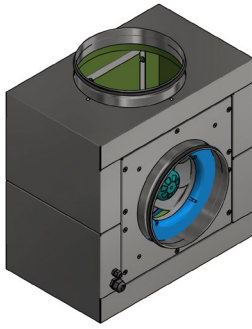


BF500R-250RE0707

## BoxFan

Built-in RadiCal EC fan  
With round air inlet and outlet



**ebmpapst Denmark ApS**  
Vallensbækvej 21  
2605 Brøndby  
Denmark  
Tel: +45 4363 1111

### Nominal data

Type	BF500R-250RE0707	
EC Ventilator	K3G250-RE07-07	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200...240
Frequency	Hz	50/60
Type of data definition		ml
Speed	min <sup>-1</sup>	2510
Power input	W	170
Current draw	A	1,4
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 $\eta_{es}$	57,8%	43,1%	Power input $P_{ed}$	kW	0,16
Installation category	A		Airflow $q_v$	m <sup>3</sup> /h	800
Efficiency category	Static		Pressure increase $p_{fs}$	Pa	380
Efficiency grade N	76,7%	62%	Speed n	min <sup>-1</sup>	2535
Variable speed drive	Yes		Specific ratio*		1.00

\*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**

<b>Surface of rotor</b>	Cover layer passivated
<b>Material of electronics housing</b>	Die-cast aluminium
<b>Material of rotor</b>	Plastic PA
<b>Material of housing</b>	Plastic PA
<b>Number of blades</b>	7
<b>Direction of rotation</b>	Clockwise, viewed toward rotor
<b>Type of protection</b>	IP 54
<b>Insulation class</b>	"B"
<b>Fugtigheds- (F) / miljøklasse (H)</b>	H1
<b>Max. permitted ambient motor temp. (transp./ storage)</b>	+80 °C
<b>Min. permitted ambient motor temp. (transp./ storage)</b>	-40 °C
<b>Mounting position</b>	Any
<b>Condensate discharge holes</b>	None, open rotor
<b>Operation mode</b>	S1
<b>Motor bearing</b>	Ball bearing
<b>Technical features</b>	<ul style="list-style-type: none"> <li>- Output 10 VDC, max. 10 mA</li> <li>- Tacho-output</li> <li>- Motor current limitation</li> <li>- Overcurrent protection</li> <li>- Softstart</li> <li>- Control input 0-10 VDC / PWM</li> <li>- Control interface with SELV potential safely disconnected from the mains</li> <li>- Overvoltage detection</li> <li>- Over-temperature protected electronics / motor</li> <li>- Line undervoltage registration</li> </ul>
<b>EMC interference immunity</b>	Iht. EN 61000-6-2 (industrial environment)
<b>EMC interference emission</b>	Iht. EN 61000-6-4 (industrial environment)
<b>Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)</b>	≤ 3.5 mA
<b>Motor protection</b>	Electric motor protection
<b>Protection class</b>	I (if the protective conductor is connected at the installation site)

