ETA-USA
Your power supply experts

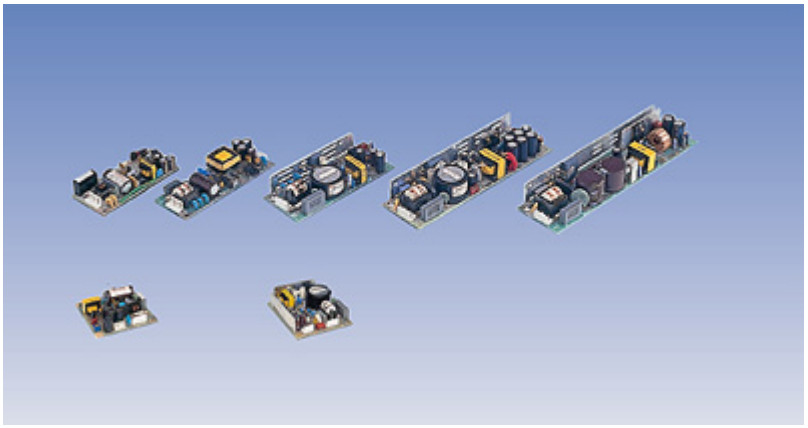
30 WATT
AC-DC
CONVERTER

BWT-SX-U1 SERIES

General Description

BW-series is an open board, low profile, low price switcher without chassis and cover. It is designed for small size and low cost applications world-wide. The output power can be boosted 15% to 30% above nominal.

Dimensions: 55x163x36 mm



Options

Cover (Add suffix "-P" ex. BWT05SX-PU)
40cm long wire harness

Features

1. Open frame type
2. EMI: Complies with EN55022B, FCC/B
3. Low cost
4. Option: Chassis + cover
5. Mountable on any axis
6. Universal Input 85-264 VAC

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HIGH QUALITY SWITCHING POWER SUPPLIES
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Specifications<AC/DC>	Model						
BWT/*SX-U1 **30WATTS/SINGLE**	BWT3.3SX-U1	BWT05SX-U1	BWT12SX-U1	BWT15SX-U1	BWT24SX-U1	BWT36SX-U1	BWT48SX-U1
Input Characteristic							
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)							

*270757880818184

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BWT**SX-U1 Specification

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Output Characteristic							
Output Voltage [V]	3.3	5	12	15	24	36	48
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%/℃						
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℃and rated input/output						
Hold up time	20mS(minimum) at 25℃and rated input/output						
Functions							
Overcurrent Protection≧110% of Rated Output Current[A]	Current Limiting with automatic recovery						
	6.6	6.6	2.75	2.2	1.43	0.99	0.77
Overvoltage Protection≧115% of Rated Output Voltage[V]	Zener diode clamping						
	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	open board type:-10 to +50℃/enclosed type:-10 to +40℃						
Operating Humidity	20 to 90%RH(non-condensing)						
Storage Temperature	-20 to +85℃						
Storage Humidity	20 to 90%RH(non-condensing)						
Withstanding Voltage	Primary-Secondary AC3,000V for 1minute						
	Primary-Frame Ground AC2,500V for 1minute						
	Secondary-Frame Ground AC500V for 1minute						
Isolation 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℃Rated input/output and rated input frequency						
? Conducted Line Noise	Built to meet FCC Part15-B Class B						
	Built to meet VCCI Class B						
	Built to meet EN55022 Class B						
? Safety	UL: UL60950-1 1st ed., CAN/CSA C22.2 No.60950-1-03 Approved						
	C-UL: CSA C22.2 No.950(Except BWTE)						
	VDE: EN60950, IEC950, VDE0805(Except BWTE)						
Weight (typical)	open board type:135g /enclosed type:285g						
? MTBF [H]	580,000						
? Switching Frequency[kHz](typical) *7	60	50	50	50	50	50	50

Conditions:

*1at cold start

*2 at DC130V input/rated output

*3 measured by a bayonet probe at the end of a pair of 20cm long wires terminated with a 47uF electrolytic capacitor and 0.1uF film capacitor in parallel at a 0 to 100MHz bandwidth

*4 open board type: at -10 to +50℃enclosed type: at -10 to +40℃

*5 for 7hour period after 1hour warm-up at 25℃and rated input/output

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

*7 variable on input voltage and load conditions

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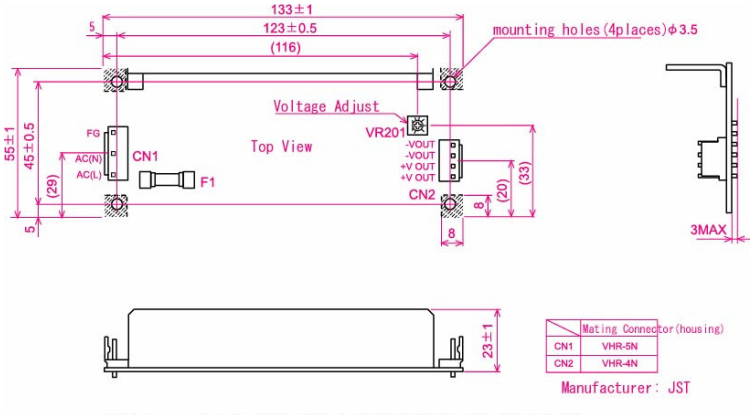
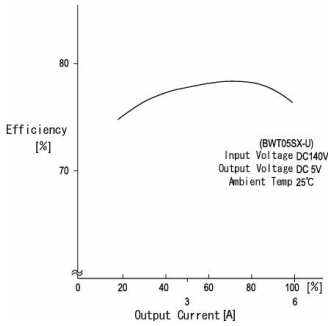
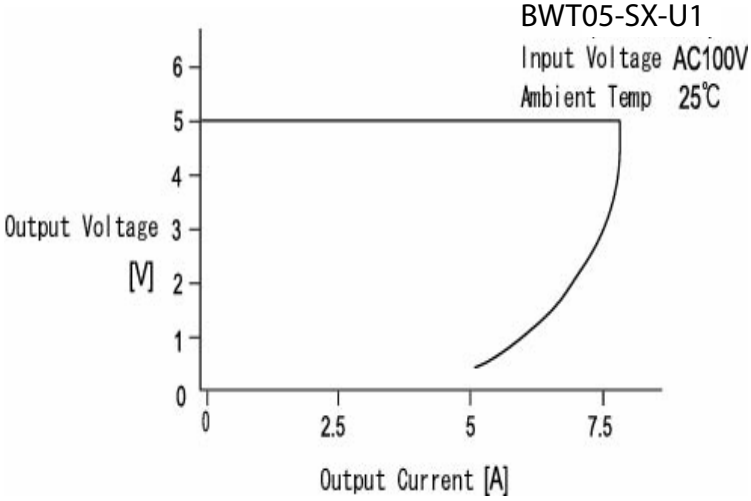
Dimension (mm)



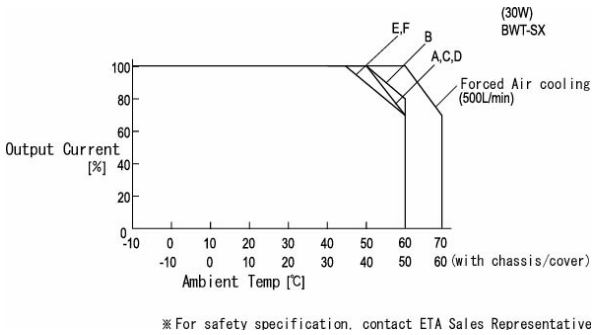
Efficiency Curve



OCP Curve



Derating Curve



※For safety specification, contact ETA Sales Representative

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