

BEO-3000M

300 Watt

- ✓ 250W continuous fanless power on 3 x 5"
- ✓ Very compact design
- ✓ High power density
- ✓ High efficiency up to 94%
- ✓ Adjustable output voltage
- ✓ Remote sense function
- ✓ PS on/off Remote Control
- ✓ Power good and Power fail signal
- ✓ +5V Standby output
- ✓ Low Standby consumption: <0.3 W
- ✓ Wide temperature range -40...+70 °C



NEW



Also available with
pre-assembled chassis
Art. No. BEO-3000MC



Technical data

Input voltage	90...264 V AC (100...240 V AC nominal), active PFC
Input frequency	47...63 Hz (50...60 Hz nominal)
Input current	5 A (100 VAC) / 2 A (240 VAC)
Inrush current	<30 A (240 VAC)
Efficiency	92.5...94% depending on model
Standby consumption	<0.3 W at 0 A load
Hold up time	App. 20 ms (115 VAC)
Protection	Short circuit protection: switch off with auto recovery Overtemperature protection: switch off with auto recovery Overvoltage protection: switch off
Insulation voltage	Input/Output 6516 V DC (2xMOPP), Output / FG: 2122 VDC, Input / FG: 2122 VDC
Insulation resistance	100 MΩ
Line regulation	±0,5 % at rated load and input voltage change from 90 to 264 VAC
Load regulation	±1 % (5 Vsb:±5 %)
Earth leakage current	<300 μA @ 264 VAC/60 Hz
Safety/EMC	IEC60601-1:2005+A1:2012 (Edition 3.1), EN60601-1:2006+A1:2013 (Edition 3.1), ANSI/AAMI ES60601-1:2005 (3rd Edition), CE
Temperature	Operating: -40...+70 °C / Storage: -40...+85 °C
Derating	See diagram
Max. operation altitude	3000 m
MTBF	>167000 h according to MIL-HDBK-217F at +25 °C / 115 VAC
Humidity	Operating: 10...85 % RH, non-condensing / Storage: 10...90 % RH, non-condensing
Dimension (WxDxH)	76.2 x 127 x 35 mm ±1 mm
Weight (net)	0.42 kg

Product specific data

Remote sense	Adjustment range 0.5 V (CN5)
Adjustment range output voltage (VR)	±5 %
PS_ON	ATX compatible (CN4), Power on via jumper from PIN5 to PIN6 Power ON „low“ ≤2 V, Power OFF „High“ 11...16 V, open circuit PS_ON and GND short: I _{PS_ON} = 4.5 mA typical
PG (Power Good)	ATX compatible, 50...250ms, CN5

Article No.	Output	Output voltage	Output current			Ripple & Noise	Efficiency
			min	fanless* ¹	max load* ² (with 10CFM fan)		
BEO-3012M	A1	+12 V	0 A	20.8 A	25.0 A	<120 mV _{pp}	92.5 %
	A2	+5 V _{sb}	0 A	0.8 A	1.0 A	<100 mV _{pp}	
	A3	+12 V _{fan}	0 A	0.5 A	0.5 A	–	
BEO-3024M	A1	+24 V	0 A	10.4 A	12.5 A	<150 mV _{pp}	93.5 %
	A2	+5 V _{sb}	0 A	0.8 A	1.0 A	<100 mV _{pp}	
	A3	+12 V _{fan}	0 A	0.5 A	0.5 A	–	
BEO-3036M	A1	+36 V	0 A	6.9 A	8.3 A	<150 mV _{pp}	93.5 %
	A2	+5 V _{sb}	0 A	0.8 A	1.0 A	<100 mV _{pp}	
	A3	+12 V _{fan}	0 A	0.5 A	0.5 A	–	
BEO-3048M	A1	+48 V* ³	0 A	5.2 A	6.2 A	<150 mV _{pp}	94.0 %
	A2	+5 V _{sb}	0 A	0.8 A	1.0 A	<100 mV _{pp}	
	A3	+12 V _{fan}	0 A	0.5 A	0.5 A	–	

*¹ 250W max. fanless with minimum input voltage 220VAC.

*² 300W continuous power with 10CFM fan and minimum input voltage 220VAC (see derating diagrams).

