

Centro-MZ EC

Inline centrifugal fans

Use

- Supply and extract ventilation systems installed in various premises.
- Direct mounting inside air ductworks.
- Compatible with Ø 100 up to 315 mm round air ducts.



Air flow:
up to 1370 m³/h
380 l/s



Design

- Galvanized steel casing.
- Aerodynamically shaped casing.
- External terminal block for power supply.

Motor

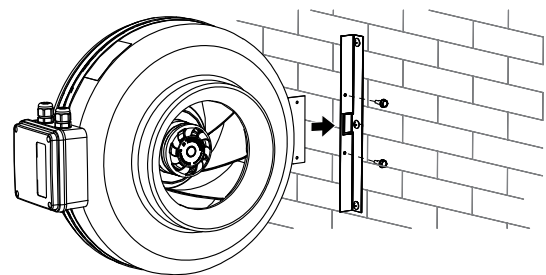
- High-efficient direct current EC motor with external rotor and backward curved blades.
- EC technology meets the up-to-date requirements to energy-saving and controllable ventilation and provides up to 35 % energy saving as compared to asynchronous motors.
- EC motor ensures totally controllable speed range for the fan and has integrated overheating protection with automatic restart.
- EC motor has no friction and wearing parts as capacitor und brushes. Instead a maintenance-free EC controller electronic circuit board is used.
- The impeller is dynamically balanced.
- The fan is compatible with 50 Hz and 60 Hz power mains and the maximum speed does not depend on power mains frequency.

Speed control

- The fan speed is controlled with a 0–10 V control signal from the following sources:
 - integrated or external speed controller
 - controller with sensors
 - central BMS system.
- The control signal value changes depending on air temperature, pressure, smoke concentration and other parameters.
- During signal value change the fan with EC motor correspondingly changes the rotations speed and delivers required air volume to the ventilation system.
- The computer central building management systems (BMS) enable integration of several EC motors in network and precise individual operation control for each fan.

Mounting

- Suspended, vertical and horizontal position.
- Mounting with fixing brackets **MB Centro-MZ EC** (supplied separately).
- Flexible air ducts are fixed on the fan spigots with clamps.



Designation key

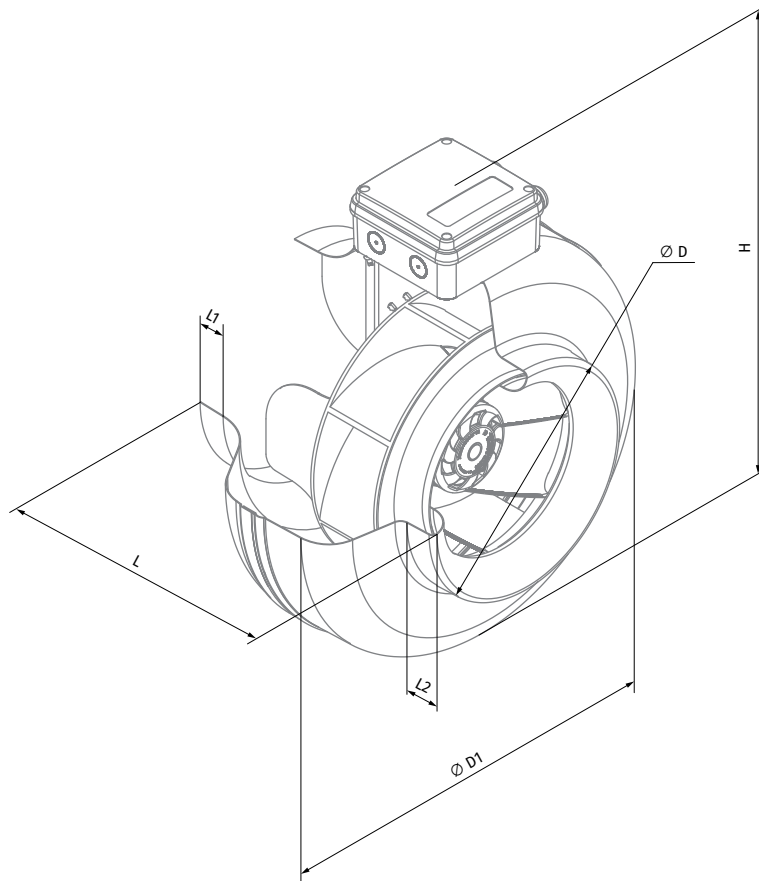
Series	Motor type	Duct diameter [mm]
Centro-MZ	EC: electronically commutated motor	100; 125; 150; 160; 200; 250; 315

Accessories

Silencers	Filter boxes	Electric heaters	Water heaters	Backdraft air dampers	Air dampers	Clamps	Speed controllers
							
SD	KFBK KFBT	EKH	WKH	VRV	VK / VKA	K	CDT E/0-10

Dimensions [mm]