**Physical description**

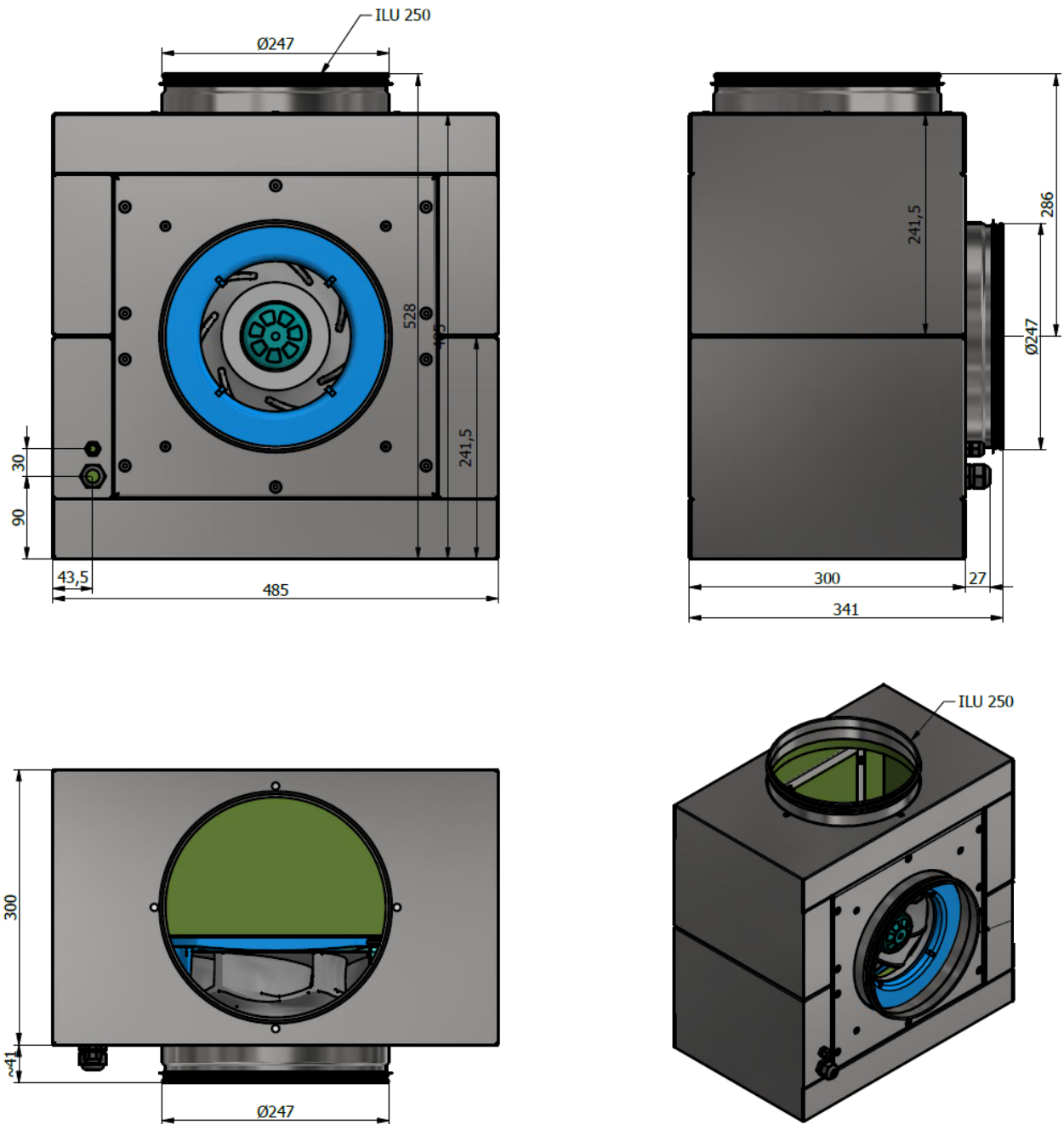
<b>Weight</b>	16,7 kg
<b>Plate thickness, chassis</b>	1 mm
<b>Plate thickness, fan plate and inspection hatch</b>	3 mm
<b>Insulation</b>	Polyethylen Cross Linked PE-Foam - LD-30, Black
<b>Cable glands, PG</b>	M12
<b>Duct connection, ILU</b>	Ø250
<b>Dimensions</b>	See product drawing

