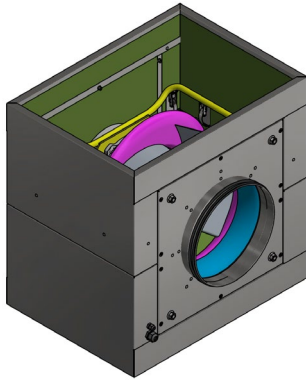


BF700S-400PI9202

BoxFan

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



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Denmark
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Nominal data

Type	BF700S-400PI9202	
EC Ventilator	K3G400-PI92-02	
Phase		3~
Nominal voltage	VAC	400
Nominal voltage range	VAC	380...480
Frequency	Hz	50/60
Type of data definition		ml
Speed	min ⁻¹	2450
Power input	W	2500
Current draw	A	3,8
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

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}	70%	55,5%	Power input P_{ed}	kW	2,39
Installation category	A		Airflow q_v	m ³ /h	6600
Efficiency category	Static		Pressure increase p_{fs}	Pa	865
Efficiency grade N	76,5%	62%	Speed n	min ⁻¹	2480
Variable speed drive	Yes		Specific ratio*		1.01

*Specific ratio = $1 + p_{fs} / 100\,000\text{ Pa}$

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
Electronic housing material	Die-cast aluminium
Impeller material	Sheet aluminium
Support plate material	Sheet steel, galvanized
Support bracket material	Steel, painted black
Number of blades	5
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP 54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H1
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
Technical features	<ul style="list-style-type: none"> - Output 10 VDC, max. 10 mA - Output 20 VDC, max. 50 mA - Output for slave 0-10 V - Operation and alarm display - Input for sensor 0-10 V or 4-20 mA - External 24 V input (parameter setting) - External release input - Alarm relay - Integrated PID controller - Power limit - Motor current limitation - PFC, passive - RS-485 MODBUS-RTU - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from supply - Thermal overload protection for electronics/motor - Line undervoltage / phase failure detection
EMC interference immunity	According to EN 61000-6-2 (industrial environment)
EMC interference emission	According to EN 61000-6-3 (household environment), except EN 61000-3-2 for professionally used equipment with a total rated power greater than 1 kW
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	≤ 3.5 mA
Electrical hookup	Terminal box
Motor protection	Thermal overload protector (TW) internally connected
Protection class	I (with customer connection of protective earth)

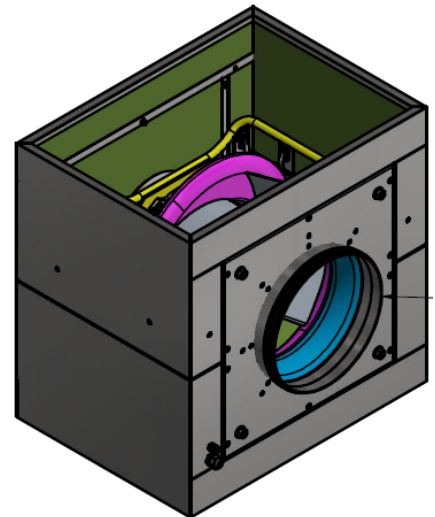
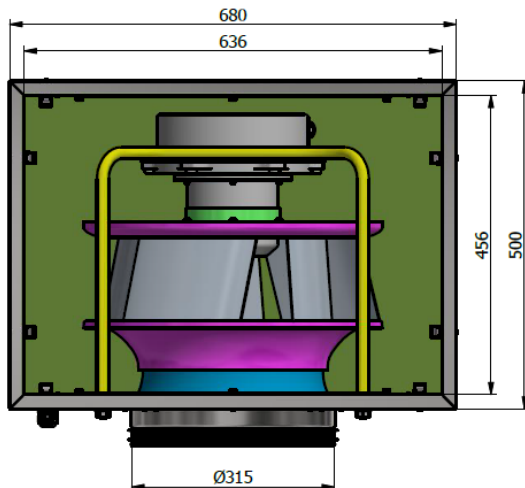
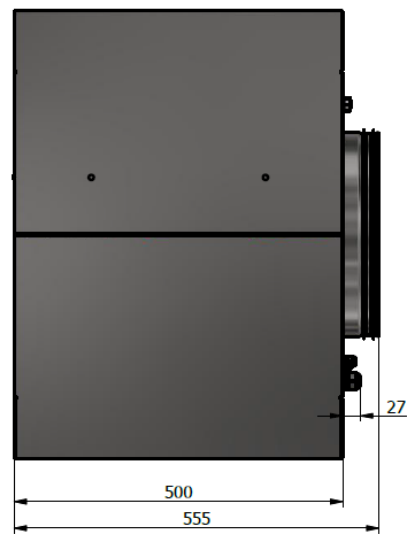
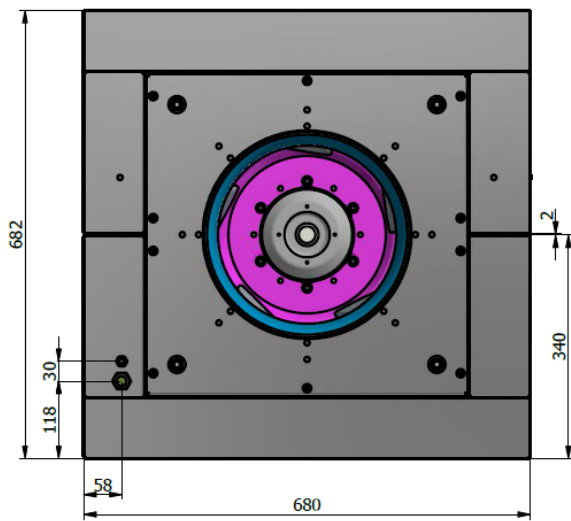
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Physical description

