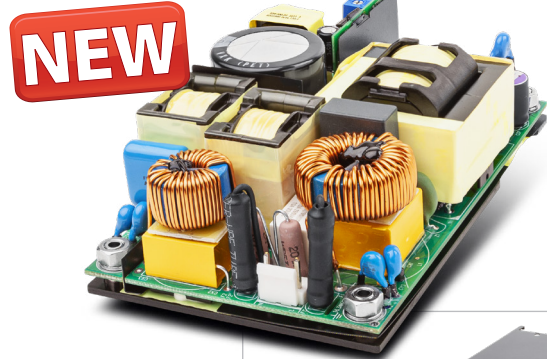


BEO-5100M

500 Watt

- ✓ Universal input range 80...264 VAC
- ✓ High efficiency up to 94.5%
- ✓ 3" x 5" compact size
- ✓ 390 W natural, 470...500 W conduction convection
- ✓ Peak Power 600W for 5 sec
- ✓ No load power consumption <0.5 W
- ✓ PS_ON / PS_Off Remote Control
- ✓ PG (Power Good) / PF (Power Fail)
- ✓ +5V standby, 12V fan output
- ✓ Active PFC
- ✓ 2x MOPP
- ✓ Class I-II



Also available with pre-assembled chassis Art. No. BEO-5100MC



Technical data

Input voltage	80...264 VAC (100...240 VAC nominal), active PFC 0.93 @ 230VAC		
Input frequency	47...63 Hz (50...60 Hz nominal)		
Max. input current	6 A (100% load, $V_{IN} = 100$ VAC)		
Inrush current	<9 A @ +25 °C (240 VAC)		
Efficiency	92.5...94.5% depending on model		
Standby consumption	<0.5 W at 0 A load		
Hold up time	App. 16 ms (115 VAC)		
Protection	Overcurrent protection: switch off with auto recovery 120...190% Short circuit protection: switch off with auto recovery Overtemperature protection: auto recovery Overvoltage protection: latch off (AC recycle to reset)		
Insulation voltage	Input / Output 4000 VAC / 1 min Input / FG: 1800VAC / 1 min Output / FG: 1800VAC / 1 min		
Insulation resistance	100 MΩ Input / Output		
Line regulation	±0,5 % at rated load and input voltage change from 90 to 264 VAC		
Load regulation	±1 % (5 Vsb; ±5 %) measured from 10...100% load		
Load capacitance	1. $V_{IN} = 115$ VAC and 230 VAC 2. Output is 100% full load 3. Ambient temperature = 25 °C	BEO-5100M-120 BEO-5100M-180 BEO-5100M-240 BEO-5100M-360 BEO-5100M-480	42900 μF 28600 μF 20800 μF 14000 μF 10800 μF
Shock	Meet MIL-STD-810F Table 516.5, Table 516.5-I 10ms, each axis 3 times (±X, ±Y, ±Z axis)	All	75 g
Vibration	Meet MIL-STD-810F, Table 514.5C-VIII, 15~2000 Hz, X, Y, Z axis, 1 h (each axis) Total 3 hrs	All	4 g
Leakage current	Touch <0.1 mA / Earth <0.3 mA		
Safety/EMC	IEC/EN/UL60601-1 Edition 3.2; Class I (EMC class B) / Class II (EMC class A)		
Temperature	Operating: -40...+85 °C / Storage: -40...+85 °C / Case temperature: -40...+85 °C		
Derating	See diagram		
Max. operation altitude	5000 m		
MTBF	200 000 h according to MIL-HDBK-217F at +25 °C / 115 VAC		
Humidity	Operating: 10...85 % RH, non-condensing / Storage: 10...93 % RH, non-condensing		
Dimension (WxDxH)	76.2 x 127 x 39.1 mm ±1 mm		
Weight (net)	0.515 kg		

Product specific data	
Remote sense voltage range	≤5 % of V_{nominal}
Adjustment range output voltage	±5 %
PS_ON	The PS_ON remote control is provided in CN3 pin4. PSU On: PS_ON (3) short to GND (1) or 0V to 2VDC (10mA max) PSU Off: PS_ON (3) open or >4VDC up to 60VDC
PG (Power Good) / PF (Power Fail)	100...500ms / 1...10ms @90% V_{OUT}
Peak Power*	600W for 5 sec

*Peak Power should be less than 5 seconds, with a maximum 10% duty cycle, peak power function by 120% load 5sec and 75% load 45 sec. 390W natural, 470...500W conduction convection.

