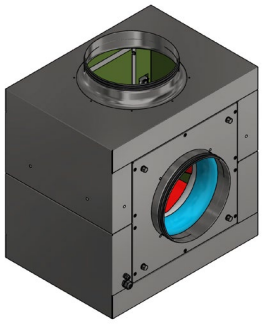
BF700R-355PJ7501

BoxFan

Built in RadiPac EC fan
With round air inlet and outlet



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Nominal data

Type	**BF700R-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
Terminal box material	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
Operation mode	S1
Motor bearing	Ball bearing; (sealed)
Technical features	-Output 10 VDC, max. 10 mA -Operation and alarm display -External 24 V input (parameter setting) -Alarm relay -Integrated PID controller -Power limiter -Motor current limitation -PFC, passive -RS-485 MODBUS-RTU -Soft start -EEPROM write cycles: 100,000 maximum -Control input 0-10 VDC / PWM -Control interface with SELV potential safely disconnected from the mains -Temperature derating -Thermal overload protection for electronics/motor -Line undervoltage / phase failure detection
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	≤ 3.5 mA
Electrical hookup	Terminal box
Motor protection	Thermal overload protector (TOP) internally connected
Protection class	I (if the protective conductor is connected at the installation site)

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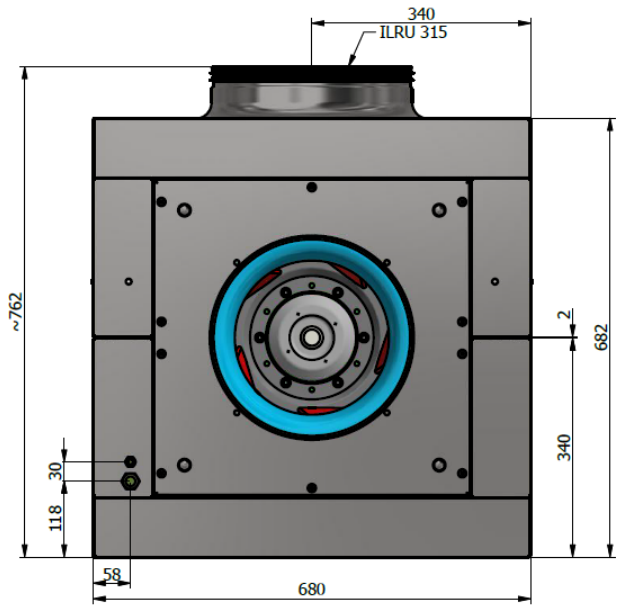
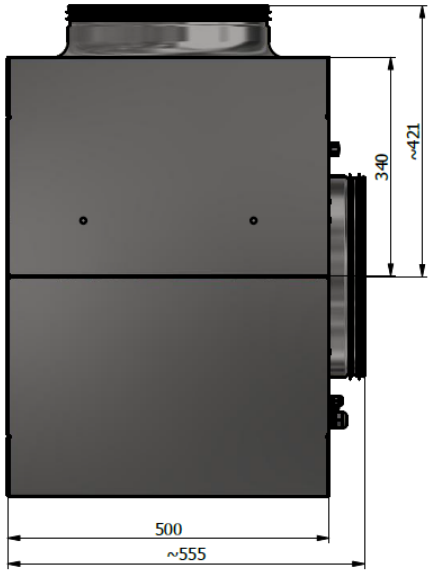
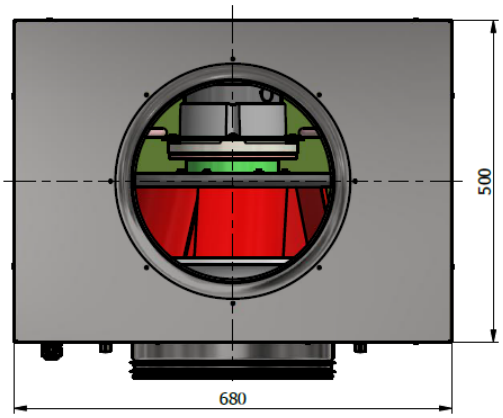
Physical description

