

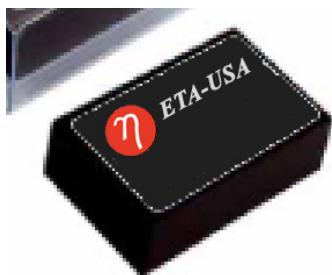


# ETA-USA

HIGH QUALITY SWITCHING POWER SUPPLIES

DC/DC SWITCHING POWER SUPPLY  
SINGLE CHANNEL OUTPUT  
1.5 WATTS

## OCH1.5S SERIES



### General Description

### Features

1. Power module for PCB mountable
2. Fully Encapsulated Plastic Case
3. Regulated Output
4. Low ripple and Noise

### Options

### Application

Broad needs

### Input

#### Input Voltage Range:

DC4.5~5.5V OCH1.5S5-XX  
DC10.8~13.2V OCH1.5S12-XX  
DC21.6~26.4V OCH1.5S24-XX  
DC43.2~52.8V OCH1.5S48-XX

#### Switching frequency:

20kHz (typ.)

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## HIGH QUALITY SWITCHING POWER SUPPLIES

Output Characteristic	Unit	Models			
		OCH1.5S5-5	OCH1.5S5-12	OCH1.5S5-15	OCH1.5S5-24
Output Voltage	Vdc	5	12	15	24
Output Current	mA	300	125	100	63
Ripple	mVpp		< 0.2% Vout + 10mV		
Noise(max)	mVpp		< 0.5% Vout + 30mV		
Voltage Accuracy	V		±3%		
Regulation					
a. Line Regulation [max]	mV		± 0.3%		
b. Load Regulation	mV		± 0.5%		
c. Temperature Coefficient	/°C		± 0.02%		
<b>Efficiency</b>	*1	%	60	54	56
					58

Output Characteristic	Unit	Models			
		OCH1.5S12-5	OCH1.5S12-12	OCH1.5S12-15	OCH1.5S12-24
Output Voltage	Vdc	5	12	15	24
Output Current	mA	300	125	100	63
Ripple	mVpp		< 0.2% Vout + 10mV		
Noise(max)	mVpp		< 0.5% Vout + 30mV		
Voltage Accuracy	V		±3%		
Regulation					
a. Line Regulation [max]	mV		± 0.3%		
b. Load Regulation	mV		± 0.5%		
c. Temperature Coefficient	/°C		± 0.02%		
<b>Efficiency</b>	*1	%	65	60	62
					64


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## HIGH QUALITY SWITCHING POWER SUPPLIES

Output Characteristic		Models			
	Unit	OCH1.5S24-5	OCH1.5S24-12	OCH1.5S24-15	OCH1.5S24-24
Output Voltage	Vdc	5	12	15	24
Output Current	mA	300	125	100	63
Ripple	mVpp		< 0.2% Vout + 10mV		
Noise(max)	mVpp		< 0.5% Vout + 30mV		
Voltage Accuracy	V		±3%		
Regulation					
a. Line Regulation [max]	mV		± 0.3%		
b. Load Regulation	mV		± 0.5%		
c. Temperature Coefficient	/°C		± 0.02%		

Efficiency	*1	%	57	55	55	58
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Output Characteristic		Models			
	Unit	OCH1.5S48-5	OCH1.5S48-12	OCH1.5S48-15	OCH1.5S48-24
Output Voltage	Vdc	5	12	15	24
Output Current	mA	300	125	100	63
Ripple	mVpp		< 0.2% Vout + 10mV		
Noise(max)	mVpp		< 0.5% Vout + 30mV		
Voltage Accuracy	V		±3%		
Regulation					
a. Line Regulation [max]			± 0.3%		
b. Load Regulation			± 0.5%		
c. Temperature Coefficient	/°C		± 0.02%		

