Centro EC

Inline centrifugal fans with EC motor

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 Ø100 up to 315 mm round air ducts.

Air flow: up to 1500 m³/h 417 l/s

Power: from 82 W

Noise level: from 40 dBA

ErP 2016 ErP 2018

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.

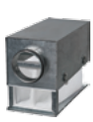
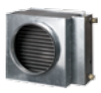
Mounting bracket for easy installation supplied with the fan

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

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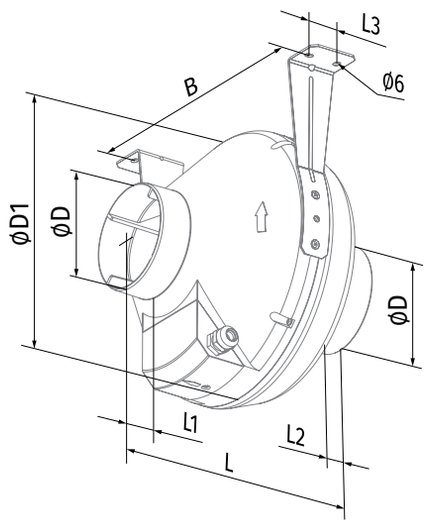
Designation key			
Series	**Motor**	**Spigot diameter [mm]**	**Options**
CENTRO	**EC:** electronically commutated motor	100; 125; 150; 200; 250; 315	**FR:** built-in smooth speed controller and power cable with IEC C14 electric plug.

Overall dimensions [mm]

Model	ØD	ØD1	B	L	L1	L2	L3	Weight [kg]
Centro EC 100	100	250	270	230	30	27	30	2.0
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	3.0
Centro EC 250	250	340	354	265	30	30	40	4.3
Centro EC 315	315	400	414	276	40	55	40	4.9



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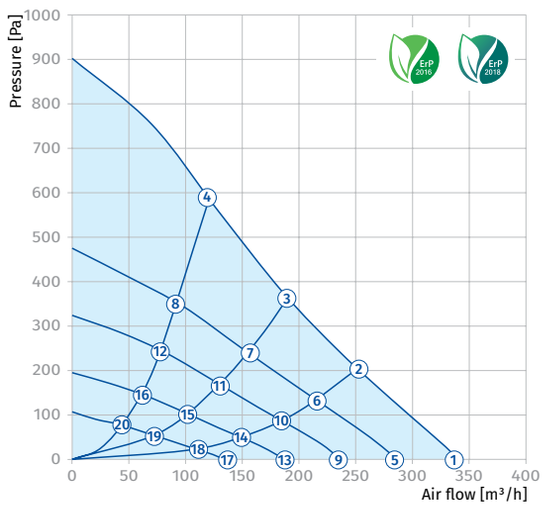
Technical data

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	2016, 2018	2016, 2018	2016, 2018

CENTRO EC 100

Sound power level, A-weighted	Gen.	Octave frequency bands [Hz]								LpA, 3 m [dBA]	LpA, 1 m [dBA]
		63	125	250	500	1000	2000	4000	8000		
L_{WA} to inlet [dBA]	**85**	62	77	83	75	69	65	59	48	**64**	**74**
L_{WA} to outlet [dBA]	**84**	69	77	82	74	66	62	57	46	**63**	**73**
L_{WA} 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



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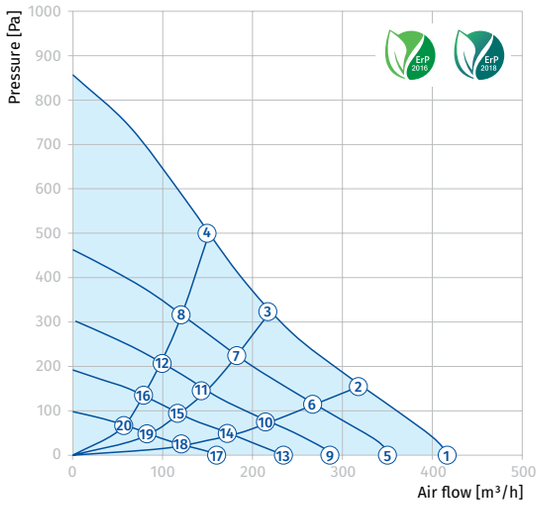
CENTRO EC 125

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

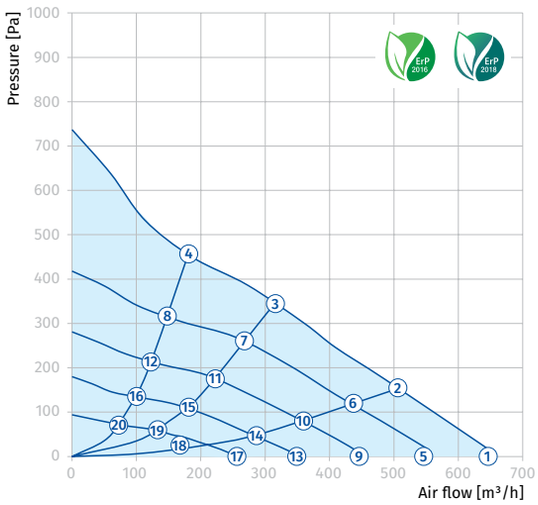
Point	Power [W]	Point	Power [W]
1	84	**11**	29
2	82	**12**	24
3	82	**13**	18
4	81	**14**	17
5	51	**15**	16
6	50	**16**	14
7	48	**17**	8
8	45	**18**	8
9	31	**19**	7
10	30	**20**	7



