



ETA-POWER EUROPE LTD.

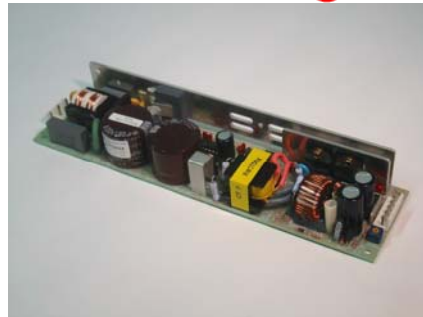
BWB-SX-U

AC/DC Power Supply
Single Output

50W



The BW-series is an open frame board with an optional cover. Simplified circuit design enabled optimal cost performance and miniaturization. Safety design is applied to UL, CUL and VDE.



Features

Wide input voltage range (85-264Vac)
High efficiency & reliability
Output voltage +/-10%
Warranty: 2 years

Mechanical features

Dimensions (WxLxH): 55x222x32mm
Weight: 300g
Connector: JST connectors
Closed or open frame type
Optional: Wire harness for JST connectors (add- WH)
Cover (add -P)

Possible applications

Process control
Office equipment
Computer peripherals
Telecommunications
Industrial electronics & machines

Control features

Over voltage protection: Output shutdown
Over current protection: Current limiting, auto recovery

Standards

Safety: UL :UL60950; C-UL:CSA C22.2 No.60950;
VDE : EN60950; IEC60950; VDE 805
EMI : EN 55022 ClassB; FCC Part 15-B ClassB; VCCI ClassB



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Specifications<AC/DC>	Model							
BWB**SX-U 50WATTS / SINGLE	BWB-3.3SX-U	BWB-05SX-U	BWB-12SX-U	BWB-15SX-U	BWB-24SX-U	BWB-30SX-U	BWB-36SX-U	BWB-48SX-U
Input Characteristic								
Input Voltage	AC100-230V							
Input Current	1.2A at AC100V / 0.7A at AC230V							
Input Range	AC85-264V (DC110-350V)							
Input Frequency	50/60Hz							
Input Frequency Range	47-440Hz							
Phase	Single							
Inrush Current *1	20A(maximum) at AC115V / 40A(maximum) at AC230V							
Efficiency [%] (typical) *2	71	75	81	82	85	85	86	87
Output Characteristic								
Output Voltage [V]	3.3	5	12	15	24	30	36	48
Output Current [A]	10.0	10.0	5.0	4.0	2.5	2.0	1.7	1.3
Voltage Adjust Range	+/- 5% of Rated Output Voltage(at no load within the input range)							
Ripple and Noise [mVp-p](maximum) *3	120	120	170	200	290	350	410	530
Regulation								
a.Statistic Line Regulation [mV](maximum)	26.4	40	96	120	192	240	288	384
b.Statistic Load Regulation [mV](maximum)	29.7	45	108	135	216	270	324	432
c.Temperature Coefficient *4	0.03%/°C							
d.Drift[mV] (maximum) *5	31.5	40	75	90	135	165	195	255
e.Dynamic Load Regulation [mV](typical) *6	99	150	360	450	720	900	1080	1440
f. Recovery Time *6	10mS(typical)							
Rise up time	200mS(maximum) at 25°C and rated input/output							
Hold up time	20mS(typical) at 25°C and rated input/output							
Functions								
Over current Protection	Current Limiting with automatic recovery							
>115% of Rated Output Current[A]	11.5	11.5	5.75	4.6	2.88	2.3	1.96	1.5
Over voltage Protection	Output shutdown(to reset, leave 1minute after shut-off)							
>115% of Rated Output Voltage[V]	3.8	5.75	13.8	17.3	27.6	34.5	41.4	55.2
Remote Sense	not available							
Remote On/Off	not available							
Environmental								
Operating Temperature *7	Open board type:-10 to +50°C (-30 to +70°C) / enclosed type: -10 to +40°C							
Operating Humidity	30 to 85%RH(non-condensing)							
Storage Temperature	-20 to +85°C							
Storage Humidity	10 to 85%RH(non-condensing)							
Withstanding Voltage	Primary-Secondary AC3,000V for 1minute							
	Primary-Frame Ground AC2500V for 1minute							
	Secondary-Frame Ground AC500V for 1minute							
Insultation Resistance	Primary-Secondary-Frame Ground 50MΩ(minimum) by DC500V insulation tester							
Vibration	5-10Hz:10mm double amplitude,10-55Hz:19.6m/s ² ,20minutes, period for 60minutes each along X,Y,Z axes(non-operating)							
Shock	196m/s ²							
Cooling	Convection							
Leakage Current	1mA (maximum) at 25°C, rated input/output and rated input frequency							
Line Conducted Noise	FCC Part15-B Class B							
	VCCI Class B							
	EN55022 Class B							
	UL: UL60950							
Safety	C-UL: CSA C22.2 No.60950							
	VDE: EN60950, IEC60950, VDE0805							
Weight (typical)	Open board type: 240g/ enclosed type:450g							
MTBF [H]	470'000							
Switching Frequency[kHz](typical)	55	60	60	60	60	60	60	60

