# CSRN-iY

**20.2÷56.4**

PACKAGED

## CLIVETPACK$^{3i}$

**Packaged air-conditioning unit**
CSRN-iY: Reversible heat pump
Air cooled
Roof Top
**Capacity from 59 to 155 kW**

- ✓ Refrigerant R32
- ✓ Full inverter
- ✓ Evolution of Energy recovery concept
- ✓ Energy recovery through enthalpy wheel
- ✓ Enhanced air filtration with low ventilation consumption
- ✓ Extended working limit (-15°C in heating mode)
- ✓ Reliability and increased efficiency ensured by double refrigerant circuit
- ✓ Remote and centralized system monitoring through INTELLIAIR

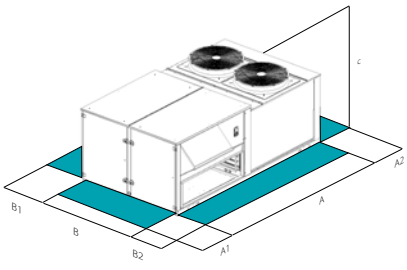
EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com
Clivet participates in the ECP Programme for "Rooftops". Check ongoing validity of certificate on: www.eurovent-certification.com

ErP compliant ErP

## functions and features

Heat pump · Air cooled · Outdoor installation · R-32 · FREE-COOLING · REVO trermodynamic recovery · Energy recovery through enthalpy wheel · Full inverter · ECOBREEZE · Electronically commutated Fan · Electronic expansion valve · Constant Airflow · Variable Airflow · Modbus · INTELLIAIR

## dimensions and clearances




| Size | ▸▸ CSRN-iY | | 20.2 | 28.2 | 40.4 | 56.4 |
|---|---|---|---|---|---|---|
| A - Length | | mm | 3190 | 3970 | 3970 | 5315 |
| B - Width | | mm | 2300 | 2300 | 2300 | 2300 |
| C - Height | | mm | 1480 | 1510 | 1910 | 1920 |
| A1 | | mm | 2000 | 2000 | 2000 | 2600 |
| A2 | | mm | 1500 | 1500 | 1500 | 1500 |
| B1 | | mm | 1500 | 1500 | 1500 | 1500 |
| B2 | | mm | 1500 | 1500 | 1500 | 1500 |
| CAK | Operating weight | kg | 1087 | 1187 | 1678 | 2296 |
| CBK | Operating weight | kg | 1087 | 1187 | 1678 | 2296 |
| CBK-G | Operating weight | kg | 1103 | 1203 | 1714 | 2345 |
| CCK-REVO | Operating weight | kg | 1158 | 1258 | 1744 | 2386 |

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
CCK-REVO Configuration with double fan section with fresh air and REVO trermodynamic recovery

CAUTION!

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

CLIVET

## versions and configurations

CONFIGURATION:

**CAK** Configuration with single fan section for full recirculation
**CBK** Configuration with single fan section for recirculation and fresh air
**CBK-G** Configuration with double fan section for recirculation, fresh and exhaust air
**CCK-REVO** Configuration with double fan section with fresh air and REVO thermodynamic recovery

