

PACKAGED



## CLIVETPack<sup>2</sup> HSE

**Packaged air-conditioning unit**  
 CSRN-XHE2: reversible heat pump  
 Air cooled  
 Roof Top  
**Capacity from 55 to 148 kW**

**CLIVETPack<sup>2</sup> HSE** are Rooftop designed for the air-conditioning of small and medium surface environments with medium attendance such as supermarkets, shops, offices and small production areas.

The entire range is designed for maximum seasonal efficiency thanks to the double cooling circuit with tandem scroll compressors, electronically controlled fans with brushless motors, large heat exchange surfaces, microprocessor control with dedicated control.

■ **VERSATILITY OF USE:** wide range of versions and options make the unit extremely flexible and suitable for the most different project situations

■ **LOW RUNNING COSTS:** the very high efficiency at partial loads, the free-cooling, the standard energy recovery on units with exhaust air, make a drastic reduction in energy consumption during the annual operation.

■ **EASY TO POSITION AND INSTALL:** the units are exceptionally compact, allow bottom or horizontal supply and return air.



Unit listed on  
[www.eurovent-certification.com](http://www.eurovent-certification.com)

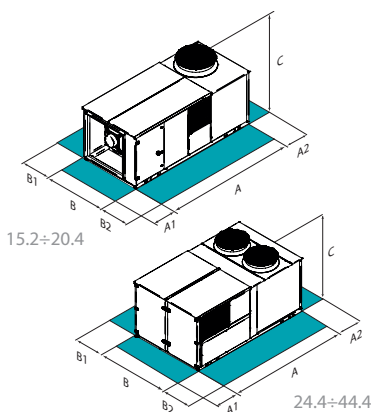


ErP  
 compliant

### functions and features

Heat pump	Air cooled	Outdoor installation	R-410A	Hermetic Scroll	Ice protection system	FREE-COOLING	THOR (Thermodynamic Overboost Recovery)	ECOBREEZE	Electronically commutated Plug Fan	Electronic expansion valve	Constant Air Volume	Variable Air Volume

### dimensions and clearances



SIZE - CSRN-XHE2			15.2	18.2	20.4	25.4	30.4	33.4	40.4	44.4
CAK	A - Length	mm	3400	3400	3725	3725	3725	3725	3725	3725
CAK	B - Width	mm	1620	1620	2290	2290	2290	2290	2290	2290
CAK	C - Height	mm	1610	1610	1610	1610	1610	1910	1910	1910
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
CBK	Operating weight	kg	881	901	1426	1461	1471	1531	1563	1568
CAK	Operating weight	kg	881	901	1426	1461	1471	1531	1563	1568
CCK	Operating weight	kg	1015	1036	1634	1669	1679	1788	1820	1825
CCKP	Operating weight	kg	1045	1066	1681	1715	1726	1847	1879	1883

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
- 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

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

## 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 – CSRN-XHE2			15.2	18.2	20.4	25.4	30.4	33.4	40.4	44.4
<b>Eurovent</b>										
CCKP	▶ Cooling capacity	(1) kW	55,1	66,0	82,7	95,0	103	119	138	148
CCKP	Sensible capacity	(1) kW	42,8	51,3	63,4	70,8	73,0	86,3	97,4	104
CCKP	Compressor power input	(1) kW	12,7	16,6	20,1	21,8	25,2	28,0	35,0	38,8
CCKP	▶ Cooling capacity (EN14511:2018)	(9) kW	45,6	53,3	68,3	78,7	86,0	103,8	121,3	128,3
CCKP	EER (EN14511:2018)	(9) -	3,06	2,85	2,82	2,86	2,86	3,17	3,73	2,90
CCKP	▶ Heating capacity	(2) kW	49,8	63,4	74,4	90,4	98,3	118	145	154
CCKP	Refrigeration circuits	(2) kW	9,35	11,9	15,2	17,5	20,4	23,4	28,9	32,9
CCKP	▶ Heating capacity (EN14511:2018)	(10) kW	44,2	56,7	66,7	80,7	87,6	101,5	124,6	132,0
CCKP	COP (EN14511:2018)	(10) -	3,59	3,59	3,15	3,38	3,20	3,30	3,34	3,15
CCKP	Refrigeration circuits	Nr	1	1	2	2	2	2	2	2
CCKP	No. of compressors	Nr	2	2	4	4	4	4	4	4
CCKP	Type of compressors	(3) -	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL
CCKP	Supply airflow	l/s	2500	3194	3750	4167	4722	5139	5833	6389
CCKP	Type of supply fan	(4) -	RAD	RAD	RAD	RAD	RAD	RAD	RAD	RAD
CCKP	Number of supply fans	Nr	1	1	2	2	2	2	2	2
CCKP	Fan diameter	mm	630	630	560	560	560	630	630	630
CCKP	Max. static pressure supply fan	(5) Pa	510	390	510	510	510	510	440	380
CCKP	Type of exhaust fan	(6) -	RAD	RAD	RAD	RAD	RAD	RAD	RAD	RAD
CCKP	Number of exhaust fans	Nr	1	1	2	2	2	2	2	2
CCKP	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
CCKP	Sound pressure level	(7) dB(A)	64	66	67	68	69	70	71	72
<b>Directive ErP (Energy Related Products)</b>										
CCKP	SEER - AVERAGE Climate	(8) -	3,98	3,75	3,56	3,65	3,61	3,99	4,25	3,77
CCKP	SCOP - AVERAGE Climate	(8) -	3,20	3,43	3,26	3,49	3,32	3,50	3,81	3,64

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.

