Inline mixed-flow fans

Turbo

Air capacity – up to 1750 m³/h

Use

- Supply and exhaust ventilation systems installed in various premises.
- Mounting in kitchens, bathrooms and other humid premises.
- Ventilation air ducts requiring high pressure, powerful air flow and low noise level.
- Compatible with Ø 100 up to 315 mm round air ducts.

Design

- Casing made of low-flammable polypropylene.
- Ventilation unit with terminal box. Can be turned to any position.
- Special casing design permits easy dismantling of the impeller and motor block for fan servicing without dismantling the air duct.

Motor

- Double-speed single-phase motor on ball bearings.
- Equipped with thermal overload protection.

Speed control

- The built-in switch (option **US**) or external switch for multi-speed fans (available upon separate order) are used to select one of two capacity modes.
- Smooth speed control is possible with a built-in speed controller (option **FR**) or an external thyristor speed controller (available upon separate order).

Mounting

- Due to compact design the fan is the ideal solution for mounting in limited spaces, including space behind a false ceiling.
- The fan can be installed in any section of the ventilation system from intake to the end of the ductworks.
- Wall or ceiling mounting with a mounting plate.

- **TD** – mounting kit for installation of one diameter fans in parallel (for boosting capacity)

- **TL** – mounting kit for installation of one diameter fans in series (for boosting pressure).

Modifications and options

- **T** – adjustable run-out timer regulated from 2 to 30 minutes.
- **US** – three-position speed switch integrated in the fan.

- **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. The cable modification with a standard electric plug is also available (**FR1**).

- **G** – smooth speed controller with an electronic thermostat and an external temperature sensor that is fixed on 4 m power cable. The fan is supplied with a pre-wired power cable with IEC plug as a standard. The cable modification with a standard electric plug is also available (G1).

- **GI** – smooth speed controller with an electronic thermostat and a temperature sensor integrated into the air duct. The fan is supplied with a pre-wired power cable with IEC plug as a standard. The cable modification with a standard electric plug is also available (**GI1**).

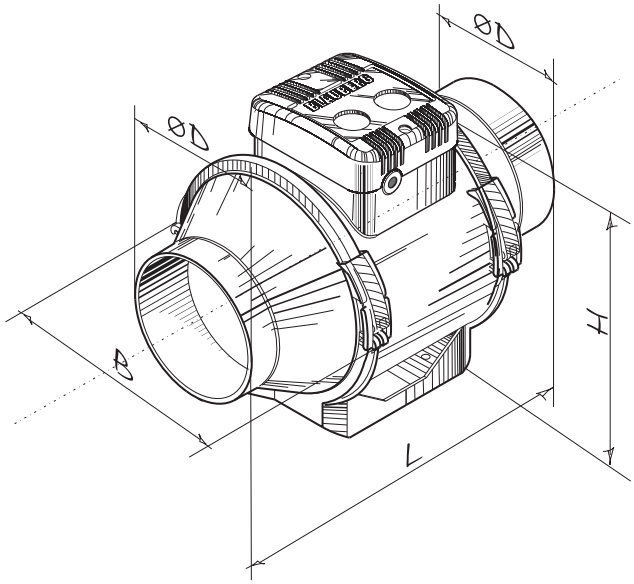
The options **G** and **GI** are used for automatic speed control depending on indoor temperature. The best ventilation solution for premises requiring permanent temperature control as greenhouses, orangeries, etc.

- **W** – the fan is equipped with a pre-wired power cable and IEC plug as a standard. Modification with a standard electric plug is available (**W1**).
- **max** – high-powered motor.

Overall dimensions

Type	Dimensions [mm]					Weight [kg]
	⌀D	⌀D1	B	H	L	
Turbo 100	97	164	196	241	303	1.68
Turbo 125	123	164	196	241	258	1.79
Turbo 150	148	187	220	251	289	3.18
Turbo 160	158	187	220	251	289	3.23
Turbo 200	199	209	239	261	295.5	3.8
Turbo 250	247	257	287	323	383	7.83
Turbo 315	310	323	362	408	445	11.7

