

# Centro EC

## Inline centrifugal fans

### Use

- Supply and exhaust ventilation and air conditioning systems of various premises requiring cost-saving controllable ventilation.
- The best ventilation solution for exhaust ventilation of bathrooms, kitchens and other humid premises.
- Compatible with Ø 100 up to 315 mm round air ducts.



**Air flow:**  
up to 1500 m<sup>3</sup>/h  
417 l/s



**Power:**  
from 82 W



**Noise level:**  
from 40 dBA



### Design

- Durable, impact-resistant and corrosion-free ABS-plastic casing.
- Aerodynamically shaped casing.
- Airtight terminal box for connection to power mains.

### Motor

- High-efficient electronically commutated direct current motors with backward curved blades. Such motors are the most state-of-the-art energy saving solution. Power consumption of EC motors is 35% less as compared to standard motors. The fans with EC motors have excellent aerodynamic performance and low-noise operation.
- EC motors are featured with high performance and total speed controllable range.
- High efficiency reaching 90% is the premium advantage of the electronically-commutated motors. The motors are equipped with ball bearings designed for at least 40 000 operating hours.

### Speed control

- The fan is operated with an 0-10 V control signal.
- The air capacity is controlled depending on air temperature, pressure level, smoke content, etc.
- The speed of the EC motor changes proportionally to fluctuations of the control parameter and the fan delivers a required air volume to the ventilation system. Maximum fan speed does not depend on the current frequency.
- The fan is compatible both with 50 or 60 Hz power mains.
- The fans may be integrated into a unified data processing control system. The specially designed software provides precise control of all the fans integrated into the system.

### Mounting

- The fans are designed for duct mounting in any point of the ventilation system with the casing mounted at any angle. In case of vertical mounting a protective outer hood must be installed on the top.
- Fixation to the floor wall or ceiling is performed with the supplied mounting brackets.
- Electric connection and installation must be performed in compliance with the manual and the wiring diagram on the terminal box.



Mounting bracket for easy installation supplied with the fan

### Modifications and options

- FR:** built-in smooth speed controller from 0 to 100 %. The fan is supplied with a pre-wired power cable with IEC plug as a standard.



Centro EC FR with an integrated speed controller

### Accessories

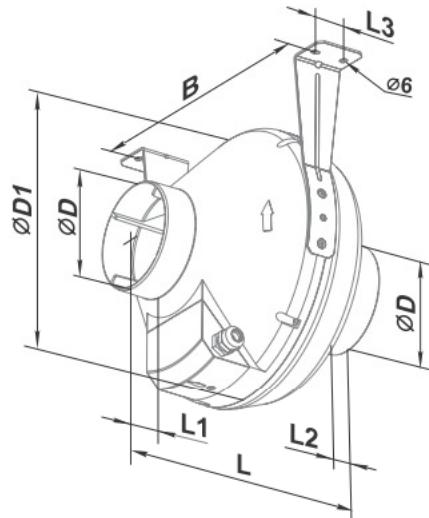
Silencer	Panel filter	Pocket filter	Electric heater	Water heater	Backdraft air damper	Air damper	Speed controller
SD	KFBK	KFBT	EKH	WKH	VRV	VKA	CDT E/0-10

**Designation key**

Series	Motor	Spigot diameter	Options
CENTRO	EC: electronically commutated motor	100; 125; 150; 200; 250; 315	FR: built-in smooth speed controller and power cable with IEC C14 electric plug.

**Overall dimensions [mm]**

Type	$\phi D$	$\phi D1$	B	L	L1	L2	L3	Weight [kg]
Centro EC 100	100	250	270	230	30	27	30	2
Centro EC 125	125	250	270	220	30	27	30	2.2
Centro EC 150	150/160	300	310	286	30	30	30	2.5
Centro EC 200	200	340	354	276	30	30	40	3
Centro EC 250	250	340	354	265	30	30	40	4.3
Centro EC 315	315	400	414	276	40	55	40	4.9



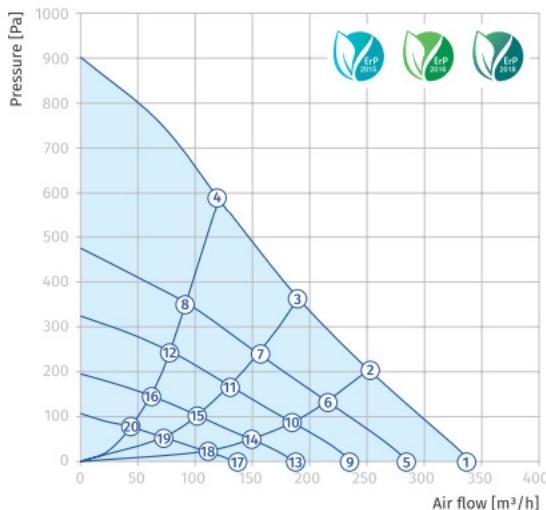
## Technical data

Parameters	Centro EC 100	Centro EC 125	Centro EC 150
Voltage [V / 50 Hz]	1~ 230	1~ 230	1~ 230
Power [W]	82	84	82
Current [A]	0.62	0.64	0.63
Maximum air flow [m³/h (l/s)]	340 (94)	420 (117)	630 (175)
RPM [min⁻¹]	3400	3600	3400
Sound pressure level at 3 m [dBA]	40	42	45
Transported air temperature [°C]	-25...+60	-25...+60	-25...+60
SEC class	B	B	B
Ingress protection rating	IPX4	IPX4	IPX4
Motor IP rating	IP44	IP44	IP44
ErP	2015, 2016, 2018	2015, 2016, 2018	2015, 2016, 2018

