

Box

Centrifugal fans for rectangular ducts

Use

- Supply and exhaust ventilation systems installed in various premises.
- Compatible with 400x200 up to 600x350 mm rectangular air ducts.



Air flow:
up to 2970 m³/h
825 l/s



Power:
from 136 W



Noise level:
from 53 dBA



Design

- Atmospheric resistant galvanized steel casing and impeller.
- The fan is rated for continuous operation.
- Fitted with standard 20 mm connecting flanges for connection to rectangular air ducts.
- Access cover on the casing for inspection and maintenance operations.
- The fan is equipped with a built-in terminal box with a leaded outside sealed electrical lead-in for connection to power mains.

Motor

- Two- or four-pole asynchronous motor with external rotor and centrifugal impeller with backward curved blades.
- Single-phase (**E**) or three-phase (**D**) motor modifications.
- Equipped with ball bearings for longer service life.
- Dynamically balanced turbine.
- Overheating protection by built-in thermal switches with automatic restart or with leaded outside terminals for connection to external protecting controls.
- The thermal switch terminal leads are designed for connection to respective circuit of the contactor, overload relay or respective terminals of the autotransformer or thyristor speed controller.

Speed control

- Smooth speed control with an external thyristor controller or step speed control with an external auto transformer (both available upon separate order).

Mounting

- The fan is designed for mounting inside rectangular air ducts and can be installed in any position.
- The fan flanges are connected to the air ducts through the bolts inserted into the flange holes.
- The fan is suitable for mounting into round duct at intake flange with a round reducer (available upon separate order).
- If vibration-absorbing flexible connectors are used to connect the fan to the air ducts provide their fixation to mounting structures with supports or brackets.
- While mounting provide enough space for accessing the cover for service operations.

Designation key

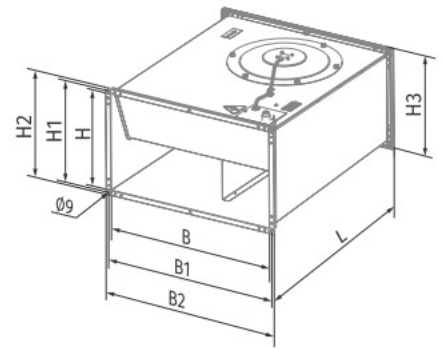
Series	Flange size (width x height) [cm]	Motor	
		Number of poles	Phase
Box	40x20; 50x25; 50x30;	2	E : single-phase
	60x30; 60x35	4	D : three-phase

Accessories

Silencer	Filter box	Filter box with pocket filter	Electric heater	Water heater	Air damper	Gravity damper	Flexible antivibration connector
SD	KFBK	KFBT	EKH	WKH	SL	VG	EVA

Overall dimensions [mm]

Type	B	B1	B2	H	H1	H2	H3	L	Weight [kg]
Box 40x20 2E	400	420	440	200	220	240	240	500	13.6
Box 50x25 2E	500	520	540	250	270	290	290	640	17.7
Box 50x30 4E	500	520	540	300	320	340	340	680	25.5
Box 50x30 4D	500	520	540	300	320	340	340	680	25.5
Box 60x30 4E	600	620	640	300	320	340	342	680	31.5
Box 60x30 4D	600	620	640	300	320	340	342	680	32.5
Box 60x35 4E	600	620	640	350	370	390	390	735	41.5
Box 60x35 4D	600	620	640	350	370	390	390	735	41.5

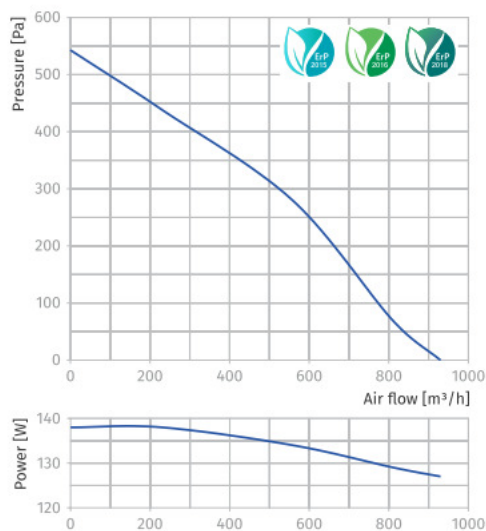


Technical data

Parameters	Box 40x20 2E	Box 50x25 2E
Voltage [V / 50 Hz]	230	230
Power [W]	138	305
Current [A]	0.60	1.32
Maximum air flow [m³/h (l/s)]	930 (258)	1720 (478)
RPM [min⁻¹]	2600	2550
Sound pressure at 3 m [dBA]	59	61
Transported air temperature [°C]	-25...+45	-25...+45
SEC class	-	-
Ingress protection rating	IPX4	IPX4
Motor IP rating	IP44	IP44
ErP	2015, 2016, 2018	2016, 2018

