

CLIVETPack³

Packaged air-conditioning unit

CSRN-Y: Reversible heat pump

Air cooled

Roof Top

Capacity from 190 to 380 kW



- ✓ Refrigerant R32
- ✓ 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

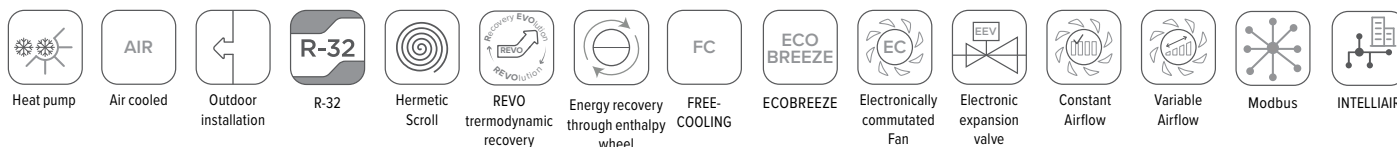


Clivet participates in the ECP Programme for "Rooftops". Check ongoing validity of certificate on: www.eurovent-certification.com

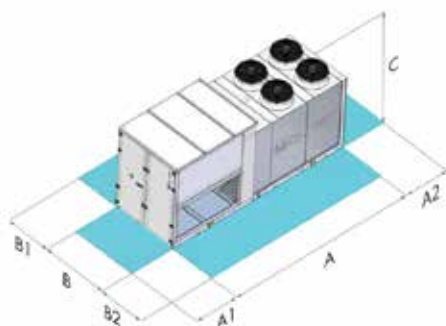


ErP compliant

functions and features



dimensions and clearances



Size		▶▶ CSRN-Y	60.4	70.4	80.4	90.4	100.4	120.4
A - Length	mm		6300	6300	6300	8050	8050	8050
B - Width	mm		2300	2300	2300	2300	2300	2300
C - Height	mm		2250	2250	2250	2250	2250	2250
A1	mm		1500	1500	1500	1500	1500	1500
A2	mm		1500	1500	1500	1500	1500	1500
B1	mm		1500	1500	1500	1500	1500	1500
B2	mm		1500	1500	1500	1500	1500	1500
CAK Operating weight	kg		2605	2643	2643	3536	3536	3750
CBK Operating weight	kg		2605	2643	2643	3536	3536	3750
CBK-G Operating weight	kg		2605	2643	2643	3536	3536	3750
CCK-REVO Operating weight	kg		2745	2783	2783	3728	3728	3942

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.

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-Y	60.4	70.4*	80.4*	90.4*	100.4*	120.4*	
CCK-REVO	❖ Cooling capacity	(1)	kW	209	234	265	296	324	378
CCK-REVO	Sensible capacity	(1)	kW	159	179	207	226	247	282
CCK-REVO	Compressor power input	(1)	kW	47,9	54,0	64,7	65,8	73,6	95,1
CCK-REVO	❖ Cooling capacity (EN 14511:2022)	(9)	kW	191,0	213,9	240,7	270,3	296,0	344,0
CCK-REVO	EER (EN 14511:2022)	(9)	-	3,40	3,40	3,20	3,45	3,42	3,14
CCK-REVO	❖ Heating capacity	(2)	kW	199	220	248	284	309	363
CCK-REVO	Compressor power input	(2)	kW	43,5	48,7	54,6	60,0	67,7	87,6
CCK-REVO	❖ Heating capacity (EN 14511:2022)	(10)	kW	191,8	213,5	242,7	274,0	298,8	352,5
CCK-REVO	COP (EN 14511:2022)	(10)	-	3,44	3,44	3,46	3,50	3,43	3,19
CCK-REVO	Refrigeration circuits		Nr	2	2	2	2	2	2
CCK-REVO	No. of compressors		Nr	4	4	4	4	4	4
CCK-REVO	Type of compressors	(3)	-	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL
CCK-REVO	Supply air flow rate		m³/h	33000	37000	44000	49000	53000	58000
CCK-REVO	Type of supply fan	(4)	-	RAD/EC	RAD/EC	RAD/EC	RAD/EC	RAD/EC	RAD/EC
CCK-REVO	Number of supply fans		Nr	4	4	4	6	6	6
CCK-REVO	Max. static pressure supply fan	(5)	Pa	870	760	580	860	810	740
CCK-REVO	Type of exhaust fan	(4)	-	RAD/EC	RAD/EC	RAD/EC	RAD/EC	RAD/EC	RAD/EC
CCK-REVO	Number of exhaust fans	(6)	Nr	2	2	2	2	2	2
CCK-REVO	Type of external fan	(4)	-	AX/AC	AX/AC	AX/AC	AX/AC	AX/AC	AX/AC
CCK-REVO	Standard power supply		V	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50
Sound power level outside		(7)	dB(A)	92	94	97	95	96	98
Directive ErP (Energy Related Products)									
SEER - AVERAGE Climate		(8)	-	4,74	4,69	4,37	4,44	4,31	4,16
η _{sc}		(8)	%	186,6	184,7	171,7	174,7	169,5	163,5
SCOP - AVERAGE Climate		(8)	-	3,41	3,47	3,42	3,42	3,39	3,37
η _{sh}		(8)	%	133,5	135,8	133,9	133,9	132,5	132,0

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.

