

CLIVETPack²

Packaged air-conditioning unit

Reversible heat pump

Water cooled

Roof Top

Capacity from 51 to 412 kW



ErP
compliant

- ✓ High part load efficiency
- ✓ Smart Freecooling management
- ✓ Enhanced air filtration with low ventilation consumption
- ✓ Thermodynamic recovery
- ✓ Suitable for closed or open loop water systems
- ✓ Compliant with main communication protocols
- ✓ Many available configurations suitable for the most different project situation
- ✓ All component included on board for an enhanced installation
- ✓ Remote and centralized system monitoring through INTELLIAIR

functions and features



Heat pump



Water cooled



Outdoor
installation



R-410A



Hermetic
Scroll



FREE-
COOLING



THOR
(Thermodynamic
Overboost
Recovery)



Electronically
commutated
Fan



Electronic
expansion
valve



Constant
Airflow

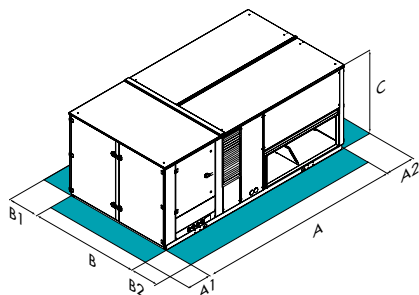


Variable
Airflow



INTELLIAIR

dimensions and clearances



CAUTION!

For trouble-free operation of the unit it is essential to maintain the safety distances indicated by the green areas.

Size	▶▶ CRH-XHE2	14.2	16.4	20.4	25.4	30.4	33.4	40.4	44.4
CAK	A - Length	mm	3560	3560	4155	4155	4155	4155	4155
CAK	B - Width	mm	2300	2300	2300	2300	2300	2300	2300
CAK	C - Height	mm	1405	1405	1405	1405	1405	1705	1705
CAK	A1	mm	1500	1500	1500	1500	1500	1500	1500
CAK	A2	mm	1500	1500	1500	1500	1500	1500	1500
CAK	B1	mm	1500	1500	1500	1500	1500	1500	1500
CAK	B2	mm	1500	1500	1500	1500	1500	1500	1500
CBK	Operating weight	kg	1396	1456	1530	1549	1559	1602	1641

Size	▶▶ CRH-XHE2	49.4	54.4	60.4	70.4	80.4	90.4	100.4	110.4
CAK	A - Length	mm	3910	3910	4900	4900	4900	5520	5520
CAK	B - Width	mm	2300	2300	2300	2300	2300	2300	2300
CAK	C - Height	mm	2250	2250	2250	2250	2250	2250	2250
CAK	A1	mm	1500	1500	1500	1500	1500	1500	1500
CAK	A2	mm	1500	1500	1500	1500	1500	1500	1500
CAK	B1	mm	1500	1500	1500	1500	1500	1500	1500
CAK	B2	mm	1500	1500	1500	1500	1500	1500	1500
CBK	Operating weight	kg	2080	2397	2613	2672	3074	3245	3987

The above mentioned data are referred to standard units for the constructive configurations indicated.

For all the other configurations, refer to the relative Technical Bulletin.

CAK Configuration with single fan section for full recirculation

versions and configurations

CONFIGURATION:

CAK Configuration with single fan section for full recirculation
CBK Configuration with single fan section for recirculation and fresh air

