

Packaged air-conditioning unit

Heat pump
Water cooled
Roof Top

Capacity from 51 to 392 kW

CLIVETPack²



The **CRH-XHE2** packaged air-conditioning units are installed outside the spaces being served. They come in various capacities and with a vast range of accessories. They are intended for the air-conditioning of large rooms or areas and are applied in **closed or open loop water systems**.

Designed to reduce work on site to a minimum, these units have been created for continuous operation with maximum energy saving through an extremely intelligent, advanced management of energy, supplying it only when and where needed.

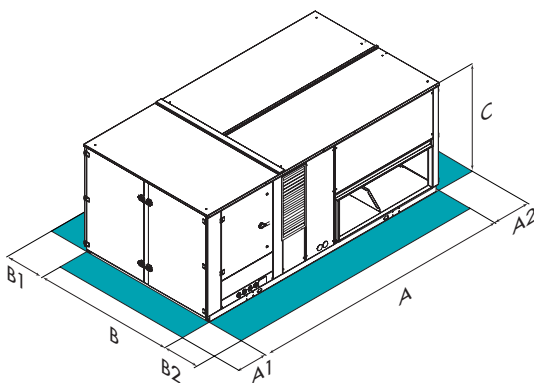
The high efficiency of the innovative refrigeration circuit, optimized for functioning at partial loads, the free-cooling and the energy recovery of expelled air available as an option on the whole range, allow to reduce energy consumption and therefore the management costs and the emission of carbon dioxide.



functions and features



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	4155
CAK B - Width	mm	2295	2295	2300	2300	2300	2300	2300	2300
CAK C - Height	mm	1405	1405	1405	1405	1405	1705	1705	1705
CAK A1	mm	1500	1500	1500	1500	1500	1500	1500	1500
CAK A2	mm	1500	1500	1500	1500	1500	1500	1500	1500
CAK B1	mm	1500	1500	1500	1500	1500	1500	1500	1500
CAK B2	mm	1500	1500	1500	1500	1500	1500	1500	1500
CAK Operating weight	kg	1396	1456	1530	1549	1559	1602	1636	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	5520
CAK B - Width	mm	2296	2296	2296	2296	2296	2296	2296	2296
CAK C - Height	mm	2250	2250	2250	2250	2250	2250	2250	2250
CAK A1	mm	1500	1500	1500	1500	1500	1500	1500	1500
CAK A2	mm	1500	1500	1500	1500	1500	1500	1500	1500
CAK B1	mm	1500	1500	1500	1500	1500	1500	1500	1500
CAK B2	mm	1500	1500	1500	1500	1500	1500	1500	1500
CAK Operating weight	kg	2080	2397	2613	2672	3074	3245	3461	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 (Standard)
- ▶ **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
Eurovent										
▶ Cooling capacity (EN14511:2018)	(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	114
Compressor power input	(1)	kW	9,10	13,0	15,4	17,4	19,1	21,2	26,6	28,8
EER (EN14511:2018)	(1)	-	5,06	4,57	4,94	4,89	4,88	5,45	5,66	5,31
▶ Heating capacity (EN14511:2018)	(2)	kW	56,6	77,4	91	104	93,5	109	136,5	150,9
Compressor power input	(2)	kW	9,90	15,5	18,2	20,4	23,8	27,7	30,1	33,3
COP (EN14511:2018)	(2)	-	4,71	4,19	4,24	4,33	3,74	3,86	4,5	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							
Supply airflow		l/s	2500	3194	3750	4167	4722	5139	5833	6389
Type of supply fan	(4)	-	RAD							
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 rate (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							
Directive ErP (Energy Related Products)										
SEER - AVERAGE Climate	(7)	-	4,54	4,38	4,52	4,50	4,71	5,20	6,03	5,69
SCOP - AVERAGE Climate	(7)	-	3,75	3,98	3,73	4,20	4,02	4,26	4,95	4,44
Size – CRH-XHE2			49.4	54.4	60.4	70.4	80.4	90.4	100.4	110.4
▶ Cooling capacity (EN14511:2018)	(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 (EN14511:2018)	(1)	-	5,18	4,89	4,94	5,1	4,78	4,96	4,87	4,9
▶ Heating capacity (EN14511:2018)	(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 (EN14511:2018)	(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							
Supply airflow		l/s	7222	8056	9167	10278	12222	14167	15556	16667
Type of supply fan	(4)	-	RAD							
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 rate (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							
Directive ErP (Energy Related Products)										
SEER - AVERAGE Climate	(7)	-	5,24	4,39	4,83	5,18	4,65	4,90	4,46	4,63
SCOP - AVERAGE Climate	(7)	-	4,49	4,17	3,78	4,37	3,99	4,17	4,20	4,27