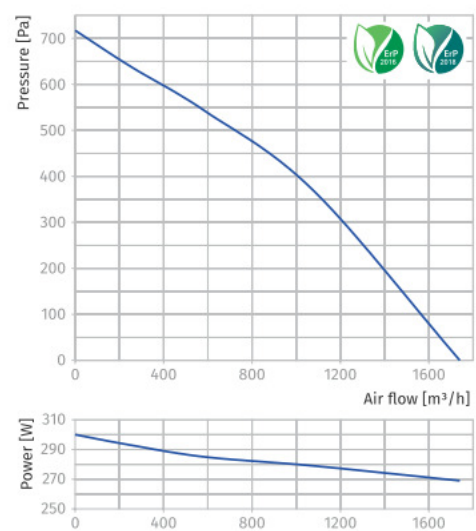
BOX 40X20 2E

Sound power level, A-weighted	Octave frequency bands [Hz]								
	Gen.	63	125	250	500	1000	2000	4000	8000
L _{WA} to inlet [dBA]	71	54	63	68	64	64	58	54	45
L _{WA} to environment [dBA]	75	53	62	66	68	69	66	60	48
L _{WA} to environment [dBA]	58	36	48	56	54	50	46	41	32



BOX 50X25 2E

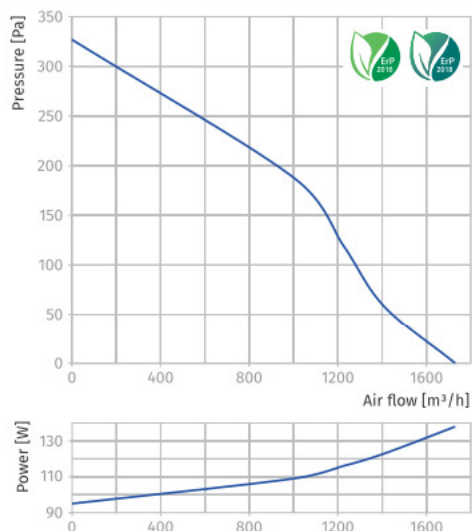
Sound power level, A-weighted	Octave frequency bands [Hz]								
	Gen.	63	125	250	500	1000	2000	4000	8000
L _{WA} to inlet [dBA]	69	60	68	60	56	56	49	46	46
L _{WA} to environment [dBA]	70	54	65	64	63	60	56	49	44
L _{WA} to environment [dBA]	53	41	48	47	44	40	38	33	35



Parameters	Box 50x30 4E	Box 50x30 4D	Box 60x30 4E	Box 60x30 4D
Voltage [V / 50 Hz]	230	400	230	400
Power [W]	140	136	220	230
Current [A]	0.57	0.34	0.90	0.52
Maximum air flow [m³/h (l/s)]	1700 (472)	1380 (383)	2470 (686)	2530 (703)
RPM [min⁻¹]	1390	1360	1400	1360
Sound pressure at 3 m [dBA]	53	53	55	53
Transported air temperature [°C]	-25...+45	-25...+65	-25...+45	-25...+70
SEC class	-	-	-	-
Ingress protection rating	IPX4	IPX4	IPX4	IPX4
Motor IP rating	IP44	IP44	IP44	IP44
ErP	2016, 2018	2016, 2018	2016, 2018	2016, 2018

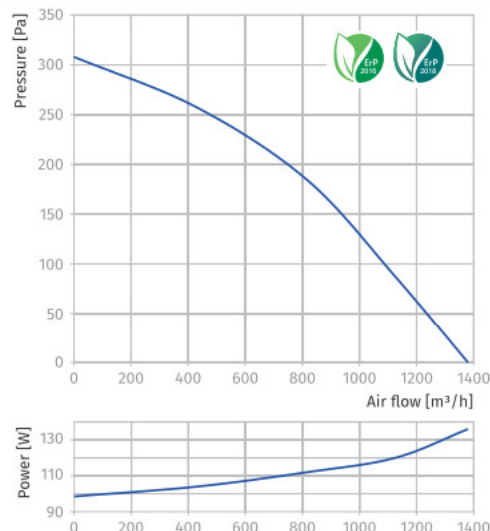
BOX 50X30 4E

Sound power level, A-weighted	Octave frequency bands [Hz]							
	Gen.	63	125	250	500	1000	2000	4000 8000
LWA to inlet [dBA]	69	58	63	64	55	57	58	51 46
LWA to environment [dBA]	73	57	60	72	65	65	64	57 48
LWA to environment [dBA]	56	44	52	51	51	49	48	43 33



