

# SMARTPACK2

Roof Top air-cooled reversible heat pump  
Capacity from 19 to 42 kW



Clivet participates in the ECP Programme for "Rooftops". Check ongoing validity of certificate on: [www.eurovent-certification.com](http://www.eurovent-certification.com)



Heat pump



Air cooled



Outdoor installation



R-410A



Full inverter



FREE-COOLING



Thermodynamic recovery



Electronically commutated Fan



Constant Airflow



Variable Airflow



Modbus



INTELLIAIR



ErP compliant

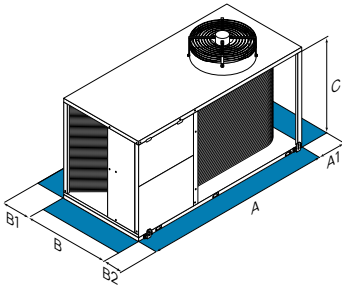
- ✓ Full inverter
- ✓ High part load efficiency
- ✓ Extended working limit (-15°C in heating mode)
- ✓ Enhanced air filtration with low ventilation consumption
- ✓ Thermodynamic recovery
- ✓ Smart Freecooling and Defrosting management
- ✓ All component included on board for an enhanced installation
- ✓ Remote and centralized system monitoring through INTELLIAIR

## Versions and configurations

### CONFIGURATION:

CAK	Configuration with single fan section for full recirculation	CCK	Configuration with double fan section for recirculation, fresh and exhaust air
CBK	Configuration with single fan section for recirculation and fresh air		

## Dimensions and connections



Size	CKN-XHE2i	7.1	10.1	14.2
A - Length	mm	2250	2250	2610
B - Width	mm	1150	1150	1590
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	416	496	635
CCK Operating weight	kg	434	520	670

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

## 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	5,3	8,3	11,5
Cooling capacity (EN 14511:2022)	(9) kW	19,0	28,4	42,1
EER (EN 14511:2022)	(9) -	3,08	2,88	2,97
Heating capacity	(2) kW	20,9	29,8	43,8
Compressor power input	(2) kW	5,1	7,2	9,9
Heating capacity (EN 14511:2022)	(10) kW	20,5	29,1	43,1
COP (EN 14511:2022)	(10) -	3,26	3,25	3,28
Refrigeration circuits	Nr	1	1	1
No. of compressors	Nr	1	1	2
Type of compressors	(3) -	ROT	SCROLL	ROT
Nominal supply airflow	m <sup>3</sup> /h	4000	6000	9000
Airflow range	m <sup>3</sup> /h	3200-5000	4300-6800	6400-10500
Type of supply fan	(4) -	RAD/EC	RAD/EC	RAD/EC
Number of supply fans	Nr	1	1	1
Max. static pressure supply fan	(5) Pa	380	680	510
Type of exhaust fan	(4) -	RAD/EC	RAD/EC	RAD/EC
Number of exhaust fans	(6) Nr	1	1	1
Type of external fan	(4) -	AX/EC	AX/EC	AX/EC
Standard power supply	V	400/3~/50 +N	400/3~/50 +N	400/3~/50 +N
Sound power level outside	(7) dB(A)	83	85	88
<b>Directive ErP (Energy Related Products)</b>				
SEER - AVERAGE Climate	(8) -	4,58	4,37	4,48
n <sub>s,c</sub>	(8) %	180,2	171,9	176,2
SCOP - AVERAGE Climate	(8) -	3,22	3,20	3,27
n <sub>s,h</sub>	(8) %	125,8	125,0	127,8

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) ROT = Rotary compressor; SCROLL = Scroll compressor

(4) RAD = Radial fan; AX = Axial Fan; EC = Electronically Commutated

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

(6) Configuration for outdoor air supply with exhaust and extraction; (only with CCK

configuration)

(7) Sound pressure levels are referred to units operating at nominal load in nominal conditions. Measurements are carried out accordingly to EN 12101-1 at nominal standard conditions defined in respective regulations: EU 2016/2281, UE 813/2013, UE 811/2013.

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

(9) Capacity in total recirculation according to EN 14511:2022, indoor air temperature 27°C D.B./19° CW.B.; outdoor temperature 35°C; EER according to EN 14511:2022

(10) Capacity in total recirculation according to EN 14511:2022, indoor air temperature 20°C; outdoor temperature 7°C D.B./6° CW.B.; COP according to EN 14511:2022

## Accessories

FC	Thermal FREE-COOLING (CCK version)	EH12	9 kW electric heaters
FCE	FREE-COOLING entalpico (CCK version)	EH15	13.5 kW electric heaters
PAQC	Air quality probe for CO <sub>2</sub> rate check (CCK version)	EH17	18 kW electric heaters
PAQCV	Air quality probe for CO <sub>2</sub> and VOC rate check (CCK version)	EH20	24 kW electric heaters
SER	Outdoor air damper manually set (CBK version)	CPHG	Hot gas re-heating coil
SERM	Outdoor air motorized on/off damper (CBK version)	HSE3	3 kg/h electrode boiler steam humidifier
SFCM	Modulating motorized free-cooling damper (available only with options: CCK)	HSE5	5 kg/h electrode boiler steam humidifier
PCOSM	Constant supply airflow	HSE8	8 kg/h immersed electrodes steam humidifier (size)
PVAR	Variable airflow	AMRX	Rubber antivibration mounts
GC01	Condensing gas heating module with modulating control 35 kW	UVC	UV-C germicidal lamps
GC08	Condensing gas heating module with modulating control 44kW	PCMO	Sandwich panels of the handling zone in M0 fire reaction class
GC09	Condensing gas heating module with modulating control 65kW	VENH	High static pressure fans
GC10	Condensing gas heating module with modulating control 82kW	CSOND	Temperature and humidity ambient control with built-in probes
PGFC	Finned coil protection grilles	CTT	Temperature control with thermostat
PGCCH	Anti-hail protection grilles	PTAAX	Remote ambient air temperature sensor
F7	High efficiency F7 air filter (ISO 16890 ePM1 55%)	IOTX	It1IoT industrial module for cloud based interoperability & services
F9	High efficiency F9 air filter (ISO 16890 ePM1 80%)	PTCO	Set up for shipping via container
FES	It1Electronic filters (ISO 16890 ePM1 90%)	LBPF	Packaging with wooden crate + fumigation
PSAF	Differential pressure switch for dirty air filters		
CHW2	Two-rows hot water coil		
3WVM	3-way modulating valve		
EH10	6 kW electric heaters		

Accessories whose code ends with "X" are supplied separately  
For compatibility between the various accessories, please refer to the dedicated Technical Bulletin or our website in the Systems and Products section.