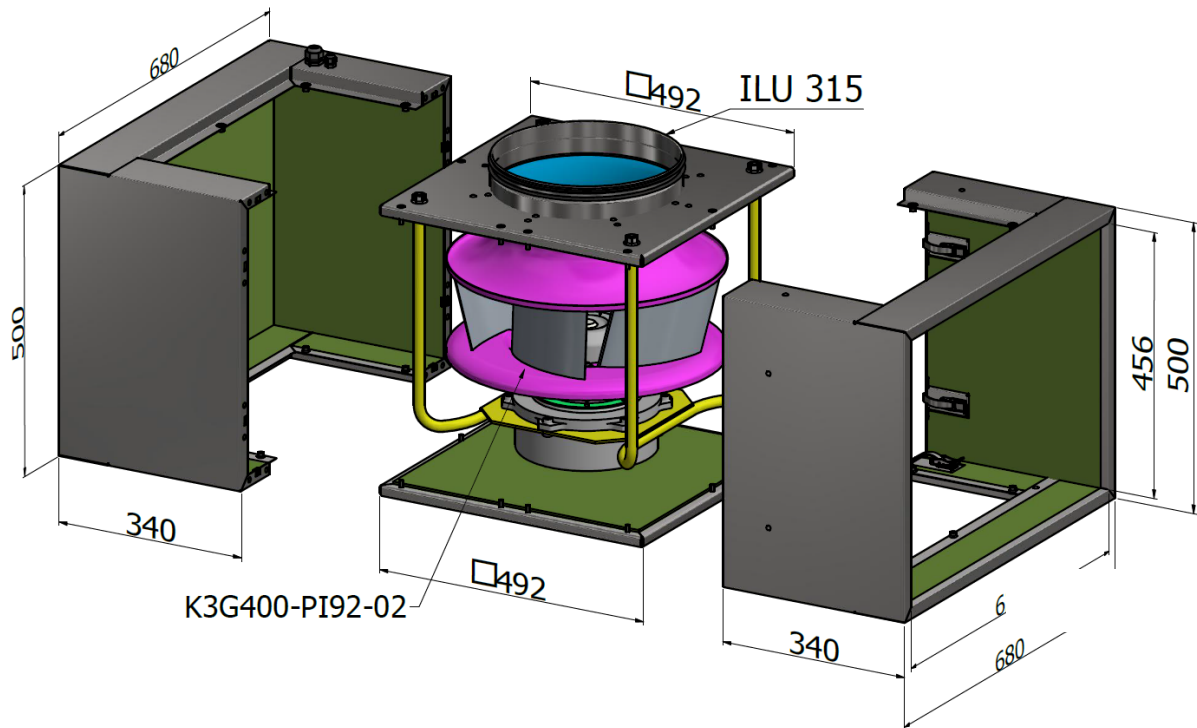
Weight	50 kg
Plate thickness, chassis	1 mm
Plate thickness, fan plate and inspection hatch	3 mm
Insulation	20 mm Polyethylen Cross Linked PE-Foam - LD-30, Black
Cable glands, PG	M12 og M20
Duct connection, ILU	inlet Ø315 / outlet 636x456 mm
Dimensions	See product drawing