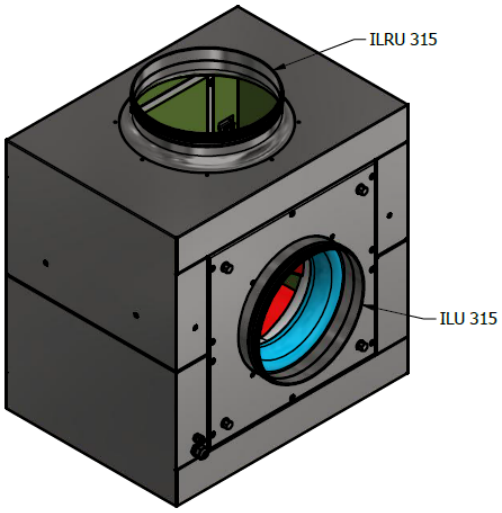
Weight	42,4 kg
Plate thickness, chassis	1 mm
Plate thickness, fan plate and inspection hatch	3 mm
Insulation	20 mm Polyethylen Cross Linked PE-Foam - LD-30, Black
Cable glands, PG	M12 og M20
Duct connection, ILU	Ø315
Dimensions	See product drawing

Product drawing









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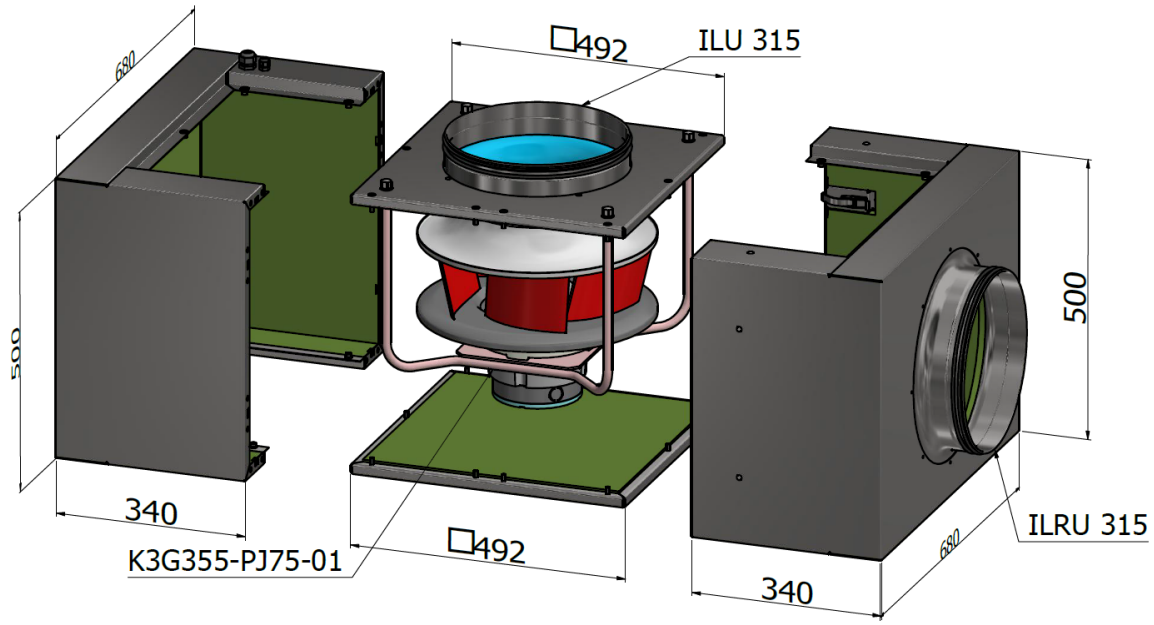

1	Installed position: shaft horizontal (install support struts only vertically as illustrated) or rotor on bottom; rotor on top on request
2	Cable diameter min. 8 mm, max. 12 mm, tightening torque 1.8±0.3 Nm (use must be made of seal provided) Cable diameter min. 4 mm, max. 10 mm, tightening torque 1.8±0.3 Nm
3	Cable diameter min. 6 mm, max. 10 mm, tightening torque 1.8±0.3 Nm (use must be made of seal provided) 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 ring with pressure tap (k-factor: 148)

