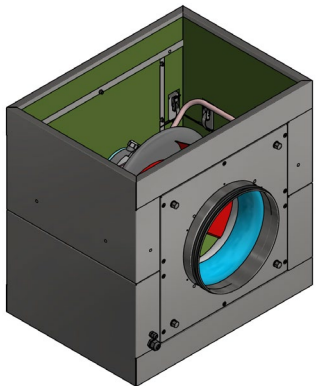
BF700S-355PJ7501

BoxFan

Built-in Radical EC fan
With square air inlet and outlet



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Nominal data

Type	**BF700S-355PJ7501**
EC Ventilator	**K3G355-PJ75-01**

Phase		3~
Nominal voltage	**VAC**	400
Nominal voltage range	**VAC**	380…480
Frequency	**Hz**	50/60

Type of data definition		ml
Speed	**min^{-1}**	2400
Power input	**W**	1100
Current draw	**A**	1,7
Min. ambient temperature	**°C**	-25
Max. ambient temperature	**°C**	60

ml = Max. load · me = Max. efficiency · rfa = running at free air · cs = customer specs · cu = customer unit
Subject to alterations

Data in accordance with the EU environment design regulation 327/2011 for built-in fan units.

	Actual	Request 2015
Overall efficiency η_{es}	69,2%	51,9%
Installation category	A	
Efficiency category	Static	
Efficiency grade N	79,3%	62%
Variable speed drive	Yes	

Power input P_{ed}	kW	1,09
Airflow q_v	m³/h	3655
Pressure increase p_{fs}	Pa	692
Speed n	min^{-1}	2405
Specific rato*		1.01

*Specific ratio = 1 + p_{fs} / 100 000 Pa

Data definition with optimum efficiency.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup

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Technical features

Rotor surface	Painted black
Material of terminal box	Plastic PP
Electronic housing material	Die-cast aluminium
Impeller material	Sheet aluminium
Support plate materiale	Sheet steel, galvanized
Support bracket material	Steel, painted black
Number of blades	5
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP 55
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H1
Ambient temperature note	Occasional start-up at temperatures between -40°C and -25°C is permitted. For continuous operation at ambient temperatures below -25°C (such as refrigeration applications), use must be made of a fan design with special low-temperature bearings
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient motor temp. (transp./ storage)	-40 °C
Mounting position	See product drawing
Condensate discharge holes	Rotor side
Mode	S1
Motor bearing	Ball bearing; (sealed)
Technical features	- Output 10 VDC, max. 10 mA - Operation and alarm display - External 24 V input (programming) - Alarm relay - Integrated PID controller - Output limit - Motor current limit - PFC, passive - RS485 MODBUS RTU - Soft start - Maximum EEPROM write cycles 100,000 - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Temperature derating - Over-temperature protected electronics / moto
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	≤ 3.5 mA
Electrical connection	Terminal box
Motor protection	Thermal overload protector (TOP) internally connected
Protection class	I (with customer connection of protective earth)

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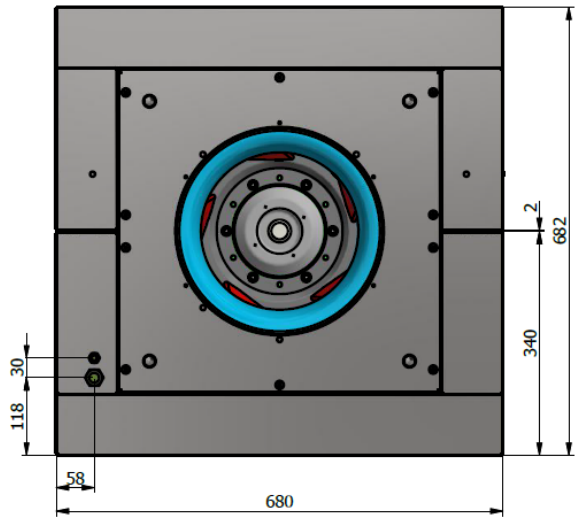
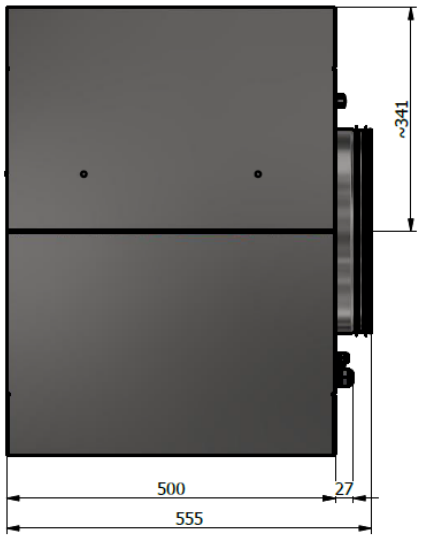
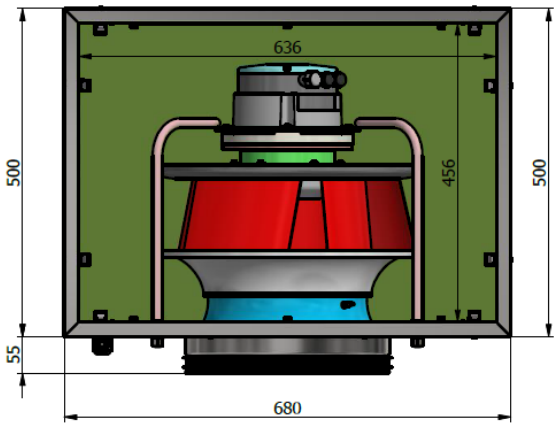
Physical description