## technical data

| Size | | | ▶▶ CSRN-iY | | 20.2 | 28.2 | 40.4 | 56.4 |
|---|---|---|---|---|---|---|---|---|
| CCK-REVO | ◆ Cooling capacity | (1) | kW | | 65,9 | 85,8 | 129,0 | 170,5 |
| CCK-REVO | Sensible capacity | (1) | kW | | 55,9 | 72,2 | 99,5 | 155,8 |
| CCK-REVO | Compressor power input | (1) | kW | | 18,1 | 21,6 | 38,0 | 49,6 |
| CCK-REVO | ◆ Cooling capacity (EN 14511:2022) | (9) | kW | | 59,0 | 76,4 | 116,2 | 152 |
| CCK-REVO | EER (EN 14511:2022) | (9) | - | | 2,86 | 2,82 | 2,67 | 2,68 |
| CCK-REVO | ◆ Heating capacity | (2) | kW | | 61,0 | 78,5 | 126,0 | 163,7 |
| CCK-REVO | Compressor power input | (2) | kW | | 12,6 | 15,7 | 30,1 | 38,0 |
| CCK-REVO | ◆ Heating capacity (EN 14511:2022) | (10) | kW | | 58,0 | 75,3 | 119,7 | 159,0 |
| CCK-REVO | COP (EN 14511:2022) | (10) | - | | 3,73 | 3,65 | 3,19 | 3,31 |
| CCK-REVO | Refrigeration circuits | | Nr | | 2 | 2 | 2 | 2 |
| CCK-REVO | No. of compressors | | Nr | | 2 | 2 | 4 | 4 |
| CCK-REVO | Type of compressors | (3) | - | | ROT | SCROLL | ROT | SCROLL |
| CCK-REVO | Nominal supply airflow | | $m^3/h$ | | 13000 | 17000 | 23000 | 32000 |
| CCK-REVO | Airflow range | | $m^3/h$ | | 8500-14000 | 13000-20500 | 17000-26000 | 22000-34000 |
| CCK-REVO | Type of supply fan | (4) | - | | RAD/EC | RAD/EC | RAD/EC | RAD/EC |
| CCK-REVO | Number of supply fans | | Nr | | 1 | 2 | 2 | 3 |
| CCK-REVO | Max. static pressure supply fan | (5) | Pa | | 330 | 450 | 410 | 300 |
| CCK-REVO | Type of exhaust fan | (4) | - | | RAD/EC | RAD/EC | RAD/EC | RAD/EC |
| CCK-REVO | Number of exhaust fans | (6) | Nr | | 1 | 2 | 2 | 2 |
| CCK-REVO | Type of external fan | (4) | - | | AX/EC | AX/EC | AX/EC | AX/EC |
| CCK-REVO | Standard power supply | | V | | 400/3~/50 | 400/3~/50 | 400/3~/50 | 400/3~/50 |
| Sound power level outside | | (7) | dB(A) | | 88 | 89 | 88 | 90 |
| **Directive ErP (Energy Related Products)** | | | | | | | | |
| SEER - AVERAGE Climate | | (8) | - | | 4,92 | 4,70 | 4,85 | 4,52 |
| $\eta_{S,C}$ | | (8) | % | | 193,8 | 185,0 | 191,0 | 177,8 |
| SCOP - AVERAGE Climate | | (8) | - | | 3,91 | 3,79 | 3,81 | 3,93 |
| $\eta_{S,H}$ | | (8) | % | | 153,4 | 148,6 | 149,4 | 154,2 |

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 operation with 30% fresh and exhaust air with thermodynamic recovery REVO (CCK-REVO)
(1) Ambient air at 27°C/19°C W.B. Entering external exchanger air temperature 35°C D.B. / 24°C W.B.
(2) Ambient air at 20°C D.B. / 12°C W.B., Entering external exchanger air temperature 7°C D.B. / 6°C W.B.
(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) Only for double fan section configuration with fresh air and REVO thermodynamic recovery (CCK-REVO)
(7) Sound pressure levels are referred to units operating at nominal load in nominal conditions. Measurements are carried out accordingly to UNI EN ISO 9614-1 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°C W.B.; COP according to EN 14511:2022