Product drawing



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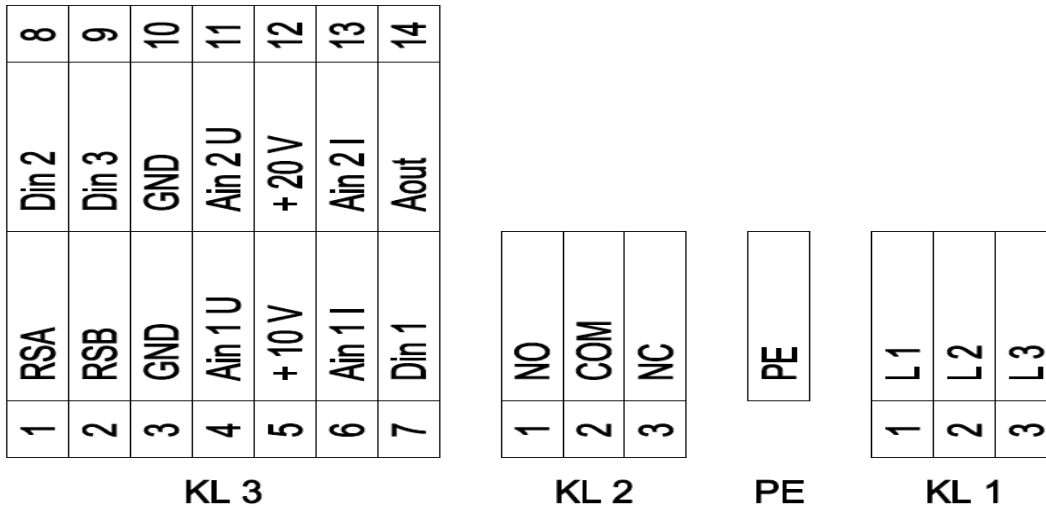


1	Installed position: shaft horizontal (install support struts only vertically as illustrated) or rotor on bottom; rotor on top on request
2	Cable diameter min. 4 mm, max. 10 mm, tightening torque 4 ± 0.6 Nm
3	Tightening torque 3.5 ± 0.5 Nm
4	Inlet ring with pressure tap (k-factor: 188)