CCK Configuration with double fan section for recirculation, fresh and exhaust air
CCKP Configuration with double fan section with fresh air and THOR thermodynamic recovery

technical data

Size	►► CRH-XHE2	14.2	16.4	20.4	25.4	30.4	33.4	40.4	44.4
♦ Cooling capacity (EN 14511:2022)	(1) kW	50,6	65,6	82,1	92,2	102,7	120,6	152,5	162,1
Sensible capacity	(1) kW	38,5	48,9	62,9	69,8	77,4	88,9	106,0	114,0
Compressor power input	(1) kW	9,1	13,0	15,4	17,4	19,1	21,2	26,6	28,8
EER (EN 14511:2022)	(1) -	5,06	4,57	4,94	4,89	4,88	5,45	5,66	5,31
♦ Heating capacity (EN 14511:2022)	(2) kW	56,6	77,4	91,0	104,0	93,5	109,0	136,5	150,9
Compressor power input	(2) kW	9,9	15,5	18,2	20,4	23,8	27,7	30,1	33,3
COP (EN 14511:2022)	(2) -	4,71	4,19	4,24	4,33	3,74	3,86	4,50	4,35
Refrigeration circuits	Nr	2	2	2	2	2	2	2	2
No. of compressors	Nr	2	4	4	4	4	4	4	4
Type of compressors	(3) -	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL
Supply air flow rate	m³/h	9000	11500	13500	15000	17000	18500	21000	23000
Type of supply fan	(4) -	RAD/EC	RAD/EC	RAD/EC	RAD/EC	RAD/EC	RAD/EC	RAD/EC	RAD/EC
Number of supply fans	Nr	1	1	2	2	2	2	2	2
Max. static pressure supply fan	(5) Pa	510	390	510	510	510	510	440	380
Water flow (Source side)	(6) l/s	2,87	3,80	4,69	5,28	5,88	6,79	8,53	9,16
Standard power supply	V	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50
Directive Erp (Energy related Products)									
SEER - AVERAGE Climate	(7) -	5,12	5,22	5,51	5,46	5,35	6,15	6,99	6,58
η _{sc}	(7)	196,8	200,7	212,4	210,2	206,1	238,1	271,6	255,3
SCOP - AVERAGE Climate	(7) -	3,99	4,26	4,03	4,59	4,32	4,66	5,38	4,79
η _{sh}	(7)	151,6	162,4	153,2	175,6	164,8	178,4	207,2	183,6
Size	►► CRH-XHE2	49.4	54.4	60.4	70.4	80.4	90.4	100.4	110.4
♦ Cooling capacity (EN 14511:2022)	(1) kW	173,2	183,6	213,5	252,4	278,8	334,5	361,1	387,2
Sensible capacity	(1) kW	124	134	143	163	186	239	258	277
Compressor power input	(1) kW	30,8	33,1	39,9	45,4	52,4	61,7	66,3	72,1
EER (EN 14511:2022)	(1) -	5,18	4,89	4,94	5,10	4,78	4,96	4,87	4,90
♦ Heating capacity (EN 14511:2022)	(2) kW	165,5	179,3	198,3	235,9	264,7	316,8	346,2	378,3
Compressor power input	(2) kW	38,0	41,0	48,1	53,2	60,5	66,8	75,0	82,6
COP (EN 14511:2022)	(2) -	4,13	4,00	3,92	4,48	4,03	4,38	4,31	4,22
Refrigeration circuits	Nr	2	2	2	2	2	2	2	2
No. of compressors	Nr	4	4	4	4	4	4	4	4
Type of compressors	(3) -	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL
Supply air flow rate	m³/h	26000	29000	33000	37000	44000	51000	56000	60000
Type of supply fan	(4) -	RAD/EC	RAD/EC	RAD/EC	RAD/EC	RAD/EC	RAD/EC	RAD/EC	RAD/EC
Number of supply fans	Nr	3	3	4	4	4	6	6	6
Max. static pressure supply fan	(5) Pa	630	540	660	570	360	620	540	460
Water flow (Source side)	(6) l/s	9,40	10,0	11,70	13,80	15,40	18,40	19,80	21,30
Standard power supply	V	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50
Directive Erp (Energy related Products)									
SEER - AVERAGE Climate	(7) -	6,29	5,07	5,61	6,07	5,47	5,80	5,17	5,31
η _{sc}	(7)	243,7	195,0	216,6	234,9	210,7	224,0	198,9	204,5
SCOP - AVERAGE Climate	(7) -	4,92	4,52	4,04	4,73	4,31	4,54	4,55	4,60
η _{sh}	(7)	188,8	172,8	153,6	181,2	164,4	173,6	174,0	176,0

The Product is compliant with the Erp (Energy Related Products) European Directive. It includes the Commission delegated Regulation (EU) No 2016/2281, also known as Ecodesign Lot21.

