



# ETA-USA

## HIGH QUALITY SWITCHING POWER SUPPLIES

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

### OBH15S SERIES



#### General Description



#### Application

Broad needs

#### Input

<b>Input Voltage Range:</b>	AC90~264V
<b>Input current:</b>	310mA max (115VAC), 170mA max (230VAC)
<b>Frequency Range:</b>	47~440 Hz
<b>Fuse:</b>	1.5A slow blow type
<b>Inrush Current:</b> *1, *4	10A (max.) at AC115VAC 20A (max.) 230VAC

#### Features

1. Regulated Output
2. Fully Encapsulated
3. Low ripple and noise
4. PCB Mountable
5. Over power, short circuit, over voltage protection

#### Options

Screw Terminal (add suffix "-S")





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Output Characteristic		Models			
		OBH15S-5	OBH15S-12	OBH15S-15	OBH15S-24
Output Voltage	Vdc	5	12	15	24
Output Current	mA	3000	1250	1000	625
Ripple (max)	mVpp	<0.2% Vo + 40 max			
Noise(max)	mVpp	<0.5% Vo + 50 max			
Voltage Accuracy		±2%			
Capacitive Load (max)	uF	31000	4500	2700	900
Hold up time	mS	15 mS min.			
Switching Frequency	kHz	100			
Minimum Load	%	4	2	0	0
<b>Regulation</b>					
a. Line Regulation [max]		±0.5%			
b. Load Regulation	mV	±0.5%			
c. Temperature Coefficient	/°C	±0.02% /°C			
<b>Efficiency *1</b>	<b>%</b>	<b>74</b>	<b>79</b>	<b>78</b>	<b>80</b>

Conditions:

- \*1 Rated input and Rated output
- \*2 at Output current quick change 25% to 75%
- \*3 At 100% load (convection cooling)
- \*4 Cold start at 25 °C Ambient temp.



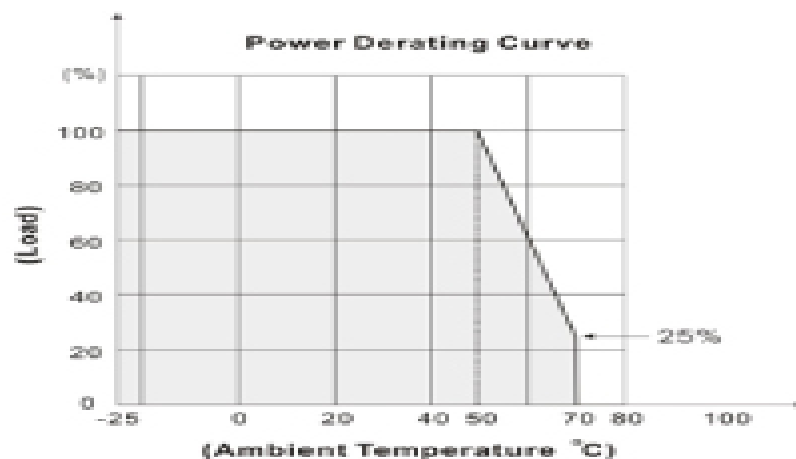


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Environmental Specification	
Operating Temperature*3	-25 to +70 °C with derating
Storage Temperature	-40 to +85 °C
Humidity	95% RH max
Isolation Voltage	3000V Input-Output 1500V Input-FG 500V Output-FG
Cooling	Convection
MTBF	>200,000 hours
Leakage Current	750µA max
Enclosure Material	Plastic Resin with Fiberglass (flammability meeting UL 94V-0)
Environmental Agencies	
Line Conducted Noise [EMI]	Built to meet EN55022-B
Noise immunity	EN 55024
Safety	CE, cUL, UL
Function/Protection	
Over Power Protection	Hiccup mode, automatic recovery
Over voltage Protection	Zener diode clamp
Short circuit Protection	Hiccup mode, indefinite (automatic recovery)
Mechanical	
Dimension [mm]	54.0W × 74.0L × 22.0H ±0.5
Weight [g] (typical)	140