Article No.	Output	Output voltage	Output current			Ripple & Noise*1	Efficiency
			min	fanless	max load (with 21CFM fan)		
BEO-5112M	A1	+12 V	0 A	25 A	41.67 A	120 mV	92.5 % max
	A2	+5 V_{sb}	0 A	1 A	1.0 A	100 mV	
	A3	+12 V_{fan}	0 A	0.5 A*2	0.5 A	–	
BEO-5124M	A1	+24 V	0 A	15.83 A	20.83 A	150 mV	94.5 % max
	A2	+5 V_{sb}	0 A	1 A	1.0 A	100 mV	
	A3	+12 V_{fan}	0 A	0.5 A*2	0.5 A	–	
BEO-5136M	A1	+36 V	0 A	10.56 A	13.89 A	200 mV	94.5 % max
	A2	+5 V_{sb}	0 A	1 A	1.0 A	100 mV	
	A3	+12 V_{fan}	0 A	0.5 A*2	0.5 A	–	
BEO-5148M	A1	+48 V*2	0 A	7.92 A	10.42 A	250 mV	94.5 % max
	A2	+5 V_{sb}	0 A	1 A	1.0 A	100 mV	
	A3	+12 V_{fan}	0 A	0.5 A*2	0.5 A	–	

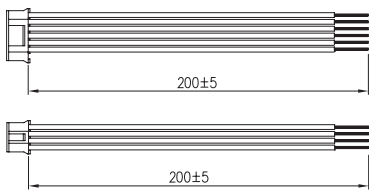
Note:

1. Add a 0.1 μF ceramic capacitor and a 10 μF E.L. capacitor to output for ripple & noise measuring at 20MHz BW.
2. Fan output can only operate normal when the stand-by output is above 0.5 A.