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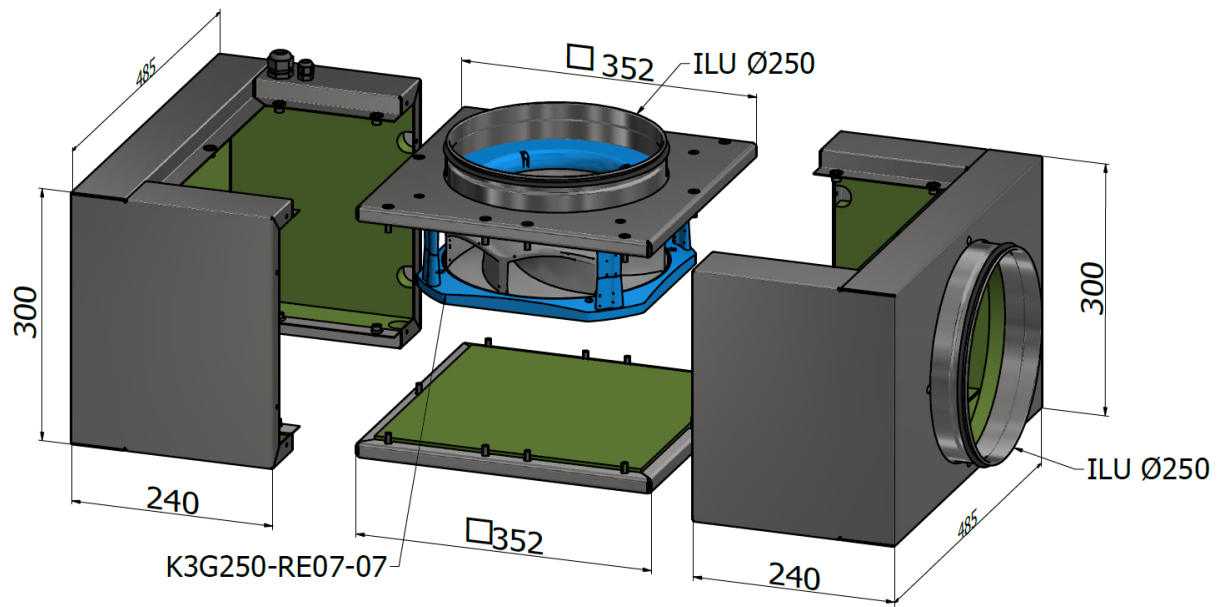
## Product drawing



BF500R-250RE0707

## BoxFan

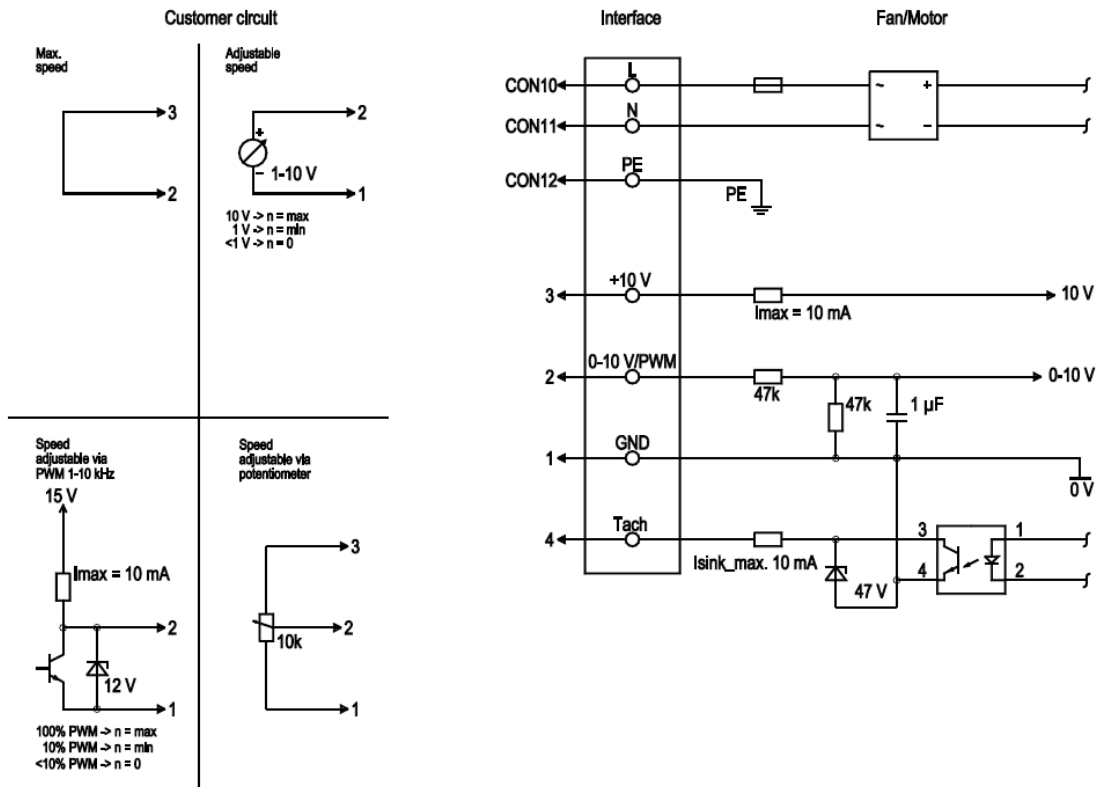
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Cable PVC AWG22, 4x crimped splices