Performances are referred to the operating with 30% of exhaust and outdoor air with THOR thermodynamic recovery (CCKP)

- (1) Ambient air at 27°C D.B./19°C W.B. Entering external exchanger air temperature 35°C;  
 (2) Ambient temperature 20°C DB. Outside temperature 7°C DB/6°C WB;  
 (3) SCROLL = scroll compressor  
 (4) RAD = radial fan  
 (5) Net outside static pressure to win the outlet and intake onboard pressure drops  
 (6) Configuration with double fan section for recirculation, fresh air, exhaust, thermodynamic recovery (CCK) and configuration with double fan section with renewal air and THOR thermodynamic recovery (CCKP)

- (7) The sound levels are referred to unit operating at full load in nominal conditions. The sound pressure level is referred to a distance of 1 m. from the ducted unit surface operating in free field conditions. External static pressure 50 Pa. (standard UNI EN ISO 9614-2)  
 (8) Data calculated according to the EN 14825:2016 Regulation  
 (9) Capacity in total recirculation according to EN 14511-2018, indoor air temperature 27°C D.B./19°C W.B.; outdoor temperature 35°C. EER according to EN 14511-2018.  
 (10) Capacity in total recirculation according to EN 14511-2018, indoor air temperature 20°C; outdoor temperature 7°C D.B./6°C W.B.. COP according to EN 14511-2018

CCKP Configuration with double fan section with fresh air and THOR thermodynamic recovery

## accessories

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<b>REC</b>	Exhaust air thermodynamic energy recovery (CCK version)	<b>✓ GC09X</b>	Condensing gas heating module with modulating control 65kW (sizes 20.4÷44.4)
<b>THR</b>	Exhaust air THOR thermodynamic energy recovery (CCKP version)	<b>GC08</b>	Condensing gas heating module with modulating control 44kW (sizes 15.2÷18.2)
<b>FC</b>	Thermal FREE-COOLING	<b>✓ GC08X</b>	Condensing gas heating module with modulating control 44kW (sizes 20.4÷30.4)
<b>FCE</b>	FREE-COOLING entalpico	<b>✓ GC10X</b>	Condensing gas heating module with modulating control 82kW (sizes 20.4÷44.4)
<b>M3</b>	Downward air supply	<b>✓ GC12X</b>	Condensing gas heating module with modulating control 130kW (sizes 33.4÷44.4)
<b>M5</b>	Upflow air supply	<b>✓ GC11X</b>	Condensing gas heating module with modulating control 100kW (sizes 20.4÷44.4)
<b>ML</b>	Sideward air supply (sizes 15.2÷18.2)	<b>LTEMP1</b>	Application for low outdoor temperature
<b>R3</b>	Downward air return	<b>CPHG</b>	Hot gas re-heating coil
<b>SER</b>	Outdoor air damper manually set (CBK version)	<b>HSE3</b>	3 kg/h immersed electrodes steam humidifier
<b>SERM</b>	Outdoor air motorized on/off damper (CBK version)	<b>HES5</b>	5 kg/h immersed electrodes steam humidifier
<b>SERMD</b>	Modulating motorized outdoor air damper (CBK, CCK, CCKP version)	<b>HES8</b>	8 kg/h immersed electrodes steam humidifier
<b>PVAR</b>	Variable airflow	<b>HES9</b>	15 kg/h immersed electrodes steam humidifier
<b>PCOSM</b>	Constant supply airflow	<b>HWS</b>	Water to waste evaporating wet-deck humidifier
<b>PAQC</b>	Air quality probe for CO2 rate check	<b>MHP</b>	High and low pressure gauges
<b>PAQCV</b>	Air quality sensor for CO2 and VOC rate check	<b>CMSC9</b>	Serial communication module for Modbus supervisor
<b>CREFB</b>	Device for fan consumption reduction of the external section, ECOBREEZE type	<b>CMSC10</b>	Serial communication module for LonWorks supervisor
<b>VENH</b>	High static pressure fans	<b>CMSC11</b>	Serial communication module for BACnet-IP supervisor
<b>F7</b>	High efficiency F7 air filter	<b>CSOND</b>	Temperature and humidity ambient control with built-in probes
<b>FES</b>	Electronic filters	<b>DML</b>	Demand Limit
<b>PSAF</b>	Differential pressure switch for dirty air filters	<b>PM</b>	Phase monitor
<b>EH12</b>	9 kW electric heaters (sizes 15.2÷18.2)	<b>PFCP</b>	Power factor correction capacitors (cosfi > 0.9)
<b>EH14</b>	12 kW electric heaters (sizes 15.2÷30.4)	<b>DESM</b>	Smoke detector
<b>EH17</b>	18 kW electric heaters	<b>SFSTC</b>	Progressive compressor start-up device
<b>EH20</b>	24 kW electric heaters (sizes 20.4÷44.4)	<b>✓ CLMX</b>	Clivet Master System
<b>EH24</b>	36 kW electric heaters (sizes 33.4÷44.4)	<b>PCM0</b>	Sandwich panels of the handling zone in M0 fire reaction class
<b>CHW2</b>	Two-rows hot water coil	<b>✓ AMRX</b>	Rubber antivibration mounts
<b>CHWER</b>	Energy recovery from food refrigeration	<b>✓ AMRMX</b>	Rubber antivibration mounts for unit and gas module (sizes 20.4÷44.4)
<b>3WVM</b>	Modulating 3-way valve	<b>✓ RCX</b>	Roof curb
<b>2WVM</b>	Modulating 2-way valve		
<b>GC01</b>	Condensing gas heating module with modulating control 35kW (sizes 15.2÷18.2)		
<b>✓ GC01X</b>	Condensing gas heating module with modulating control 35kW (sizes 20.4÷30.4)		
<b>GC09</b>	Condensing gas heating module with modulating control 65kW (sizes 15.2÷18.2)		

### Key to symbols and notes

✓ 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.

