



APPLICATION

Axial duct fans used for general ventilation of commercial and industrial premises; warehouses and storage facilities; garages and public utility buildings, etc. Also can be used in air conditioning and ventilation equipment.

CONSTRUCTION

Axial fan with direct drive designed for duct mounting in the horizontal or vertical position. Range of cylindrical cased axial fans fitted with aluminium impellers and manufactured from high grade rolled galvanized steel and protected against corrosion by cataforesis primer and black polyester paint finish. All models are supplied with pre-wired wiring junction box located on the outside of the fan casing for easy wiring access.

MOTOR

Two asynchronous, three-phase 230/400V, 50Hz and single-phase 230V, 50Hz, connected to one junction box. Working temperature from -40°C to +70°C. Insulation class F, degree of protection IP 65, equipped with thermal protection. The three-phase motors are driven by frequency in range 25-50Hz and the single-phase motors are driven by voltage. Electrical wiring diagram - fig. 4, 5, 6, page 662.



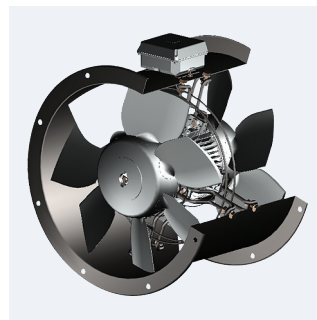
WWW



DTR



CE



Contra rotating system with two complementary impellers allowing the duplication of the pressure with the same air volume.



Rolled steel casings and motor support protected by cataforesis primer and black polyester paint finish. Stainless steel screws.



Wiring terminal box with cable gland PG-11.



Impellers are dynamically balanced according to ISO 1940 standard, giving vibration free operation.

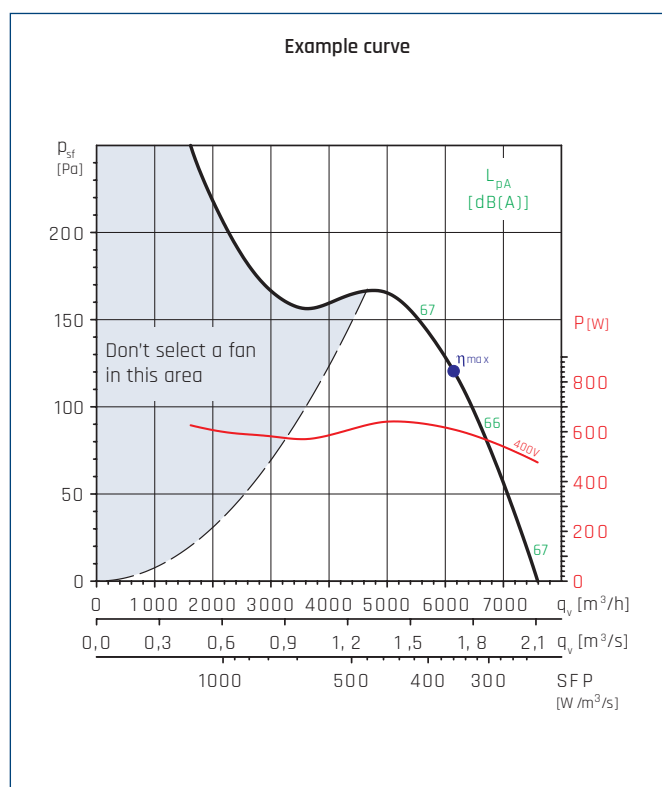
TECHNICAL CHARACTERISTICS

Type	speed	maximum absorbed power	maximum absorbed current		airflow	sound pressure level*	weight	regulator	article number
	[r.p.m.]	[W]	230V 400V		[m³/h]	[dB(A)]	[kg]		
SINGLE-PHASE									
TCBBx2/4-450	1420	1316	5,7	-	7430	74	42	RVS 7	41522010
TCBBx2/4-500	1425	1957	9	-	9950	76	50	RVS 10	41522020
TCBBx2/4-560	1425	3185	14,2	-	14150	78	66	-	41522030
THREE-PHASE									
TCBTx2/4-450	1430	1309	5,2	3	7250	74	42	RMT-5/Inverter 1,5 kW	41522050
TCBTx2/4-500	1390	1700	5,8	3,4	9800	76	50	RMT-5/Inverter 1,5 kW	41522060
TCBTx2/4-560	1390	3173	10	5,8	15170	78	66	Inverter 2,2 kW	41522070

* Sound pressure level measured in free field condition at a distance equivalent to three times the diameter of the impeller with a minimum of 1,5 meters.

