Hz/1 Ph					
Liquid pipeline diameter	mm/inch	6.35/1/4"	6.35/1/4"	6.35/1/4"	6.35/1/4"	6.35/1/4"	
Gas pipeline diameter	mm/inch	9.52/3/8"	9.52/3/8"	9.52/3/8"	9.52/3/8"	15.88/5/8"	
Air flow volume	m³/h33	300/390/420/500	330/430/490/560	290/410/480/560	520/610/720/850	800/850/900/950/1000/1100/1250	
Sound pressure level	dB (A)	20/22/25/29/38	23/26/30/36	24/28/32/37	28/33/39/45	27/29/35/37/39/42/47	
Dehumidification	l/h	0.8	0.8	1.4	1.8	2.4	
Weight	kg	8.2	9	9	13.5	16	

FUNCTION

HEALTH					COMFORT MANAGEMENT								
													
Mode SLEEP	Technology CH 7-SKY	ECO-FRESH	CH SMART-ION Filter	Double Self-clean	Locking the remote control	Timer	LED display	Turbo mode	Multi speed fan	Dehumidification mode	Self-clean	Wi-Fi	I FEEL

DIMENSIONS



MODEL	W (mm)	H (mm)	D (mm)
CH-S07FTXE2-NG (I)	713	270	195
CH-S09FTXE-NG (I)	790	275	200
CH-S12FTXE-NG (I)	790	275	200
CH-S18FTXE-NG (I)	970	300	225
CH-S24FTXE2-NG (I)	1078	325	246

CONSOLE TYPE



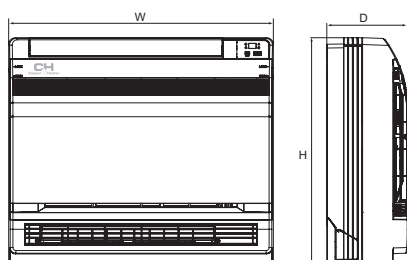
TECHNICAL PARAMETERS

MODEL			CHML-IK09FVX-N6(I)	CHML-IK12FVX-N6(I)	CHML-IK18FVX-N6(I)
Capacity	Cooling	kW	2.70 (0.70-3.40)	3.52 (0.80-4.40)	5.20 (1.26-6.60)
	Heating	kW	2.90 (0.60-3.50)	3.80 (1.10-4.40)	5.33 (1.12-6.68)
Power supply			~220-240V/50Hz/1 Ph		
Liquid pipeline diameter		mm/inch	6.35/1/4"	6.35/1/4"	6.35/1/4"
Gas pipeline diameter		mm/inch	9.52/3/8"	9.52/3/8"	12.7/1/2"
Air flow volume		m³/h	250/280/330/370/410/430/500	280/360/400/440/480/520/600	320/410/460/520/580/650/700
Sound pressure level		dB (A)	22/25/28/30/32/36/38	24/29/33/36/38/40/44	32/37/40/42/45/47/49
Dehumidification		l/h	0.8	1.2	1.8
Weight		kg	15.5	16	16