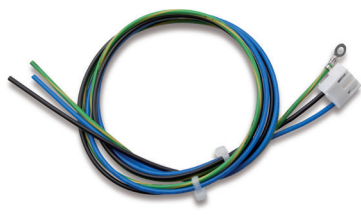
Optional Accessories

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

PSZ-1113 | Wire set
Wire set CN2 and CN3




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



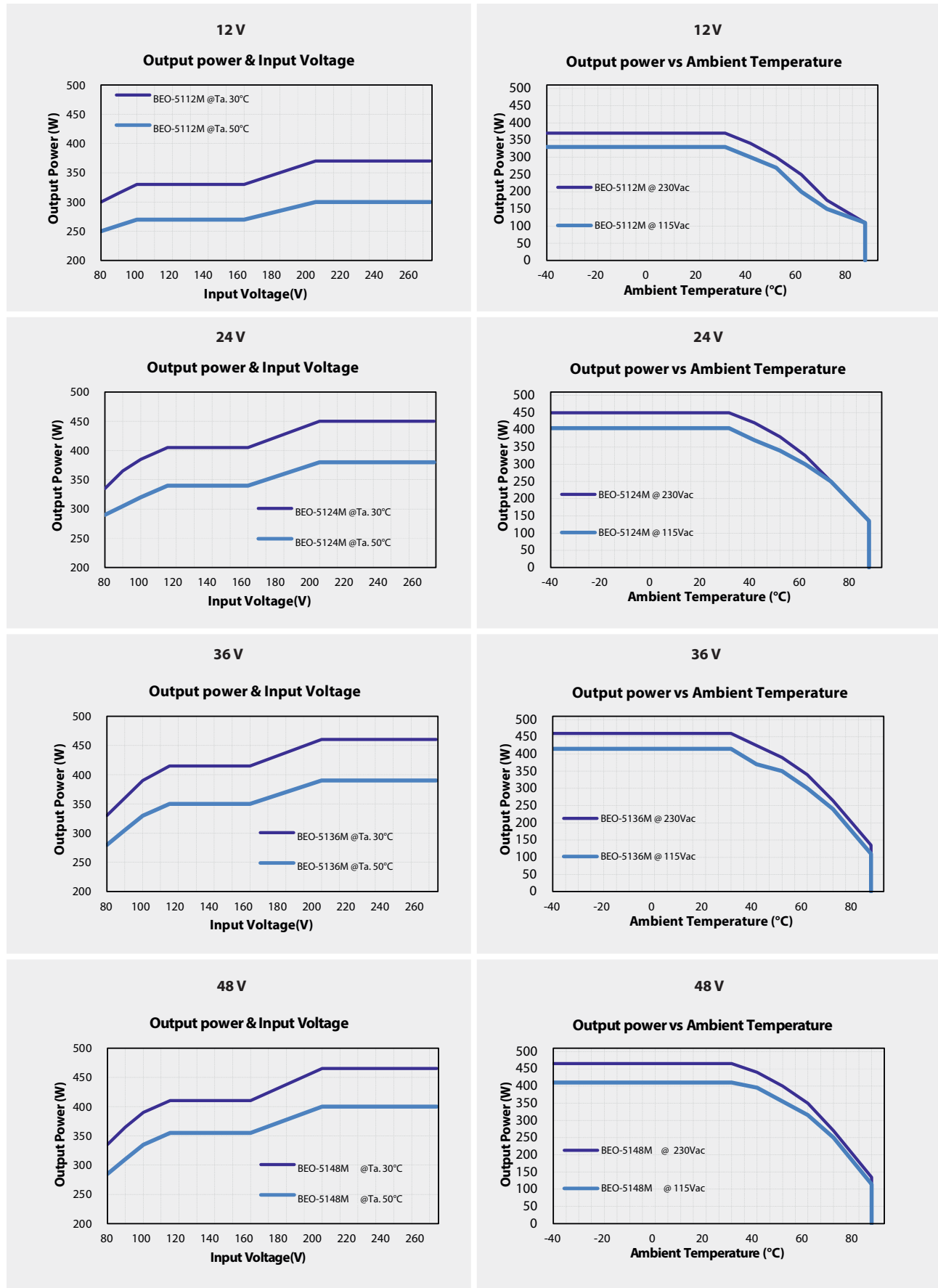
Protection Class I

