



# ETA-USA

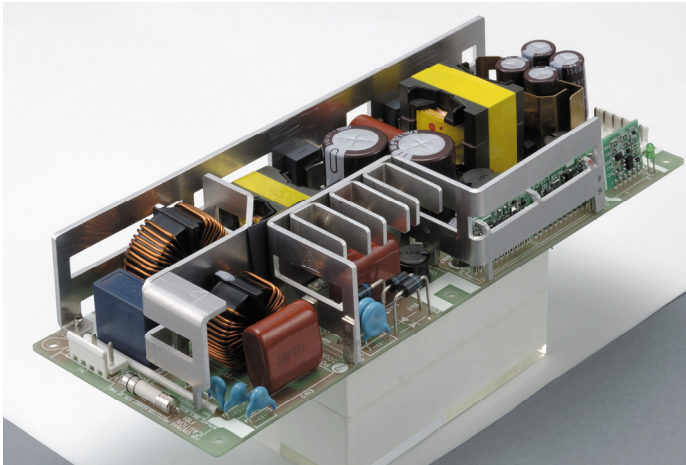
## HIGH QUALITY SWITCHING POWER SUPPLIES

**AC/DC SWITCHING POWER SUPPLY  
SINGLE CHANNEL OUTPUT  
300 WATTS  
UNIVERSAL INPUT**

### BBS SERIES

#### General Description

The BBS series is a powerful and compact 300W power supply. In comparison to other 300W power supplies, the BBS300 series is roughly half the size. Its fan-less cooling is a result of its high efficiency at 88.5%. It saves energy by suppressing heat while maintaining high reliability.



#### Features

1. Small-sized and lightweight
2. High efficiency 24V output 88.5% @100VAC input, 90% @240VAC input
3. Over current protection
4. Over voltage protection
5. Compliant with EMC directive

#### Application

Broad needs

#### Input

<b>Input Voltage:</b>	AC100~240V
<b>Input Voltage Range:</b>	AC90~264V (DC120~350V) (Does not operate continuously at 85~90AC input range)
<b>Input current:</b>	1.5~3.4A
<b>Frequency:</b>	50/60 Hz
<b>Frequency Range:</b>	47~63Hz
<b>Phase:</b>	Single
<b>Inrush Current: *1</b>	20A (Typ.) at AC100VAC 40A (Typ.) 240VAC

#### Options

- Wire harness set (40m)
- Connector type (terminal type standard)
- Vertical/horizontal mount
- Leakage current protection
- Remote ON/OFF
- Remote control "-R" for 24V series
- Certified:



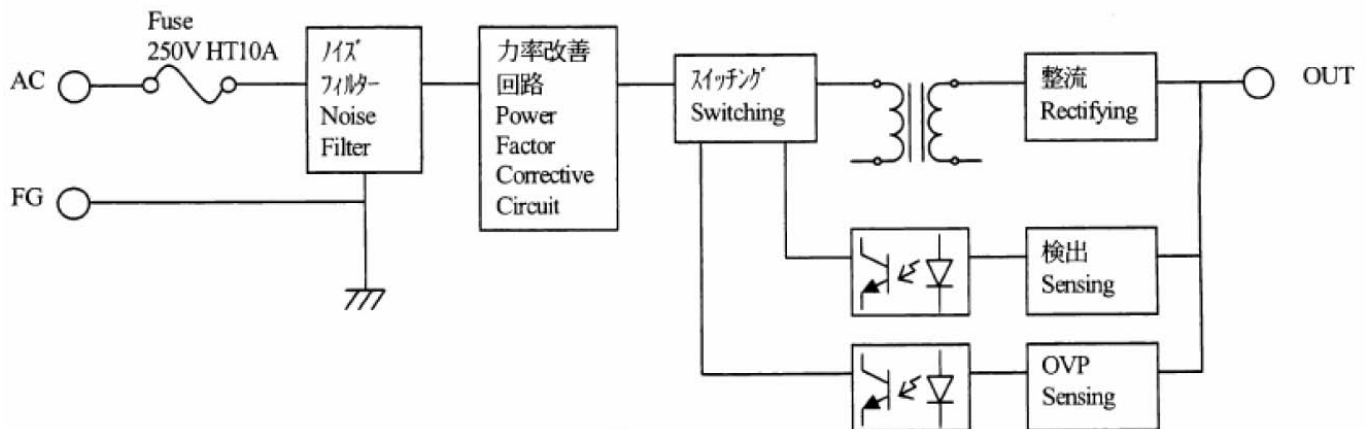


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Output Characteristic	Unit	Models		
		BBS300-24	BBS300-36	BBS300-48
Output Voltage	Vdc	24	36	48
Output Current	A	12.5	8.33	6.25
Voltage Adjust Range	V	±5% of Rated Output Voltage (at no load within the input range)		
Ripple & Noise(max)	mVpp	340	360	480
Rise time	mS	1000 mS max		
Hold up time	mS	20 mS typical		
Regulation				
a. Line Regulation [max]	mV	192mV Max.	Info soon	Info soon
b. Load Regulation	mV	216mV Max. (85~264VAC input voltage, 0~100% Load)	Info soon	Info soon
c. Temperature Coefficient	°C	V1: 7.2mV/°C (-10~71°)		
d. Drift(maximum)	mV	V1: 135mV Max. up ~8H after 1H	Info soon	Info soon
e. Dynamic Load Regulation (typ.) *2	mV	± 1200mV typ.@ rated input; load change between 25%~75%	Info soon	Info soon
f. Recovery Time *2	mS	30mS typ.@ rated input; load change between 25%~75%		
<b>Efficiency *1</b>	%	<b>88.5% typical</b>		
<b>Power Factor *1</b>		<b>0.98 at 100VAC / 0.92 at 240VAC</b>		

### 11. BLOCK DIAGRAM





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Environmental Specification	
Operating Temperature*3	-10 to +71 °C
Derating Curve	-3.5%/°C (from 50°C to 71°C), not available at > 71°C
Operating Humidity	20~90[%RH] (non-condensing)
Storage Temperature	-20 to +80°C except thermal shock
Storage Humidity	10~90%/RH(non-condensing)
Withstanding Voltage	Primary-Secondary AC3,000V for 1minute Primary-Frame Ground AC2,00V for 1minute Secondary-Frame Ground AC1,000V for 1minute *Sensory Current: P-S, P-FG, S-FG (20mA)]
Isolation Resistance	Primary-Secondary-Frame Ground 100MΩ(minimum) by DC500V insulation tester
Vibration	5~10Hz: 10mm XYZ Axis. 10~55Hz:19.6 m/ s <sup>2</sup> XYZ Axis.
Shock	196 m/s <sup>2</sup> on x,y,z axis
Cooling	Convection
Leakage current	1mA max (25°C, within input voltage range)
Environmental Agencies	
Line Conducted Noise [EMI]	FCC Part 15 class A; VCCI Class A; EN55022 Class A Complied with
Line Harmonic Distortion/Current	IEC61000-3-2 Complied with
Safety	Complies with UL: UL60950-1 C-UL: CSA60950-1 SEMKO: EN60950-1 CE: EN60950-1 (LVD)
Function/Protection	
Over current Protection	Vertical Current limiting, automatic recovery However, overload and short circuit operation over 30 seconds are not guaranteed.
Over voltage Protection	Output shutdown at more than 115% of rated output volt (33.6V Max.), recover after 3 minutes
Remote Sense	Not available
Remote Control	Available
Series Operation	Not available
Parallel Operation	Not available
Input Fuse	Built in (AC250[V], 10A)
Mechanical	
Dimension [mm]	85W × 222L × 40H
Weight [g] (typical)	650g

Conditions:

\*1 Rated input and Rated output

\*2 at Output current quick change 25% to 75%

\*3 At 100% load (convection cooling)



