

DC/DC TPS030-150W Print Module Input 9-75VDC





Special Features

- 30W—150W Isolated 1500 VDC
- Efficiency to 89%
- Fixed Switching Frequency
- Input Under Voltage Protection
- Over Temperature Protection
- Over Voltage/Current Protection
- Remote On/Off
- Industry Standard 1/4, 1/2-Brick Package

Key Applications

- Industry Automation
- Telecom Communication
- Measuring Equipment
- Military

Ordering Information

Article No.	Article Name	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (A)	% Eff.	Capacitive load max	Dimension L*W*H (mm)
901003010	TPS030-PMD12S	9 - 75	12	0 - 2.5	85 %	1000 UF	37.2*57.9*12.7
901003009	TPS030-PMD24S	9 - 75	24	0 - 1.2	85 %	500 UF	37.2*57.9*12.7
901003005	TPS075-PMD12S	9 - 75	12	0 - 6.2	89 %	2000 UF	37.2*57.9*12.7
901003006	TPS075-PMD24S	9 - 75	24	0 - 3.1	89 %	1000 UF	37.2*57.9*12.7
901003003	TPS150-PMD12S	9 - 75	12	0 - 12.5	88 %	5000 UF	61*57.9*12.7
901003004	TPS150-PMD24S	9 - 75	24	0 - 6.2	89 %	2000 UF	61*57.9*12.7

Input Specification

Operating Input Voltage Range	See Table
Input Surge Voltage (100 ms max.)	100 VDC (9 - 75 V) max.
Under Voltage Lockout	Power up 9 VDC
Power Down	7.5 VDC
Positive Logic Remote On/Off	See Notes 5.
Input Filter	LC Type

Output Specification	
Voltage Accuracy	± 1.5% max.
Transient Response: 25 % Step Load Change	< 500 μs
External Trim Adj. Range (Note 6)	± 10%
Humidity	95% RH max. Non Condensing
Ripple & Noise, 20 MHz BW	
12 V / 15 V	60 mV RMS, 120 mV pk-pk max.
24 V / 28 V	100 mV RMS, 280 mV pk-pk max.
Temperature Coefficient	± 0.03 % /°C
Short Circuit Protection	Continuous
Line Regulation (Note 1)	± 0.2% max.
Load Regulation (Note 2)	± 0.2% max.
Over Voltage Protection Trip Range, % Vo nom.	115 - 140 %
Current Limit	105 - 200 % Nominal Output
Efficiency	See Table
Isolation Voltage	Input/Output 1500 VDC min.
Input/Case, Output/Case	1500 VDC min.
Isolation Resistance	10 ⁷ Ω min.
Isolation Capacitance	
12 V-15 V	3500 pF typical
24 V-28 V	2500pF typical
Switching Frequency	200 KHz typical
Operating Case Temperature	-40°C - 100°C
Storage Temperature	-55°C - 105°C
Thermal Shutdown, Case Temperature	100°C typical
MTBF	300.000/h
Case Material	Aluminum Baseplate with Plastic Case
Weight	110g

Safety

CE compliance with Low-Voltage Directive 2014/35/EU

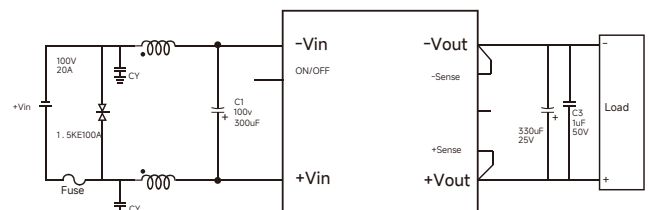
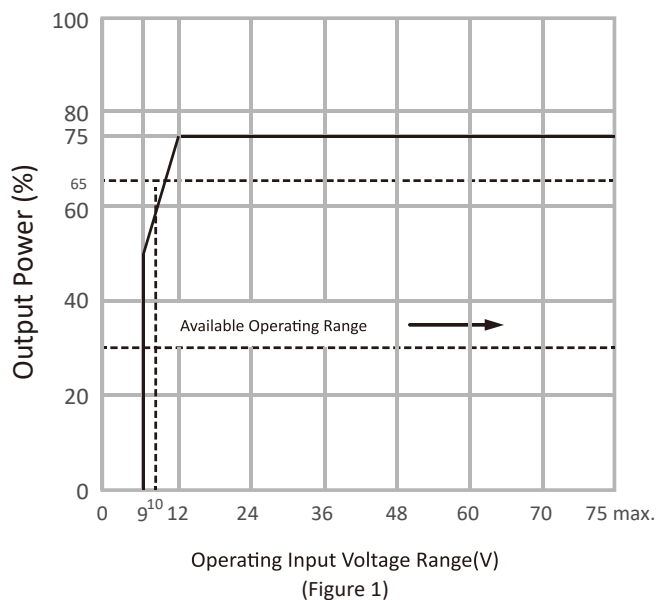
EMC Directive compliance with 2014/30/EU

