

# COMPRESSOR DRIVE CFR HPE - CFR HPEI

Air conditioning and dehumidification system with air renewal and thermodynamic support compressor



## Technical and construction characteristics

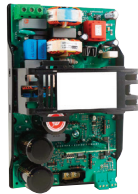
The COMPRESSOR DRIVE air renewal units are characterized by the adoption of a double energy recovery system, otherwise lost in the stale air expulsion phase: the first, static type, using a cross-flow recuperator with plates in aluminium, the second (in cascade to the previous one), of the active type, created with a reversible refrigeration circuit.

COMPRESSOR DRIVE was designed to allow easy accessibility to the electrical panel for correct and effective maintenance, made up of 14 models (all in horizontal version) which can cover ventilation needs from 350 to 4500 m<sup>3</sup>/h.

The HPE models are equipped with EC fans and ON-OFF compressors while the HPEI models are equipped with EC fans and variable capacity rotary inverter compressors with dedicated motor and driver, together with the fans with EC motors, allowing high efficiency and extreme flexibility in operation allowing the choice of multiple regulation logics.



Controller display on board the machine as standard



Dedicated driver for series EC fans

COMPRESSOR DRIVE is composed of:

- Frame made with extruded aluminum profiles and joints nylon that eliminate possible vibrations;
- Sandwich type infill panels 23 mm thick, pre-painted externally and galvanized internally with injected polyurethane insulation with density 45 kg/m<sup>3</sup>;
- Synthetic pleated filters in ISO 16890 efficiency class COARSE 55% on both air circuits, large surface area;
- Cross-flow air-air recuperator with aluminum plates;
- Reversible R410A refrigeration circuit with compressor hermetic on-off for HPE versions, or modulating DC inverter on HPEI and electronic expansion valve;
- Centrifugal electric fans with double inlet and motor electric directly coupled with fixed speed;
- High efficiency EC fans with flow operation constant for models from size 100 to 450, with the possibility of modulating the flow rate by combining it with the air quality probe;
- Electrical panel complete with regulation and control panel.



RENEWABLE ENERGY



FULL INVERTER FAN



ENERGY SAVING



BIOXGEN SYSTEM OPTIONAL



EASY INSTALLATION



ENERGY RECOVERY



ECOLOGICAL GAS



DUCTED UNIT



AIR FILTRATION



AIR RENEWAL





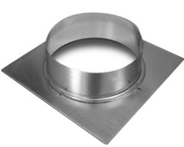


Model with EC fans and ON-OFF compressor	Air flow m <sup>3</sup> /h	Code	€
<b>COMPRESSOR DRIVE CFR-HPE 35</b>	<b>350</b>	<b>75801601</b>	<b>10.340,00</b>
<b>COMPRESSOR DRIVE CFR-HPE 60</b>	<b>600</b>	<b>75801602</b>	<b>10.780,00</b>
<b>COMPRESSOR DRIVE CFR-HPE 100</b>	<b>1000</b>	<b>75801603</b>	<b>12.190,00</b>
<b>COMPRESSOR DRIVE CFR-HPE 150</b>	<b>1500</b>	<b>75801604</b>	<b>13.540,00</b>
<b>COMPRESSOR DRIVE CFR-HPE 230</b>	<b>2300</b>	<b>75801605</b>	<b>16.570,00</b>
<b>COMPRESSOR DRIVE CFR-HPE 320</b>	<b>3200</b>	<b>75801606</b>	<b>18.860,00</b>
<b>COMPRESSOR DRIVE CFR-HPE 450</b>	<b>4500</b>	<b>75801607</b>	<b>21.880,00</b>

Model with EC fans and INVERTER compressor	Air flow m <sup>3</sup> /h	Code	€
<b>COMPRESSOR DRIVE CFR-HPEI 35</b>	<b>350</b>	<b>75801608</b>	<b>12.120,00</b>
<b>COMPRESSOR DRIVE CFR-HPEI 60</b>	<b>600</b>	<b>75801609</b>	<b>12.570,00</b>
<b>COMPRESSOR DRIVE CFR-HPEI 100</b>	<b>1000</b>	<b>75801610</b>	<b>14.600,00</b>
<b>COMPRESSOR DRIVE CFR-HPEI 150</b>	<b>1500</b>	<b>75801611</b>	<b>16.100,00</b>
<b>COMPRESSOR DRIVE CFR-HPEI 230</b>	<b>2300</b>	<b>75801612</b>	<b>19.400,00</b>
<b>COMPRESSOR DRIVE CFR-HPEI 320</b>	<b>3200</b>	<b>75801613</b>	<b>21.800,00</b>
<b>COMPRESSOR DRIVE CFR-HPEI 450</b>	<b>4500</b>	<b>75801614</b>	<b>24.880,00</b>