ETA USA

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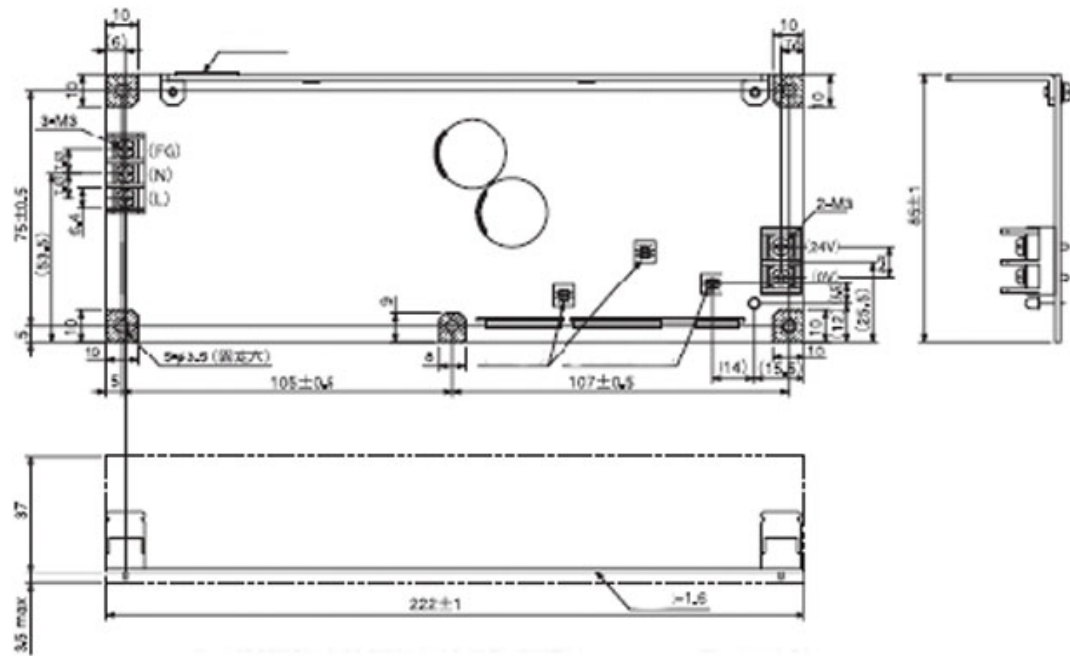


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## DIMENSIONS

### BBS300-24



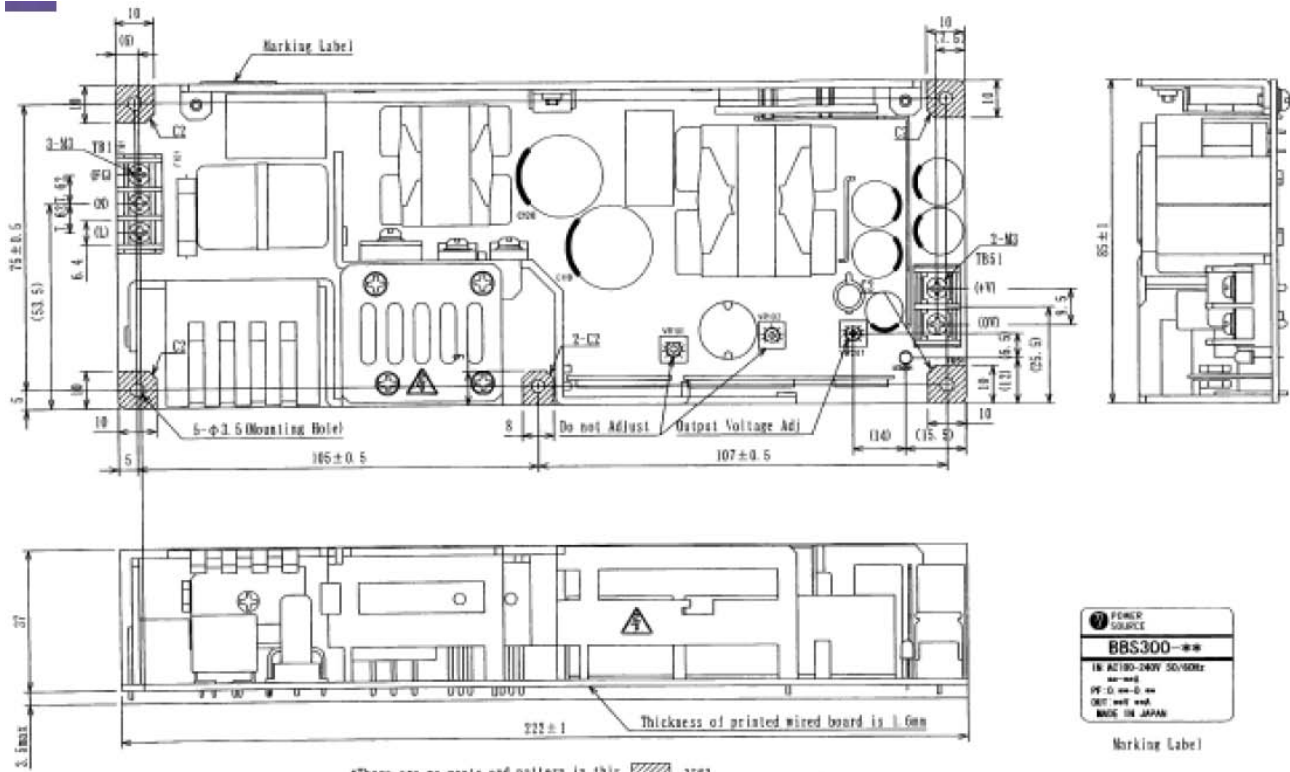
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Outline Drawings

