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HIGH QUALITY SWITCHING POWER SUPPLIES

DC/DC SWITCHING POWER SUPPLY
TRIPLE CHANNEL OUTPUT
40 WATTS

OCH40T SERIES

General Description



Features

1. Vout Trim and ON/OFF control function
2. Low ripple and noise
3. 2:1 input range
4. Power module for PCB mountable
5. Synchronous rectifier topologies
6. Regulated Output

Options

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

Application

Input

Input Voltage Range: DC9~18V OCH40T12-XX
DC18~36V OCH40T24-XX
 DC36~75V OCH40T48-XX

Switching frequency: 250kHz for 5V output
 200kHz for 12V output
 400kHz for others

Filter: Pi Type





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Output Characteristic	Unit	Models					
		OCH40T12-512			OCH40T12-515		
Output Voltage	Vdc	+5	+12	-12	+5	+15	-15
Output Current	mA	+5000	+600	-600	+5000	+500	-500
Ripple		±0.2% Vout + 20mV max					
Noise(max)		±0.5% Vout + 50mV max					
Voltage Accuracy	V	±2%					
Trim		±10%					
Regulation							
a. Line Regulation [max]	mV	± 1% / ±5%					
b. Load Regulation	mV	± 3% / ±5%					
c. Temperature Coefficient	/°C	± 0.02%					

Efficiency *1	%	85	85
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Output Characteristic	Unit	Models					
		OCH40T24-512			OCH40T24-515		
Output Voltage	Vdc	+5	+12	-12	+5	+15	-15
Output Current	mA	+5000	+600	-600	+5000	+500	-500
Ripple		±0.2% Vout + 20mV max					
Noise(max)		±0.5% Vout + 50mV max					
Voltage Accuracy	V	±2%					
Trim		±10%					
Regulation							
a. Line Regulation [max]		± 1% / ±5%					
b. Load Regulation		± 3% / ±5%					
c. Cross Regulation		Main: ± 2% Aux: ±5%					
d. Temperature Coefficient	/°C	± 0.02%					

Efficiency *1	%	86	86
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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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Output Characteristic	Unit	Models					
		OCH40T48-512			OCH40T48-515		
Output Voltage	Vdc	+5	+12	-12	+5	+15	-15
Output Current	mA	+5000	+600	-600	+5000	+500	-500
Ripple		±0.2% Vout + 20mV max					
Noise(max)		±0.5% Vout + 50mV max					
Voltage Accuracy	V	±2%					
Trim		±10%					
Regulation							
a. Line Regulation [max]		± 1%/ ±5%					
b. Load Regulation		± 3%/ ±5%					
c. Temperature Coefficient	/°C	± 0.02%					

Efficiency	*1	%	87	87
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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 × 50.8L × 11.4H ±0.5
Weight [g] (typical)	70

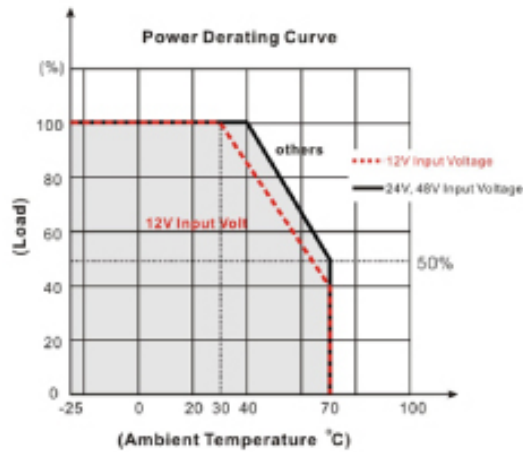




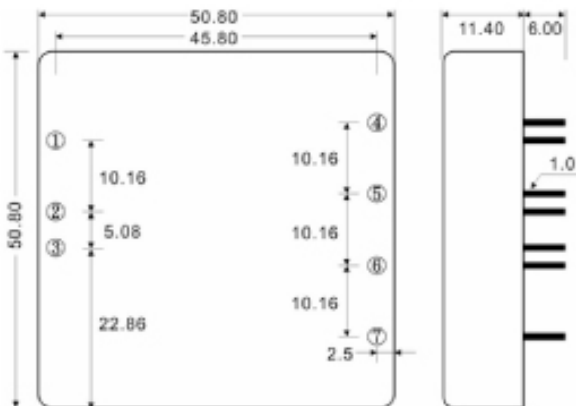
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Derating Curves