# COMPRESSOR DRIVE CFR HPE - CFR HPEI

Air conditioning and dehumidification system with air renewal and thermodynamic support compressor








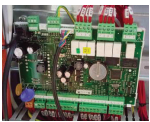

## Accessories COMPRESSOR DRIVE

		Code	€
 <p>PRE and POST heating electric resistance installed on the machine complete with safety thermostat and relay</p>	mod. PRE 35 - 60 (1,5 kW M)	75800620	692,00
	mod. PRE 100 - 150 (3 kW M)	75800621	764,00
	mod. PRE 230 (6 kW T)	75800622	964,00
	mod. PRE 320 (9 kW T)	75800623	1.206,00
	mod. PRE 450 (12 kW T)	75800624	1.456,00
	mod. POST 35 - 60 (1,5 kW M)	75801615	692,00
	mod. POST 100 - 150 (3 kW M)	75801616	764,00
	mod. POST 230 (6 kW T)	75801617	964,00
 <p>Section with hot/cold water coil that can be connected to the unit through suitable ducting</p>	mod. 35 - 60	75800630	820,00
	mod. 100	75800631	934,00
	mod. 150	75800632	1.200,00
	mod. 230	75800633	1.386,00
	mod. 320	75800634	1.476,00
	mod. 450	75800635	1.766,00
 <p>2 or 3 way valve kit with ON-OFF servomotor for regulating the auxiliary hot/cold water coil complete with hydraulic fittings</p>	mod. 2 way 35/320	75800640	538,00
	mod. 2 way 450	75800641	556,00
	mod. 3 way 35/320	75800645	572,00
	mod. 3 way 450	75800646	596,00
 <p>High efficiency filters ISO 16890 (F7 EN 779) in polypropylene to be inserted on the machine in place of the standard filter supplied as standard</p>	mod. 35 - 60	75800650	92,00
	mod. 100	75800651	186,00
	mod. 150	75800652	204,00
	mod. 230	75800653	240,00
	mod. 320	75800654	278,00
	mod. 450	75800655	448,00
 <p>Circular connections kit in galvanized sheet metal to connect the unit to the circular section aeraulic ducts on both the pressing and suction sides (kit consisting of n. 4 connections</p>	mod. 35 - 60 (Ø 200)	75800670	246,00
	mod. 100 (Ø 315)	75800671	294,00
	mod. 150 (Ø 315)	75800672	334,00
	mod. 230 (Ø 355)	75800673	392,00
	mod. 320 (Ø 400)	75800674	440,00
	mod. 450 (Ø 450)	75800675	488,00
 <p>Damper with servo control ON-OFF to intercept or calibrate the air flow</p>	mod. 35/60 (210x300 mm)	75800611	396,00
	mod. 100 (210x400 mm)	75800612	422,00
	mod. 150 (310x400 mm)	75800613	444,00
	mod. 230 (410x500 mm)	75800614	508,00
	mod. 320 (510x500 mm)	75800615	532,00
	mod. 450 (510x600 mm)	75800616	560,00
 <p>Damper with ON-OFF servo control with spring return to intercept or calibrate the air flow</p>	mod. 35 - 60 (210x300 mm)	75801620	602,00
	mod. 100 (210x400 mm)	75801621	630,00
	mod. 150 (310x400 mm)	75801622	656,00
	mod. 230 (410x500 mm)	75801623	726,00
	mod. 320 (510x500 mm)	75801624	762,00
	mod. 450 (510x600 mm)	75801625	784,00

# COMPRESSOR DRIVE CFR HPE - CFR HPEI

Air conditioning and dehumidification system with air renewal and thermodynamic support compressor