\*There are no parts and patterns in this area.  
 \*Please use five mounting holes.

\* General Tolerance ±1



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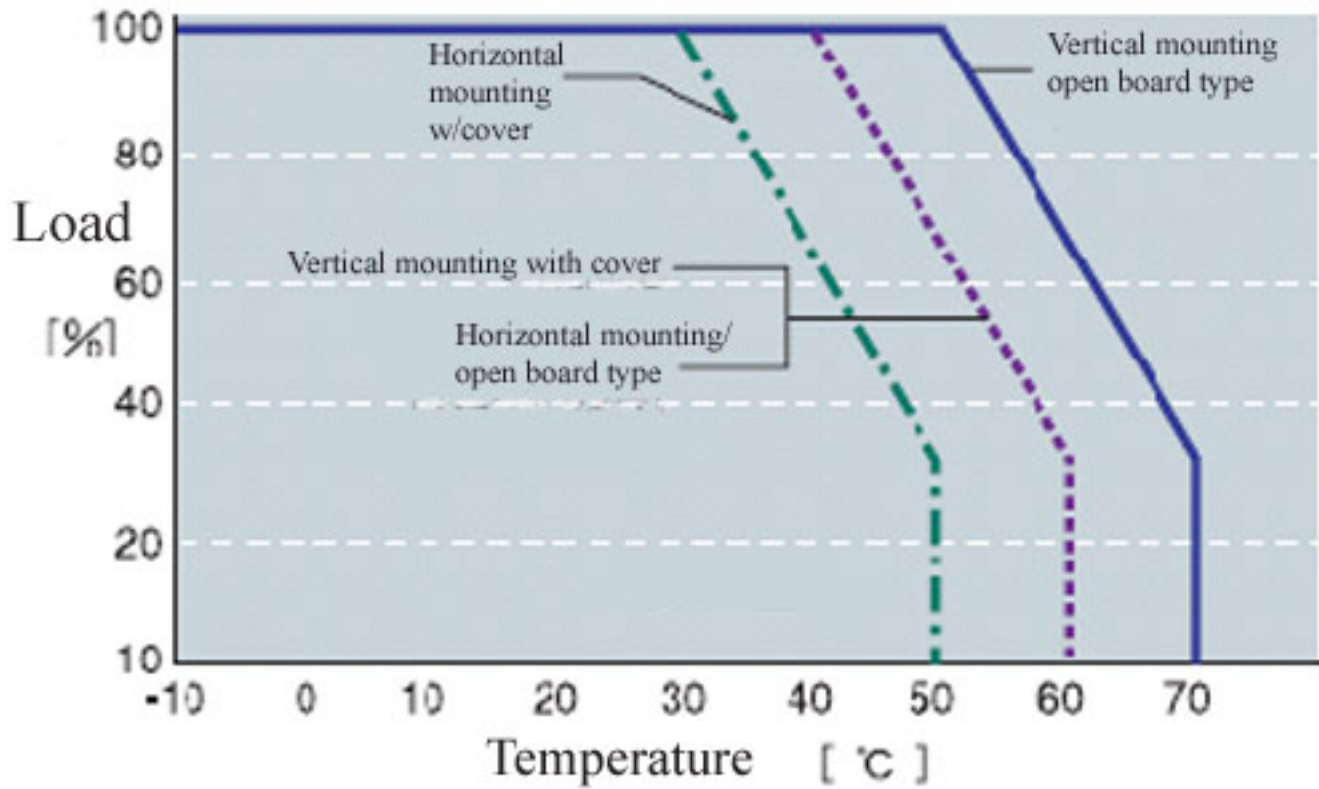
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## Derating curve





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## ■ BBS300-24 (300W)

### Output current and efficiency