* models so marked are not Eurovent certified (out of scope)

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) SCROLL = Scroll compressor

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

(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°C W.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

PACKAGED

accessories

FC	Thermal FREE-COOLING (CBK-G, CCK-REVO version)	PVAR	Variable air flow
FCE	Enthalpy FREE-COOLING (CBK-G, CCK-REVO version)	PCOSM	Constant supply airflow
REVO	REVO exhaust air thermodynamic energy recovery (CCK-REVO version)	PVARDP	Variable airflow with pressure probe on the unit
CREFB	Device for fan consumption reduction of the external section, ECOBREEZE type	SPVAR	0-10 V signal for air flow modulation
CHW2	Two-rows hot water coil	PAQC	Air quality probe for CO ₂ rate check (CBK, CBK-G, CCK-REVO version)
CHWER	Energy recovery from food refrigeration	PAQCV	Air quality sensor for CO ₂ and VOC rate check (CBK, CBK-G, CCK-REVO version)
3WVM	3-way modulating valve	PAQC2	Double air quality probe for CO ₂ rate check (CBK, CBK-G, CCK-REVO version)
2WVM	2-way modulating valve	PAQCV2	Double air quality probe for CO ₂ and VOC rate check (CBK, CBK-G, CCK-REVO version)
EH20	24 kW electric heaters	PPAQC	External CO ₂ signal management
EH24	36 kW electric heaters	F7	High efficiency F7 air filter (ISO 16890 ePM1 55%)
EH28	48 kW electric heaters	F9	High efficiency F9 air filter (ISO 16890 ePM1 80%)
GC10X	Condensing gas heating module with modulating control 82 kW (sizes 60.4÷80.4)	FIFD	Electronic filter with iFD technology (ISO 16890 ePM1 90%)
GC11X	Condensing gas heating module with modulating control 100 kW (sizes 60.4÷80.4)	PSAF	Differential pressure switch for dirty air filters
GC12X	Condensing gas heating module with modulating control 130 kW (sizes 90.4÷120.4)	HSE8	8 kg/h immersed electrodes steam humidifier
GC13X	Condensing gas heating module with modulating control 164 kW	HSE9	15 kg/h immersed electrodes steam humidifier
GC06X	Condensing gas heating module with modulating control 200 kW	PUE	External humidifier management with 0-10V signal
GC07X	Condensing gas heating module with modulating control 300 kW (sizes 90.4÷120.4)	LTEMP1	Application for low outdoor temperature
EWX	Enthalpy wheel energy recovery module (CBK-G version)	EXFLOWC	Application in spaces with forced air exhaust at variable flow and exhaust section (CCK-REVO version)
AMRX	Rubber antivibration mounts	UVCX	UV-C lamp module with germicidal effect
AMRMX	Rubber antivibration mounts for unit and gas module	BRCI	Sloping drain pan
AMRUVX	Rubber antivibration mounts for unit and UV-C Lamps module	LON	TP/FT serial port with LonWorks protocol
AMREWX	Rubber antivibration mounts for unit and enthalpy wheel module	BACIP	BACnet-IP serial communication module
RCX	Roof curb	BACMSTP	BACnet-MSTP serial communication module
PGFC	Finned coil protection grill	SFSTR	Disposal for inrush current reduction
PGCCH	Anti-hail protection grilles	NCRC	Remote control with user interface: not required
PCMO	Sandwich panels of the handling zone in M0 fire reaction class	CSOND	Temperature and humidity ambient control with built-in probes
CPHG	Hot gas re-heating coil	MDMTX	Management of ambient temperature probes
M3	Downward supply	MDMTUX	Management of ambient temperature and humidity probes
M5	Upward supply	MDMADX	Advanced monitoring and management ambient probes
R3	Downward air return	IOTX	IoT industrial module for cloud based interoperability & services
SER	Outdoor air damper manually set (CBK version)	SIX	Service interface (cable of 1,5 metres)
SERM	Outdoor air motorized on/off damper (CBK version)	PFCC	Power factor correction capacitors (cosφ > 0.95)
SFCM	Modulating motorised FREE-COOLING damper (Optional for CBK, Standard for CBK-G and CCK-REVO)	DESM	Smoke detector
NSERG	Gravity exhaust air damper: not required (CBK-G version)	CONTA2	Energy meter
VENH	High static pressure fan	CHMET	Cooling and Heating Capacity Meter
		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.