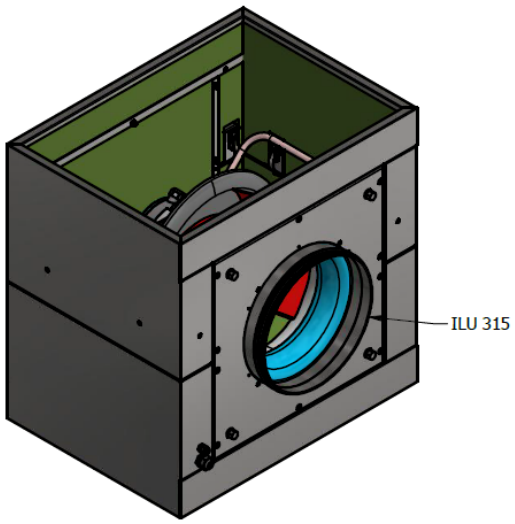
Weight	40,4 kg
Plate thickness, chassis	1 mm
Plate thickness, fan plate and inspection hatch	3 mm
Insulation	20 mm Polyethylen Cross Linked PE-Foam - LD-30, Black
Cable glands, PG	M12 og M20
Duct connection, ILU	indtag Ø315 / afkast 636x456 mm
Dimensions	See product drawing

Product drawing









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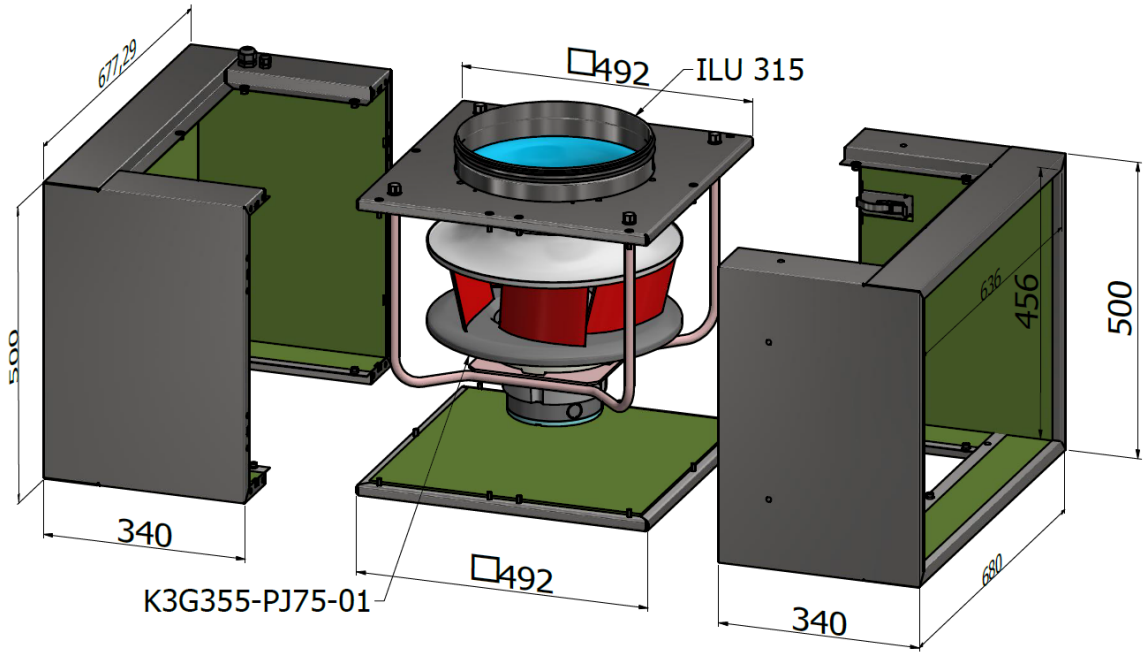