## Derating Curves

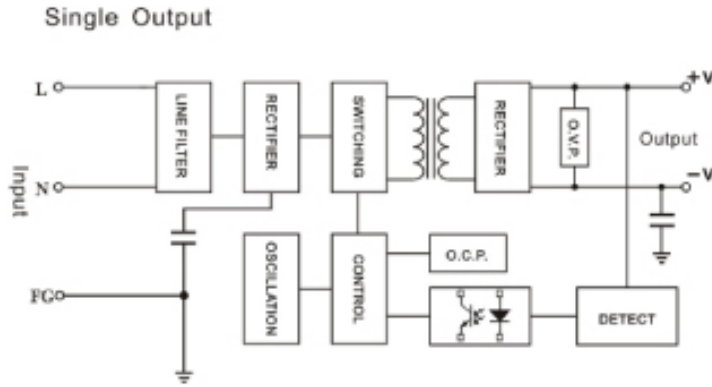




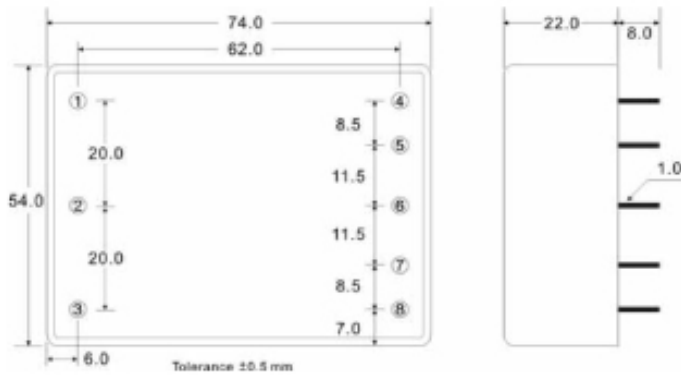
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## Block Diagram



## Mechanical Dimensions



PIN#	SINGLE	Dual	Triple
1	FG	FG	FG
2	AC IN (N)	AC IN (N)	AC IN (N)
3	AC IN (L)	AC IN (L)	AC IN (L)
4	NO PIN	NO PIN	-DC OUT
5	-DC OUT	-DC OUT	COMMON
6	NO PIN	COMMON	+DC OUT
7	+DC OUT	+DC OUT	+5V RTN
8	NO PIN	NO PIN	+5V OUT



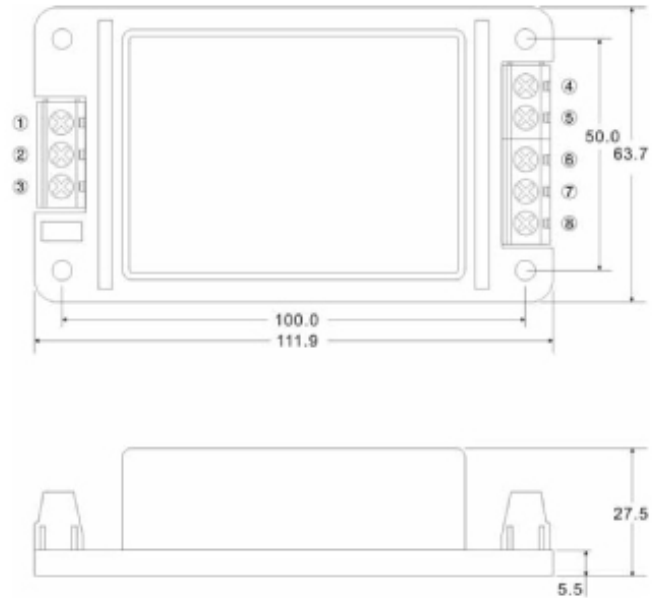


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## HIGH QUALITY SWITCHING POWER SUPPLIES

"-S1"

PIN#	Single	Dual	Triple
1	FG	FG	FG
2	AC IN (N)	AC IN (N)	AC IN (N)
3	AC IN (L)	AC IN (L)	AC IN (L)
4	NO CONNECT	NO CONNECT	-DC OUT
5	-DC OUT	-DC OUT	COMMON
6	NO CONNECT	COMMON	+DC OUT
7	+DC OUT	+DC OUT	+5V RTN
8	NO CONNECT	NO CONNECT	+5V OUT



"-S2"

PIN#	Single	Dual	Triple
1	FG	FG	FG
2	AC IN (N)	AC IN (N)	AC IN (N)
3	AC IN (L)	AC IN (L)	AC IN (L)
4	NO CONNECT	NO CONNECT	-DC OUT
5	-DC OUT	-DC OUT	COMMON
6	NO CONNECT	COMMON	+DC OUT
7	+DC OUT	+DC OUT	+5V RTN
8	NO CONNECT	NO CONNECT	+5V OUT

