



DC/DC TPS30-150W Print Modul



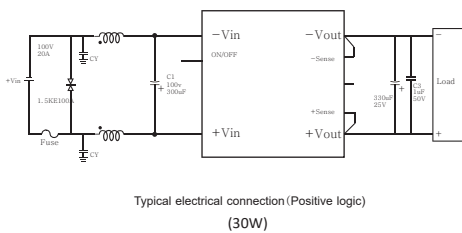
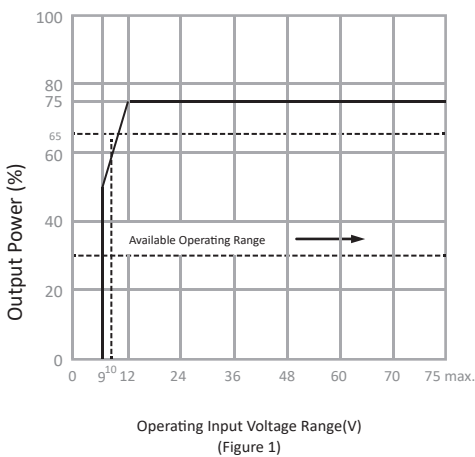
Special Features

- 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



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
Vin = 9 - 12 V, Output Current = 0.8 * Io 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:

± 1.5 % max.

Transient Response: 25 % Step Load Change:

< 500 μs

External Trim Adj. Range (Note 6):

± 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:

± 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:

10⁷ Ω 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°C - 100°C

Storage Temperature:

-55°C - 105°C

Thermal Shutdown, Case Temperature:

100°C typical

MTBF:

300.000/h

Dimensions:

See Table

Case Material:

Aluminum Baseplate with Plastic Case

Weight:

110 g

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 μF Tantalum (for 48 V out with 10 μF Aluminum)
and 1 μF 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 μF
7. ESR < 0.7 Ω to reduce the Input Ripple Voltage
8. Max. Case Temperature 100°C



DC/DC TPS30 - 150W Print

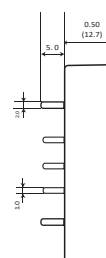
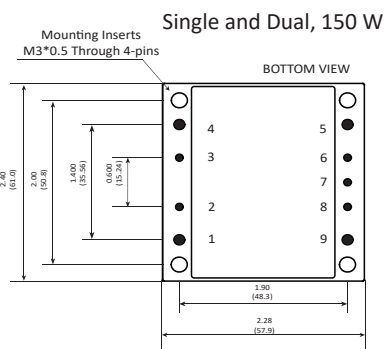
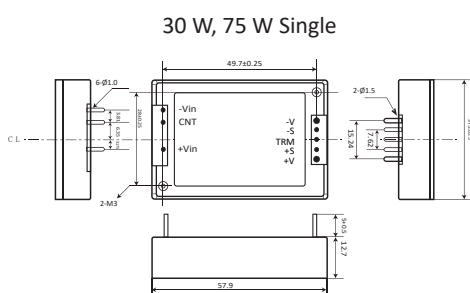
Ordering Information

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

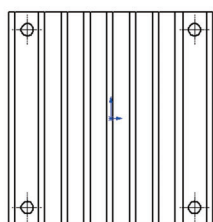
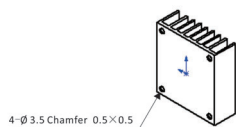
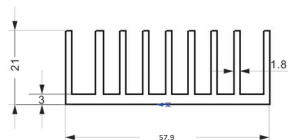
Dual, 150 W

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

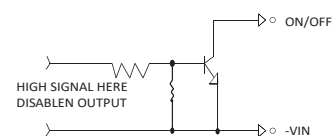
Heat Sink for 150 W (optional) Article: 507020101

Material: Alu-6061



Ø 3.5 M3

REMOTE ON/OFF CONTROL



EXTERNAL OUTPUT TRIM