*³ The output voltage of the 48V model could be lower as the rated VOUT within the first seconds after turning on!

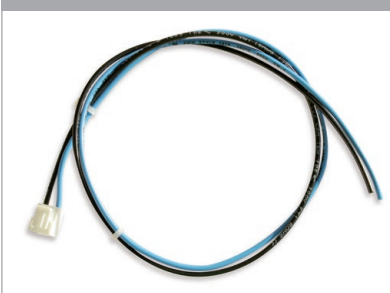
Ripple and noise was measured by a 20MHz bandwidth limited oscilloscope with connected 0.1µF and 10µF capacitors at the output.

As a power component this PSU is for assembly purposes only and must not be operated in unassembled condition. The final assembly has to comply with the valid EMC and safety standards.

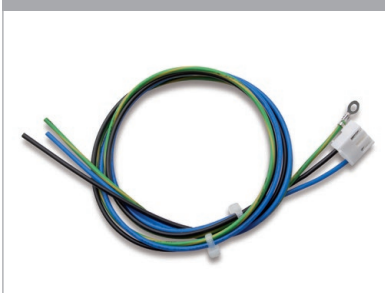
Optional Accessories

▷▷▷ For detailed information please visit our website www.bicker.de and refer to the article number.

X1-054 | AC input cable
2-pole, length 600 mm, AWG18, ends open



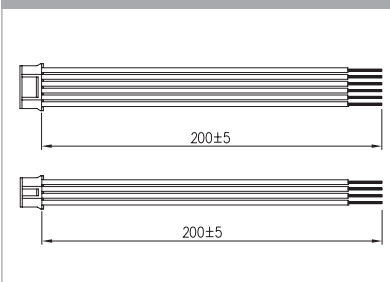
CB-106-3-600 | AC input cable
3-pole, length 600 mm, AWG18, ends open



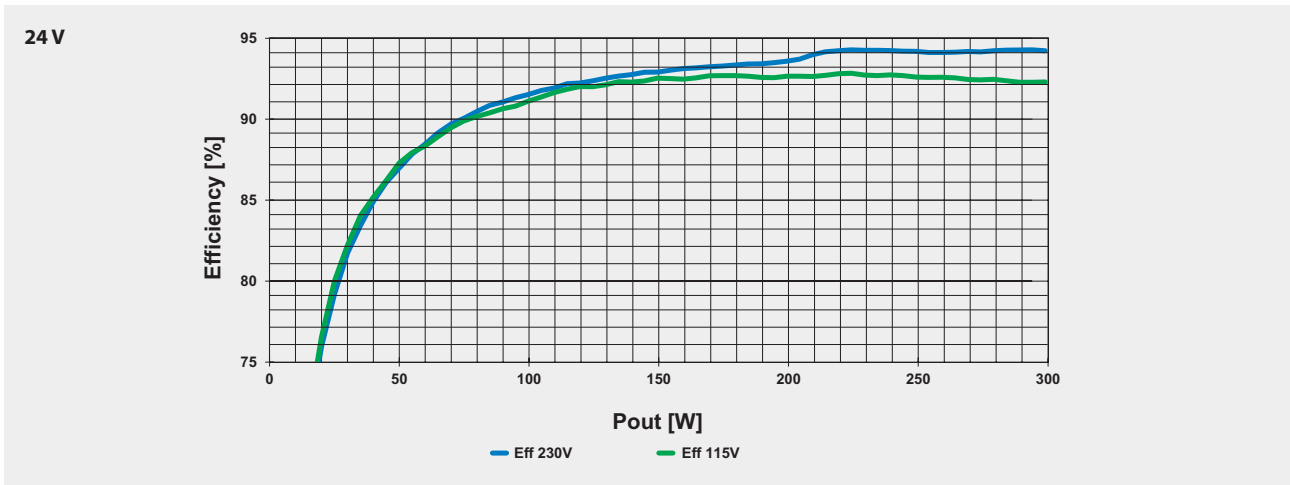
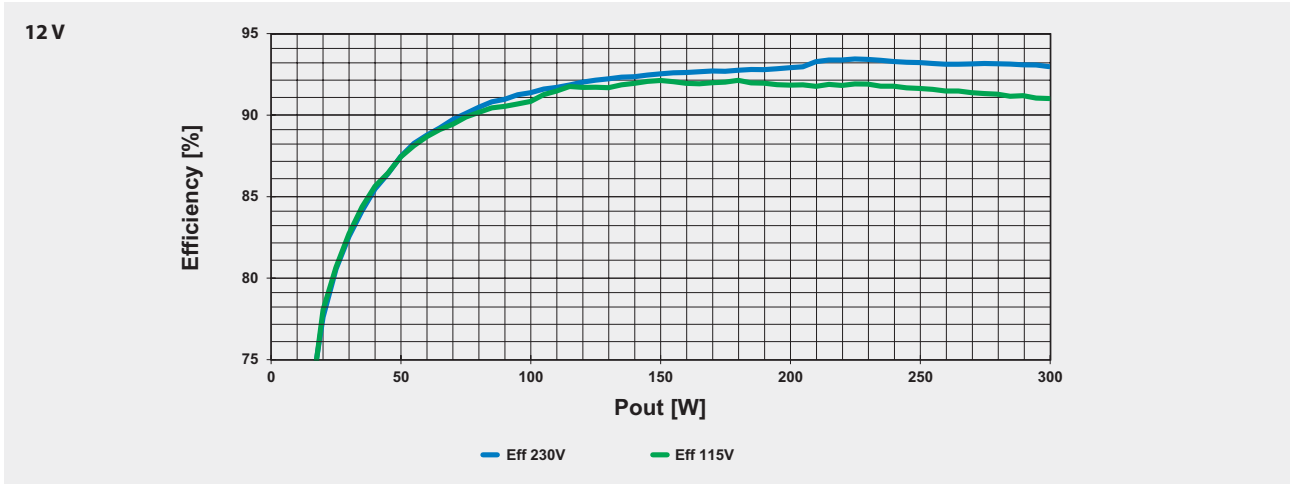
PSZ-1019-B3 | EMC-Filter
IEC connector filter incl. cable and ferrite