Conditions:

*1 At cold start

*2 At DC260V input/ rated output and 25°C

*3 Measured by a bayonet probe at the end of a pair of 15cm long wires terminated with 100μF electrolytic capacitor and 0.1μF film capacitor in parallel at a 0 to 100MHz bandwidth

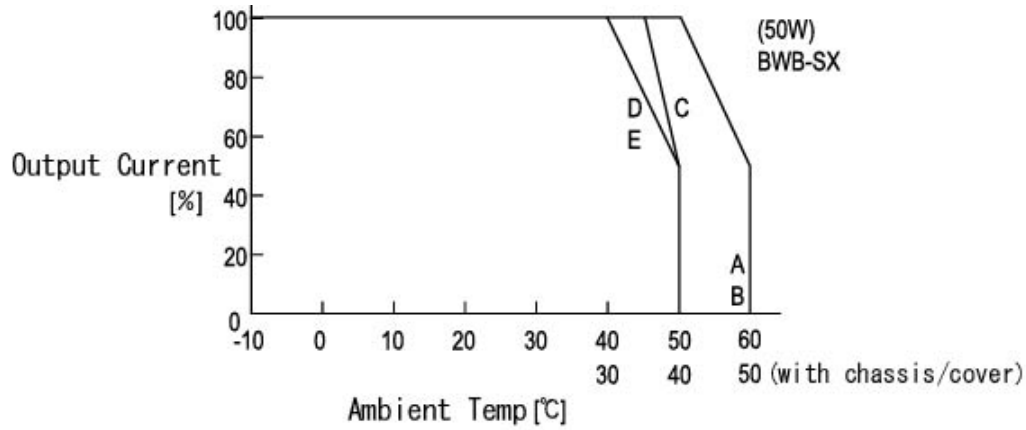
*4 Open board type: At -10 to +50°C/ enclosed type: at -10 to +40°C

*5 For 7hour period after 1hour warm-up at 25°C and rated input/output

*6 When output current changed from 25% to 75% of rated output current rapidly at rated input