Safety compliance with UL62368-1, UL60950-1, EN60950-1

Notes

1. All Specifications typical at Nominal Line, Full Load, and at 25°C unless otherwise noted
Vin = 9 - 12 V, Output Current = 0.8 * Io max.
2. Output Ripple/Noise measured with 10 uF Tantalum and 1 uF Ceramic Capacitor across Output
3. Logic Compatibility open Collector ref. to - Input
4. Start up Time 110 ms typical
5. Module On > 3.5 VDC - 75 VDC or Open Circuit
Module Off < 1.2 VDC
6. The Input external Capacitor recommend to Parallel with 330 uF
7. ESR < 0.7 Ω to reduce the Input Ripple Voltage
8. Max. Case Temperature 100°C

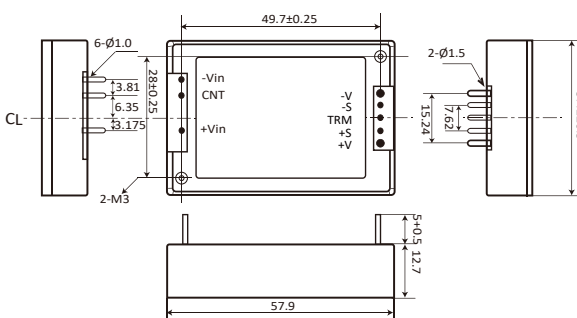
Output Derating VS Input Voltage



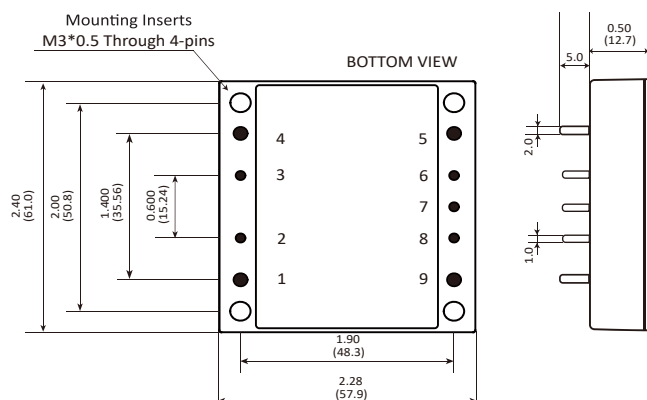
Typical electrical connection(Positive logic)
(30W)

Pin Assignment and Dimension (mm)

- 30W, 75W Single



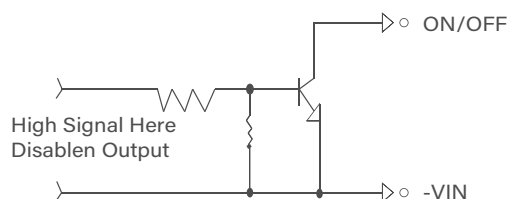
- 150W Single



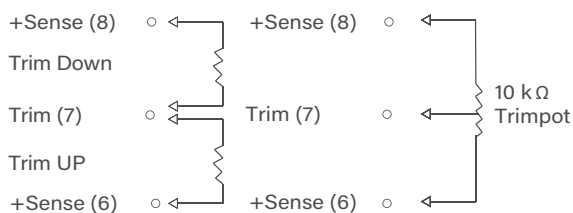
• 150W Single

Pin	1	2	3	4	5	6	7	8	9
Function	+V Input	ON/OFF	Case	-V Input	-V Output	-Sense	Trim	+Sense	+V Output

• Remote ON/OFF Control



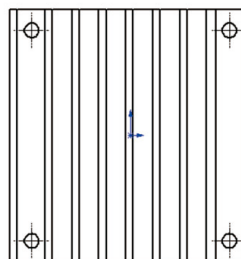
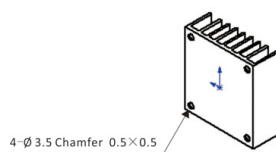
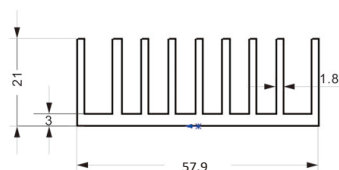
• External Output Trim



• Heat Sink for 30W/75W (optional) Article: 507020102

• Heat Sink for 150W (optional) Article: 507020101

• Material: Alu-6061



∅ 3.5 M3

Accessories and Packing

- 1 x Power Supply
- 1 x Manual
- 1 x Desiccant



This electronic device must not be disposed of in the household waste at the end of its service life. For your return, there are free collection points for electrical appliances and, if necessary, additional points of acceptance for the reuse of the devices in your area. The addresses can be obtained from your city or communal administration. If the old electrical or electronic device contains personal data, you are responsible for deleting it before you return it. Further information: www.elektrogesetz.de