



# ETA-USA

HIGH QUALITY SWITCHING POWER SUPPLIES

DC/DC SWITCHING POWER SUPPLY  
SINGLE CHANNEL OUTPUT  
30 WATTS

## OCH30S SERIES

### General Description



### Features

1. High Efficiency
2. Six-sided continuous shield
3. 4:1 input range
4. Power module for PCB mountable
5. Standard Package

### Options

- Screw Terminal (add suffix "-S")
- Remote ON/OFF (add suffix "-R")

### Application

#### Input

**Input Voltage Range:** DC10~40V OCH30S24-XX  
DC36~75V OCH30S48-XX

**Switching frequency:** 250kHz

**Filter:** Pi Type





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Output Characteristic	Unit	Models					
		OCH30S24-2.5	OCH30S24-3.3	OCH30S24-5	OCH30S24-12	OCH30S24-15	OCH30S24-24
Output Voltage	Vdc	2.5	3.3	5	12	15	24
Output Current	mA	6000	6000	6000	2500	2000	1250
Ripple		100mV max			±1%		
Noise(max)		100mV max			±1%		
Voltage Accuracy	V	±2%					
Trim		±10%					
Capacitor Load (max.)	uF	33000	19500	10200	820	420	180
Regulation							
a. Line Regulation [max]	mV	± 0.5%					
b. Load Regulation	mV	± 1%					
c. Temperature Coefficient	/°C	± 0.02%					
<b>Efficiency *1</b>	<b>%</b>	<b>80</b>	<b>83</b>	<b>85</b>	<b>83</b>	<b>83</b>	<b>84</b>

Output Characteristic	Unit	Models					
		OCH30S48-2.5	OCH30S48-3.3	OCH30S48-5	OCH30S48-12	OCH30S48-15	OCH30S48-24
Output Voltage	Vdc	2.5	3.3	5	12	15	24
Output Current	mA	6000	6000	6000	2500	2000	1250
Ripple		100mV max			±1%		
Noise(max)		100mV max			±1%		
Voltage Accuracy	V	±2%					
Trim		±10%					
Capacitor Load (max.)	uF	33000	19500	10200	820	420	180
Regulation							
a. Line Regulation [max]		± 0.5%					
b. Load Regulation		± 1%					
c. Temperature Coefficient	/°C	± 0.02%					
<b>Efficiency *1</b>	<b>%</b>	<b>81</b>	<b>85</b>	<b>87</b>	<b>84</b>	<b>84</b>	<b>84</b>

Conditions:

\*1 Rated input and Rated output

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

\*3 At 100% load (convection cooling)





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Environmental Specification	
Operating Temperature*3	-25 to +70 °C (with derating)
Storage Temperature	-55 to +105 °C
Storage Humidity	95% RH [non-condensing] max
Isolation Resistance	Input-Output 100MΩ
Isolation Voltage	1600 VDC Input-Output
Isolation Capacitance	1000pF
Cooling	Convection
MTBF	>550,000 hours at 25°C
Function/Protection	
Short circuit Protection	Hiccup mode, auto-recovery
Over Voltage Protection	Zener Diode Clamp
Over Power Protection	Works at over 120% and auto-recovery
Mechanical	
Dimension [mm]	50.8W × 40.6L × 11.9H ±0.5
Weight [g] (typical)	58

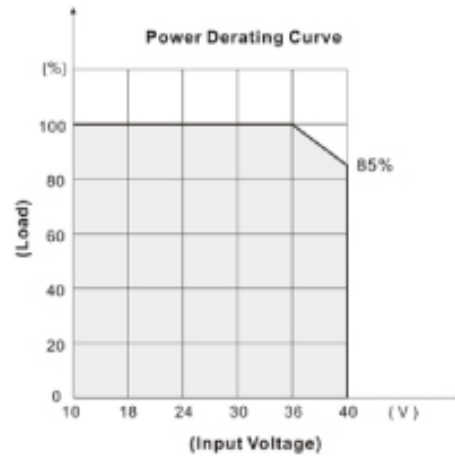
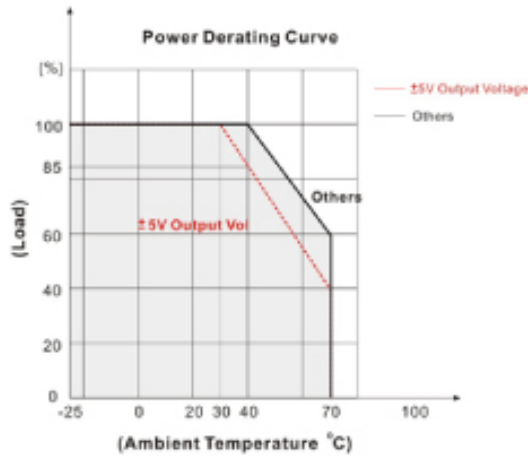




