



APPLICATION

IBF EC fans are used in a wide variety of mechanical ventilation systems, combining the benefits of axial fans (flow direction) and radial (stable compression, low noise, high efficiency). Thanks to the use of modern, high performance electronic commutation (EC) drives, fans are characterized by low power consumption. Examples of applications include supply and exhaust ventilation of flats, offices, shops, bars, cafes, restaurants.

CONSTRUCTION

Duct fans are designed for mounting in any position in rectangular ducts. The fan casing is made of galvanized sheet steel, with inspection flap for access to rotor and motor without disassembly of the installation. Equipped with 20 mm wide flanges on the inlet and outlet sides. Easy connection of power supply provides a separate junction box (single-phase models), motor junction box (three-phase models). Rotors with backward blades are designed to transport maximum air volume at high static pressure with minimal noise. Rotors, depending on the size of the device, are made of aluminium sheet (models 280, 315 and 355S) or plastic (models 355T to 560).

MOTOR

High efficiency motors with integrated EC technology, which minimizes the usage costs as well as CO₂ emissions due to the reduced demand for electricity. The fan motor is equipped with a 0-10VDC control input for smooth rotation control. Insulation class - F. Protection rating - IP54. Power supply - three-phase 380 ... 480V 50Hz or single-phase 200 ... 277V 50Hz (depending on the model of the fan).

Electrical connection diagrams Fig. 56, 57, p. 671.



