

## Packaged air-conditioning unit

CKN-XHE2i: reversible heat pump  
Air cooled  
Roof Top  
Capacity from 20 to 45 kW



Control keypad standard supplied:  
Main functions:  
- unit on/off  
- unit main information  
- daily/weekly programming  
- temperature set-point modification  
- humidity set-point modification  
- manual or automatic summer/winter switching



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

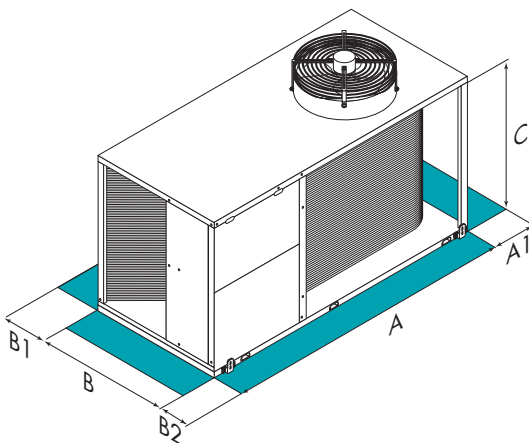


ErP compliant

## functions and features



## dimensions and clearances



Size – CKN-XHE2i		7.1	10.1	14.2
A - Length	mm	2250	2250	2610
B - Width	mm	1240	1310	1750
C - Height	mm	1210	1510	1660
A1	mm	1000	1000	1000
B1	mm	1000	1000	1000
B2	mm	1000	1000	1000
CAK/CBK	Operating weight	kg	464	576
CCK	Operating weight	kg	482	600

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 Full re-circulation (CAK)  
CBK Recirculation and renewal air (CBK)  
CCK Configuration with double fan section for recirculation, fresh and exhaust air

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

## SMARTPACK2

**SMARTPACK2** is the innovative range of FULL INVERTER high efficiency autonomous air conditioners. They allow the air treatment, purification and renewal in small and medium environments such as shops, bars, small restaurants, service stations, showrooms, outlet villages, technical rooms and production areas.

The series uses tested inverter compressors, efficient EC treatment fans with brushless motor, DC axial fans source side with brushless motor and motor and a solid electronic controller to better manage these components.

- ▶ **Compact design:** the technical solutions adopted make the unit extremely compact and easy to integrate in a range of different architectural contexts.
- ▶ **Low running costs:** the very high efficiency of the innovative cooling circuit, optimised for operation at partial loads, the free-cooling, the standard energy recovery on units with exhaust air, the electronic low pressure drop filters and the intelligent ventilation air management make a drastic reduction in energy consumption and, as a result, in running costs.
- ▶ **Versatile use:** the technology already successfully adopted in the range of larger units and the extensive number of available versions and options make this unit extremely flexible and suitable for all situations.

## 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

## technical data

Size – CKN-XHE2i			7.1	10.1	14.2
▶ Cooling capacity	(1)	kW	20,6	30,4	45,7
Sensible capacity	(1)	kW	16,5	24,6	35,9
Compressor power input	(1)	kW	5,27	8,28	11,5
▶ Cooling capacity (EN14511:2018)	(9)	kW	19,0	28,4	42,1
EER (EN14511:2018)	(9)	-	3,08	2,88	2,97
▶ Heating capacity	(2)	kW	20,9	29,8	43,8
Compressor power input	(2)	kW	5,08	7,24	9,89
▶ Heating capacity (EN14511:2018)	(10)	kW	20,5	29,1	43,1
COP (EN14511:2018)	(10)	-	3,26	3,25	3,28
No. of compressors		Nr	1	1	2
Type of compressors	(7)	-	ROT	SCROLL	ROT
Sound pressure level	(6)	dB(A)	65	66	68
Refrigeration circuits		Nr		1	
Supply airflow		l/s	1111	1667	2500
Type of supply fan	(3)	-		RAD EC BRUSHLEES	
Number of supply fans		Nr		1	
Fan diameter		mm	450	500	560
Max. static pressure supply fan	(4)	Pa	380	680	510
Type of exhaust fan	(5)	-		RAD EC BRUSHLEES	
Number of exhaust fans	(5)	Nr		1	
External section fan		-		AX DC BRUSHLESS	
Standard power supply		V		400/3/50+N	
<b>Directive ErP (Energy Related Products)</b>					
SEER - AVERAGE Climate	(8)	-	4,39	4,14	4,20
SCOP - AVERAGE Climate	(8)	-	3,06	2,97	3,10

### 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 data are referred to operation with 30% of outdoor and exhaust air; (configuration CCK)

- (1) Ambient air at 27°C/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) RAD = radial fan
- (4) Net outside static pressure to win the outlet and intake onboard pressure drops
- (5) Configuration for outdoor air supply with exhaust and extraction; (only with CCK configuration)
- (6) The sound levels are referred to unit operating at full load in nominal conditions. The sound pressure level is referred at 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)

- (7) SCROLL = scroll compressor  
ROT = rotary compressor
- (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,

## accessories

- ▶ **FCE** Enthalpy FREE-COOLING
- ▶ **PAQC** Air quality probe for CO2 rate check
- ▶ **PAQCV** Air quality sensor for CO2 and VOC rate check
- ▶ **SER** Outdoor air damper manually set (CBK version)
- ▶ **SERM** Outdoor air motorized on/off damper (CBK version)
- ▶ **SERMD** Modulating motorized outdoor air damper (CBK version)
- ▶ **PCOS** Constant supply airflow
- ▶ **PVAR** Variable airflow
- ▶ **GC01** Condensing gas heating module with modulating control 35kW
- ▶ **GC08** Condensing gas heating module with modulating control 44kW
- ▶ **GC09** Condensing gas heating module with modulating control 65kW
- ▶ **GC10** Condensing gas heating module with modulating control 82kW
- ▶ **PGFC** Finned coil protection grill
- ▶ **FES** Electronic filters
- ▶ **PSAF** Differential pressure switch for dirty air filters
- ▶ **CHW2** Two-rows hot water coil
- ▶ **3WVM** Modulating three-way valve
- ▶ **EH09** 4,5 kW electric heaters
- ▶ **EH10** 6 kW electric heaters
- ▶ **EH12** 9 kW electric heaters
- ▶ **EH15** 13.5 kW electric heaters
- ▶ **EH17** 18 kW electric heaters
- ▶ **EH20** 24 kW electric heaters
- ▶ **CPHG** Hot gas re-heating coil
- ▶ **HSE3** 3 kg/h electrode boiler steam humidifier
- ▶ **HSE5** 5 kg/h electrode boiler steam humidifier
- ▶ **HSE8** Immersed electrodes steam humidifier of 8 kg/h
- ▶ **MOB** Serial port RS485 with Modbus protocol
- ▶ **PM** Phase monitor
- ▶ **PFCP** Power factor correction capacitors (cosfi > 0.9)
- ▶ **AMRX** Rubber antivibration mounts

### 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.