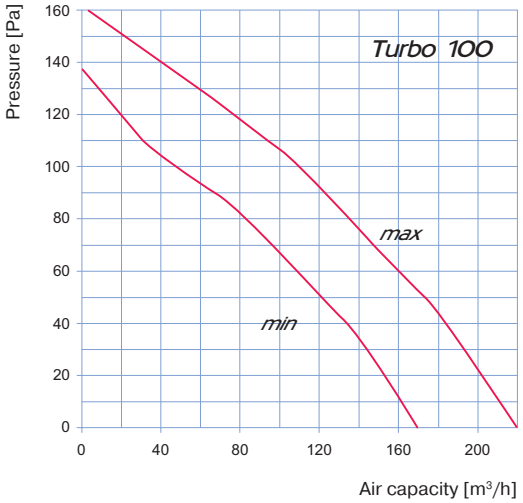
ErP data	
Overall efficiency	ŋ, (%)
Measurement category	MC
Efficiency category	EC
Efficiency grade	N
Variable speed drive	VSD
Power	[kW]
Current	[A]
Air flow	[m^3/h]
Static pressure	[Pa]
Speed	[n/min^{-1}]
Specific ratio	SR

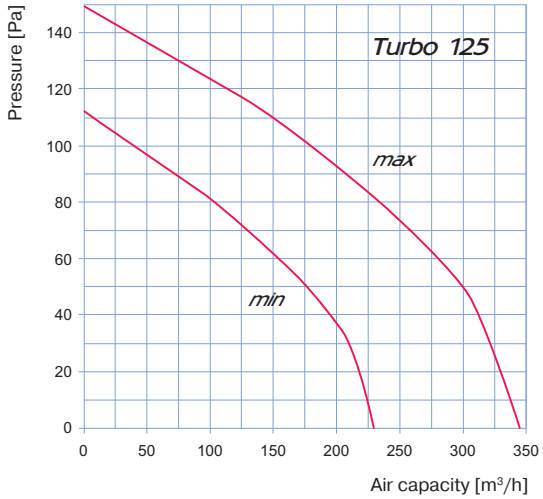


Specifications

Parameters	Turbo 100*		Turbo 125*		Turbo 150* Turbo 160*	
Speed	min	max	min	max	min	max
Voltage [V / 50 /60 Hz]	1 ~ 230		1 ~ 230		1 ~ 230	
Power [W]	23	25	25	29	42	50
Current [A]	0.10	0.11	0.11	0.13	0.19	0.22
Maximum air capacity [m^3/h]	170	220	230	345	430	560
RPM [min^{-1}]	1980	2545	1535	2265	1940	2620
Sound pressure level at 3 m distance [dBA]	27	32	29	34	37	46
Max. operating temperature [°C]	60		60		60	
SEC class	-		-		B	
Ingress protection rating	IPX4		IPX4		IPX4	

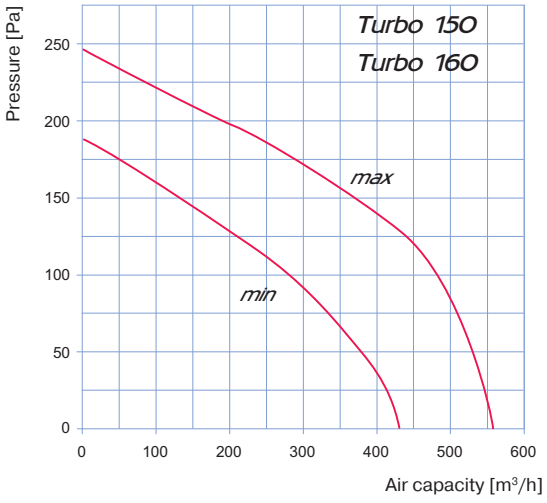
* Compliant to the ErP-regulation (EC) 327/2011, the power consumption at optimum efficiency is < 125W.