## accessories

**FC** Thermal FREE-COOLING (CBK-G, CCK-REVO version)
**FCE** Enthalpy FREE-COOLING (CBK-G, CCK-REVO version)
**REVO** REVO exhaust air thermodynamic energy recovery (CCK-REVO version)
**CHW2** Two-rows hot water coil
**CHWER** Energy recovery from food refrigeration
**3WVM** 3-way modulating valve
**2WVM** 2-way modulating valve
**EH12** 9 kW electric heaters (size 20.2)
**EH14** 12 kW electric heaters (size 20.2-28.2)
**EH17** 18 kW electric heaters (size 20.2-28.2-40.4)
**EH20** 24 kW electric heaters (size 28.2-40.4-56.4)
**EH24** 36 kW electric heaters (size 40.4-56.4)
**EH28** 48 kW electric heaters (size 56.4)
**GC01X** Condensing gas heating module with modulating control 35 kW (sizes 20.2-28.2)
**GC08X** Condensing gas heating module with modulating control 44 kW (size 20.2-28.2)
**GC09X** Condensing gas heating module with modulating control 65 kW (size 20.2-28.2-40.4)
**GC10X** Condensing gas heating module with modulating control 82 kW (size 28.2-40.4-56.4)
**GC11X** Condensing gas heating module with modulating control 100 kW (size 28.2-40.4-56.4)
**GC12X** Condensing gas heating module with modulating control 130 kW (size 40.4-56.4)
**GC13X** Condensing gas heating module with modulating control 160 kW (size 56.4)
**EWX** Enthalpy wheel energy recovery module (CBK-G version)
**AMRX** Rubber antivibration mounts
**AMRMX** Rubber antivibration mounts for unit and gas module
**AMRUVX** Rubber antivibration mounts for unit and UV-C Lamps module
**AMREWX** Rubber antivibration mounts for unit and enthalpy wheel module
**RCX** Roof curb
**PGFC** Finned coil protection grill
**PGCCH** Anti-hail protection grilles
**PCM0** Sandwich panels of the handling zone in M0 fire reaction class
**CPHG** Hot gas re-heating coil
**M3** Downward air supply
**M5** Upflow air supply
**R3** Downward air return
**NSERG** Gravity exhaust air damper: not required (CBK-G version)
**SERM** Outdoor air motorized on/off damper (CBK version)
**SER** Outdoor air damper manually set (CBK version)
**SERMD** Modulating motorized outdoor air damper (optional for CBK, standard for CCK and CCKP)
**VENH** High static pressure fan
**PVAR** Variable airflow
**PCOSM** Constant supply airflow
**PVARDP** Variable airflow with pressure probe on the unit
**PVMV** 4-20mA signal for supply and exhaust air flow rate modulation
**PAQC** Air quality probe for $CO_2$ rate check (CBK, CBK-G, CCK-REVO version)
**PAQCV** Air quality sensor for $CO_2$ and VOC rate check (CBK, CBK-G, CCK-REVO version)
**PPAQC** External $CO_2$ signal management (CBK, CBK-G, CCK-REVO version)
**F7** High efficiency F7 air filter (ISO 16890 ePM1 55%)
**F9** High efficiency F9 air filter (ISO 16890 ePM1 80%)
**FIFD** Electronic filter with iFD technology (ISO 16890 ePM1 90%)
**PSAF** Differential pressure switch for dirty air filters
**HSE3** 3 kg/h immersed electrodes steam humidifier (size 20.2-28.2)
**HSE5** 5 kg/h immersed electrodes steam humidifier (size 20.2-28.2)
**HSE8** 8 kg/h immersed electrodes steam humidifier
**HSE9** 15 kg/h immersed electrodes steam humidifier
**PUE** External humidifier management with 0-10V signal
**LTEMP1** Application for low outdoor temperature
**EXFLOWC** Application in spaces with forced air exhaust at variable flow and exhaust section (CCK-REVO version)
**UVCX** UV-C lamp module with germicidal effect
**CMSC13X** Serial communication module for Modbus TCP/IP, BACnet IP, BACnet MSTP superviso
**CTT** Temperature control with thermostat
**CSOND** Temperature and humidity ambient control with built-in probes
**MDMTX** Management of ambient temperature probes
**MDMTUX** Management of ambient temperature and humidity probes
**IOTX** IoT industrial module for cloud based interoperability & services
**DESM** Smoke detector
**CONTA2** Energy meter
**CHMET** Cooling and Heating Capacity Meter
**DML** Demand Limit
**PTCO** Set up for shipping via container

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.





Valid from: January 2025 - REF. DG25A901GB-00