FUNCTION

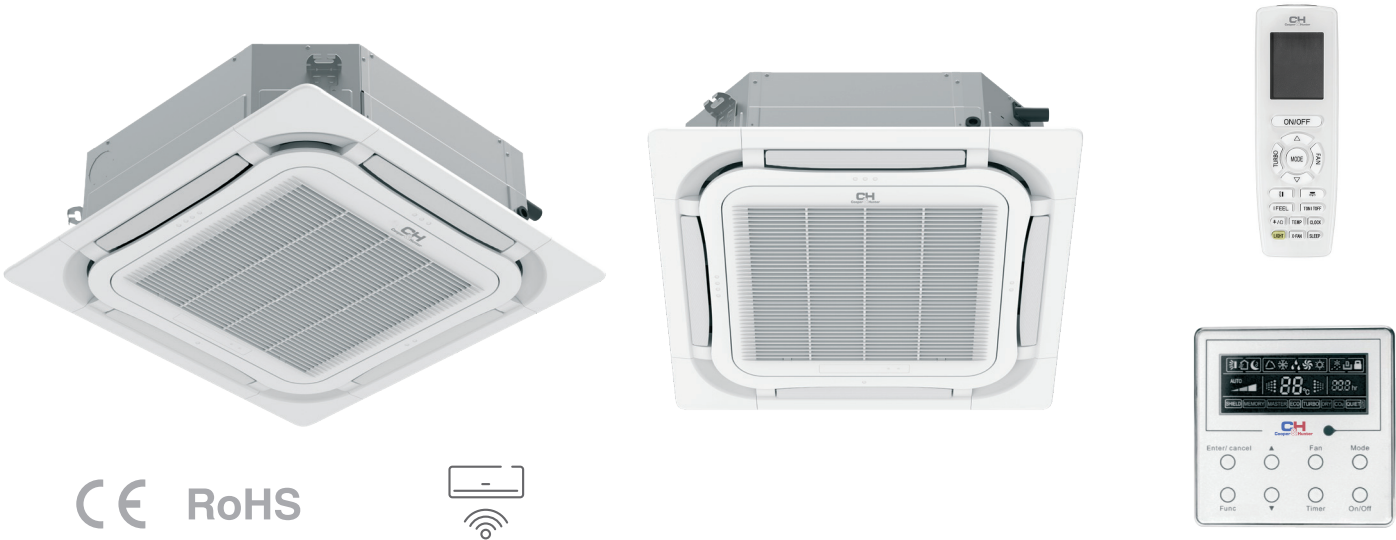
HEALTH				COMFORT MANAGEMENT							
											
Mode SLEEP	ECO-FRESH	CH SMART-ION Filter	Locking the remote control	Timer	LED display	Turbo mode	Multi speed fan	Dehumidification mode	Self-clean	Wi-Fi	I FEEL

DIMENSIONS



MODEL	W (mm)	H (mm)	D (mm)
CHML-IK09FVX-N6(I)	700	600	215
CHML-IK12FVX-N6(I)	700	600	215
CHML-IK18FVX-N6(I)	700	600	215

CASSETTE TYPE



TECHNICAL PARAMETERS

MODEL			CHML-IC12RK2	CHML-IC18RK2	CHML-IC24RK2
Capacity	Cooling	kW	3.50	5.00	7.00
	Heating	kW	4.0	5.50	8.0
Power supply			~220-240V/50Hz/1 Ph		
Liquid pipeline diameter		mm/inch	6.35/1/4"	6.35/1/4"	9.52/3/8"
Gas pipeline diameter		mm/inch	9.52/3/8"	12.7/1/2"	15.88/5/8"
Air flow volume		m³/h	560/540/490/450/420/380/350	650/540/490/450/420/380/350	1100/1050/950/910/870//830/800
Sound pressure level		dB (A)	57/55/52/50/48/46/44	59/55/52/50/48/46/44	32/61/60/59/58/57/55
Weight (cassette/panel)		kg	17.0/2.5	17.0/2.5	29.0/5.5

FUNCTION

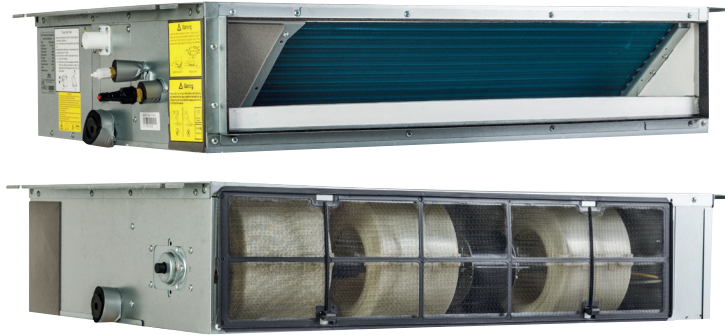
HEALTH		COMFORT MANAGEMENT					INTELLIGENT CONTROL				TECHNOLOGICAL			
														
Mode SLEEP	ECO-FRESH	Timer	LED display	Turbo mode	Multi speed fan	Wi-Fi	Dehumidification mode	Anti Freeze protection	Auto restart	Self diagnostics	Wired controller connection	Build-in Drine Pump	Coating BLUE-FIN	Silent mode

DIMENSIONS

Technical drawing of the CHML cassette unit showing dimensions A through I. The drawing includes labels for the Drain Pipe, Liquid Pipe, and Gas Pipe. Dimensions are defined as follows: A (Decoration panel), B (Ceiling), C (Indoor unit), D (Suspension bolt pitch), E (Suspension bolt pitch), F (Indoor unit), G (Ceiling), H (Decoration panel), I (Indoor unit).

