

CLIVETPack² FFA

Packaged air-conditioning unit

CSRN-XHE2 FFA: Reversible heat pump

Air cooled

Roof Top

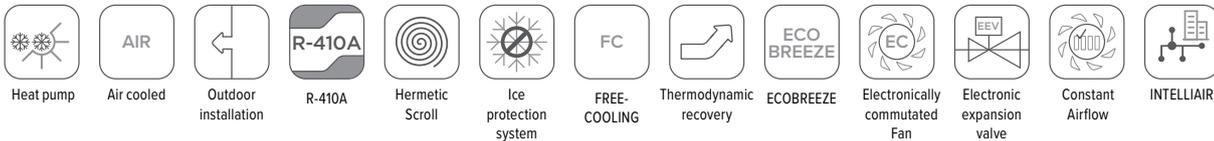
Capacity from 40 to 90 kW



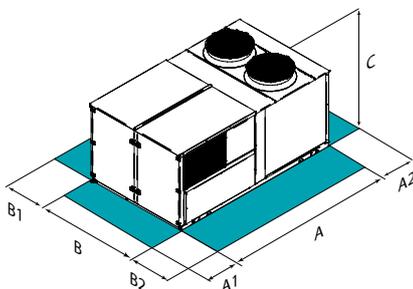
- ✓ Specifically designed for 100% fresh air conditioning application
- ✓ No contamination between supply and exhaust air
- ✓ High part load efficiency
- ✓ Smart Freecooling and Defrosting management
- ✓ Enhanced air filtration with low ventilation consumption
- ✓ Thermodynamic recovery
- ✓ Compliant with main communication protocols (Modbus, Bacnet and Lonworks)
- ✓ Many available configurations suitable for the most different project situation
- ✓ Interaction with third part extraction systems
- ✓ All component included on board for an enhanced installation
- ✓ Remote and centralized system monitoring through INTELLIAIR

PACKAGED

functions and features



dimensions and clearances



Size	►► CSRN-XHE2-FFA	12.2	16.2	20.4	22.4	24.4
CBFFA A - Length	mm	2090	2090	3110	3110	3110
CBFFA B - Width	mm	2300	2300	2300	2300	2300
CBFFA C - Height	mm	1560	1560	1650	1650	1650
CBFFA A1	mm	1500	1500	1500	1500	1500
CBFFA A2	mm	1500	1500	1500	1500	1500
CBFFA B1	mm	1500	1500	1500	1500	1500
CBFFA B2	mm	1500	1500	1500	1500	1500
CBFFA Operating weight	kg	1273	1297	1358	1393	1427
CCFFA Operating weight	kg	1401	1425	1560	1595	1629

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.

CBFFA Configuration for fresh air supply only
CCFFA Configuration for fresh air supply with extraction and exhaust

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:

CBFFA Configuration for fresh air supply only (Standard)

CCFFA Configuration pour introduction d'air neuf avec extraction et expulsion

technical data

Size		►► CSRN-XHE2-FFA	12.2	16.2	20.4	22.4	24.4	
CBFFA	♦ Cooling capacity	(1)	kW	39,8	49,5	76,1	83,4	90,4
CBFFA	Sensible capacity	(1)	kW	21,5	27,8	38,3	43,3	48,0
CBFFA	Compressor power input	(1)	kW	9,4	12,9	20,0	21,7	23,3
CBFFA	EER	(1)	-	4,23	3,84	3,81	3,84	3,88
CBFFA	♦ Heating capacity	(2)	kW	39,6	50,0	73,2	81,4	89,5
CBFFA	Compressor power input	(2)	kW	9,9	11,9	17,2	18,2	20,7
CBFFA	COP	(2)	-	4,00	4,20	4,26	4,47	4,32
CBFFA	Refrigeration circuits		Nr	2	2	2	2	2
CBFFA	No. of compressors		Nr	2	2	4	4	4
CBFFA	Type of compressors	(3)	-	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL
CBFFA	Supply air flow rate		m ³ /h	3400	4500	6000	7000	8000
CBFFA	Type of supply fan	(4)	-	RAD/EC	RAD/EC	RAD/EC	RAD/EC	RAD/EC
CBFFA	Number of supply fans		Nr	1	1	1	1	1
CBFFA	Max. static pressure supply fan	(5)	Pa	675	470	775	730	650
CBFFA	Type of external fan	(4)	-	AX/AC	AX/AC	AX/AC	AX/AC	AX/AC
CBFFA	Standard power supply		V	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50
Sound power level outside		(6)	dB(A)	83	85	84	85	87