Easy assembly
Standard rectangular flanges for easy installation



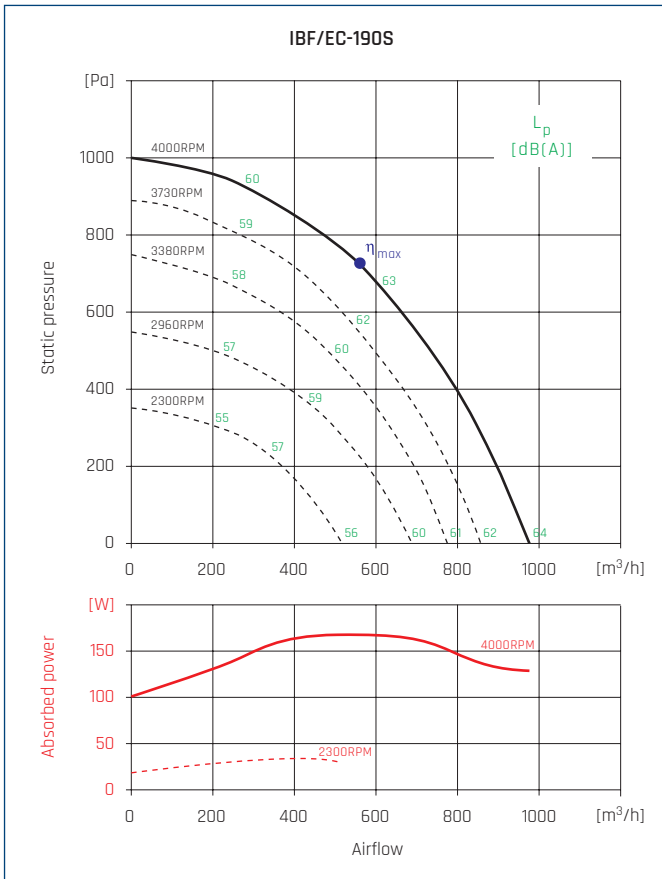
Inspection flap
For ease of use

TECHNICAL CHARACTERISTICS

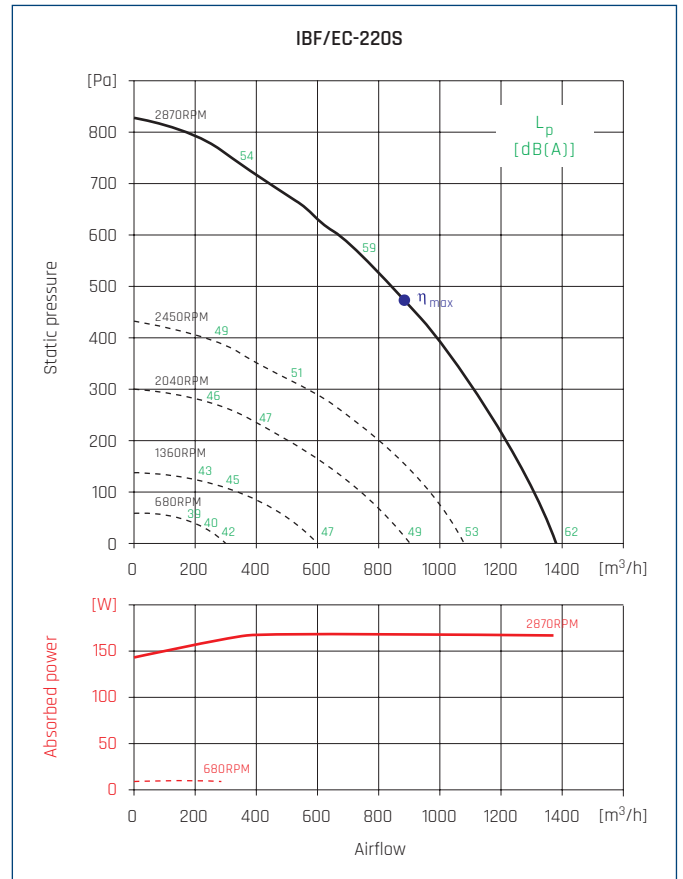
Type	voltage	speed	max absorbed power	max absorbed current	airflow at free discharge	pressure	sound pressure level*	operating temperature min max	weight	regulator	ErP	article number
	[V]	[r.p.m.]	[W]	[A]	[m³/h]	[Pa]	[dB(A)]	[°C]	[kg]			
SINGLE PHASE												
IBF/EC-190S	200...277	4000	170	1,5-1,25	910	1002	63	-25 +40		REB ECOWATT	2018	41010015
IBF/EC-220S	200...277	2860	170	1,5-1,25	1250	825	59	-25 +40		REB ECOWATT	2018	41010025
IBF/EC-280S	200...277	2530	170	2,6-1,85	1490	820	66	-25 +40	17,5	REB ECOWATT	2018	41010036
IBF/EC-315S	200...277	2600	470	2,7-1,95	2300	810	66	-25 +40	23,5	REB ECOWATT	2018	41010055
IBF/EC-355S	200...277	2020	400	2,3-1,65	2820	520	66	-25 +40	33	REB ECOWATT	2018	41010065
THREE PHASE												
IBF/EC-355T	380...480	2500	1100	2,1-1,65	4350	1150	70	-15 +60	33	REB ECOWATT	2018	41010105
IBF/EC-400T	380...480	2100	1230	2,4-1,9	5500	1050	68	-15 +60	35,5	REB ECOWATT	2018	41010125
IBF/EC-450T	380...480	1800	1250	2,5-2,0	6650	925	71	-15 +60	49	REB ECOWATT	2018	41010165
IBF/EC-500T	380...480	1400	2450	2,1-1,65	8000	640	74	-15 +60	60	REB ECOWATT	2018	41010205
IBF/EC-560T	380...480	1230	1500	2,6-2,1	9500	670	71	-15 +60	75	REB ECOWATT	2018	41010255

* measured at a distance of 3 m from the fan.