Notes

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 re-circulation (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; EER EN14511:2018
- (2) Data referred to the following conditions: Ambient temperature 20°C DB; Exchanger water outlet 10°C; COP EN14511:2018

(3) SCROLL = scroll compressor

(4) RAD = radial fan

(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 14825:2016 Regulation



accessories

▶ THR	Exhaust air THOR thermodynamic energy recovery (CCKP version)	▶ IFWX	Steel mesh strainer on the water side
▶ FC	Thermal FREE-COOLING	▶ CHW2	Two-rows hot water coil
▶ FCE	Enthalpy FREE-COOLING	▶ CHWER	Energy recovery from food refrigeration
▶ M3	Downflow supply	▶ 3WVM	Modulating three-way valve
▶ M5	Upward supply air	▶ 2WVM	Modulating 2-way valve
▶ R3	Floor air inlet	▶ LTEMP1	Application for low outdoor temperature
▶ SER	Outdoor air damper manually set	▶ CPHG	Hot gas re-heating coil
▶ SERM	Outdoor air motorized on/off damper	▶ HSE3	3 kg/h immersed electrodes steam humidifier (sizes 15.1÷30.2)
▶ SERMD	Modulating motorized outdoor air damper	▶ HSE5	5 kg/h immersed electrodes steam humidifier (sizes 15.1÷30.2)
▶ PVAR	Variable airflow	▶ HSE8	8 kg/h immersed electrodes steam humidifier
▶ PCOSM	Constant supply airflow	▶ HSE9	15 kg/h immersed electrodes steam humidifier
▶ PAQC	Air quality probe for CO2 rate check	▶ HWS	Water to waste evaporating wet-deck humidifier
▶ PAQCV	Air quality sensor for CO2 and VOC rate check	▶ MHP	High and low pressure gauges
▶ VENH	High static pressure fans	▶ CMSC9	Serial communication module for Modbus supervisor
▶ F7	High efficiency F7 air filter	▶ CMSC10	Serial communication module for LonWorks supervisor
▶ FES	Electronic filters	▶ CMSC11	Serial communication module for BACnet-IP supervisor
▶ PSAF	Differential pressure switch for dirty air filters	▶ PM	Phase monitor
▶ EH12	9 kW electric heaters	▶ PFCP	Power factor correction capacitors (cosφ > 0.9)
▶ EH14	12 kW electric heaters	▶ DML	Demand Limit
▶ EH17	18 kW electric heaters	▶ DESM	Smoke detector
▶ EH20	24 kW electric heaters	▶ SFSTC	Progressive compressor start-up device
▶ EH24	36 kW electric heaters	▶ CLMX	Clivet Master System
▶ EH28	48 kW electric heaters	▶ PCMO	Sandwich panels of the handling zone in M0 fire reaction class
▶ ACPC	Hydraulic pipework arrangement for loop with constant flow-rate	▶ AMRX	Rubber antivibration mounts
▶ ACPV	Hydraulic pipework arrangement for loop with variable flow-rate	▶ RCX	Roof curb
▶ ACPM	Hydraulic pipework arrangement for system with disposable water		
▶ ACIS	Antifreeze heater protection on the water side exchanger		

Key to symbols:

- Accessories separately supplied

For compatibility between the various accessories, please refer to the dedicated Technical Bulletin or our website in the Systems and Products section.