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



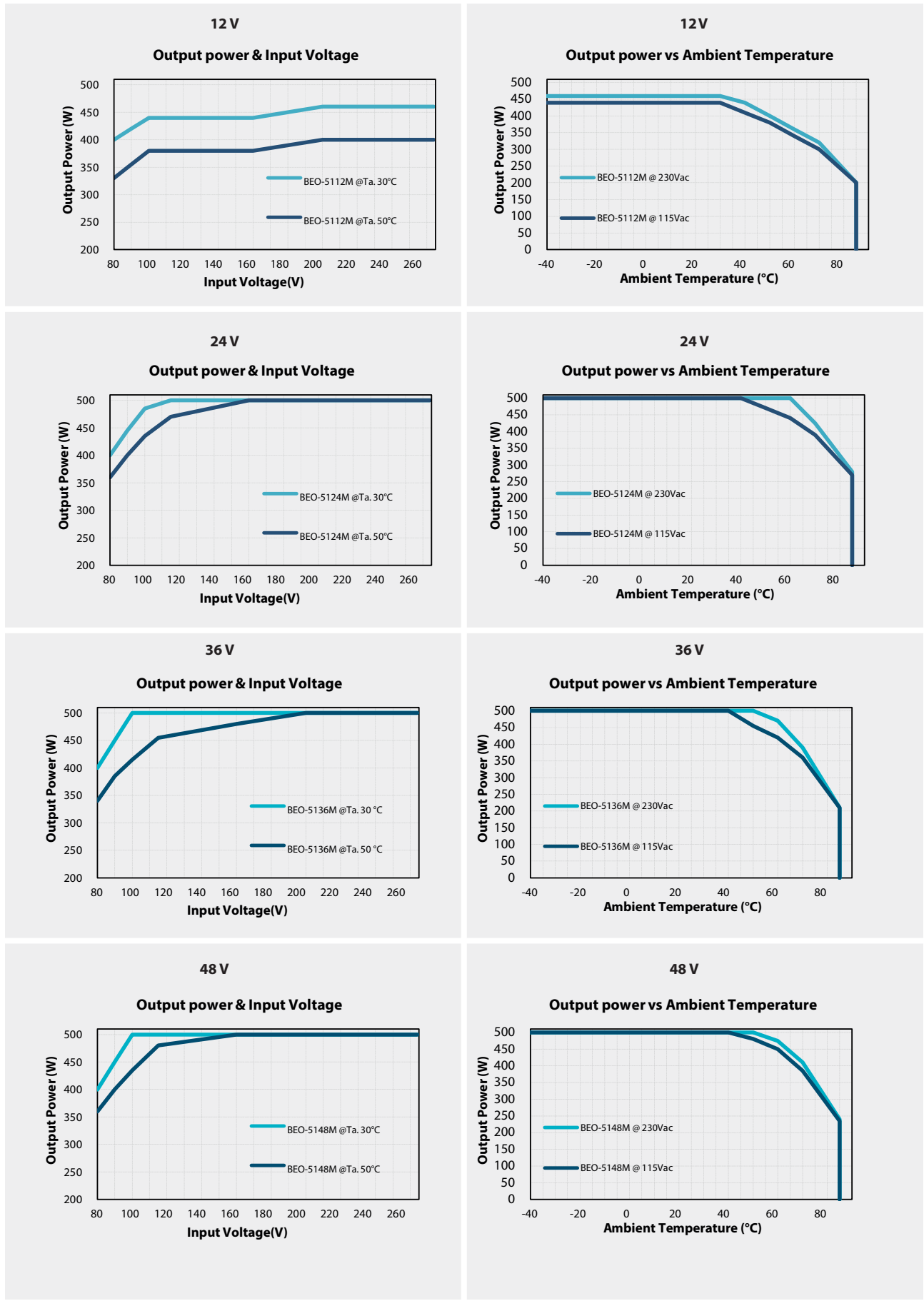
Protection Class II

Natural Convection



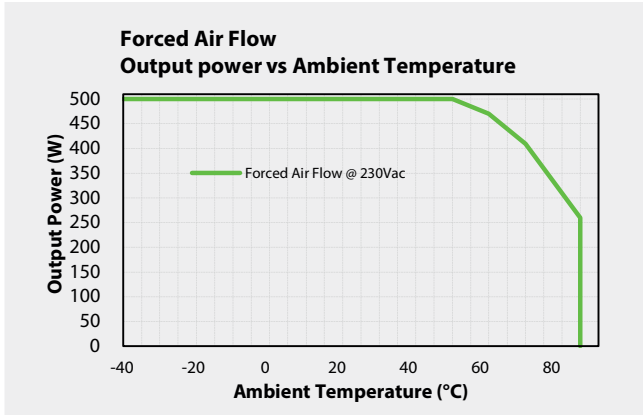
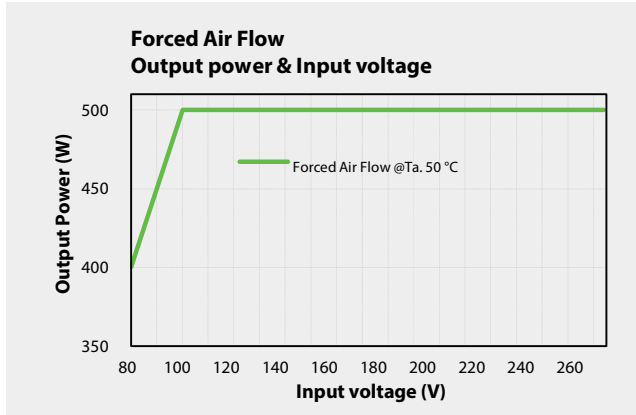
Power supplies

Conduction Convection with external baseplate (48x24.8x0.12 cm)