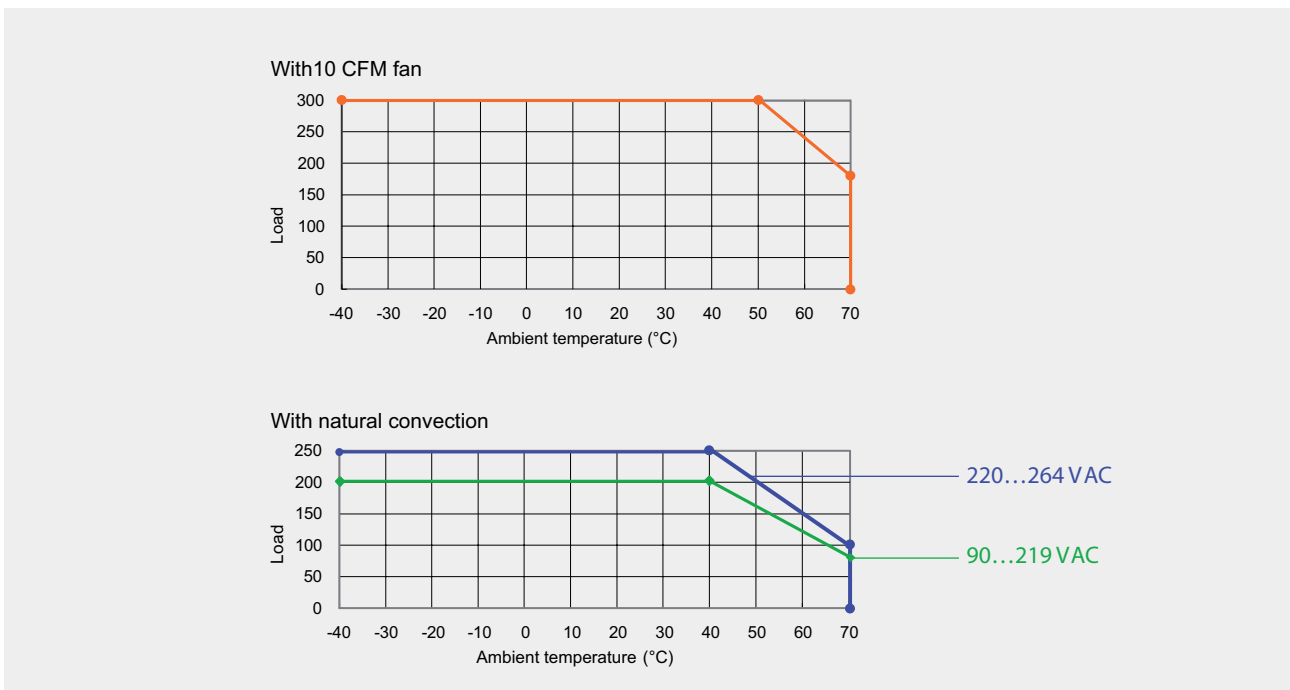
PSZ-1035 | Wire set
Wire set CN4 and CN5