1	Installation position: Shaft horizontal (install the support struts only vertically as shown in the illustration!) or rotor on bottom; rotor on top on request
2	Cable diameter min. 8 mm, max. 12 mm, tightening torque 1.8±0.3 Nm (use the provided seal) Cable diameter min. 4 mm, max. 10 mm, tightening torque 1.8±0.3 Nm
3	Cable diameter min. 6 mm, max. 10 mm, tightening torque 1.8±0.3 Nm (use the provided seal) Cable diameter min. 4 mm, max. 7 mm, tightening torque 1.8±0.3 Nm
4	Tightening torque 3.5±0.5 Nm
5	Inlet nozzle with pressure tap (k-factor: 148)

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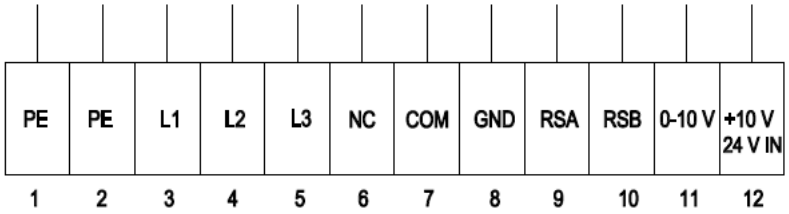
Connection diagram



No.	Conn.	Designation	Function/assignment
	1	PE	Protective earth
	2	PE	Protective earth
	3	L1	Power supply
	4	L2	Power supply
	5	L3	Power supply
	6	NC	Status relay, floating status contact, break for failure, contact rating 250 VAC / 2 A (AC1) / min. 10 mA; reinforced insulation on mains side and basic insulation on control interface side
	7	COM	Status relay, floating status contact, break for failure, contact rating 250 VAC / 2 A (AC1) / min. 10 mA; reinforced insulation on mains side and basic insulation on control interface side
	8	GND	Signal ground for control interface, SELV
	9	RSA	RS-485 interface for MODBUS, RSA; SELV
	10	RSB	RS-485 interface for MODBUS, RSB; SELV
	11	0-10 V	Analogue input (set value) SELV, 0-10 V, Ri=100kΩ, parametrisable curve
	12	+10 V	Fixed voltage output 10 VDC, SELV, +10 V +/-3%, max. 10 mA short-circuit-proof, power supply for ext. devices (e.g. potentiometer); Fixed voltage input 24 VDC for parameter setting via MODBUS without mains power supply

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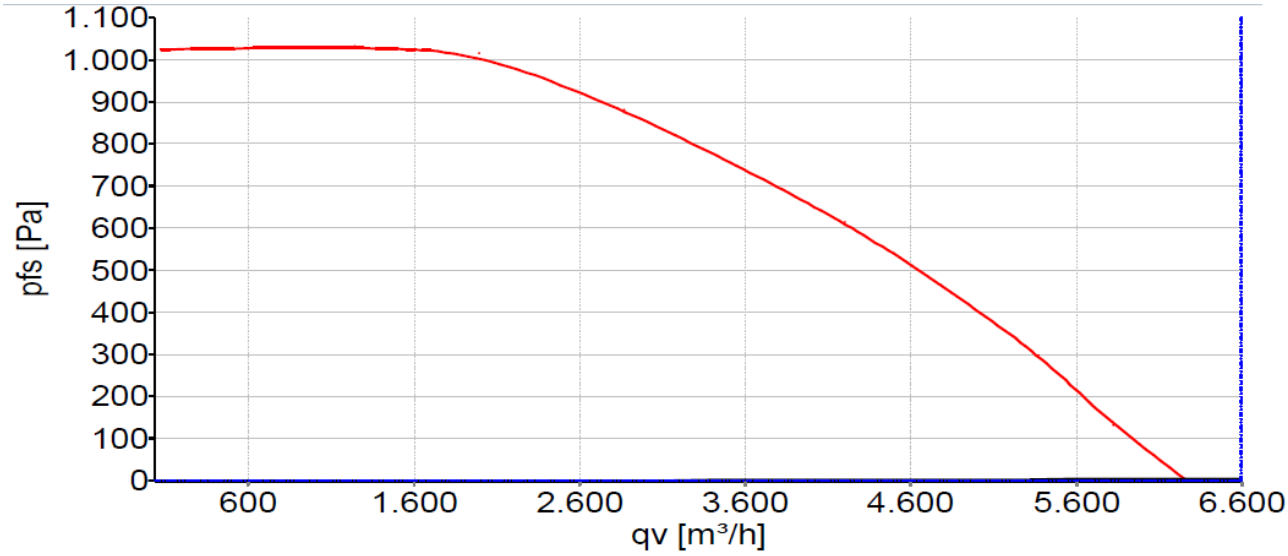
Charts: Air flow 50 Hz



Measurement: LU-174053-1

Air performance measured as per ISO 5801
Installation category A. For detailed information on the measuring set-up, please contact ebm-papst.
Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed

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