

# DC/DC TPS30-150W Print Modul



30 W, 75 W, 150 W

Input Range: 9 - 75  
 Nominal Input: 36 VDC  
 Output Voltage: See Table  
 All Specifications typical at Nominal Line, Full Load, and at 25°C unless otherwise noted  
 $V_{in} = 9 - 12 \text{ V}$ , Output Current =  $0.8 \cdot I_o \text{ max.}$

## Electrical Specifications

### Input

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 Note 5.)  
 Input Filter: LC Type

### Output

Voltage Accuracy:  $\pm 1.5 \%$  max.  
 Transient Response: 25 % Step Load Change:  $< 500 \mu\text{s}$   
 External Trim Adj. Range (Note 6):  $\pm 10 \%$   
 Ripple & Noise, 20 MHz BW:  
 Humidity: 95 % RH max. Non Condensing  
 12 V & 15 V: 60 mV RMS, 120 mV pk-pk max.  
 24 V & 28 V: 100 mV RMS, 280 mV pk-pk max.  
 48 V: 200 mV RMS, 480 mV pk-pk max.  
 Temperature Coefficient:  $\pm 0.03 \%$  / °C  
 Short Circuit Protection: Continuous  
 Line Regulation (Note 1):  $\pm 0.2 \%$  max.  
 Load Regulation (Note 2):  $\pm 0.2 \%$  max.  
 Over Voltage Protection Trip Range, %  $V_o \text{ nom.}$ : 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:  $10^7 \Omega \text{ min.}$   
 Isolation Capacitance: 12 V / 15 V 3500 pF typical  
 24 V, 28 V, 48 V: 2500 pF typical  
 Switching Frequency: 200 KHz typical  
 Operating Case Temperature:  $-40^\circ\text{C} - 100^\circ\text{C}$   
 Storage Temperature:  $-55^\circ\text{C} - 105^\circ\text{C}$   
 Thermal Shutdown, Case Temperature:  $100^\circ\text{C}$  typical  
 MTBF: 300,000/h  
 Dimensions: See Table  
 Case Material: Aluminum Baseplate with Plastic Case  
 Weight: 110 g

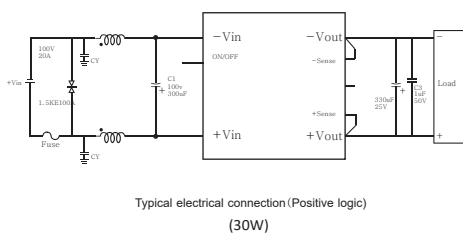
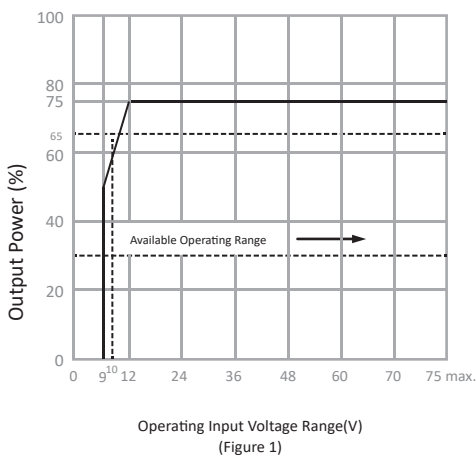
## Special Features

- 30 W - 150 W Isolated 1500 VDC
- Efficiency to 91 %
- 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

## Output Derating VS Input Voltage



## Safety, EMC

CE compliance with Low-Voltage Directive 2014/35/EU  
 EMC Directive compliance with 2014/30/EU  
 Safety compliance with UL508, UL60950-1, EN60950-1