Cable PVC AWG20, 3x crimped splices

## Connection screen

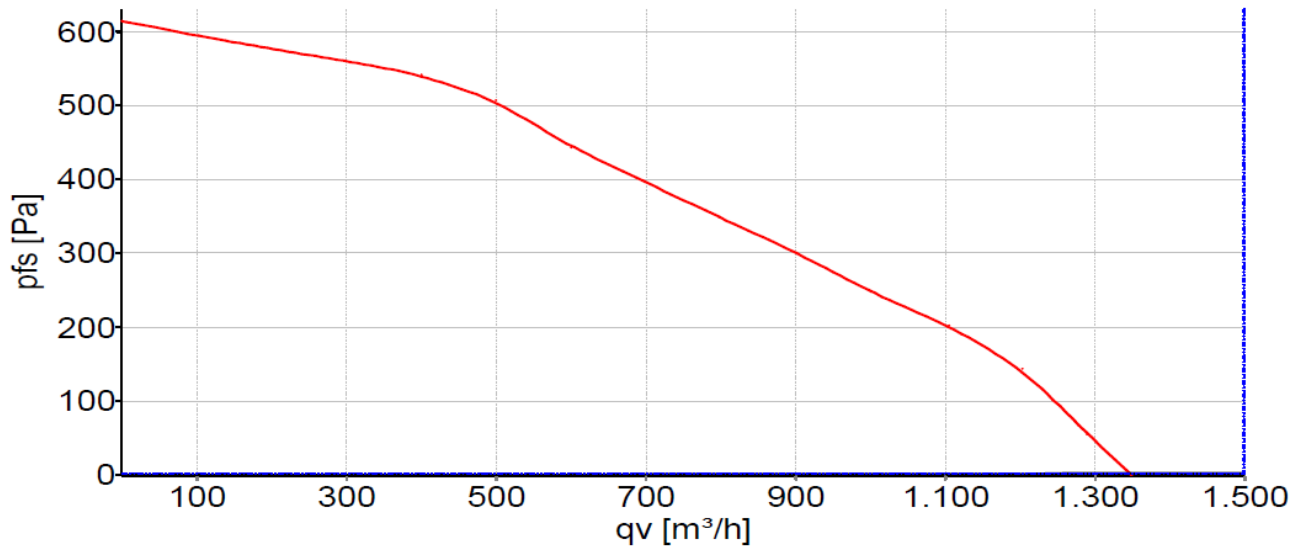


Nr.	Conn.	Designation	Color	Function / assignment
	CON10	L	Black	Supply connection, power supply, phase, see nameplate for voltage range
	CON11	N	Blue	Supply connection, power supply, neutral conductor, see nameplate for voltage range
	CON12	PE	Green/Yellow	Ground connection
	2	0- 10V PWM	Yellow	0-10 V / PWM control input, $R_i = 100 \text{ k}\Omega$ , SELV
	4	Tach	White	Tach output, open collector, 1 pulse per revolution, $I_{sink \text{ max}} = 10 \text{ mA}$ , SELV
	3	+10 V	Red	Fixed voltage output 10 VDC $\pm 3 \%$ , $I_{max.} 10 \text{ mA}$ , short-circuit-proof, power supply for ext. devices (e.g. pot), SELV
	1	GND	Blue	Reference ground for control interface, SELV

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## Characteristics: Air performance 50 Hz



Measurement: LU-154717-1

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