PERFORMANCE CURVES

- q_v - Airflow in m³/h and m³/s
- p_{sf} - Static pressure in Pa
- SFP - Specific fan power in W/(m³/s)
- P - Input power in W
- Measurement category: A.
- Efficiency category: static.
- Fan efficiency without speed control.
- Fan tested without protection guard.
- Airflow data in accordance with ISO 5801.
- Sound pressure level dB(A), measured in a free field distance equal to 3 times the diameter, with a minimum of 1,5 m

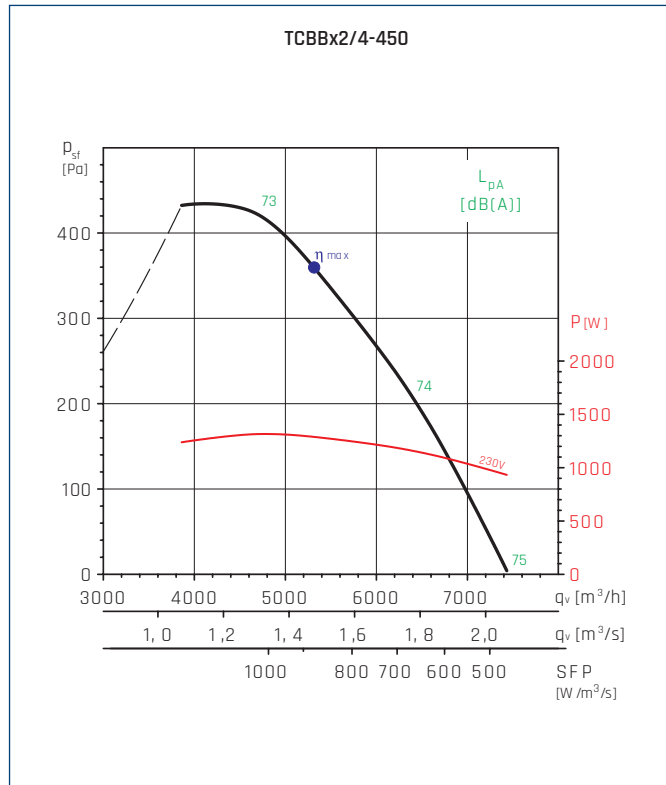


- MC Measurement category
- EC Efficiency category
- VSD Speed control: supplied with the fan
- SR Specific ratio
- η [%] Efficiency
- N Efficiency grade
- [kW] Absorbed power
- [m³/h] Airflow
- [Pa] Static pressure
- [RPM] Speed

MC	EC	VSD	SR	η [%]	N	[kW]	[m³/h]	[Pa]	[RPM]
D	Total	No	1	45,1	52,8	0,597	6200	155	1379

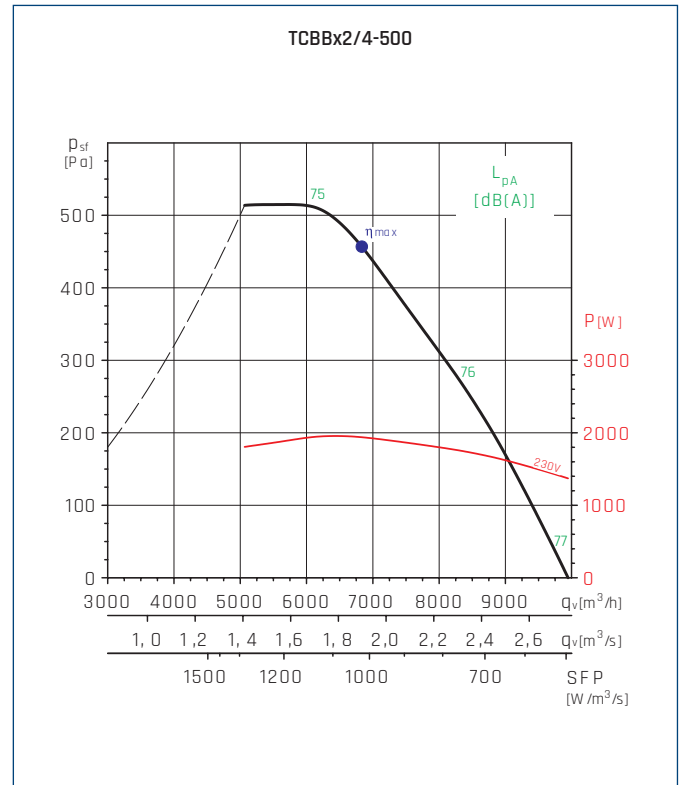
● - highest efficiency point.