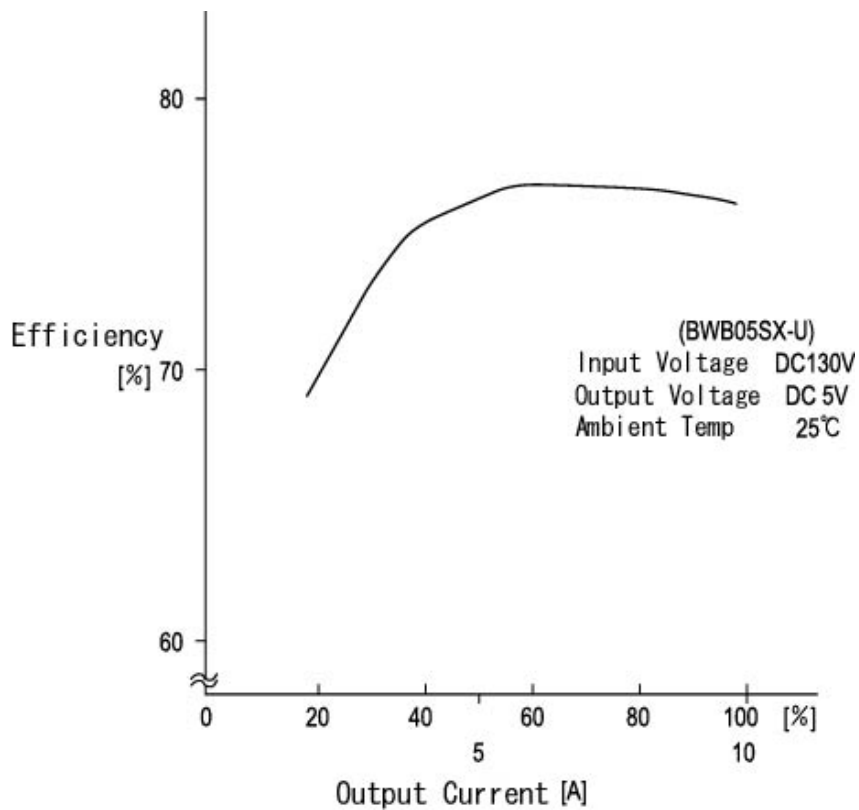
*7 Safety approved at 25°C (contact technical sales)