Performance refers to operation with 80% of expelled and outdoor air
 (1) Ambient air at 27°C D.B./19°C W.B. Outdoor air temperature: 35°C D.B./ 24°C W.B; EER referred only to compressors
 (2) Ambient temperature 20°C DB. Outside temperature 7°C DB/6°C WB; COP referred only to compressors
 (3) SCROLL = Scroll compressor

(4) RAD = Radial fan; AX = Axial Fan; EC = Electronically Commutated; AC = Alternating current
 (5) Available net pressure to overcome the supply
 (6) 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.

CBFFA Configuration for fresh air supply only

accessories

RE1	Thermodynamic heat recovery system (CCFFA version)	GC10X	Condensing gas heating module with modulating control 82 kW (sizes 20.4÷24.4)
M3	Downward air supply	LTEMP1	Application for low outdoor temperature
M5	Upflow air supply	PGFC	Finned coil protection grill
R3	Downward air return	PGCCH	Anti-hail protection grilles
PCOSM	Constant supply airflow	CPHG	Hot gas re-heating coil
PCOSME	Constant airflow in supply and exhaust (CCFFA version)	HSE5	5 kg/h immersed electrodes steam humidifier (sizes 12.2÷16.2)
CREFB	Device for fan consumption reduction of the external section, ECOBREEZE type	HSE8	8 kg/h immersed electrodes steam humidifier
VENH	High static pressure fans	HSE9	15 kg/h immersed electrodes steam humidifier (sizes 20.4÷24.4)
F7	High efficiency F7 air filter (ISO 16890 ePM1 55%)	MHP	High and low pressure gauges
F9	High efficiency F9 air filter (ISO 16890 ePM1 80%)	CMSC9	Serial communication module for Modbus supervisor
FIFD	Electronic filter with iFD technology (ISO 16890 ePM1 90%)	CMSC10	Serial communication module for LonWorks supervisor
PSAF	Differential pressure switch for dirty air filters	CMSC11	Serial communication module for BACnet-IP supervisor
EH12	9 kW electric heaters (sizes 12.2÷16.2)	CTERM	Remote keypad for indoor temperature and humidity control
EH15	13,5 kW electric heaters (sizes 12.2÷16.2)	PM	Phase monitor
EH17	18 kW electric heaters (sizes 20.4÷24.4)	PFCC	Power factor correction capacitors (cosφ > 0.95)
EH22	27 kW electric heaters (sizes 20.4÷24.4)	SFSTC	Progressive compressor start-up device
CHW2	Two-rows hot water coil	PTAAX	Remote ambient air temperature sensor
3WVM	3-way modulating valve	PTUAX	Remote ambient air temperature and humidity probe
2WVM	2-way modulating valve	IOTX	IoT industrial module for cloud based interoperability & services
GC01X	Condensing gas heating module with modulating control 35kW (sizes 12.2÷16.2)	PCMO	Sandwich panels of the handling zone in MO fire reaction class
GC08X	Condensing gas heating module with modulating control 44 kW (size 12.2÷16.2)	PTCO	Set up for shipping via container
GC09X	Condensing gas heating module with modulating control 65 kW	AMRX	Rubber antivibration mounts
		AMRMX	Rubber antivibration mounts for unit and gas module
		RCX	Roof curb

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.