Efficiency curves BEO-3000M

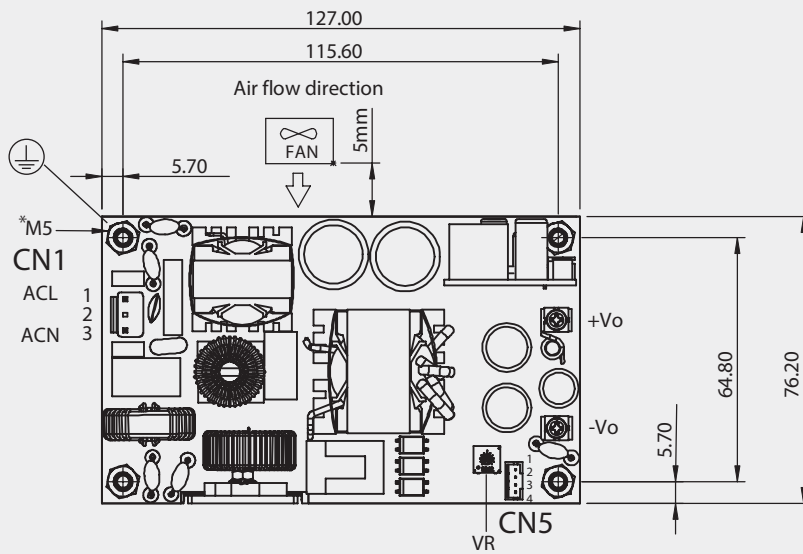


Derating BEO-3000M



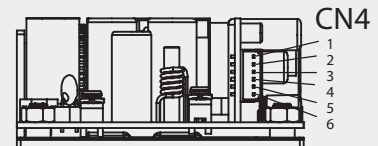
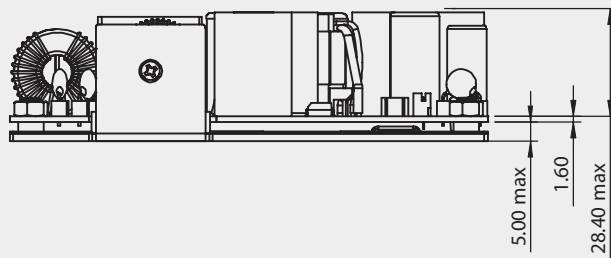
Drawing BEO-3000M

Tolerance ± 1 mm



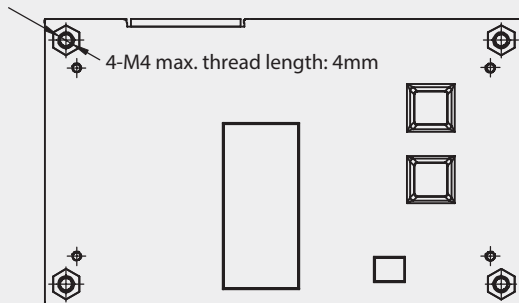
CN5: PIN CONNECTION

Pin	Function
1	+Sense
2	-Sense
3	PG
4	GND



CN4: PIN CONNECTION

Pin	Function
1	FAN Output-
2	FAN Output+
3	GND
4	+5VSB
5	GND
6	PS_ON



Input connector (CN1): VHR-3N or similar
 Output connector: Screw terminal M3
 Output connector CN4 wafer with JST PH series
 and mate with JST housing PH series or equivalent.

*M5: max. fixation strength 0.3 NM;
 we recommend use of torque wrench

Also available with
 pre-assembled chassis



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