## Accessories COMPRESSOR DRIVE

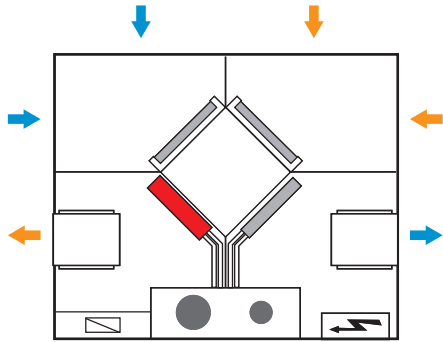
			Code	€
	Duct silencer composed of rectangular section baffles made of galvanized steel sheet filled with glass wool covered with a compact fabric	mod. 35 - 60 (300x300 mm)	75800680	532,00
		mod. 100 (300x450 mm)	75800681	978,00
		mod. 150 (600x450 mm)	75800682	1.066,00
		mod. 230 (600x600 mm)	75800683	1.184,00
		mod. 320 (600x750 mm)	75800684	1.260,00
		mod. 450 (750x750 mm)	75800685	1.500,00
	Section with 3 dampers, system for mixing the external air with the expulsion air active in winter mode complete with modulating dampers and servocontrols	mod. 35 - 60 (1240x370 mm)	75801626	2.730,00
		mod. 100 - 150 (1440x410 mm)	75801627	2.864,00
		mod. 230 (1690x500 mm)	75801628	3.320,00
		mod. 320 (1690x650 mm)	75801629	3.390,00
		mod. 450 (1890x710 mm)	75801630	3.442,00
	Pressure switch for signaling filter clogging		75800610	192,00
	Module with Bioxygen® sanitization system already inserted in the unit in correspondence with the external air intake and already wired with the general electrical panel	mod. 35 - 60	75800690	1.594,00
		mod. 100	75800691	1.676,00
		mod. 150	75800692	1.862,00
		mod. 230 - 320	75800693	2.062,00
		mod. 450	75800695	2.290,00
	Covering roof for applying the unit to the outside of the building (protruding 50 mm from on the 4 sides of the unit)	mod. 35 - 60	75801631	608,00
		mod. 100 - 150	75801632	672,00
		mod. 230 - 320	75801633	1.024,00
		mod. 450	75801634	1.276,00
	External air intake cap kit	mod. 35 - 60	75801635	130,00
		mod. 100	75801636	200,00
		mod. 150	75801637	258,00
		mod. 230	75801638	328,00
		mod. 320	75801639	392,00
		mod. 450	75801640	400,00
	Remote user terminal		75800696	692,00
	Modbus card for remote control of the unit		75800697	288,00
	CO2 probe for ventilation control based on the quality of the ambient air	mod. ductable	75800698	966,00
		mod. wall mounted	75800699	1.224,00

# COMPRESSOR DRIVE CFR HPE - CFR HPEI

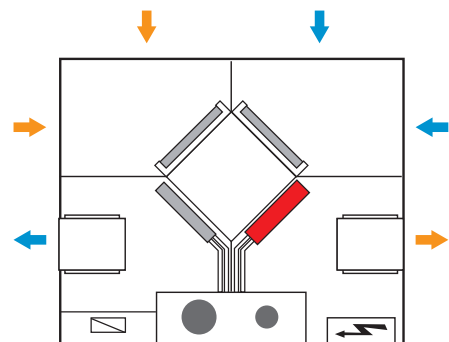
Air conditioning and dehumidification system with air renewal and thermodynamic support compressor