CENTRO EC 150

Sound power level, A-weighted	Gen.	Octave frequency bands [Hz]								LpA, 3 m [dBA]	LpA, 1 m [dBA]
		63	125	250	500	1000	2000	4000	8000		
L_{WA} to inlet [dBA]	**93**	55	90	89	77	76	73	70	56	**72**	**82**
L_{WA} to outlet [dBA]	**93**	55	91	88	74	73	68	67	54	**72**	**82**
L_{WA} 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



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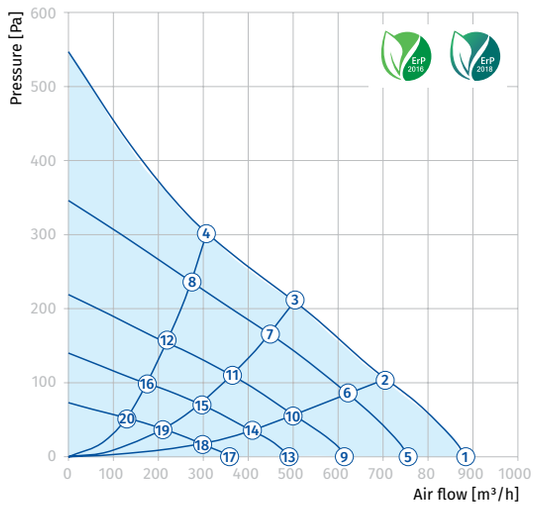
Parameters	Centro EC 200	Centro EC 250	Centro EC 315
Voltage [V/50 Hz]	1 ~ 230	1 ~ 230	3~ 1 ~ 230
Power [W]	84	165	165
Current [A]	0.64	1.1	1.15
Maximum air flow [m³/h (l/s)]	885 (246)	1250 (347)	1500 (417)
RPM [min⁻¹]	2700	2600	2500
Sound pressure level at 3 m [dBA]	47	48	48
Transported air temperature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

CENTRO EC 200

Sound power level, A-weighted	Gen.	Octave frequency bands [Hz]								LpA, 3 m [dBA]	LpA, 1 m [dBA]
		63	125	250	500	1000	2000	4000	8000		
L_{WA} to inlet [dBA]	**87**	48	76	84	79	79	80	72	61	**67**	**77**
L_{WA} to outlet [dBA]	**85**	45	75	79	77	77	80	72	62	**64**	**74**
L_{WA} 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



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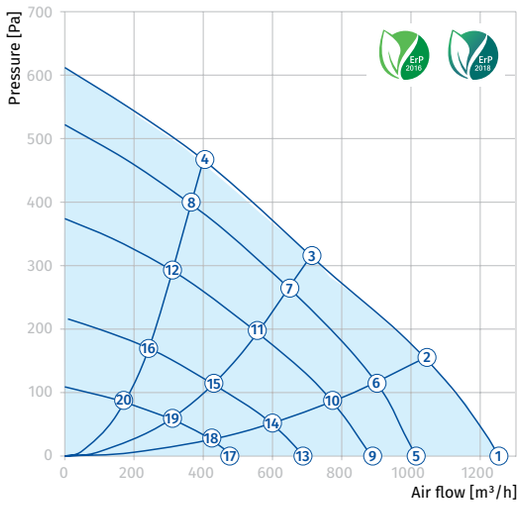
CENTRO EC 250

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

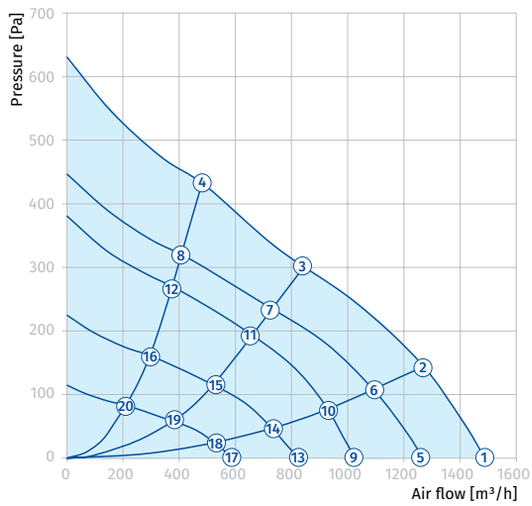
Point	Power [W]	Point	Power [W]
1	152	**11**	89
2	161	**12**	78
3	165	**13**	37
4	154	**14**	40
5	121	**15**	43
6	131	**16**	38
7	140	**17**	16
8	125	**18**	17
9	76	**19**	18
10	83	**20**	16



CENTRO EC 315

Sound power level, A-weighted	Gen.	Octave frequency bands [Hz]								LpA, 3 m [dBA]	LpA, 1 m [dBA]
		63	125	250	500	1000	2000	4000	8000		
L_{WA} to inlet [dBA]	**86**	51	73	71	75	81	82	77	68	**66**	**76**
L_{WA} to outlet [dBA]	**87**	55	66	76	73	81	84	77	69	**67**	**77**
L_{WA} 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



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