MODEL	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)
CHML-IC12RK2	620	580	570	505	550	265	140	530	530
CHML-IC18RK2	620	580	570	505	550	265	140	530	530
CHML-IC24RK2	950	870	840	680	780	240	135	-	-

DUCT TYPE



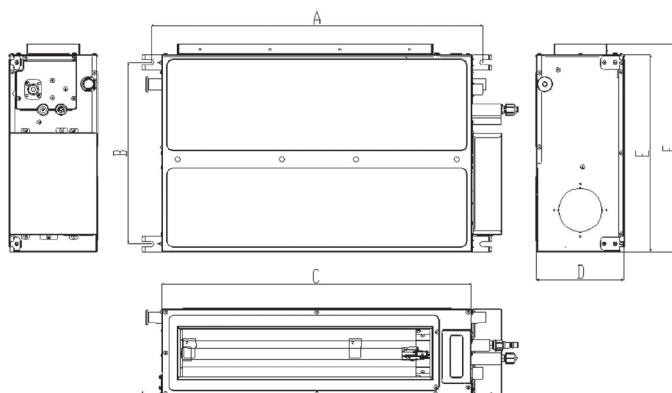
TECHNICAL PARAMETERS

MODEL			CHML- ID09RK2	CHML- ID12RK2	CHML- ID18RK2	CHML- ID24RK2
Capacity	Cooling	kW	2.65	3.5	5.0	7.0
	Heating	kW	2.80	4.00	5.5	8.0
Power supply			~220-240V/50Hz/1 Ph			
Liquid pipeline diameter		mm/inch	6.35/1/4"	6.35/1/4"	6.35/1/4"	9.52/3/8"
Gas pipeline diameter		mm/inch	9.52/3/8"	9.52/3/8"	12.7/1/2"	15.88/5/8"
Air flow volume		m³/h	700/670/640/610/580/550/520	650/560/520/480/450/410/380	880/840/810/790/770/750/730	1500/1200/1200/1000/1000/900/900
Sound pressure level		dB (A)	41/39/38/37/36/35/34	39/37/36/35/34/33/32	41/39/39/38/38/37/34	45/40/40/38/38/36/36
Weight		kg	18.5	19	25	31

FUNCTION

HEALTH			COMFORT MANAGEMENT				INTELLIGENT CONTROL			TECHNOLOGICAL				
														
Mode SLEEP	ECO-FRESH	Fresh Air mode	Timer	Turbo mode	Multi speed fan	Wi-Fi	Dehumidification mode	Anti Freeze protection	Auto restart	Self diagnostics	Wired controller connection	Build-in Drine Pump	Coating BLUE-FIN	Silent mode

DIMENSIONS



MODEL	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
CHML-ID09RK2	760	415	710	200	450	474
CHML-ID09RK2	760	415	710	200	450	474
CHML-ID18RK2	1060	415	1010	200	450	474
CHML-ID24RK2	942	530	900	260	655	685

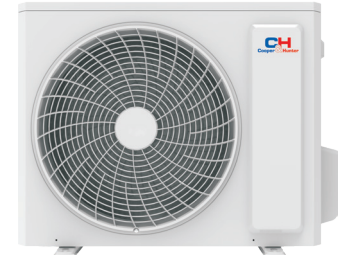
OUTDOOR UNIT COMBINATIONS

CHML-U14RK2-NG | 8 combinations



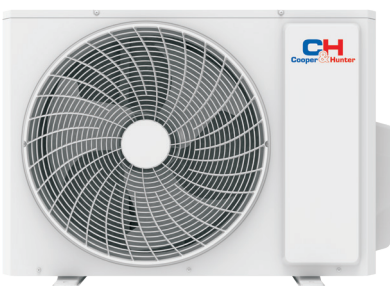
One unit	Two units	
7	7+7	7+9
9	7+12	9+9
12	9+12	