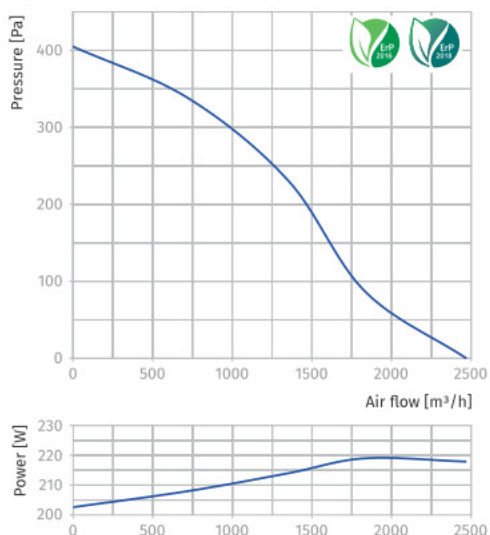
BOX 50X30 4D

Sound power level, A-weighted	Octave frequency bands [Hz]							
	Gen.	63	125	250	500	1000	2000	4000 8000
LWA to inlet [dBA]	69	58	62	65	55	58	58	55 45
LWA to environment [dBA]	71	56	62	69	64	66	63	59 50
LWA to environment [dBA]	55	42	51	51	52	52	48	43 32



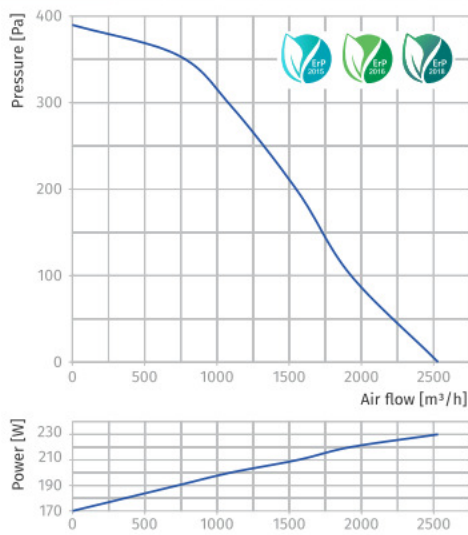
BOX 60X30 4E

Sound power level, A-weighted	Octave frequency bands [Hz]							
	Gen.	63	125	250	500	1000	2000	4000 8000
LWA to inlet [dBA]	72	63	67	69	56	61	61	54 48
LWA to environment [dBA]	78	57	65	73	68	69	69	61 54
LWA to environment [dBA]	61	43	55	54	55	53	49	48 35



BOX 60X30 4D

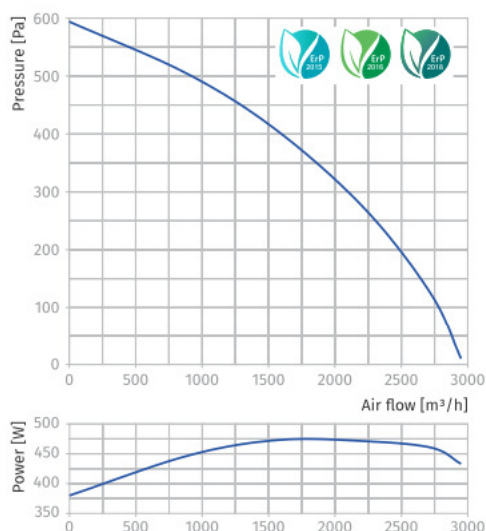
Sound power level, A-weighted	Octave frequency bands [Hz]							
	Gen.	63	125	250	500	1000	2000	4000 8000
LWA to inlet [dBA]	72	61	69	67	60	62	58	56 50
LWA to environment [dBA]	76	59	66	73	68	69	66	58 51
LWA to environment [dBA]	59	45	53	56	54	54	53	47 38



Parameters	Box 60x35 4E	Box 60x35 4D	
Voltage [V / 50 Hz]	230	400Δ	400Y
Power [W]	470	510	380
Current [A]	2.37	1.41	0.70
Maximum air flow [m³/h (l/s)]	2950 (820)	2970 (825)	2660 (739)
RPM [min⁻¹]	1370	1415	1235
Sound pressure at 3 m [dBA]	67	64	63
Transported air temperature [°C]	-40...+80	-40...+60	-40...+80
SEC class	-	-	-
Ingress protection rating	IPX4	IPX4	IPX4
Motor IP rating	IP44	IP44	IP44
ErP	2015, 2016, 2018	2015, 2016, 2018	2015, 2016, 2018

BOX 60X35 4E

Sound power level, A-weighted	Octave frequency bands [Hz]								
	Gen.	63	125	250	500	1000	2000	4000	8000
L _{WA} to inlet [dBA]	78	58	78	75	60	64	65	67	55
L _{WA} to environment [dBA]	79	58	69	75	67	70	69	69	56
L _{WA} to environment [dBA]	64	37	61	55	51	54	49	43	35



BOX 60X35 4D

Sound power level, A-weighted	Octave frequency bands [Hz]								
	Gen.	63	125	250	500	1000	2000	4000	8000
L _{WA} to inlet [dBA]	72	57	59	72	66	64	65	58	47
L _{WA} to environment [dBA]	81	60	67	76	74	74	69	59	50
L _{WA} to environment [dBA]	65	40	53	61	57	55	54	47	38