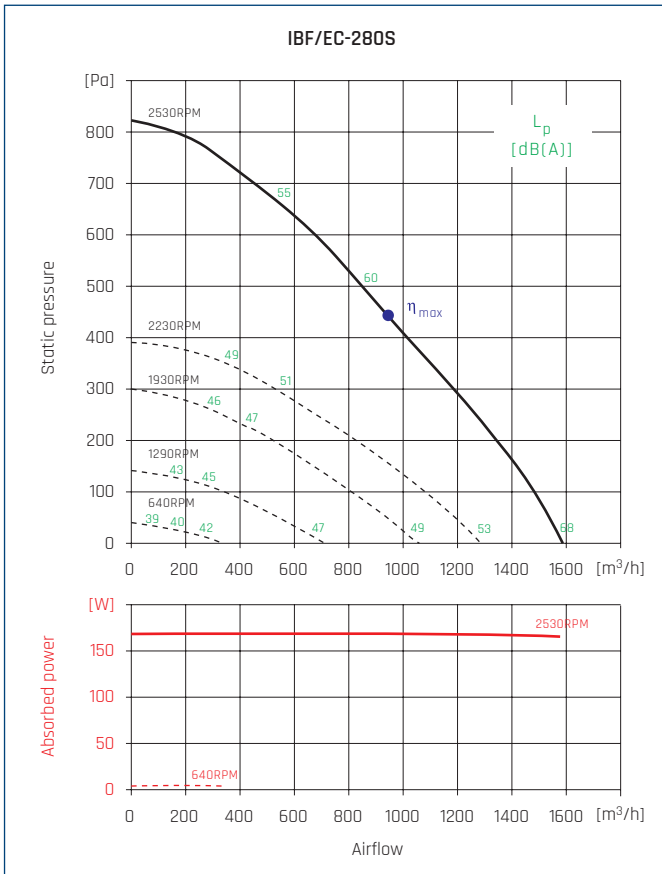
PERFORMANCE CURVES



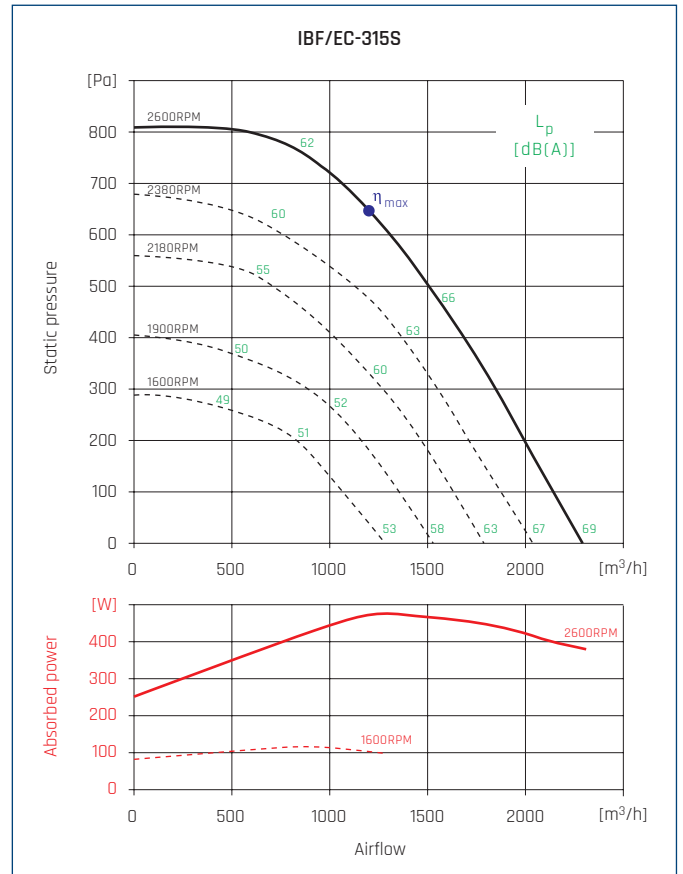
● - highest efficiency point



● - highest efficiency point

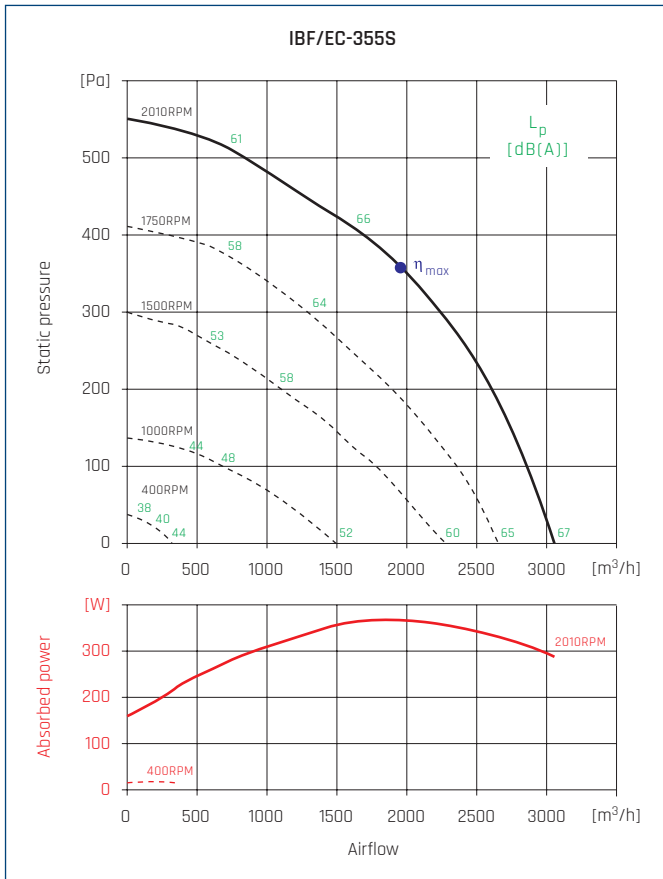


● - highest efficiency point

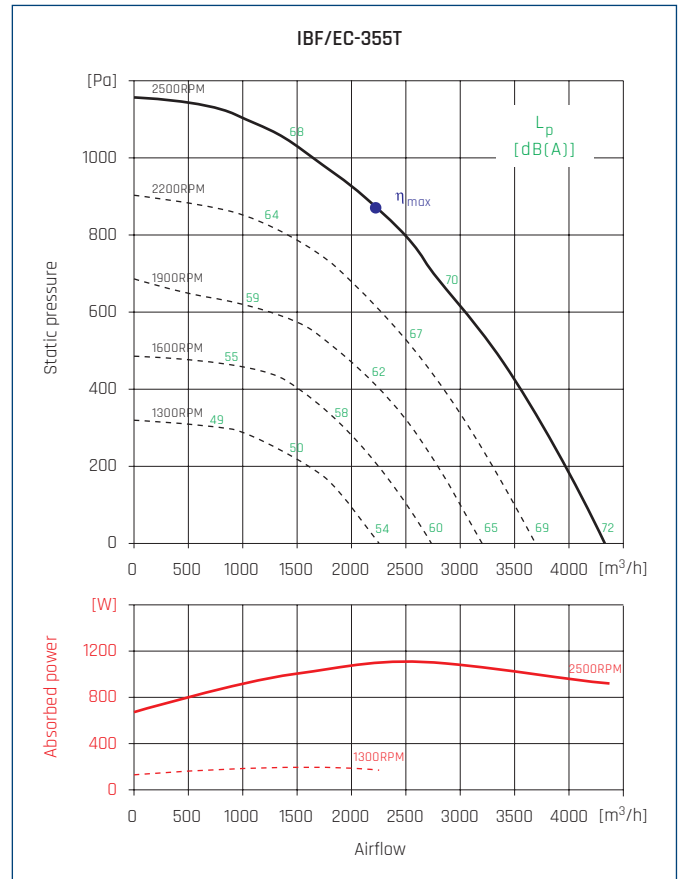


● - highest efficiency point

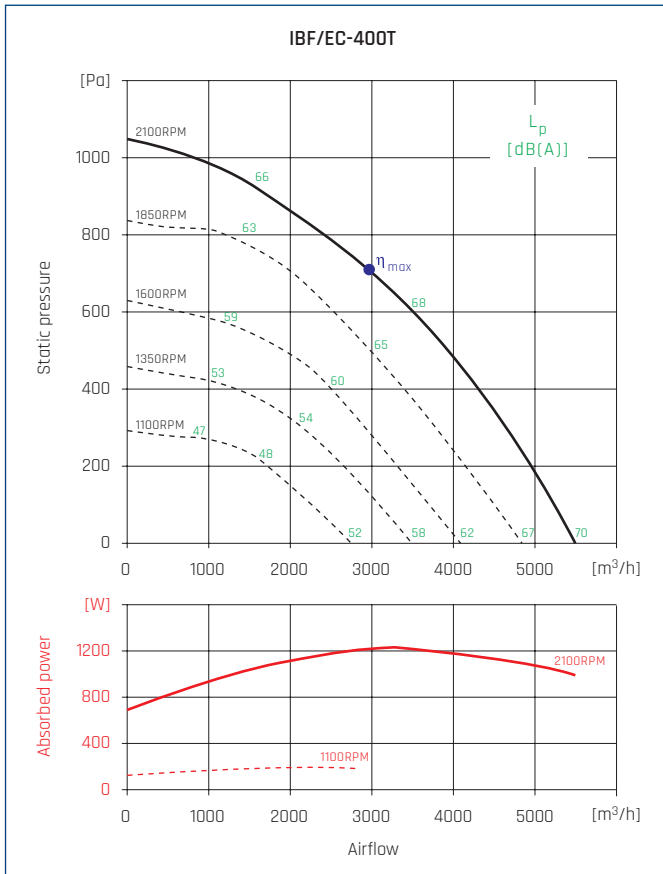
PERFORMANCE CURVES



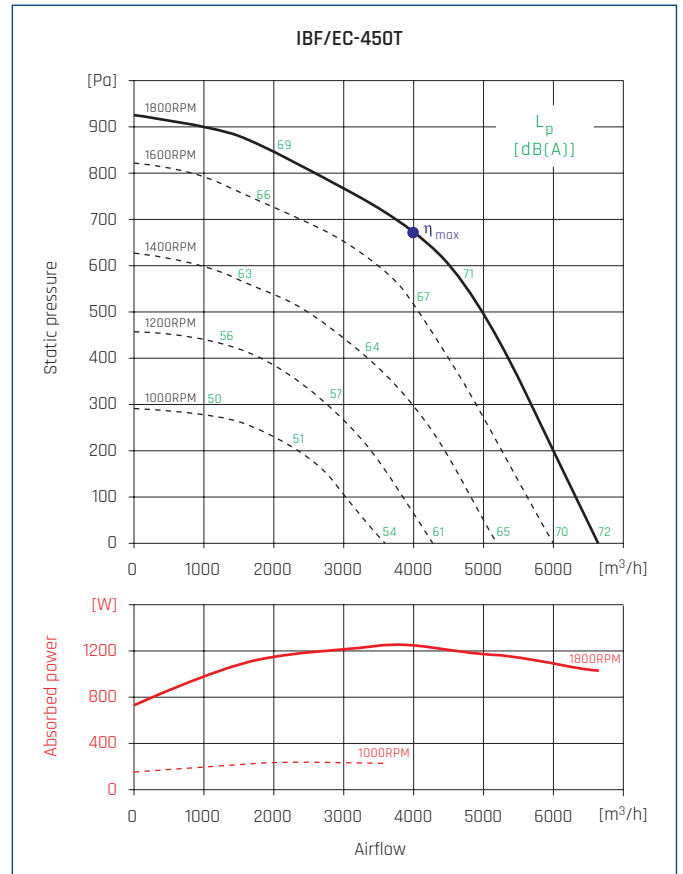
● - highest efficiency point



● - highest efficiency point

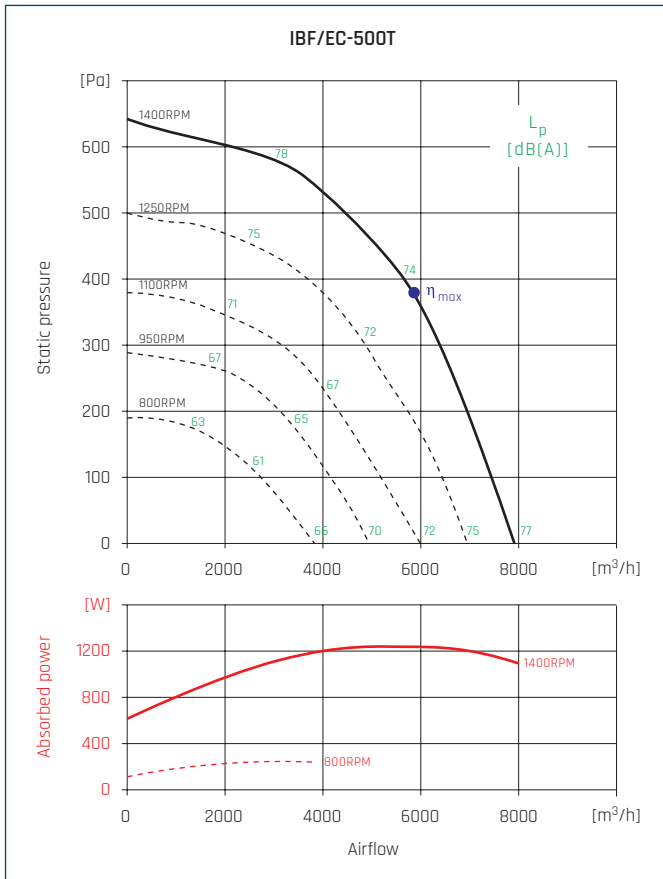


● - highest efficiency point