PERFORMANCE CURVES



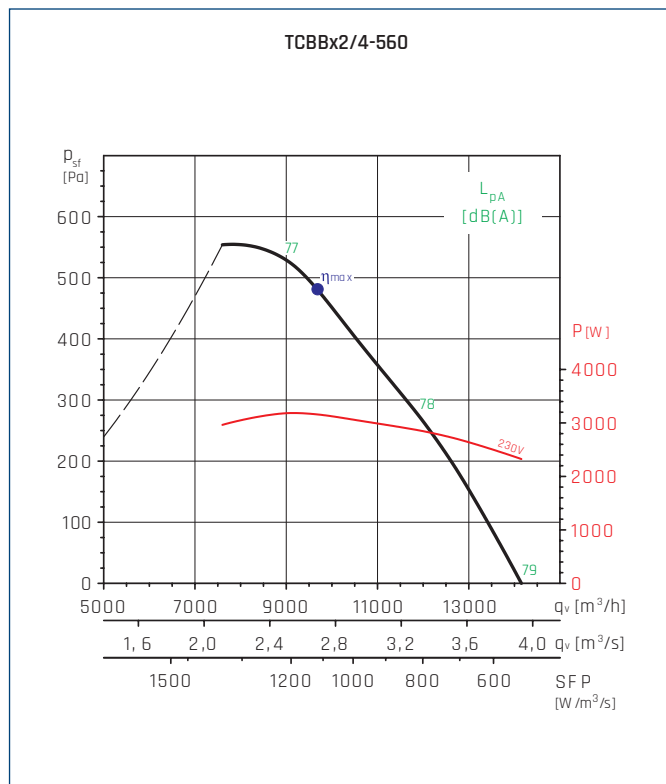
MC	EC	VSD	SR	η [%]	N	[kW]	[m³/h]	[Pa]	[RPM]
D	Total	No	1	46,9	52,5	1,289	5315	411	1356

● - highest efficiency point.



MC	EC	VSD	SR	η [%]	N	[kW]	[m³/h]	[Pa]	[RPM]
D	Total	No	1	50,0	54,5	1,939	6832	514	1393

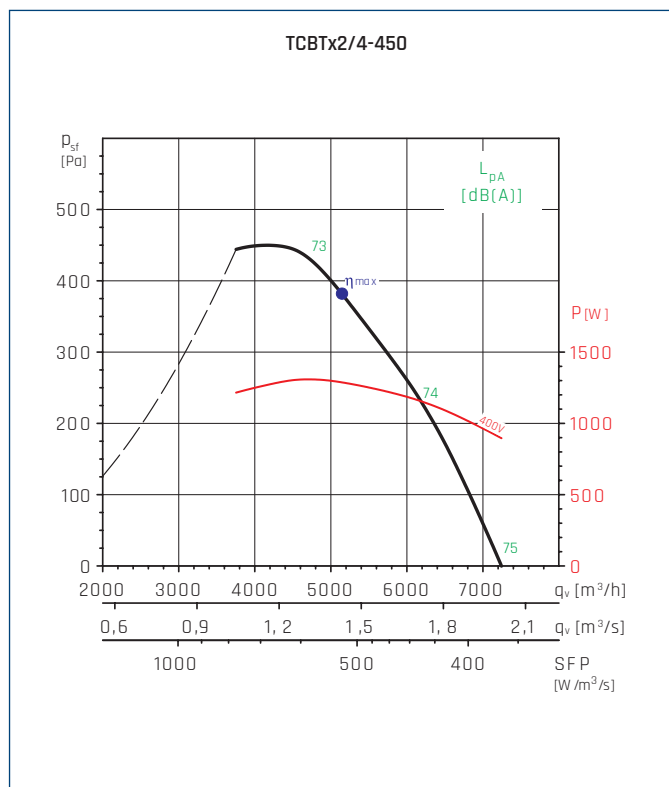
● - highest efficiency point.