## Possible orientations COMPRESSOR DRIVE

**Orientation type 01**  
mod. HPE-HPEI

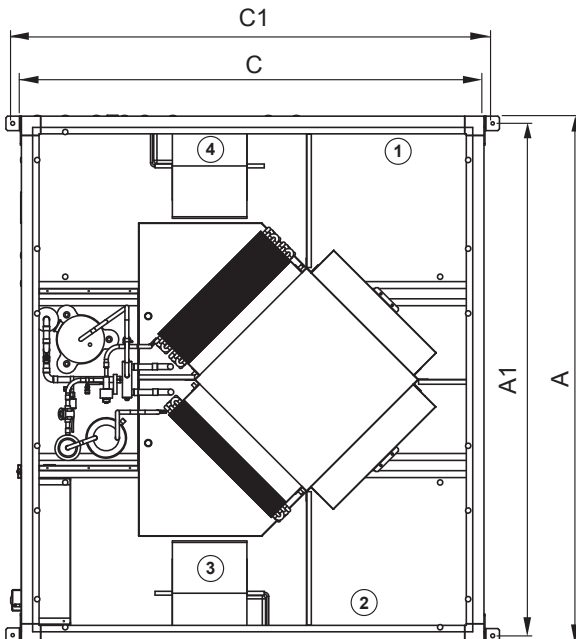
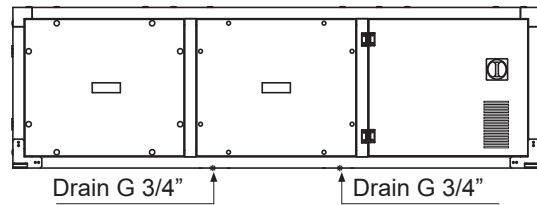
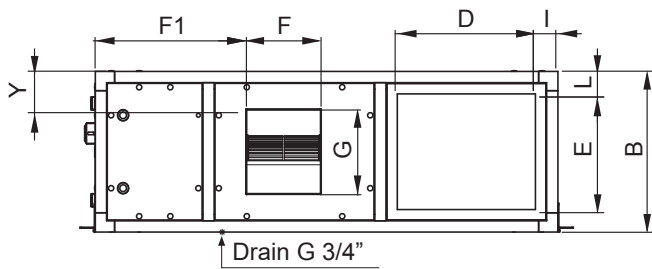


**Orientation type 02**  
mod. HPE-HPEI



**Legend:** Air expelled Fresh air - The orientations depicted are relative to the machines seen from above

## Model dimensions and weights COMPRESSOR DRIVE



- (1) external air intake
- (2) room air intake
- (3) treated air intake
- (4) stale air expulsion

Model	U.M.	35	60	100	150	230	320	450
A	mm	1540	1540	1840	1840	2040	2040	2240
B	mm	370	370	410	500	550	650	710
C	mm	1240	1240	1440	1440	1690	1690	1890
A1	mm	1495	1495	1795	1795	1995	1995	2195
C1	mm	1294	1294	1494	1494	1744	1744	1944
D	mm	300	300	400	400	500	500	600
E	mm	210	210	250	350	410	510	550
F	mm	232	232	233	233	299	332	332
F1	mm	458	458	703	470	571	500	604
G	mm	115	115	264	264	264	291	291
I	mm	85	85	85	85	85	85	85
L	mm	80	80	80	75	70	70	80
Y	mm	90	90	55	118	120	180	180
Weight	Kg	122	125	185	228	267	281	329

# COMPRESSOR DRIVE CFR HPE - CFR HPEI

Air conditioning and dehumidification system with air renewal and thermodynamic support compressor

## Technical data table COMPRESSOR DRIVE HPE

Model	U.M.	35	60	100	150	230	320	450
Nominal air flow	m <sup>3</sup> /h	350	600	1000	1500	2300	3200	4500
Useful delivery static pressure	Pa	270	285	295	290	365	265	270
Useful static pressure recovered	Pa	245	215	240	230	305	195	205
Sound pressure level (1)	dB(A)	59/47/52	64/50/55	62/49/54	67/54/57	65/51/59	68/54/59	70/56/59

## FUNCTIONAL LIMITS COMPRESSOR DRIVE HPE

Mod. winter standard version		Limit external temperature -10 °C / Limit internal temperature + 19 °C (U.R. 50%)
Mod. winter with 3-damper section		External temperature limit -20 °C / Internal temperature limit + 19 °C (U.R. 50%)
Summer mode		Limit external temperature +38 °C (RH 50%) / Limit internal temperature + 27 °C

CAPACITY VARIATION RANGE		-10% / +10%
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## ELECTRICAL DATA COMPRESSOR DRIVE HPE

Power supply		230V/1/50Hz				450V/3+N/50Hz		
Maximum absorbed current (2)	A	5,3	9,0	13,2	20,0	10,0	15,4	16,8