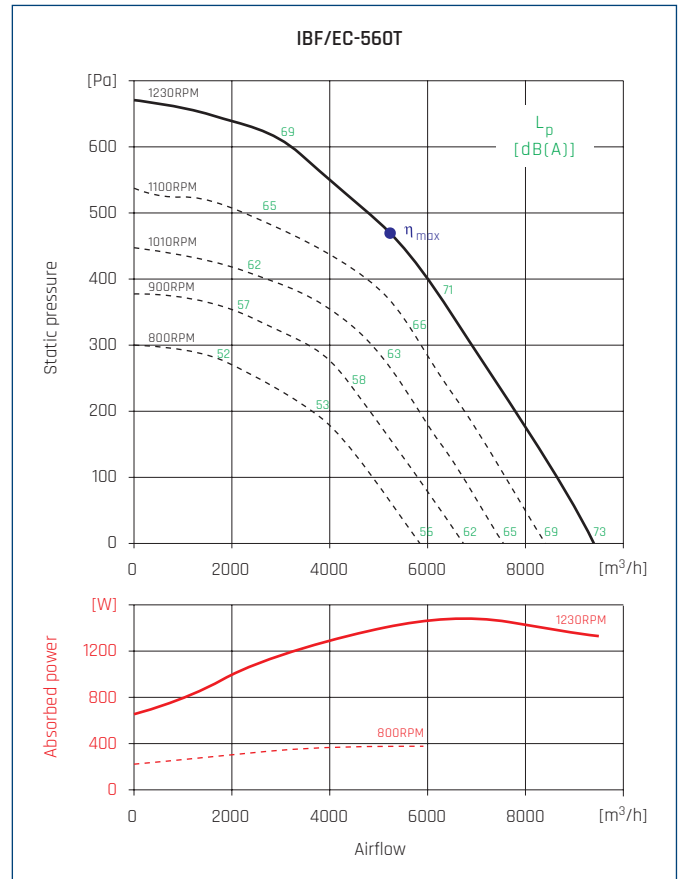


● - highest efficiency point

PERFORMANCE CURVES

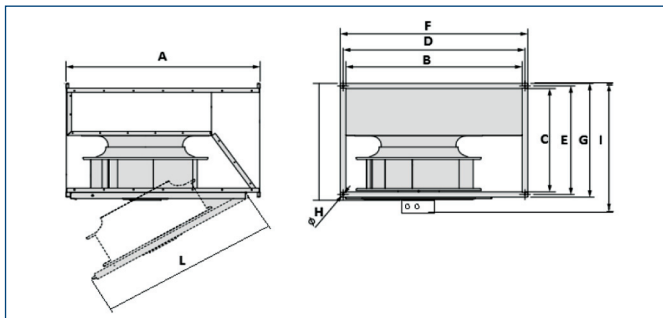


● - highest efficiency point



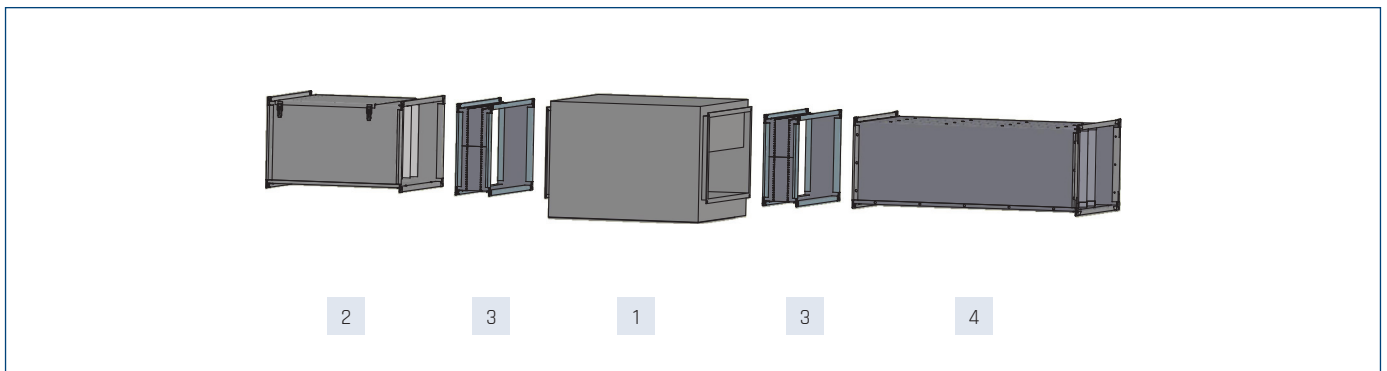
● - highest efficiency point

DIMENSIONS [mm]



Type	A	B	C	D	E	F	G	ØH	I	L
190	402	298	148	320	170	340	190	9	250	
220	502	398	198	420	220	440	240	9	320	
280	532	498	248	520	270	540	290	9	350	362
315	565	500	298	522	320	540	338	9	391	432
355	725	600	348	622	370	640	388	9	440	482
400	725	600	348	622	370	640	388	9	448	510
450	725	700	400	722	422	740	440	9	500	572
