



ETA-POWER EUROPE LTD.

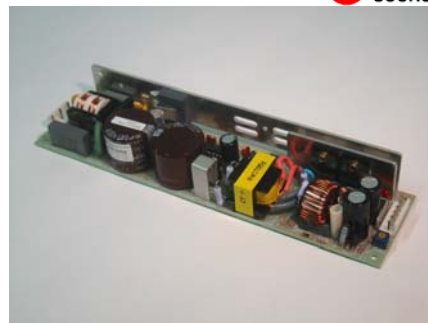
BWT-SX-U

AC/DC Power Supply
Single Output

30W



The BW-series is an open frame board with an optional cover. Simplified circuit design enabled cost optimisation 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): 55x133x26mm
Weight: 170g
Connector: JST connectors
Closed or open frame type
Optional: Wire harness for JST connectors (add -WH)
Cover (add -P)

Standards

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

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



Specifications<AC/DC>	Model						
BWT**SX-U 30WATTS / SINGLE	BWT-3.3SX-U	BWT-05SX-U	BWT-12SX-U	BWT-15SX-U	BWT-24SX-U	BWT-36SX-U	BWT-48SX-U
Input Characteristics							
Input Voltage	AC100-230V						
Input Current	0.7A at AC100V / 0.4A at AC230V						
Input Range	AC85-264V (DC110-370V)						
Input Frequency	50/60Hz						
Input Frequency Range	47-440Hz						
Phase	Single						
Inrush Current *1	15A(maximum) at AC100V / 30A(maximum) at AC230V						
Efficiency [%] (typical) *2	70	75	78	80	81	81	84
Output Characteristics							
Output Voltage [V]	3.3	5.0	12.0	15.0	24.0	36.0	48.0
Output Current [A]	6.0	6.0	2.5	2.0	1.3	0.9	0.7
Voltage Adjust Range	+/- 10% of Rated Output Voltage(at no load within the input range)						
Ripple and Noise [mVp-p](maximum) *3	83	100	170	200	290	410	530
Regulation							
a.Statistic Line Regulation [mV](maximum)	26.4	40	96	120	192	288	384
b.Statistic Load Regulation [mV](maximum)	29.7	45	108	135	216	324	432
c.Temperature Coefficient *4	0.03%/°C						
d.Drift[mV] (maximum) *5	31.5	40	75	90	135	195	255
e.Dynamic Load Regulation [mV](typical) *6	99	150	360	450	720	1080	1440
f. Recovery Time *6	0.3mS(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						
>110% of Rated Output Current[A]	6.6	6.6	2.75	2.2	1.43	0.99	0.77
Over voltage Protection	Zener diode clamping						
>115% of Rated Output Voltage[V]	3.8	5.75	13.8	17.3	27.6	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	20 to 90%RH(non-condensing)						
Storage Temperature	-20 to +85°C						
Storage Humidity	20 to 90%RH(non-condensing)						
Withstanding Voltage	Primary-Secondary AC3,000V for 1minute						
	Primary-Frame Ground AC2500V for 1minute						
	Secondary-Frame Ground AC500V for 1minute						
Insulation 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	294m/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						
Safety	UL: UL60950						
	C-UL: CSA C22.2 No.60950						
	VDE: EN60950, IEC60950, VDE0805						
Weight (typical)	Open board type: 135g/ enclosed type:285g						
MTBF [H]	580'000						
Switching Frequency[kHz](typical) *8	60	50	50	50	50	50	50

Conditions:

*1 At cold start

*2 At DC130V input/ rated output and 25°C

*3 Measured by a bayonet probe at the end of a pair of 20cm long wires terminated with a 47μF 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

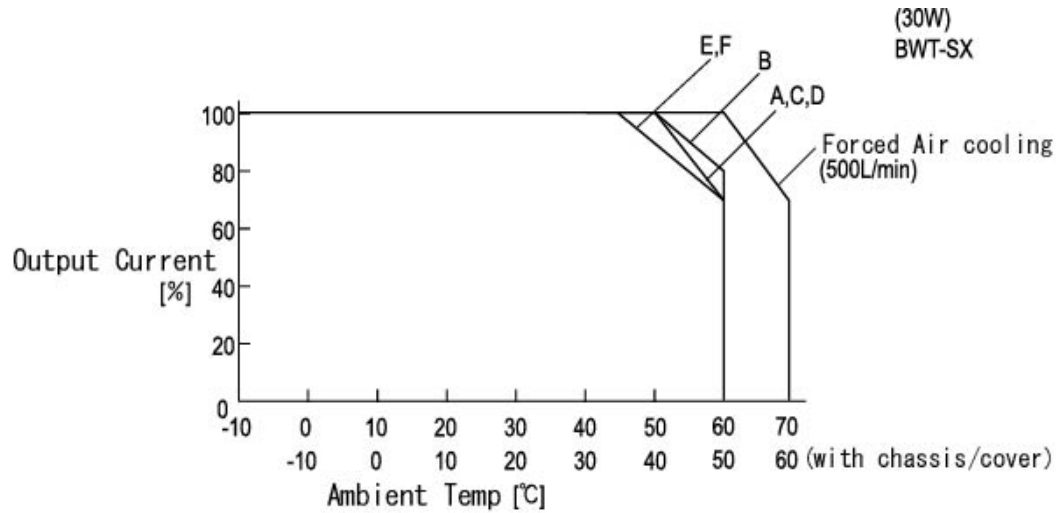
*5 For 7hour period after 1hour warm-up at 25°C and rated input/output