Sound power level, A - weighted	Hz	Sound power level, A-filter applied: Gen.	63	125	250	500	1000	2000	4000	8000	Sound pressure level at 3 meters, A-filter applied LpA, [dB(A)]	Sound pressure level at 1 meter, A-filter applied LpA, [dB(A)]
Min speed												
L_{wA} to inlet	dB(A)	54	16	28	51	45	49	41	35	24	33	43
L_{wA} to outlet		53	15	27	50	44	48	40	35	23	32	42
L_{wA} to env.		48	11	23	44	40	43	36	31	21	27	37
Max speed												
L_{wA} to inlet	dB(A)	64	23	35	61	58	56	48	43	30	43	53
L_{wA} to outlet		63	22	34	60	57	55	48	42	29	42	52
L_{wA} to env.		56	17	29	53	51	50	43	38	26	36	46

Sound power level, A - weighted	Hz	Sound power level, A-filter applied: Gen.	63	125	250	500	1000	2000	4000	8000	Sound pressure level at 3 meters, A-filter applied LpA, [dB(A)]	Sound pressure level at 1 meter, A-filter applied LpA, [dB(A)]
Min speed												
L_{wA} to inlet	dB(A)	54	26	38	52	50	44	38	27	17	34	44
L_{wA} to outlet		54	25	37	51	49	43	38	28	18	33	43
L_{wA} to env.		49	21	32	46	45	40	35	25	16	29	39
Max speed												
L_{wA} to inlet	dB(A)	60	20	31	57	51	51	50	39	27	39	49
L_{wA} to outlet		59	20	31	56	51	51	49	39	26	38	48
L_{wA} to env.		54	16	27	51	46	47	45	36	24	34	44

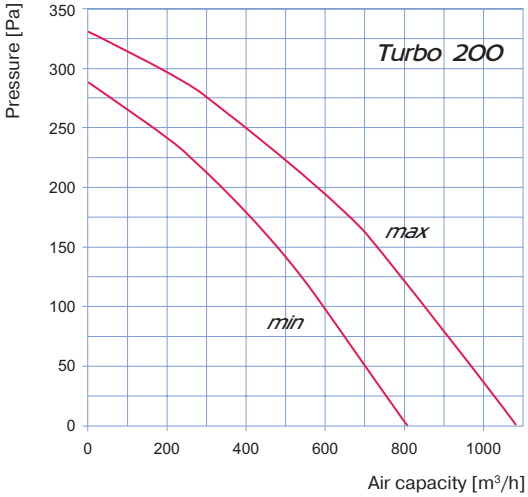


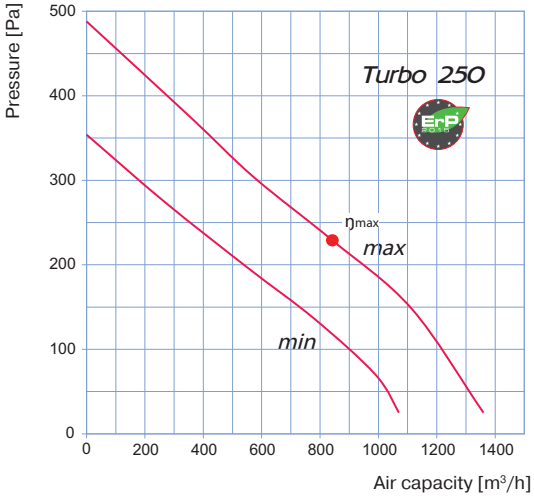
Sound power level, A - weighted	Hz	Sound power level, A-filter applied: Gen.	63	125	250	500	1000	2000	4000	8000	Sound pressure level at 3 meters, A-filter applied LpA, [dB(A)]	Sound pressure level at 1 meter, A-filter applied LpA, [dB(A)]
Min speed												
L_{wA} to inlet	dB(A)	64	26	38	63	55	56	51	41	27	44	54
L_{wA} to outlet		64	25	37	62	54	55	50	40	27	43	53
L_{wA} to env.		54	18	30	52	46	47	43	35	23	34	44
Max speed												
L_{wA} to inlet	dB(A)	75	33	44	71	67	65	70	56	42	54	64
L_{wA} to outlet		74	32	43	70	65	64	70	54	42	54	64
L_{wA} to env.		64	24	35	59	56	55	60	47	35	43	53

Specifications

Parameters	Turbo 200*		Turbo 250		Turbo 315	
Speed	min	max	min	max	min	max
Voltage [V / 50 /60 Hz]	1 ~ 230		1 ~ 230		1 ~ 230	
Power [W]	76	108	125	177	227	315
Current [A]	0.34	0.48	0.54	0.79	0.99	1.42
Maximum air capacity [m^3/h]	805	1080	1070	1360	1420	1750
RPM [min^{-1}]	1915	2380	1955	2440	2115	2505
Sound pressure level at 3 m distance [dBA]	45	52	47	55	47	56
Max. operating temperature [°C]	60		60		60	
SEC class	B		-		-	
Ingress protection rating	IPX4		IPX4		IPX4	