500	880	800	500	822	522	840	540	9	620	620
560	1000	1000	500	1024	524	1056	556	13	620	790

ACCESSORY ASSEMBLY

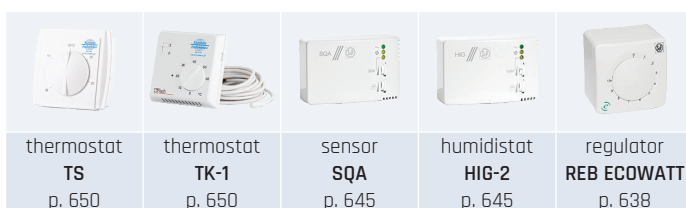


1 Type	2 channel filter DFR				3 antivibration connector IAE-PL	4 flexible silencer RCS
	cartridge filter to DFR					
	EU3	EU5	EU7			
IBF/EC-190S	40520910	40520913	40520915	40520917	40532800	40521900
IBF/EC-220S	40520920	40520923	40520925	40520927	40532810	40521910
IBF/EC-280S	40520930	40520933	40520935	40520937	40532820	40521920
IBF/EC-315S	40520930	40520933	40520935	40520937	40532820	40521920
IBF/EC-355S	40520960	40520963	40520965	40520967	40532850	40521950
IBF/EC-355T	40520960	40520963	40520965	40520967	40532850	40521950
IBF/EC-400T	40520960	40520963	40520965	40520967	40532850	40521950
IBF/EC-450T	40520970	40520973	40520975	40520977	40532860	40521960
IBF/EC-500T	40520980	40520983	40520985	40520987	40532870	40521970
IBF/EC-560T	40520990	40520993	40520995	40520997	40532880	40521980



ELECTRICAL ACCESSORIES

Type	wall thermostat	duct thermostat	air quality sensor	humidistat	regulator
	TS	TK-1	SQA	HIG-2	REB-ECOWATT
IBF/EC-190S	40025345	40025330	40025140	40025150	40025005
IBF/EC-220S	40025345	40025330	40025140	40025150	40025005
IBF/EC-280S	40025345	40025330	40025140	40025150	40025005
IBF/EC-315S	40025345	40025330	40025140	40025150	40025005
IBF/EC-355S	40025345	40025330	40025140	40025150	40025005
IBF/EC-355T	40025345	40025330	40025140	40025150	40025005
IBF/EC-400T	40025345	40025330	40025140	40025150	40025005
IBF/EC-450T	40025345	40025330	40025140	40025150	40025005
IBF/EC-500T	40025345	40025330	40025140	40025150	40025005
IBF/EC-560T	40025345	40025330	40025140	40025150	40025005