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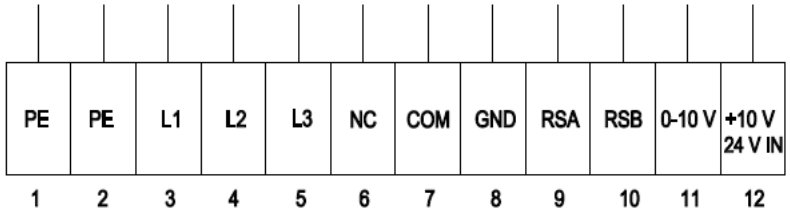
Connection diagram



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 supply 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 supply side and basic insulation on control interface side
	8	GND	Reference ground for control interface, SELV
	9	RSA	RS485 interface for MODBUS, RSA; SELV
	10	RSB	RS485 interface for MODBUS, RSB; SELV
	11	0-10 V	Analog input (set value) SELV, 0-10 V, Ri = 100 kΩ, adjustable curve
	12	+10 V	Fixed voltage output 10 VDC, SELV, +10 V ±3%, max. 10 mA, short-circuit-proof, power supply for external devices (e.g. pot); fixed voltage input 24 VDC for setting parameters via MODBUS without line voltage supply

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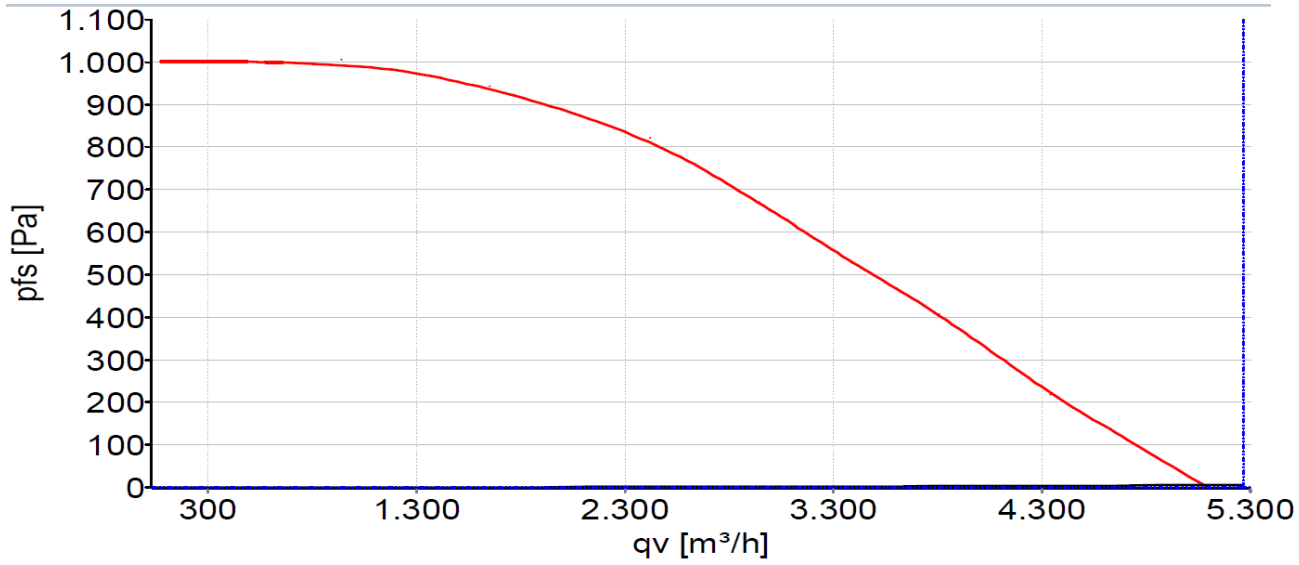
Curves: Air perfomance 50 Hz



Measurement: LU-174053-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

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