MC	EC	VSD	SR	η [%]	N	[kW]	[m³/h]	[Pa]	[RPM]
D	Total	No	1	46,8	50,0	3,159	9680	552	1349

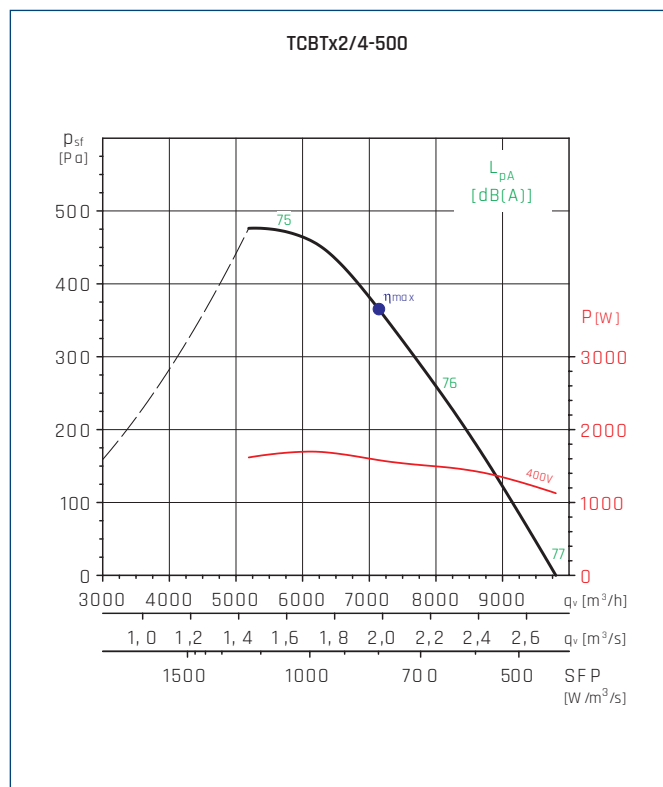
● - highest efficiency point.

PERFORMANCE CURVES



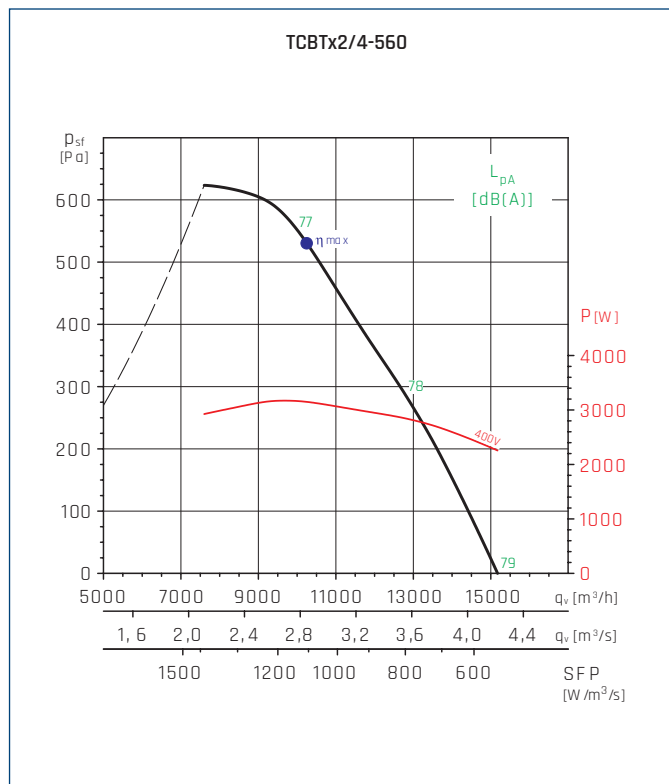
MC	EC	VSD	SR	η [%]	N	[kW]	[m³/h]	[Pa]	[RPM]
D	Total	No	1	47,5	53,1	1,288	5142	431	1379

● - highest efficiency point.