## WINTER PERFORMANCE COMPRESSOR DRIVE HPE (3)

Static recovery efficiency		62%	51%	50%	50%	50%	50%	50%
Total thermal power	W	3580	5790	9410	14390	21190	30260	36010
Active recovery thermal power	W	1740	2960	5010	7690	11090	16300	17300
COP global (4)	W/W	10,9	9,6	9,2	8,6	8,9	9,9	12,6

## SUMMER PERFORMANCE COMPRESSOR DRIVE HPE (5)

Static recovery efficiency		56%	50%	50%	50%	50%	50%	49%
Total cooling capacity	W	2210	3450	5840	8720	12830	18390	21440
Active recovery cooling capacity	W	1810	2680	4890	7270	10580	15310	16990
EER global (5)	W/W	4,2	3,9	4,2	3,9	3,9	4,1	5,0

## REFRIGERATING CIRCUIT COMPRESSOR DRIVE HPE

Refrigerant / GWP		R410A / 2088
Number compressors	N.	1

(1) Sound pressure level evaluated at 1 meter from: ducted outlet / suction outlet / compressor compartment

(2) Refers to the nominal flow rate

(3) Foreign air -5 °C 80% RH; ambient air 20 °C 50% RH

(4) Excluding the power absorbed for ventilation

(5) Foreign air 32 °C 50% RH; ambient air 26 °C 50% RH

# COMPRESSOR DRIVE CFR HPE - CFR HPEI

Air conditioning and dehumidification system with air renewal and thermodynamic support compressor

## Technical data table COMPRESSOR DRIVE HPEI

Model	U.M.	35	60	100	150	230	320	450
Nominal air flow	m <sup>3</sup> /h	350	600	1000	1500	2300	3200	4500
Useful delivery static pressure	Pa	270	285	295	290	365	265	270
Useful static pressure recovered	Pa	215	215	240	230	305	195	205
Sound pressure level (1)	dB(A)	59/47/51	64/50/55	62/49/55	67/54/57	65/51/60	68/54/59	70/56/60

## FUNCTIONAL LIMITS COMPRESSOR DRIVE HPEI

Winter model standard version		Limit external temperature -10 °C / Limit internal temperature + 19 °C (U.R. 50%)						
Winter model with 3 shutters section		Limit external temperature -20 °C / Limit internal temperature + 19 °C (U.R. 50%)						
Summer mode		Limit external temperature +38 °C (U.R. 50%) / Limit internal temperature + 27 °C						

CAPACITY VARIATION RANGE		-15% / +20%	-35% / +20%	-25% / +20%	-35% / +20%	-30% / +20%	-35% / +20%	-35% / +20%
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## ELECTRICAL DATA COMPRESSOR DRIVE HPEI

Power supply		230V/1/50Hz				450V/3+N/50Hz		
Maximum absorbed current (2)	A	5,5	9,0	13,0	20,0	10,0	16,0	18,0

## WINTER PERFORMANCE COMPRESSOR DRIVE HPEI (3)

Static recovery efficiency		62%	51%	50%	50%	50%	50%	50%
Total thermal power	W	3400	5700	9800	14300	20800	29600	35600
Active recovery thermal power	W	1700	3000	5100	7400	10100	15300	16600
COP global (4)	W/W	10,3	8,9	9,4	9,6	12,6	10,6	13,8

## SUMMER PERFORMANCE COMPRESSOR DRIVE HPEI (5)

Static recovery efficiency		54%	50%	50%	50%	50%	50%	49%
Total cooling capacity	W	2200	3600	6300	9000	13400	19400	21900
Active recovery cooling capacity	W	1800	3000	5300	7500	11000	16200	17700
EER global (5)	W/W	4,7	4,3	4,5	4,3	5,6	4,7	5,9

## REFRIGERATING CIRCUIT COMPRESSOR DRIVE HPEI

Refrigerant / GWP		R410A / 2088						
Number of compressors	N.	1						

(1) Sound pressure level evaluated at 1 meter from: ducted outlet / suction outlet / compressor compartment

(2) Refers to the nominal flow rate

(3) Foreign air -5 °C 80% RH; ambient air 20 °C 50% RH

(4) Excluding the power absorbed for ventilation

(5) Outdoor air 32°C 50% RH; ambient air 26 °C 50% RH