*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)

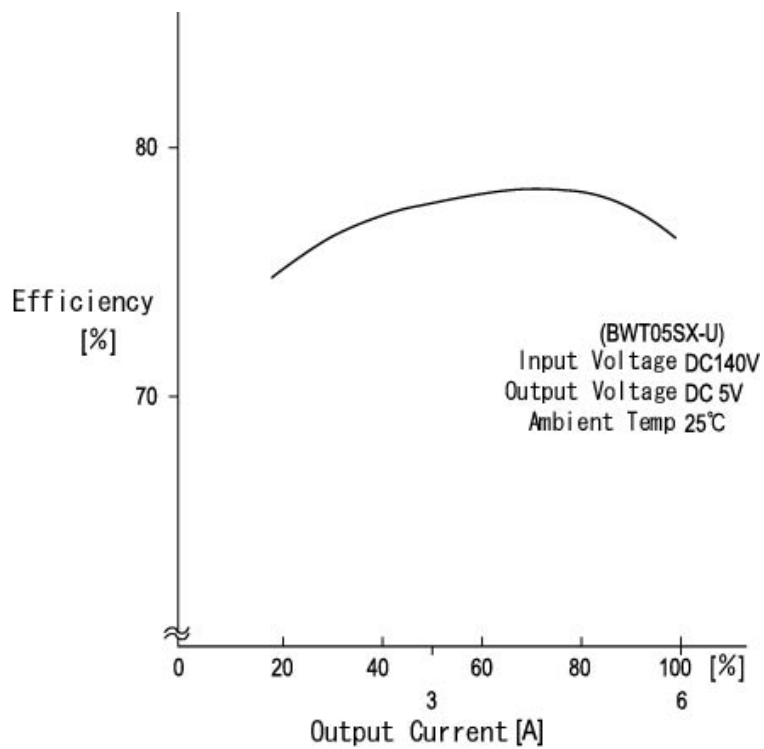
*8 Variable on input voltage and load conditions