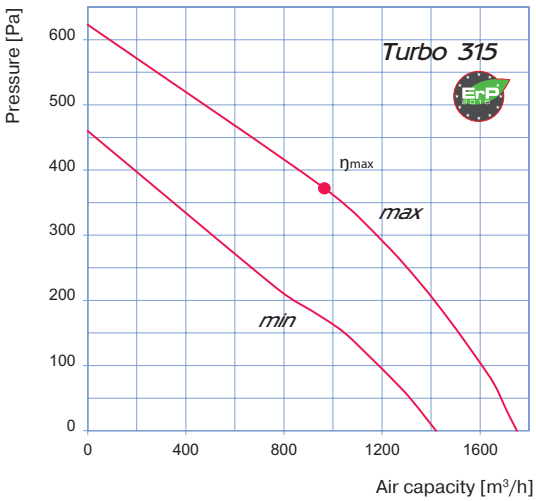
* Compliant to the ErP-regulation (EC) 327/2011, the power consumption at optimum efficiency is < 125W.





Sound power level, A - weighted	Hz	Sound power level, A-filter applied: Octave frequency band, Hz: Gen.	63	125	250	500	1000	2000	4000	8000	Sound pressure level at 3 meters, A-filter applied: LpA, [dB(A)]	Sound pressure level at 1 meter, A-filter applied: LpA, [dB(A)]
Min speed												
L_{wA} to inlet	dB(A)	73	36	49	64	65	69	67	56	42	52	62
L_{wA} to outlet		71	35	47	63	64	67	66	56	42	51	61
L_{wA} to env.		60	24	36	50	52	55	54	46	34	39	49
Max speed												
L_{wA} to inlet	dB(A)	78	38	50	69	70	74	73	65	51	57	67
L_{wA} to outlet		77	36	49	68	69	72	72	63	49	56	66
L_{wA} to environment		65	26	38	55	57	60	60	53	41	44	54

Sound power level, A - weighted	Hz	Sound power level, A-filter applied: Octave frequency band, Hz: Gen.	63	125	250	500	1000	2000	4000	8000	Sound pressure level at 3 meters, A-filter applied: LpA, [dB(A)]	Sound pressure level at 1 meter, A-filter applied: LpA, [dB(A)]
Min speed												
L_{wA} to inlet	dB(A)	78	46	53	71	73	74	68	57	45	58	68
L_{wA} to outlet		78	45	52	71	73	73	68	56	44	57	67
L_{wA} to env.		68	36	43	60	62	64	59	49	38	47	57
Max speed												
L_{wA} to inlet	dB(A)	88	51	58	73	85	82	78	67	55	67	77
L_{wA} to outlet		87	50	57	72	84	81	77	66	54	66	76
L_{wA} to environment		76	41	48	62	73	70	67	58	47	55	65



η, (%)	MC	EC	N	VSD	[kW]	[A]	[m^3/h]	[Pa]	[RPM]	SR
31.6	A	Static	50.1	No	0.173	0.78	842	229	2430	1

Sound power level, A - weighted	Hz	Sound power level, A-filter applied: Octave frequency band, Hz: Gen.	63	125	250	500	1000	2000	4000	8000	Sound pressure level at 3 meters, A-filter applied: LpA, [dB(A)]	Sound pressure level at 1 meter, A-filter applied: LpA, [dB(A)]
Min speed												
L_{wA} to inlet	dB(A)	80	35	50	69	76	77	72	61	47	60	70
L_{wA} to outlet		79	34	49	68	75	75	71	60	46	59	69
L_{wA} to env.		69	27	40	58	64	66	62	53	40	49	59
Max speed												
L_{wA} to inlet	dB(A)	86	39	55	72	80	82	78	69	54	65	75
L_{wA} to outlet		85	38	55	71	79	81	78	68	53	64	74
L_{wA} to environment		74	29	45	61	68	70	67	59	46	53	63

η, (%)	MC	EC	N	VSD	[kW]	[A]	[m^3/h]	[Pa]	[RPM]	SR
32	A	Static	47.7	No	0.318	1.42	965	372	2450	1