Performance refers to operation at full recirculation (CAK config.)

(1) Data referred to the following conditions: Ambient air at 27°C/19°C W.B. Water to internal exchanger 30/35°C

(2) Data referred to the following conditions: Ambient temperature 20°C DB; Exchanger water outlet 10°C

(3) SCROLL = Scroll compressor

(4) RAD = ventilador radial; EC = Electronically Commutated

(5) Net outside static pressure to win the outlet and intake onboard pressure drops

(6) Nominal water capacity determined in function of the cooling power

(7) Data calculated according to the EN 14825:2022

accessories

THR	Exhaust air THOR thermodynamic energy recovery (CCKP version)
FC	FThermal FREE-COOLING
FCE	Enthalpy FREE-COOLING
M3	Downward air supply
M5	Upflow air supply
R3	Downward air return
SER	Outdoor air damper manually set
SERM	Outdoor air motorized on/off damper
SERMD	Modulating motorized outdoor air damper
PVAR	Variable airflow
PCOSM	Constant supply airflow
PAQC	Air quality probe for CO ₂ rate check
PAQCV	Air quality sensor for CO ₂ and VOC rate check
VENH	High static pressure fans
F7	High efficiency F7 air filter (ISO 16890 ePM1 55%)
FIFD	Electronic filter with iFD technology (ISO 16890 ePM1 90%)
PSAF	Differential pressure switch for dirty air filters
EH12	9 kW electric heaters (size 14.2÷16.4)
EH14	12 kW electric heaters (size 14.2÷30.4)
EH17	18 kW electric heaters (size 14.2÷44.4)
EH20	24 kW electric heaters (size 20.4÷110.4)
EH24	36 kW electric heaters (size 33.4÷110.4)
EH28	48 kW electric heaters (size 49.4÷110.4)
ACPC	Hydraulic pipework arrangement for loop with constant flow-rate
ACPV	Hydraulic pipework arrangement for loop with variable flow-rate
ACPM	Hydraulic pipework arrangement for system with disposable water
ACIS	Antifreeze heater protection on the water side exchanger
IFWX	Steel mesh strainer on the water side

CHW2	Two-rows hot water coil
CHWER	Energy recovery from food refrigeration
3WVM	3-way modulating valve
2WVM	2-way modulating valve
LTEMP1	Application for low outdoor temperature
CPHG	Hot gas re-heating coil
HSE3	3 kg/h immersed electrodes steam humidifier (size 14.2÷30.4)
HSE5	5 kg/h immersed electrodes steam humidifier (size 14.2÷30.4)
HSE8	3 kg/h electrode boiler steam humidifier (size 14.2÷110.4)
HSE9	15 kg/h immersed electrodes steam humidifier (size 14.2÷110.4)
HWS	Water to waste evaporating wet-deck humidifier
MHP	High and low pressure gauges
CMSC9	Serial communication module for Modbus supervisor
CMSC10	Serial communication module for LonWorks supervisor
CMSC11	Serial communication module for BACnet-IP supervisor
CTERM	Remote keypad for indoor temperature and humidity control
CSOND	Temperature and humidity ambient control with built-in probes
PM	Phase monitor
PFCC	Power factor correction capacitors (cosfi > 0.95)
DML	Demand Limit
DESM	Smoke detector
SFSTC	Progressive compressor start-up device
PCMO	Sandwich panels of the handling zone in M0 fire reaction class
AMRX	Rubber antivibration mounts
RCX	Roof curb
PTCO	Set up for shipping via container

Accessories whose code ends with "X" are supplied separately