Derating

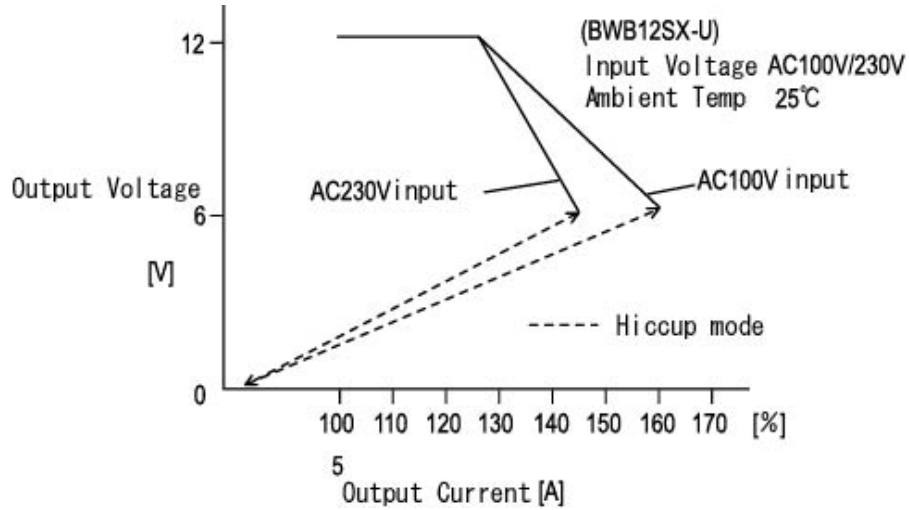


※For safety specification, contact ETA Sales Representative

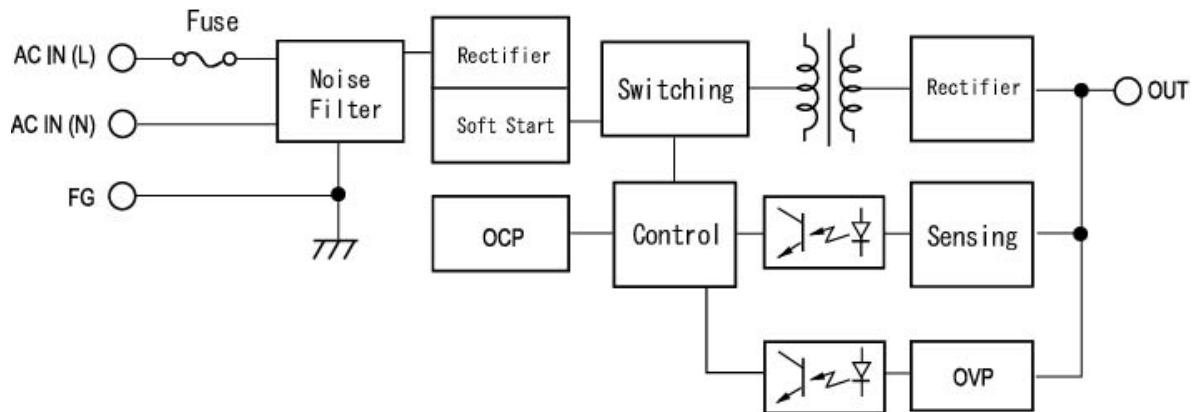
Efficiency



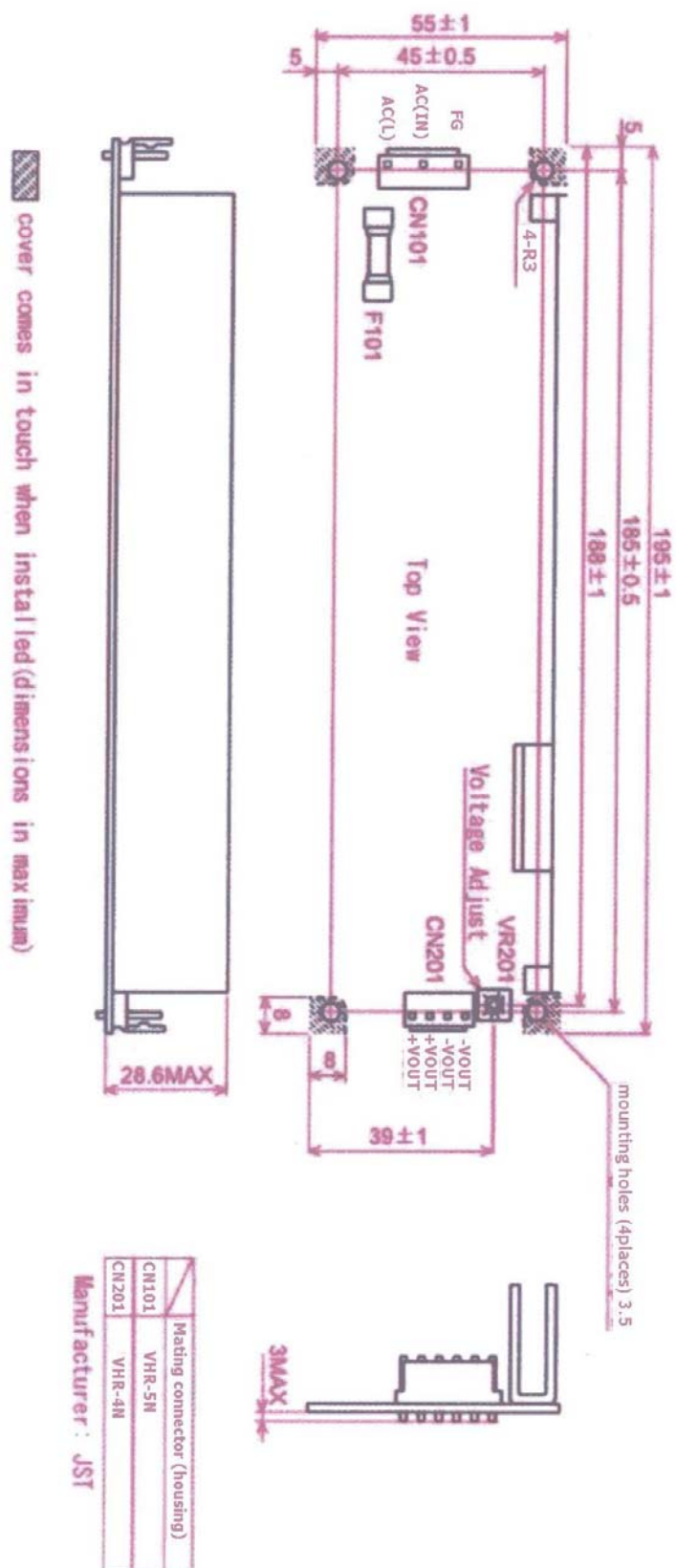
OCP



Block diagram



Dimensions (without cover)



Dimensions: (with cover)