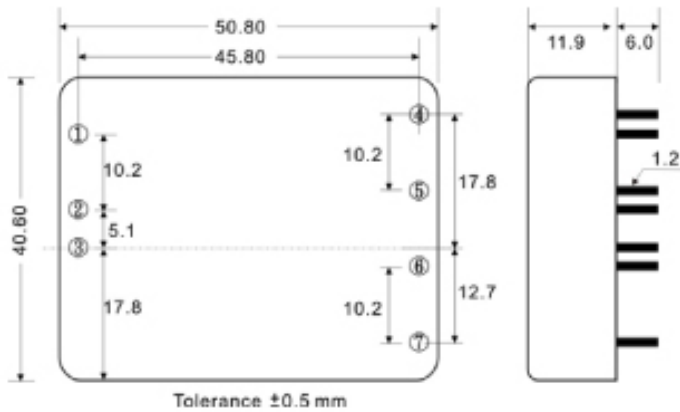
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## HIGH QUALITY SWITCHING POWER SUPPLIES

### Derating Curves



### Mechanical drawings



PIN#	Single	Dual
1	CTRL	CTRL
2	-DC IN	-DC IN
3	+DC IN	+DC IN
4	TRIM	TRIM
5	-DC OUT	-DC OUT
6	+DC OUT	COMMON
7	NO PIN	+DC OUT



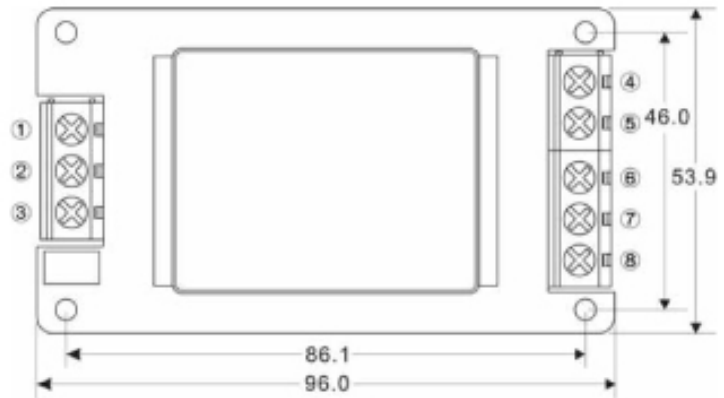


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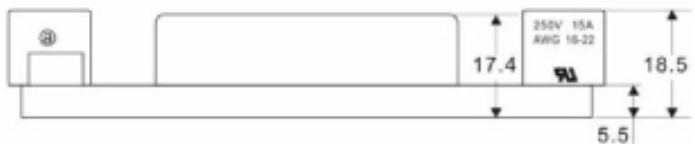
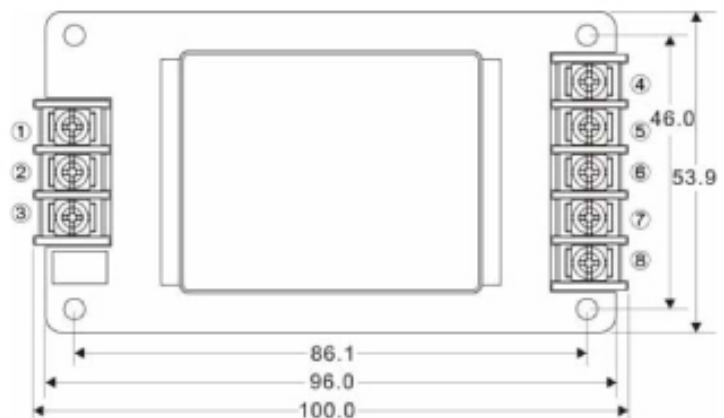
## HIGH QUALITY SWITCHING POWER SUPPLIES

### Mechanical drawing with screw terminal

PIN#	Single	Dual
1	CTRL	CTRL
2	-DC IN	-DC IN
3	+DC IN	+DC IN
4	TRIM	TRIM
5	-DC OUT	-DC OUT
6	NO CONNECT	NO CONNECT
7	+DC OUT	COMMON
8	NO CONNECT	+DC OUT



PIN#	Single	Dual
1	CTRL	CTRL
2	-DC IN	-DC IN
3	+DC IN	+DC IN
4	TRIM	TRIM
5	-DC OUT	-DC OUT
6	NO CONNECT	NO CONNECT
7	+DC OUT	COMMON
8	NO CONNECT	+DC OUT

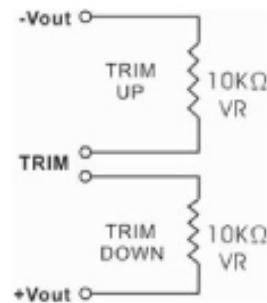




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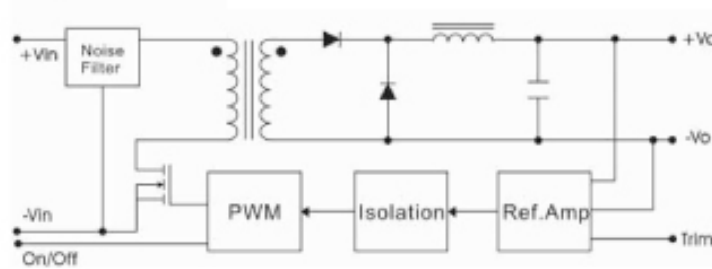
## Remote ON/OFF



## Block Diagram

### Single Output

Output Voltage (V.DC) : 12V, 15V, 24V



Output Voltage (V.DC) : 2.5V, 3.3V, 5V