CHML-U18RK2-NG | 10 combinations



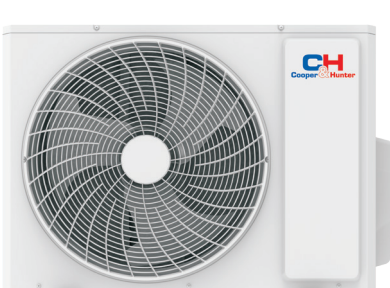
One unit	Two units		
7	7+7	9+9	12+12
9	7+9	9+12	
12	7+12		

CHML-U21RK3-NG | 18 combinations



Two units		Three units	
7+7	7+9	7+7+7	7+7+9
7+12	7+18	7+7+12	7+9+9
9+9	9+12	7+9+12	9+9+12
9+18	12+12	9+9+9	
12+18			

CHML-U24RK3-NG | 23 combinations



Two units		Three units		
7+7	7+9	7+7+7	7+7+9	7+7+12
7+12	7+18	7+7+18	7+9+9	7+9+12
9+9	9+12	7+9+18	7+12+12	9+9+9
9+18	12+12	9+9+12	9+9+18	9+12+12
12+18	18+18	12+12+12		

CHML-U28RK4-NG | 40 combinations



Two units		Three units			Four Units		
7+7	7+9	7+7+7	7+7+9	7+7+12	7+7+7+7	7+7+7+9	7+7+7+12
7+12	7+18	7+7+18	7+9+9	7+9+12	7+7+7+18	7+7+9+9	7+7+9+12
9+9	9+12	7+9+18	7+12+12	7+12+18	7+7+9+18	7+7+12+12	7+9+9+9
9+18	12+12	9+9+9	9+9+12	9+9+18	7+9+9+12	7+9+12+12	9+9+9+9
12+18	18+18	9+12+12	9+12+18	12+12+12	9+9+9+12	9+9+12+12	
		12+12+18					

CHML-U36RK4-NG | 96 combinations



One unit		Three units			Four Units		
7+12	7+18	7+7+7	7+7+9	7+7+12	7+7+7+7	7+7+7+9	7+7+7+12
7+21	7+24	7+7+18	7+7+21	7+7+24	7+7+7+18	7+7+7+21	7+7+7+24
9+9	9+12	7+9+9	7+9+12	7+9+18	7+7+9+9	7+7+9+12	7+7+9+18
9+18	9+21	7+9+21	7+9+24	7+12+12	7+7+9+21	7+7+9+24	7+7+12+12
9+24	12+12	7+12+18	7+12+21	7+12+24	7+7+12+18	7+7+12+21	7+7+18+18
12+18	12+21	7+18+18	7+18+21	7+18+24	7+7+12+24	7+9+9+12	7+9+9+18
12+24	18+18	7+21+21	9+9+9	9+9+12	7+9+9+9	7+9+9+24	7+9+12+12
18+21	18+24	7+21+24	9+9+21	9+9+24	7+9+9+21	7+9+12+21	7+9+18+18
21+21	21+24	9+9+18	9+12+18	9+12+21	7+9+12+18	7+12+12+18	9+9+9+9
24+24		9+12+12	9+18+18	9+18+21	7+9+12+24	9+9+9+18	9+9+9+21
		9+12+24	9+21+21	12+12+12	7+12+12+12	9+9+12+12	9+9+12+18
		9+18+24	12+12+21	12+12+24	7+12+12+21	9+9+18+18	9+12+12+12
		9+21+24	12+18+21	18+18+18	9+9+9+12	9+9+12+24	
		12+12+18	12+21+21		9+9+9+24	9+12+12+21	
		12+18+18			9+9+12+21	12+12+12+12	
		12+18+24			9+12+12+18		
					12+12+12+18		