Type	Ø D	Ø D1	H	L	L1	L2	Weight [kg]
Centro-MZ EC 100	99	245	300	195	20	20	2.5
Centro-MZ EC 125	124	245	300	190	20	20	2.5
Centro-MZ EC 150	149	275	330	170	20	20	2.7
Centro-MZ EC 160	159	275	330	170	20	20	2.7
Centro-MZ EC 200	198	345	400	245	25	25	3.9
Centro-MZ EC 250	248	345	400	245	25	30	4.5
Centro-MZ EC 315	313	405	460	245	25	30	5.3



Technical data

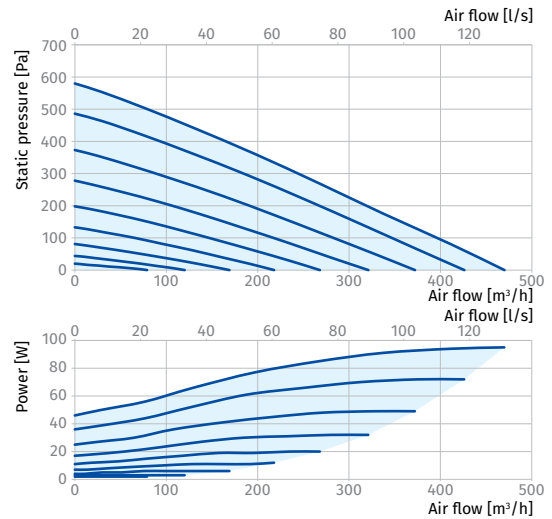
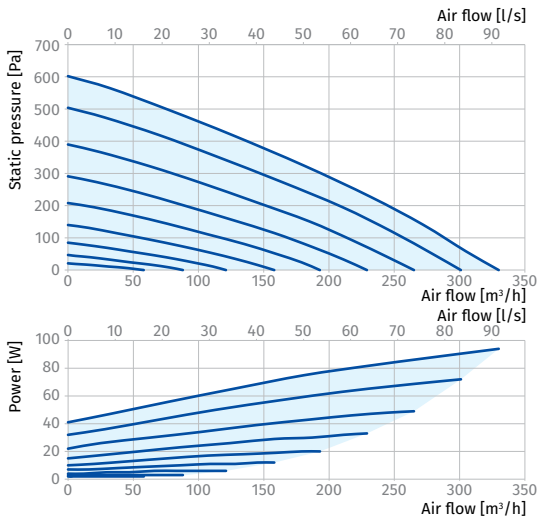
Parameters	Centro-MZ EC 100	Centro-MZ EC 125	Centro-MZ EC 150	Centro-MZ EC 160
Voltage [V / 50 (60) Hz]	1~ 230	1~ 230	1~ 230	1~ 230
Power [W]	94	95	123	123
Current [A]	0.76	0.78	1.02	1.02
Maximum air flow [m ³ /h (l/s)]	345 (96)	480 (133)	720 (200)	735 (204)
RPM [min ⁻¹]	3662	3642	4936	5060
Sound pressure at 3 m [dBA]	44	45	48	48
Transported air temperature [°C]	-25...+60	-25...+60	-25...+60	-25...+60
SEC class	B	NRVU	NRVU	NRVU
IP rating	IPX4	IPX4	IPX4	IPX4
ErP	2018	2018	2018	2018

CENTRO-MZ EC 100

Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
LWA to inlet [dBA]	90	66	82	89	80	74	70	63	51	70	80
LWA to outlet [dBA]	89	73	82	88	79	70	66	61	49	69	79
LWA to environment [dBA]	65	31	47	56	60	59	58	47	33	44	54

CENTRO-MZ EC 125

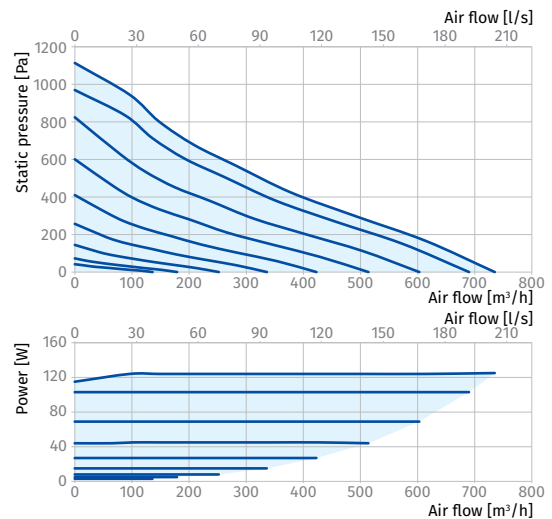
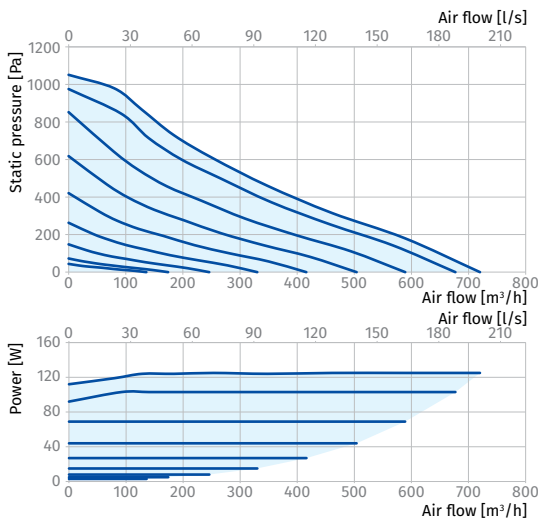
Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
LWA to inlet [dBA]	91	62	83	90	79	74	71	65	54	71	81
LWA to outlet [dBA]	90	69	83	89	78	71	68	63	52	70	80
LWA to environment [dBA]	65	27	48	58	59	60	60	49	37	45	55