Derating

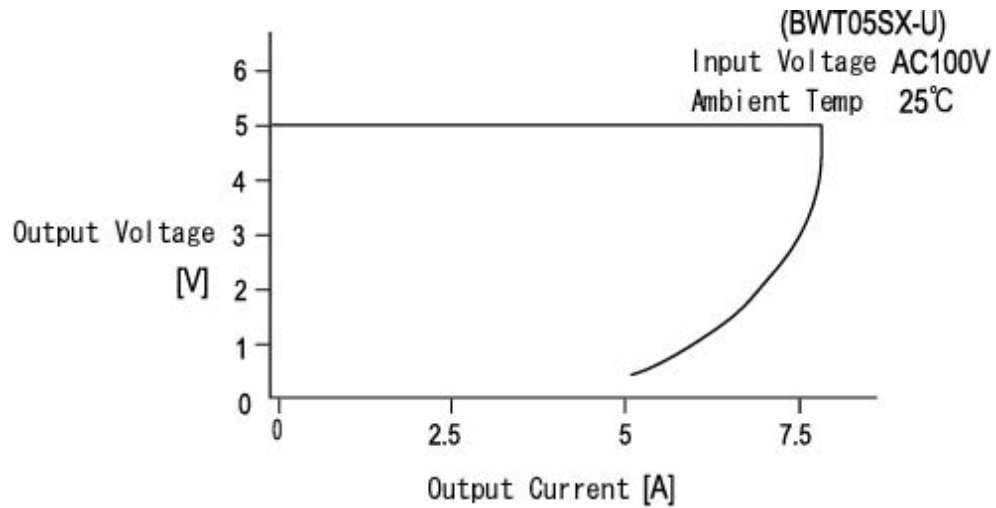


※ For safety specification, contact ETA Sales Representative

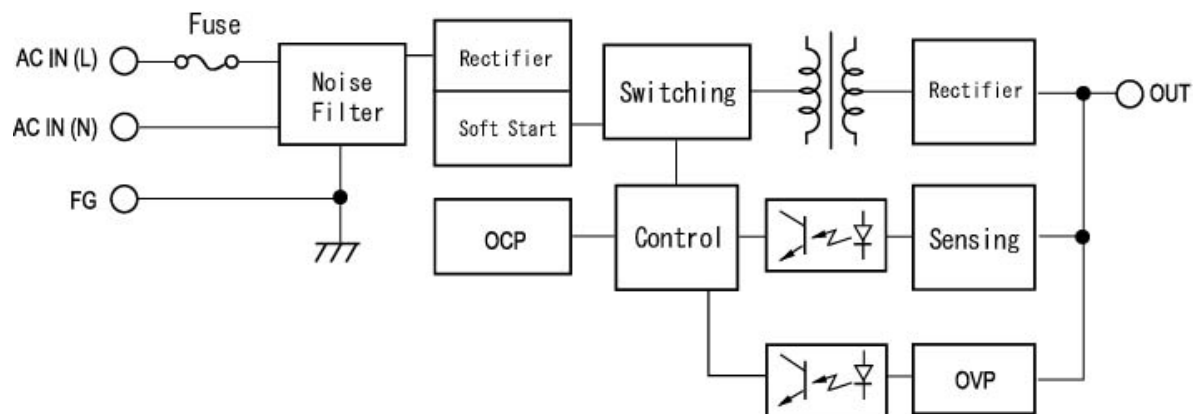
Efficiency



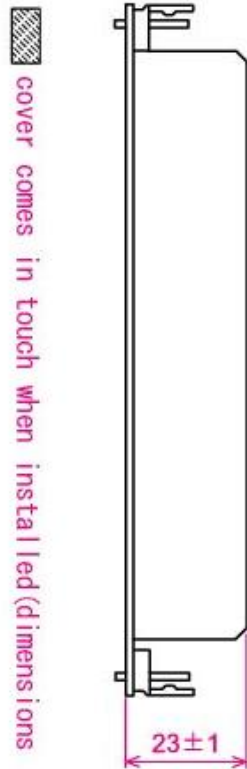
OCP



Block diagram

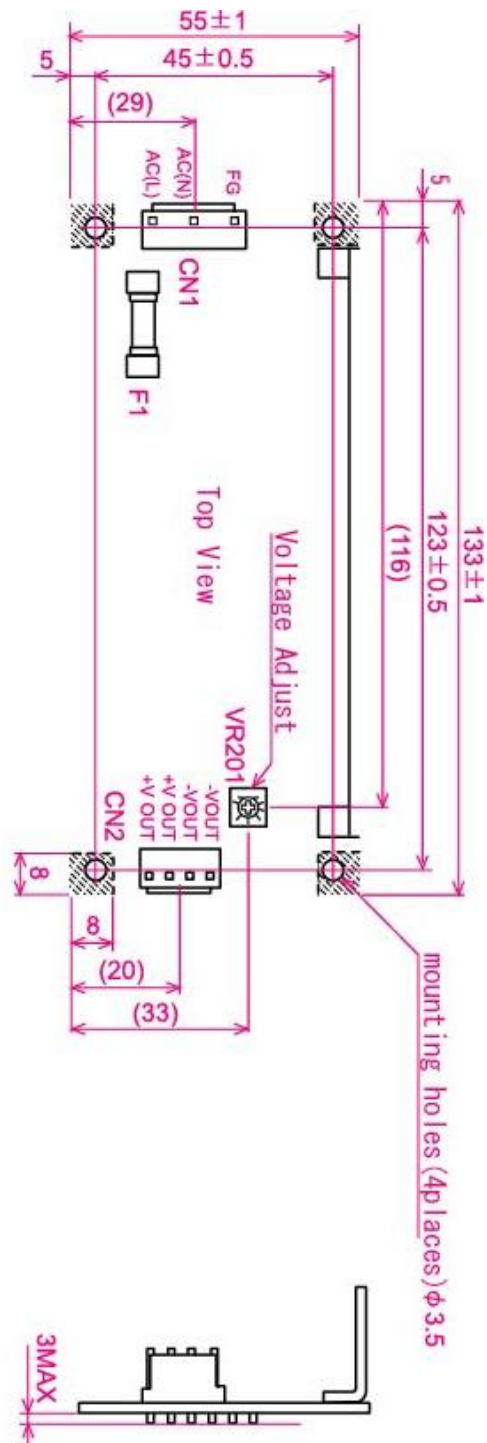


Dimensions (without cover):



Manufacturer: JST

Mating connector (housing)	
CN1	VHR-5N
CN2	VHR-4N



Dimensions (with cover):