Efficiency	*1	%	53	52	51	54
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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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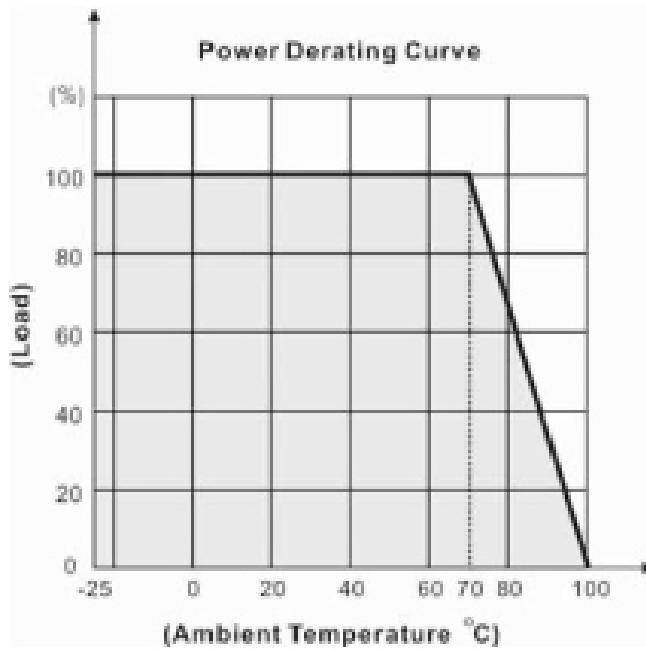
### Environmental Specification

Operating Temperature* <sup>3</sup>	-25 to +70 °C (at full load)
Storage Temperature	-55 to +105 °C
Storage Humidity	95% RH [non-condensing] max
Isolation Resistance	Primary-Secondary-Frame Ground 100MΩ(minimum) by DC500V insulation tester
Cooling	Convection
MTBF	>1,000,000 hours at 25°C

### Function/Protection

Short circuit Protection	Current limit, auto-recovery
Over Power Protection	Works at over 120% and auto-recovery
<b>Mechanical</b>	
Dimension [mm]	31.8W × 20.3L × 10.2H ±0.5
Weight [g] (typical)	13

## Derating Curves



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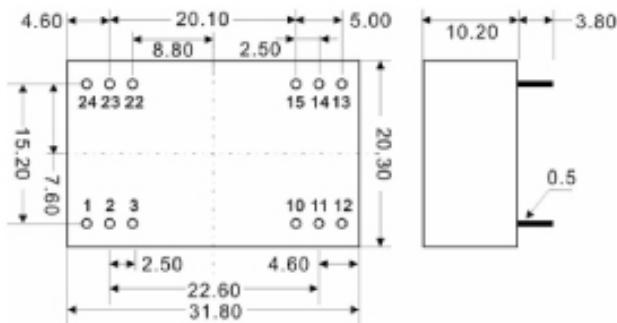
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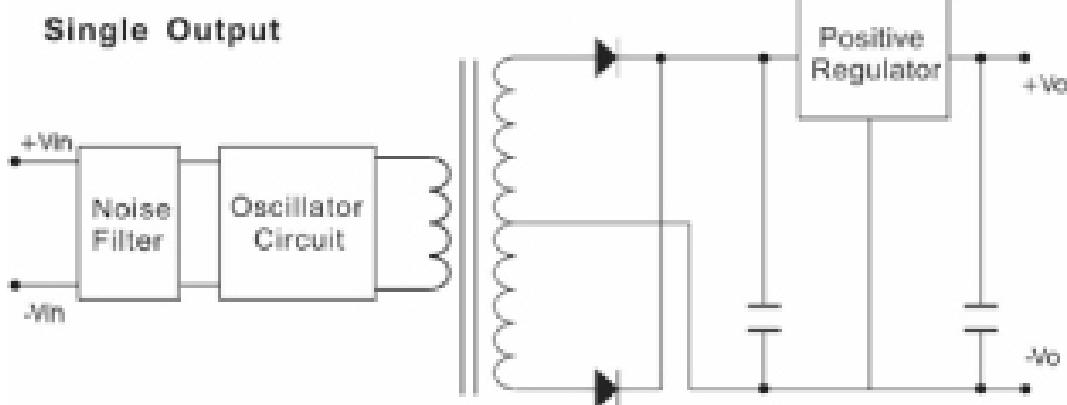
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## Mechanical drawings



PIN#	Single	Dual
1	+VIN	+VIN
2	NC	-VOUT
3	NO PIN	COMMON
10	-VOUT	COMMON
11	+VOUT	+VOUT
12	-VIN	-VIN
13	-VIN	-VIN
14	+VOUT	+VOUT
15	-VOUT	COMMON
22	NO PIN	COMMON
23	NC	-VOUT
24	+VIN	+VIN

## Block Diagram



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