CENTRO-MZ EC 150

Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
LWA to inlet [dBA]	89	52	86	85	74	72	70	67	54	68	78
LWA to outlet [dBA]	87	51	85	82	70	68	64	63	51	66	76
LWA to environment [dBA]	69	28	50	61	64	63	62	54	41	48	58

CENTRO-MZ EC 160

Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
LWA to inlet [dBA]	89	81	87	79	72	68	62	50	54	68	78
LWA to outlet [dBA]	88	81	86	78	69	65	60	48	51	67	77
LWA to environment [dBA]	69	50	59	64	63	61	50	36	41	48	58



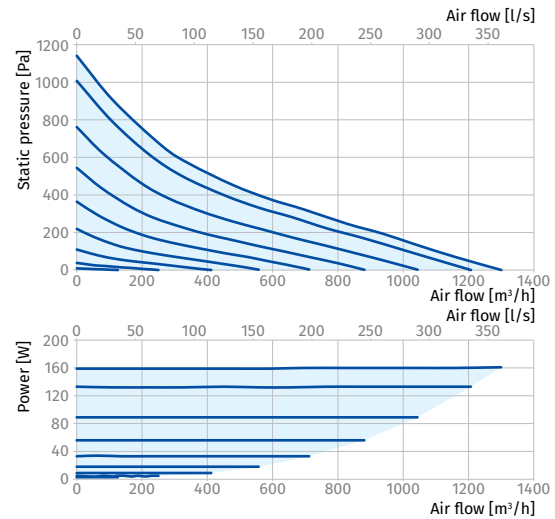
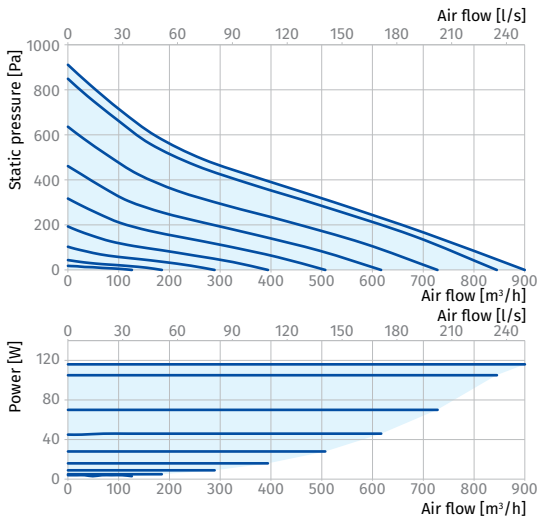
Parameters	Centro-MZ EC 200	Centro-MZ EC 250	Centro-MZ EC 315
Voltage [V / 50 (60) Hz]	1~ 230	1~ 230	1~ 230
Power [W]	116	161	164
Current [A]	0.95	1.25	1.25
Maximum air flow [m³/h (l/s)]	900 (250)	1300	1370
RPM [min ⁻¹]	3959	3820	3588
Sound pressure at 3 m [dBA]	49	49	49
Transported air temperature [°C]	-25...+60	-25...+60	-25...+60
SEC class	NRVU	NRVU	NRVU
IP rating	IPX4	IPX4	IPX4
ErP	2018	2018	2018

CENTRO-MZ EC 200

Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
L _{WA} to inlet [dBA]	92	62	79	87	85	86	83	78	66	71	81
L _{WA} to outlet [dBA]	90	65	78	74	84	85	84	78	64	69	79
L _{WA} to environment [dBA]	69	31	49	59	63	66	62	53	39	49	59

CENTRO-MZ EC 250

Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
L _{WA} to inlet [dBA]	91	72	87	89	80	74	67	56	46	71	80
L _{WA} to outlet [dBA]	91	65	80	90	81	66	63	56	45	71	80
L _{WA} to environment [dBA]	70	54	67	65	59	57	49	37	31	49	59



CENTRO-MZ EC 315

Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
L _{WA} to inlet [dBA]	93	74	89	90	81	75	68	57	47	72	82
L _{WA} to outlet [dBA]	92	65	81	91	82	67	64	57	45	72	81
L _{WA} to environment [dBA]	70	55	67	65	59	57	49	37	31	49	59