MC	EC	VSD	SR	η [%]	N	[kW]	[m³/h]	[Pa]	[RPM]
D	Total	No	1	53,5	58,6	1,581	7145	427	1348

● - highest efficiency point.



MC	EC	VSD	SR	η [%]	N	[kW]	[m³/h]	[Pa]	[RPM]
D	Total	No	1	55,0	58,2	3,148	10254	611	1365

● - highest efficiency point.

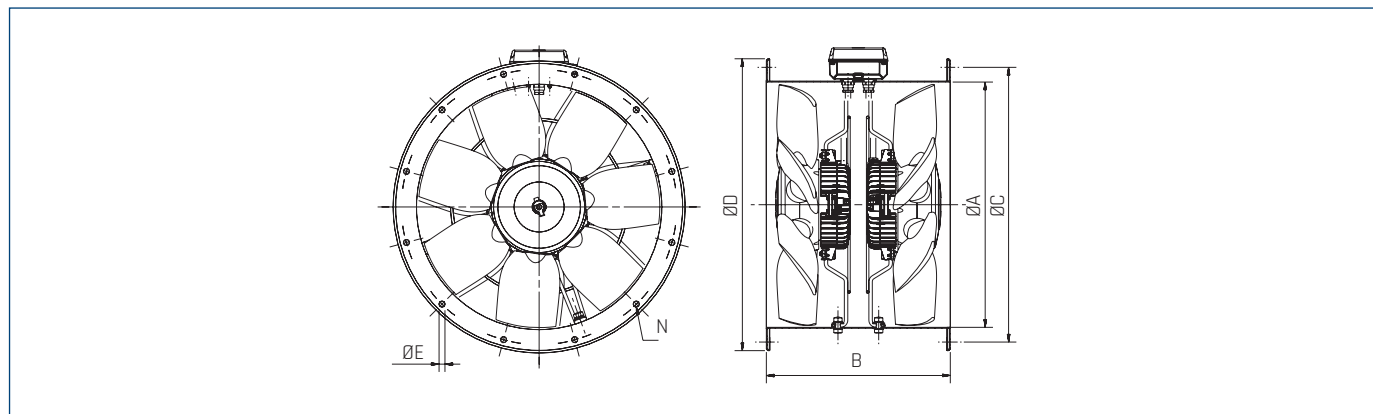
ACOUSTIC CHARACTERISTICS

The sound levels shown in the technical characteristics chart and performance curves correspond to the value of sound pressure dB(A), measured in free field conditions at a distance equivalent to three times the diameter of the impeller with a minimum of 1.5 meters.

Sound power level spectrum in dB(A) at the corresponding frequency band in Hz and the point of maximum flow.