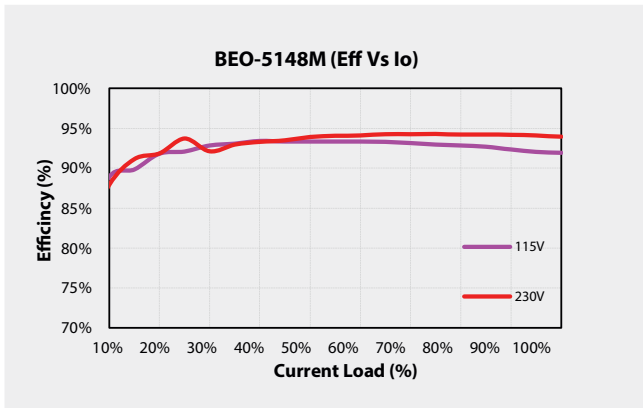
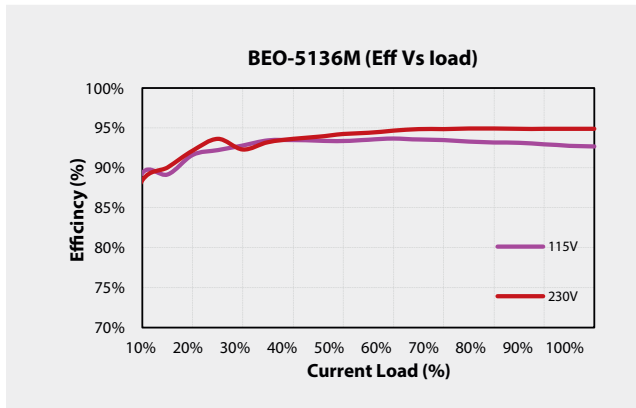
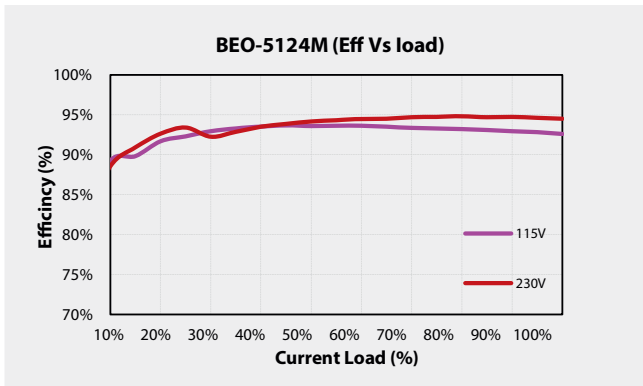
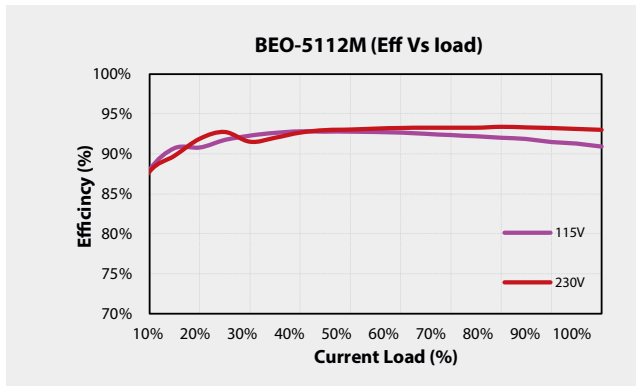