## NOTE

1. Measured from high Line to low Line  
 Measured from full Load to zero Load
2. Output Ripple/Noise measured with 10 uF Tantalum (for 48 V out with 10 uF Aluminum)  
 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  $> 3.5 \text{ VDC} - 75 \text{ VDC}$  or Open Circuit  
 Module Off  $< 1.2 \text{ VDC}$
6. The Input external Capacitor recommend to Parallel with 330 uF
7. ESR  $< 0.7 \Omega$  to reduce the Input Ripple Voltage
8. Max. Case Temperature  $100^\circ\text{C}$

# DC/DC TPS30 - 150W Print



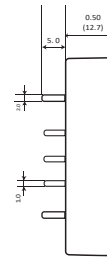
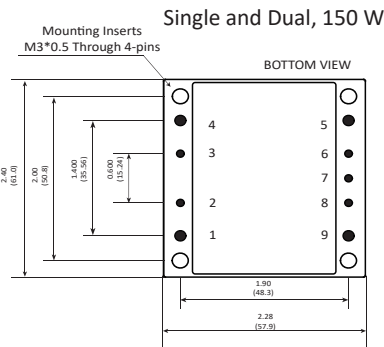
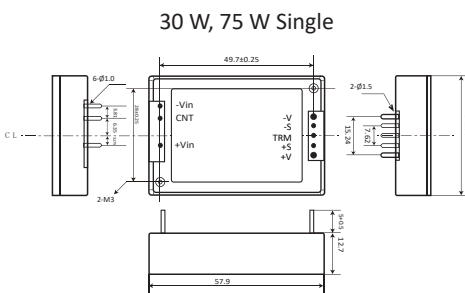
## Ordering Information

Article No.	Article Name	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (A)	% Eff.	Capacitive load max	Dimension L*W*H (mm)
901003010-42417	TPS30-PMD12S	9 - 75	12	0 - 2.5	85 %	1000 UF	37.2*57.9*12.7
901003009-42416	TPS30-PMD24S	9 - 75	24	0 - 1.2	85 %	500 UF	37.2*57.9*12.7
901003005-42424	TPS75-PMD12S	9 - 75	12	0 - 6.2	89 %	2000 UF	37.2*57.9*12.7
901003006-42425	TPS75-PMD24S	9 - 75	24	0 - 3.1	89 %	1000 UF	37.2*57.9*12.7
901003003-42426	TPS150-PMD12S	9 - 75	12	0 - 12.5	88 %	5000 UF	61*57.9*12.7
901003004-42427	TPS150-PMD24S	9 - 75	24	0 - 6.2	89 %	2000 UF	61*57.9*12.7
901003007-42428	TPS150-PMD12D	9 - 75	12/12	0 - 6.2/0 - 6.2	88 %	2000 UF	61*57.9*12.7
901003008-42429	TPS150-PMD24D	9 - 75	24/24	0 - 3.1/0 - 3.1	89 %	1000 UF	61*57.9*12.7

## Accessories and Packing

- 1 x Power Supply
- 1 x Manual

## Pin Assignment and Dimension (mm)



### Single, 150 W

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

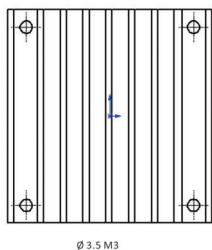
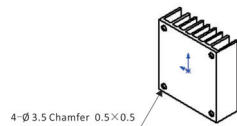
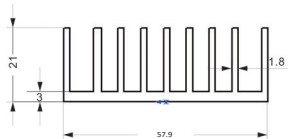
### Dual, 150 W

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

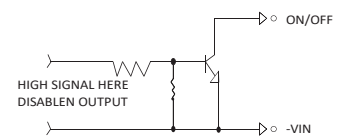
Heat Sink for 30 W / 75 W (optional) Article: 507020102

Heat Sink for 150 W (optional) Article: 507020101

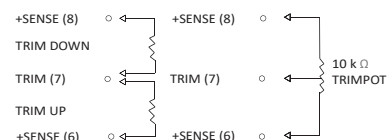
Material: Alu-6061



### REMOTE ON/OFF CONTROL



### EXTERNAL OUTPUT TRIM



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