CHML-U42RK5-NG | 199 combinations

Two units		Three units			Four Units				Five Units			
7+18	7+21	7+7+7	7+7+9	7+7+12	7+7+7+7	7+7+7+9	7+7+7+12	7+7+7+18	7+7+7+7+7	7+7+7+7+9	7+7+7+7+12	7+7+7+7+18
7+24	9+12	7+7+18	7+7+21	7+7+24	7+7+7+21	7+7+7+24	7+7+9+9	7+7+9+12	7+7+7+7+21	7+7+7+7+24	7+7+7+9+9	7+7+7+9+12
9+18	9+21	7+9+9	7+9+12	7+9+18	7+7+9+18	7+7+9+21	7+7+9+24	7+7+12+12	7+7+7+9+18	7+7+7+9+21	7+7+7+9+24	7+7+7+12+12
9+24	12+12	7+9+21	7+9+24	7+12+12	7+7+12+18	7+7+12+21	7+7+12+24	7+7+18+18	7+7+7+12+18	7+7+7+12+21	7+7+7+12+24	7+7+7+18+18
12+18	12+21	7+12+18	7+12+21	7+12+24	7+7+18+21	7+7+18+24	7+7+21+21	7+7+21+24	7+7+7+18+21	7+7+9+9+9	7+7+9+9+12	7+7+9+9+18
12+24	18+18	7+18+18	7+18+21	7+18+24	7+9+9+9	7+9+9+12	7+9+9+18	7+9+9+21	7+7+9+9+21	7+7+9+9+24	7+7+9+12+12	7+7+9+12+18
18+21	18+24	7+21+21	7+21+24	7+24+24	7+9+9+24	7+9+12+12	7+9+12+18	7+9+12+21	7+7+9+12+21	7+7+9+12+24	7+7+9+18+18	7+7+12+12+12
21+21	21+24	9+9+9	9+9+12	9+9+18	7+9+12+24	7+9+18+18	7+9+18+21	7+9+18+24	7+7+12+12+18	7+7+12+12+21	7+7+12+18+18	7+9+9+9+9
24+24		9+9+21	9+9+24	9+12+12	7+9+21+21	7+9+21+24	7+12+12+12	7+12+12+18	7+9+9+9+12	7+9+9+9+18	7+9+9+9+21	7+9+9+9+24
		9+12+18	9+12+21	9+12+24	7+12+12+21	7+12+12+24	7+12+18+18	7+12+18+21	7+9+9+12+12	7+9+9+12+18	7+9+9+12+21	7+9+9+12+24
		9+18+18	9+18+21	9+18+24	7+12+18+24	7+12+21+21	7+18+18+18	9+9+9+9	7+9+9+18+18	7+9+12+12+12	7+9+12+12+18	7+9+12+12+21
		9+21+21	9+21+24	9+24+24	9+9+9+12	9+9+9+18	9+9+9+21	9+9+9+24	7+12+12+12+12	7+12+12+12+18	9+9+9+9+9	9+9+9+9+12
		12+12+12	12+12+18	12+12+21	9+9+12+12	9+9+12+18	9+9+12+21	9+9+12+24	9+9+9+9+18	9+9+9+9+21	9+9+9+9+24	9+9+9+12+12
		12+12+24	12+18+18	12+18+21	9+9+18+18	9+9+18+21	9+9+18+24	9+9+21+21	9+9+9+12+18	9+9+9+12+21	9+9+9+18+18	9+9+12+12+12
		12+18+24	12+21+21	12+21+24	9+9+21+24	9+12+12+18	9+12+12+21	9+12+12+24	9+9+12+12+18	9+9+12+12+21	9+12+12+12+12	9+12+12+12+18
		12+24+24	18+18+18	18+18+21	9+12+12+12	9+12+18+21	9+12+21+21	9+18+18+18	12+12+12+12+12	9+9+9+12+24		
		18+18+24	18+21+21	21+21+21	9+12+18+18	12+12+12+18	12+12+12+21	12+12+12+24				
		18+21+24			9+12+18+24	12+12+18+21						
					12+12+12+12							
					12+12+18+18							