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Connection diagram

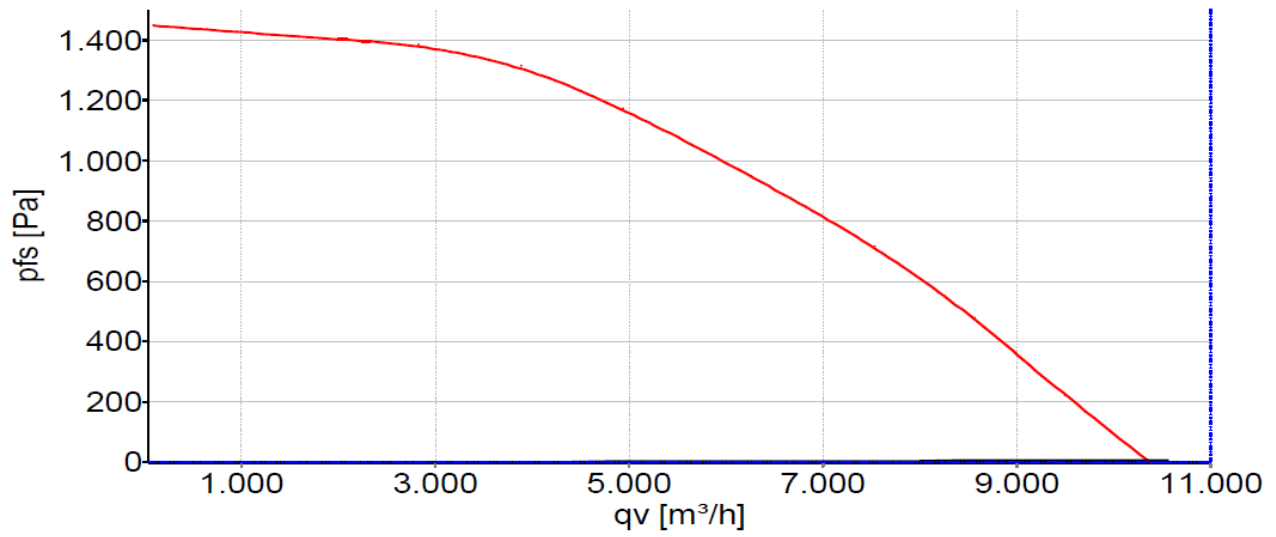


No.	Conn.	Designation	Function/assignment
KL 1	1	L1	Supply connection, power supply 3-phase 380-480 VAC, 50/60 Hz
KL 1	2	L2	Supply connection, power supply 3-phase 380-480 VAC, 50/60 Hz
KL 1	3	L3	Supply connection, power supply 3-phase 380-480 VAC, 50/60 Hz
PE		PE	Ground connection, PE connection
KL 2	1	NO	Status relay, floating status contact; make for failure
KL 2	2	COM	Status relay, floating status contact; changeover contact; common connection; contact rating 250 VAC / max. 2 A (AC1) / min. 10 mA
KL 2	3	NC	Status relay, floating status contact; break for failure
KL 3	1	RSA	Bus connection RS485, RSA, MODBUS-RTU; SELV
KL 3	2	RSB	Bus connection RS485, RSB, MODBUS-RTU; SELV
KL 3	3 / 10	GND	Reference ground for control interface; SELV
KL 3	4	Ain1 U	Analog input 1, set value: 0-10 V, Ri = 100 kΩ, adjustable curve, only usable as alternative to input Ain1 I; SELV
KL 3	5	+ 10 V	Fixed voltage output 10 VDC, +10 V ±3%, max. 10 mA, short-circuit-proof power supply for external devices (e.g. pot); SELV
KL 3	6	Ain1 I	Analog input 1, set value: 4-20 mA, Ri = 100 Ω, adjustable curve, only usable as alternative to input Ain1U; SELV
KL 3	7	Din1	Digital input 1: enable electronics, enable: pin open or applied voltage 5-50 VDC disable: bridge to GND or applied voltage < 1 VDC reset function: triggers software reset after a level change to < 1 VDC; SELV
KL 3	8	Din2	Digital input 2: Switching parameter sets 1/2, according to EEPROM setting, the valid or used parameter set can be selected via bus or via digital input DIN2. Parameter set 1: pin open or applied voltage 5-50 VDC Parameter set 2: bridge to GND or applied voltage < 1 VDC; SELV
KL 3	9	Din3	Digital input 3: according to EEPROM setting, the integrated controller's direction of action can be selected as normal/inverse via bus or digital input normal: pin open or applied voltage 5-50 VDC inverse: bridge to GND or applied voltage < 1 VDC; SELV
KL 3	11	Ain2 U	Analog input 2, measured value: 0-10 V, Ri = 100 kΩ, adjustable curve, only usable as alternative to input Ain2I; SELV
KL 3	12	+ 10 V	Fixed voltage output 20 VDC, +20 V ±25/-10%, max. 50 mA, short-circuit-proof power supply for external devices (e.g. sensors); SELV
KL 3	13	Ain2 I	Analog input 2, measured value: 4-20 mA, Ri = 100 Ω, adjustable curve, only usable as alternative to input Ain2U; SELV
KL 3	14	Aout	Analog output 0-10 VDC, max. 5 mA, output of current motor modulation level / motor speed adjustable curve; SELV

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Curves: Air performance 50 Hz



Measurement: LU-176408-1

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 unitkontrolleres i indbygget tilstand.

