



# ETA-USA

HIGH QUALITY SWITCHING POWER SUPPLIES

DC/DC SWITCHING POWER SUPPLY  
SINGLE CHANNEL OUTPUT  
10 WATTS

## OCH10S SERIES



### General Description

### Features

1. Power module for PCB mountable
2. 2:1 input range
3. Regulated Output
4. Low ripple and Noise

### Options

### Application

Broad needs

### Input

**Input Voltage Range:** DC9~18V OCH10S12-XX  
DC18~36V OCH10S24-XX  
DC36~75V OCH10S48-XX

**Switching frequency:** 300kHz (typ.)





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Output Characteristic	Unit	Models				
		OCH10S12-3.3	OCH10S12-5	OCH10S12-12	OCH10S12-15	OCH10S12-24
Output Voltage	Vdc	3.3	5	12	15	24
Output Current	mA	2500	2000	830	670	416
Ripple	mVpp	50mV	1%			
Noise(max)	mVpp	50mV	1%			
Voltage Accuracy	V	±2%				
Capacitor Load (max.)	uF	2200	2200	560	470	100
<b>Regulation</b>						
a. Line Regulation [max]	mV	± 0.5%				
b. Load Regulation	mV	± 3% for 3.3V output ± 1% for others				
c. Temperature Coefficient	/°C	± 0.02%				

<b>Efficiency *1</b>	<b>%</b>	<b>82</b>	<b>83</b>	<b>86</b>	<b>86</b>	<b>86</b>
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Output Characteristic	Unit	Models				
		OCH10S24-3.3	OCH10S24-5	OCH10S24-12	OCH10S24-15	OCH10S24-24
Output Voltage	Vdc	3.3	5	12	15	24
Output Current	mA	2500	2000	830	670	416
Ripple	mVpp	50mV	1%			
Noise(max)	mVpp	50mV	1%			
Voltage Accuracy	V	±2%				
Capacitor Load (max.)	uF	2200	2200	560	470	100
<b>Regulation</b>						
a. Line Regulation [max]		± 0.5%				
b. Load Regulation		± 3% for 3.3V output ± 1% for others				
c. Temperature Coefficient	/°C	± 0.02%				

<b>Efficiency *1</b>	<b>%</b>	<b>82</b>	<b>85</b>	<b>86</b>	<b>86</b>	<b>86</b>
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Output Characteristic	Unit	Models				
		OCH10S48-3.3	OCH10S48-5	OCH10S48-12	OCH10S48-15	OCH10S48-24
Output Voltage	Vdc	3.3	5	12	15	24
Output Current	mA	2500	2000	830	670	416
Ripple	mVpp	50mV	1%			
Noise(max)	mVpp	50mV	1%			
Voltage Accuracy	V	±2%				
Capacitor Load (max.)	uF	2200	2200	560	470	100
<b>Regulation</b>						
a. Line Regulation [max]		± 0.5%				
b. Load Regulation		± 3% for 3.3V output ± 1% for others				
c. Temperature Coefficient	/°C	± 0.02%				
<b>Efficiency *1</b>	<b>%</b>	<b>82</b>	<b>85</b>	<b>86</b>	<b>86</b>	<b>86</b>

Conditions:

\*1 Rated input and Rated output

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

\*3 At 100% load (convection cooling)

Environmental Specification	
Operating Temperature*3	-25 to +60 °C (at full load)
Storage Temperature	-55 to +105 °C
Storage Humidity	95% RH [non-condensing] max
Isolation Resistance	Input-Output 100MΩ
Isolation Voltage	1600 VDC
Isolation Capacitance	1000pF
Cooling	Convection
MTBF	>800,000 hours at 25°C
Function/Protection	
Short circuit Protection	Current limit, auto-recovery
Over Power Protection	Works at over 105% and auto-recovery
Mechanical	
Dimension [mm]	31.8W × 20.3L × 10.2H ±0.5
Weight [g] (typical)	20

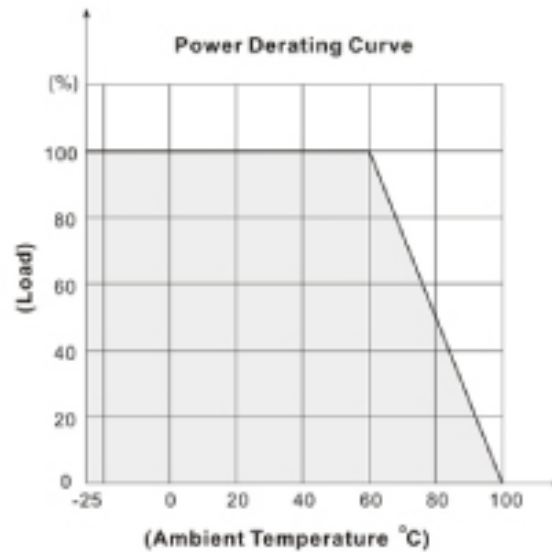




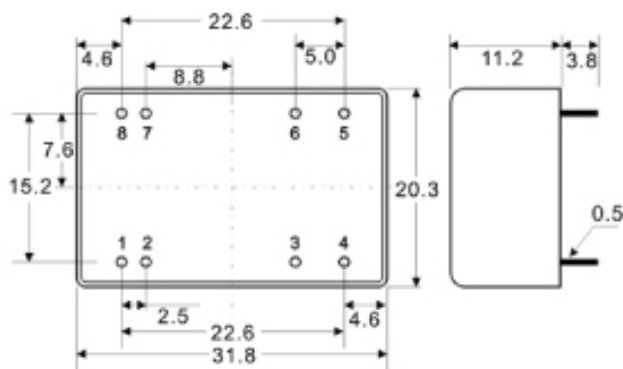
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## Derating Curves



## Mechanical drawings



Tolerance  $\pm 0.5$  mm

PIN#	Single	Dual
1	-VIN	-VIN
2	-VIN	-VIN
3	NO PIN	COMMON
4	NC	-VOUT
5	+VOUT	+VOUT
6	-VOUT	COMMON
7	+VIN	+VIN
8	+VIN	+VIN





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## Block Diagram

### Single Output