## CENTRO EC 100

Sound power level, A-weighted	Gen.	Octave frequency bands [Hz]								LpA, 3m [dBA]	LpA, 1m [dBA]
		63	125	250	500	1000	2000	4000	8000		
LwA to inlet [dBA]	85	62	77	83	75	69	65	59	48	64	74
LwA to outlet [dBA]	84	69	77	82	74	66	62	57	46	63	73
LwA to environment [dBA]	61	29	44	52	56	55	54	44	31	40	50

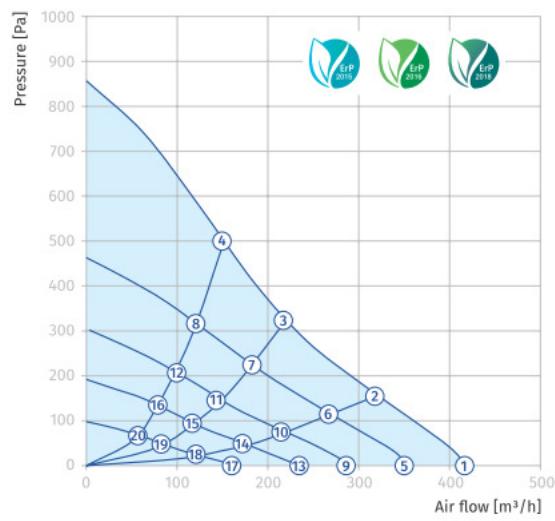
Point	Power [W]	Point	Power [W]
1	82	11	28
2	82	12	25
3	81	13	17
4	81	14	16
5	51	15	15
6	50	16	13
7	45	17	8
8	40	18	8
9	32	19	7
10	30	20	6



**CENTRO EC 125**

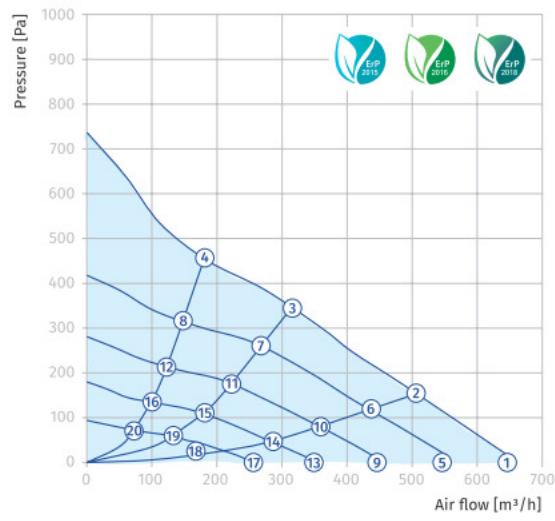
Sound power level, A-weighted	Gen.	Octave frequency bands [Hz]									LpA, 3m [dBA]	LpA, 1m [dBA]
		63	125	250	500	1000	2000	4000	8000			
L <sub>WA</sub> to inlet [dBA]	87	59	79	86	75	71	68	62	52	67	77	
L <sub>WA</sub> to outlet [dBA]	86	66	79	85	74	68	65	60	50	66	76	
L <sub>WA</sub> to environment [dBA]	62	26	46	55	56	57	57	47	35	42	52	

Point	Power [W]	Point	Power [W]
1	84	11	29
2	82	12	24
3	82	13	18
4	81	14	17
5	51	15	16
6	50	16	14
7	48	17	8
8	45	18	8
9	31	19	7
10	30	20	7

**CENTRO EC 150**

Sound power level, A-weighted	Gen.	Octave frequency bands [Hz]									LpA, 3m [dBA]	LpA, 1m [dBA]
		63	125	250	500	1000	2000	4000	8000			
L <sub>WA</sub> to inlet [dBA]	93	55	90	89	77	76	73	70	56	72	82	
L <sub>WA</sub> to outlet [dBA]	93	55	91	88	74	73	68	67	54	72	82	
L <sub>WA</sub> to environment [dBA]	66	26	48	58	61	60	59	51	39	45	55	

Point	Power [W]	Point	Power [W]
1	82	11	31
2	82	12	27
3	82	13	17
4	82	14	17
5	54	15	17
6	57	16	16
7	53	17	9
8	49	18	9
9	32	19	8
10	33	20	8