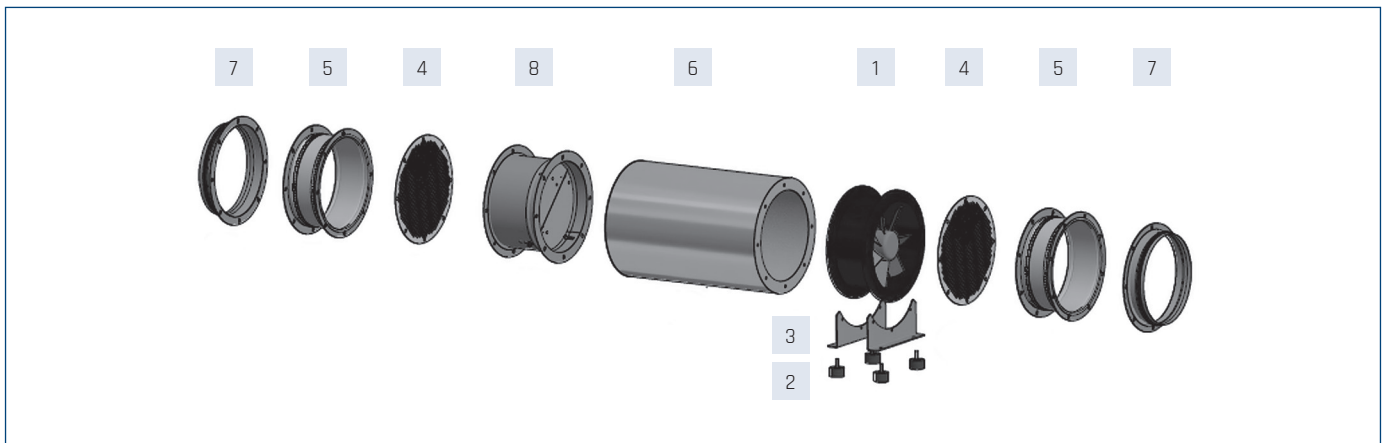
Type	airflow [m³/h]	frequency [Hz] / dB(A)									
		63	125	250	500	1000	2000	4000	8000	L _{WA}	
450	inlet	6600	46	73	85	82	85	79	72	64	90
		5850	46	73	84	81	83	79	71	64	88
		4300	58	70	80	80	83	79	71	64	87
	outlet	6600	63	75	86	85	87	82	74	67	92
		5850	53	73	85	84	87	81	74	67	91
		4300	58	70	82	83	86	82	74	67	90
500	inlet	9000	48	78	87	85	87	81	74	67	92
		7500	52	76	85	85	85	80	73	65	90
		6000	60	73	83	82	85	80	73	66	89
	outlet	9000	65	76	87	88	90	84	77	70	94
		7500	62	75	86	87	88	83	76	69	92
		6000	59	72	86	85	88	83	76	69	92
560	inlet	13720	50	85	87	88	91	85	78	73	95
		10800	57	79	83	86	89	84	78	72	93
		9000	63	79	81	86	89	84	78	72	92
	outlet	13720	74	86	85	91	94	88	81	75	97
		10800	70	82	84	88	92	87	81	74	95
		9000	74	81	85	89	92	87	81	74	95

DIMENSIONS [mm]



Type	ØA	B	ØC	ØD	ØE	number of holes N
450	537	375	500	450	12	8
500	595	520	560	500	12	12
560	655	520	620	560	12	12

ACCESSORY ASSEMBLY



1	2	3	4	5	6	7	8	
Type	vibro-isolator	mounting feet	wire guard	flexible connector	sound attenuator 1xØD	sound attenuator 2xØD	matching flange	backdraft shutter
450	26040960	42516140	42518140	42519540	40521989	40521990	42517140	42516516
500	26040960	42516150	42518150	42519550	40521991	40521992	42517150	42516520
560	26040960	42516160	42518160	42519560	40521993	40521994	42517160	42516524



ELECTRICAL ACCESSORIES

Type	wall thermostat	duct thermostat	air quality sensor	humidistat	thyristor controller
	TS	TK-1	SQA	HIG-2	REB N
TCBBx2/4-450	40025345 + contactor	40025330 + contactor	40025140 + contactor	40025150 + contactor	40025055
TCBBx2/4-500	40025345 + contactor	40025330 + contactor	40025140 + contactor	40025150 + contactor	40025055
TCBBx2/4-560	40025345 + contactor	40025330 + contactor	40025140 + contactor	40025150 + contactor	-
TCBTx2/4-450	40025345 + contactor	40025330 + contactor	40025140 + contactor	40025150 + contactor	40025055
TCBTx2/4-500	40025345 + contactor	40025330 + contactor	40025140 + contactor	40025150 + contactor	40025055
TCBTx2/4-560	40025345 + contactor	40025330 + contactor	40025140 + contactor	40025150 + contactor	40025055

Type	ERV	transformer regulator			transformer regulator 2-adjustable		Inverter
		RMB	RVS	RMT	SC2	SC2A	
TCBBx2/4-450	40025054	40025080	40025236	-	40025258	40025259	-
TCBBx2/4-500	40025054	40025090	40025237	-	40025260	40025261	-
TCBBx2/4-560	-	-	-	-	-	-	-
TCBTx2/4-450	-	-	-	40025115	-	40025274	40016322
TCBTx2/4-500	-	-	-	40025115	-	40025274	40016322
TCBTx2/4-560	-	-	-	40025120	-	40025276	40016332