Mechanical drawings



PIN#	Single	Dual	Triple
1	ON / OFF	ON / OFF	ON / OFF
2	-VIN	-VIN	-VIN
3	+VIN	+VIN	+VIN
4	TRIM	TRIM	-VOUT
5	-VOUT	-VOUT	COMMON
6	+VOUT	COMMON	+5V OUT
7	NC	+VOUT	+VOUT



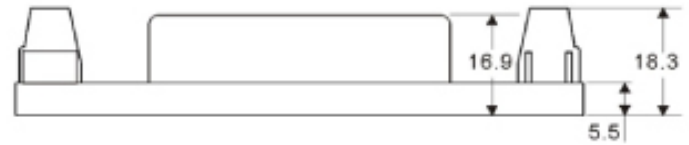
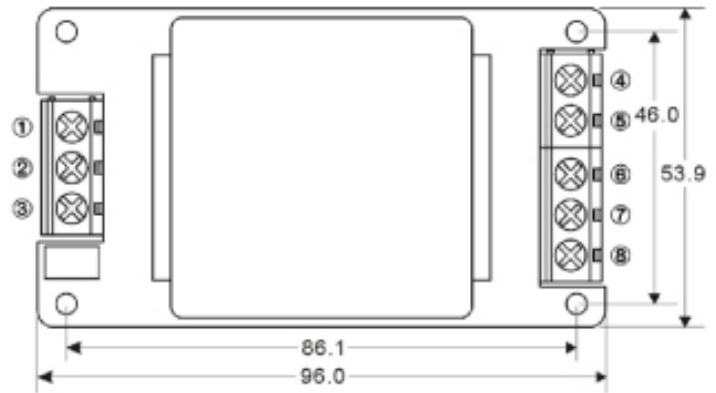


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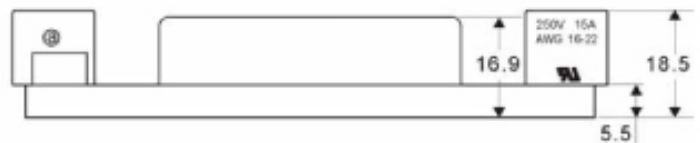
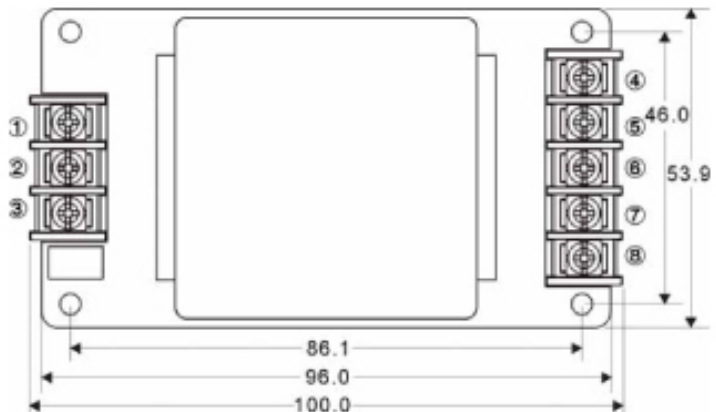
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Mechanical drawing with screw terminal

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



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

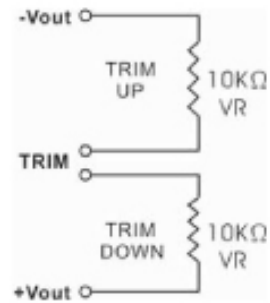




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Remote ON/OFF



Block Diagram