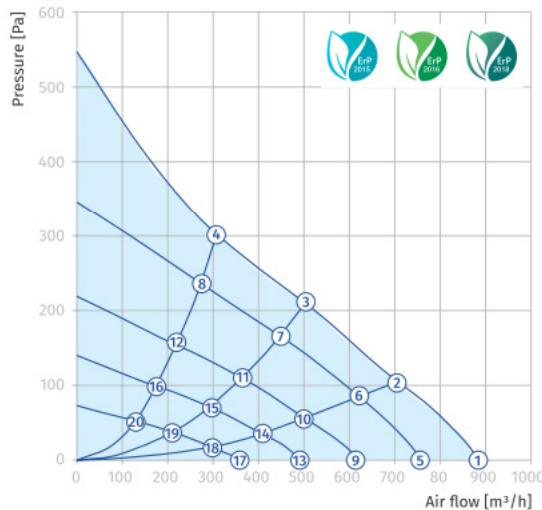


Parameters	Centro EC 200	Centro EC 250	Centro EC 315
Voltage [V / 50 Hz]	1~ 230	1~ 230	3~ 1~ 230
Power [W]	84	165	165
Current [A]	0.64	1.1	1.15
Maximum air flow [m³/h (l/s)]	885 (246)	1250 (347)	1500 (417)
RPM [min⁻¹]	2700	2600	2500
Sound pressure level at 3 m [dBA]	47	48	48
Transported air temperature [°C]	-25...+60	-25...+60	-25...+60
SEC class	B	–	–
Ingress protection rating	IPX4	IPX4	IPX4
Motor IP rating	IP44	IP44	IP44
ErP	2015, 2016, 2018	2015, 2016, 2018	2015, 2016, 2018

## CENTRO EC 200

Sound power level, A-weighted	Gen.	Octave frequency bands [Hz]								LpA, 3m [dBA]	LpA, 1m [dBA]
		63	125	250	500	1000	2000	4000	8000		
LwA to inlet [dBA]	87	48	76	84	79	79	80	72	61	67	77
LwA to outlet [dBA]	85	45	75	79	77	77	80	72	62	64	74
LwA to environment [dBA]	67	27	49	60	62	61	60	52	39	47	57

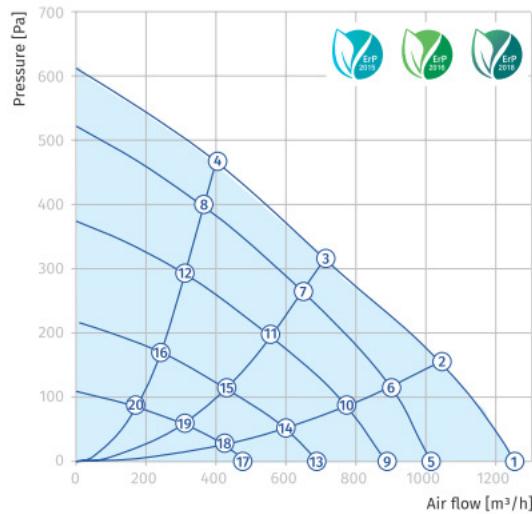
Point	Power [W]	Point	Power [W]
1	84	11	32
2	84	12	31
3	83	13	16
4	82	14	18
5	51	15	18
6	54	16	17
7	58	17	8
8	55	18	8
9	28	19	9
10	32	20	8



**CENTRO EC 250**

Sound power level, A-weighted	Gen.	Octave frequency bands [Hz]									LpA, 3m [dBA]	LpA, 1m [dBA]
		63	125	250	500	1000	2000	4000	8000			
L <sub>WA</sub> to inlet [dBA]	89	60	77	84	82	84	80	76	64	69	79	
L <sub>WA</sub> to outlet [dBA]	87	63	76	72	81	83	81	76	62	67	77	
L <sub>WA</sub> to environment [dBA]	68	30	49	58	62	65	61	52	38	48	58	

Point	Power [W]	Point	Power [W]
1	152	11	89
2	161	12	78
3	165	13	37
4	154	14	40
5	121	15	43
6	131	16	38
7	140	17	16
8	125	18	17
9	76	19	18
10	83	20	16

**CENTRO EC 315**

Sound power level, A-weighted	Gen.	Octave frequency bands [Hz]									LpA, 3m [dBA]	LpA, 1m [dBA]
		63	125	250	500	1000	2000	4000	8000			
L <sub>WA</sub> to inlet [dBA]	86	51	73	71	75	81	82	77	68	66	76	
L <sub>WA</sub> to outlet [dBA]	87	55	66	76	73	81	84	77	69	67	77	
L <sub>WA</sub> to environment [dBA]	69	30	48	56	62	64	64	56	49	48	58	

Point	Power [W]	Point	Power [W]
1	149	11	90
2	164	12	84
3	165	13	37
4	158	14	39
5	94	15	45
6	106	16	41
7	112	17	17
8	104	18	19
9	74	19	19
10	83	20	17