ERP CHARACTERISTICS

NRVU*						
	Name	IBF/EC-190S	IBF/EC-220S	IBF/EC-280S	IBF/EC-315S	IBF/EC-355S
a	supplier name	VENTURE INDUSTRIES	VENTURE INDUSTRIES	VENTURE INDUSTRIES	VENTURE INDUSTRIES	VENTURE INDUSTRIES
b	article number	41010015	41010025	41010036	41010055	41010066
c	device category	NRVU	NRVU	NRVU	NRVU	NRVU
c	device type	UVU	UVU	UVU	UVU	UVU
d	type of drive	variable drive speed	variable drive speed	variable drive speed	variable drive speed	variable drive speed
e	type of heat recovery system	not applicable	not applicable	not applicable	not applicable	not applicable
f	thermal efficiency of heat recovery [%]	not applicable	not applicable	not applicable	not applicable	not applicable
g	reference flow rate in NRVU [m ³ /s]	0,167	0,250	0,250	0,417	0,500
h	effective electric power input (kW)	0,170	0,170	0,170	0,470	0,400
i	SFP _{int} [W/(m ³ /s)]	1020	680	680	1128	800
j	face velocity [m/s]	1,117	1,447	1,129	1,823	1,947
k	Δps, ext (Pa)	680	460	470	460	385
l	Δps, int (Pa)	not applicable	not applicable	not applicable	not applicable	not applicable
m	Δps, add (Pa)	not applicable	not applicable	not applicable	not applicable	not applicable
n	static efficiency of fans [%]	67%	68%	70%	40%	53%
o	maximum external leakage rate [%]	3	3	3	3	3
p	maximum internal leakage rate [%]	not applicable	not applicable	not applicable	not applicable	not applicable
q	energy performance	not applicable	not applicable	not applicable	not applicable	not applicable
r	visual filter warning	not applicable	not applicable	not applicable	not applicable	not applicable
s	L _{WA} dB(A)	63	59	60	66	66
	internet address	www.ventur.eu	www.ventur.eu	www.ventur.eu	www.ventur.eu	www.ventur.eu

NRVU*						
	Nazwa produktu	IBF/EC-355T	IBF/EC-400T	IBF/EC-450T	IBF/EC-500T	IBF/EC-560T
a	supplier name	VENTURE INDUSTRIES	VENTURE INDUSTRIES	VENTURE INDUSTRIES	VENTURE INDUSTRIES	VENTURE INDUSTRIES
b	article number	41010105	41010125	41010165	41010205	41010255
c	device category	NRVU	NRVU	NRVU	NRVU	NRVU
c	device type	UVU	UVU	UVU	UVU	UVU
d	type of drive	variable drive speed	variable drive speed	variable drive speed	variable drive speed	variable drive speed
e	type of heat recovery system	not applicable	not applicable	not applicable	not applicable	not applicable
f	thermal efficiency of heat recovery [%]	not applicable	not applicable	not applicable	not applicable	not applicable
g	reference flow rate in NRVU [m ³ /s]	0,694	0,833	1,111	1,389	1,389
h	effective electric power input (kW)	1,100	1,230	1,250	1,220	1,500
i	SFP _{int} [W/(m ³ /s)]	1584	1476	1125	878	1080
j	face velocity [m/s]	2,704	2,626	3,109	3,887	3,130
k	Δps, ext (Pa)	760	700	680	460	490
l	Δps, int (Pa)	not applicable	not applicable	not applicable	not applicable	not applicable
m	Δps, add (Pa)	not applicable	not applicable	not applicable	not applicable	not applicable
n	static efficiency of fans [%]	49%	49%	63%	52%	49%
o	maximum external leakage rate [%]	3	3	3	3	3
p	maximum internal leakage rate [%]	not applicable	not applicable	not applicable	not applicable	not applicable
q	energy performance	not applicable	not applicable	not applicable	not applicable	not applicable
r	visual filter warning	not applicable	not applicable	not applicable	not applicable	not applicable
s	L _{WA} dB(A)	70	68	68	74	71
	internet address	www.ventur.eu	www.ventur.eu	www.ventur.eu	www.ventur.eu	www.ventur.eu

* NRVU - "non-residential ventilation unit" - according to COMMISSION REGULATION (EU) No 1254/2014.