Power supplies

Performance Data

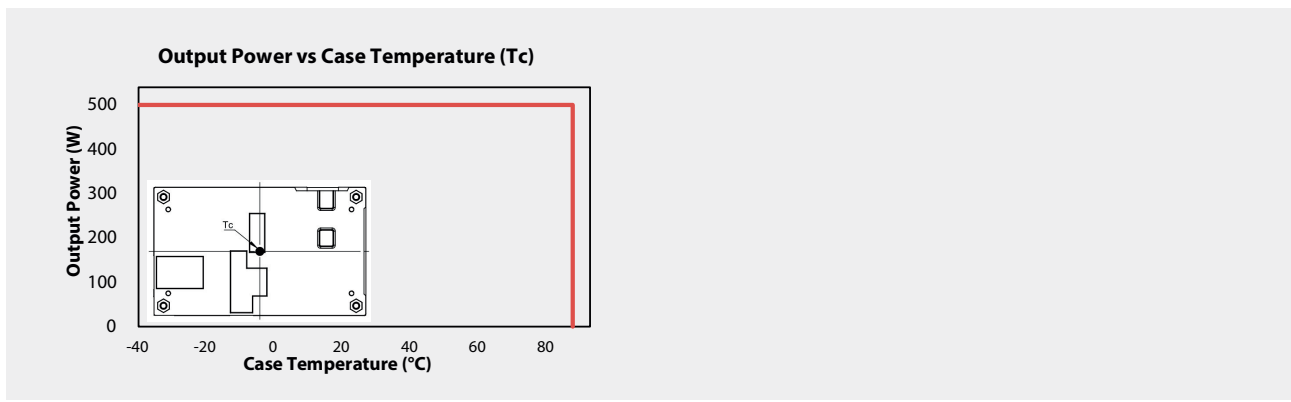


Performance Data with airflow



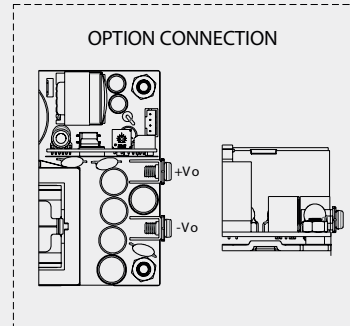
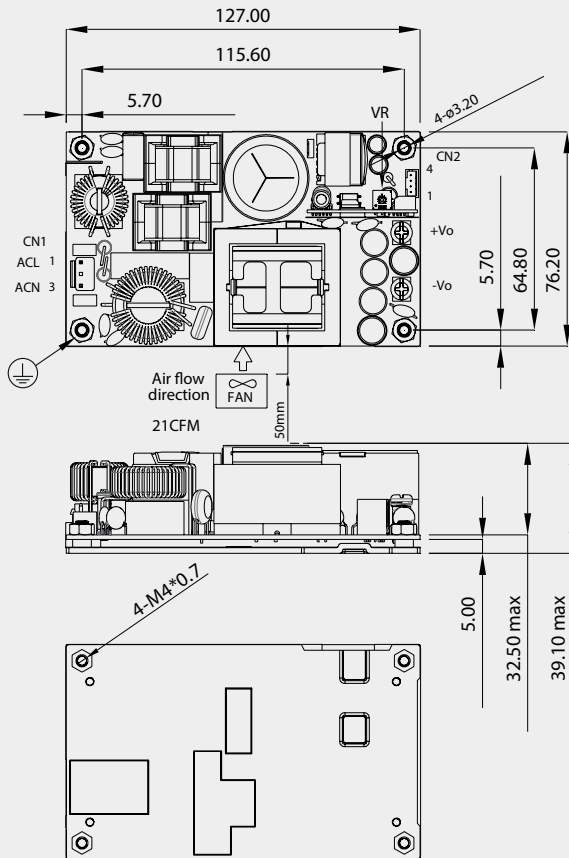
Power supplies

Output Power vs Case Temperature (Tc)



Drawing BEO-5100M

Tolerance ± 1 mm



CN1: PIN CONNECTION

Pin	Function
1	ACL
2	-
3	ACN

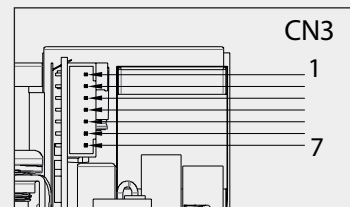
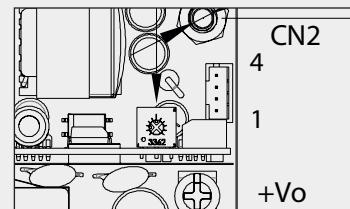
CN2: PIN CONNECTION

Pin	Function
1	GND
2	+5VSB
3	GND
4	+12V-FAN

CN3: PIN CONNECTION

Pin	Function
1	GND
2	PF
3	FAN-EN
4	PS-ON
5	-Sense
6	+Sense
7	OPTION

All Dimensions In mm
Millimeters: x.xx = ± 0.5



- CN1:** Input connector wafer with JST B2P3-VH and mate with JST housing VHR-3N or equivalent. Terminal JST SVH-41T-P1.1 or equivalent.
- CN2:** Output connector wafer with TAIWAN KING PIN TKP P110I-04 or equivalent and mate with JST housing PHR-4 or equivalent. Terminal JST SPH-002T-P0.5L or equivalent.
- CN3:** Output connector wafer with TAIWAN KING PIN TKP P110L-07 or equivalent and mate with JST housing PHR-7 or equivalent. Terminal JST SPH-002T-P0.5L or equivalent.
- V_{o+} & V_{o-}:** Output connectors mate with round terminal and round terminal of the max outer diameter is 8.0 mm, max inner diameter is 4.3 mm.
- DC Output Connector:** KANG YANG PCB-58M4 or equivalent.

Function	The screw locked torque
V _{o-}	M4 7kgf-cm
V _{o+}	M4 7kgf-cm

Also available with pre-assembled chassis



Art. No. BEO-5100MC

Power supplies