

DC/DC DIN RAIL



Special Features

- Isolated Input/Output 1500 VDC
- Efficiency 91 %
- Fixed Switching Frequency
- Input Undervoltage Protection
- OTP
- OVP and Overload Protection
- Remote On/Off
- Industry Standard Half-Brick Package

Key Applications

- Industry Automation
- Telecom Communication
- Measuring Equipments
- Military

75 W, 150 W, 300 W

Input: 9 - 75 VDC
Nominal Input Voltage: 36 VDC
Output Voltage: See Table
All Specifications typical at Nominal Line, Full Load and 25°C, unless otherwise noted

Electrical Specifications

Input

Operating Input Voltage Range: See Table
Input Surge Voltage (100 ms max.): 100 VDC max.
Under Voltage Lockout: Power up 9 VDC
Power Down: 7.5 VDC
Positive Logic Remote On/Off: (See Note 4 and 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: $\pm 0.03\%/^{\circ}\text{C}$
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 nom.: 115 - 140 %
Current Limit: 105 - 200 % Nominal Output

General Specifications

Efficiency: See Table
Isolation Voltage: Input/Output 1500 VDC min.
Input/Case, Output/Case: 1500 VDC min.
Isolation Resistance: $10^7 \Omega$ 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°C typical
MTBF: 300.000/h
Dimensions and Weight 75 W: 112 mm x 110 mm x 23 mm / 150 g
150 W: 112 mm x 110 mm x 46 mm / 300 g
300 W: 112 mm x 110 mm x 92 mm / 600 g
Case Material: Aluminum Baseplate with Plastic Case
UL94 V0 UL compliant

NOTE

1. Measured from high Line to low Line.
Measured from full Load to zero Load.
2. Output Ripple and Noise measured with 10 μF Tantalum (for 48 Vout 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 : $> 3.5\text{ VDC} - 75\text{ VDC}$ or open Circuit
Module Off: $< 1.2\text{ VDC}$
6. The Input External Capacitor Recommend to Parallel with 330 μF .
7. ESR $< 0.7 \Omega$ to Reduce the Input Ripple Voltage.
8. Max. Case Temperature 100°C .



DC/DC DIN RAIL

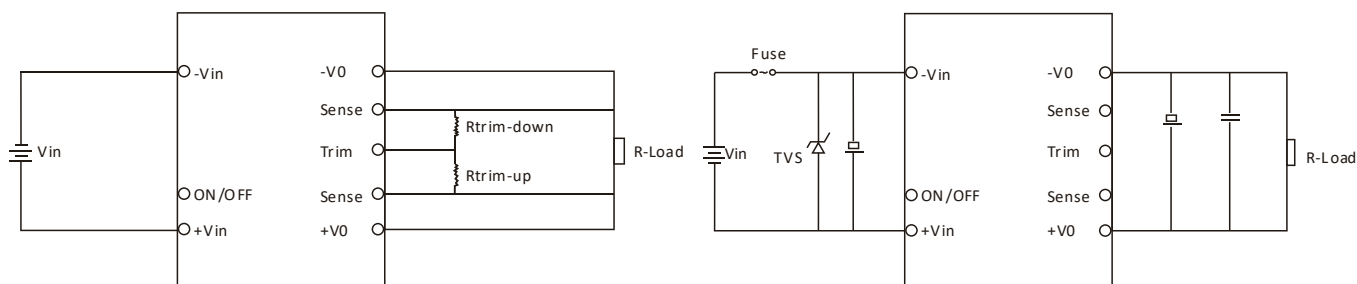
Ordering Information

Article No.	Article Name	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (A)	Efficiency	Capacitive Load max	Dimension L*W*H (mm)
901003017-42473	TPS30-DRD12S	9 - 75	12	0 - 2.5	85 %	1000UF	112*100*23
901003018-42474	TPS30-DRD24S	9 - 75	24	0 - 1.2	85 %	500UF	112*100*23
901003024-42475	TPS30-DRD48S	9 - 75	48	0 - 0.6	85 %	500UF	112*100*23
901003022-42476	TPS75-DRD12S	9 - 75	12	0 - 6.2	90 %	2000UF	112*100*23
901003023-42477	TPS75-DRD24S	9 - 75	24	0 - 3.1	90 %	1000UF	112*100*23
901003029-42478	TPS150-DRD12S	9 - 75	12	0 - 12.5	91 %	5000UF	112*100*46
901003030-42479	TPS150-DRD24S	9 - 75	24	0 - 6.2	90 %	2000UF	112*100*46
901003025-42480	TPS150-DRD48S	9 - 75	48	0 - 3.1	85 %	1000UF/500UF	112*100*46
901003031-42481	TPS150-DRD12D	9 - 75	12/12	0 - 6.2/0 - 6.2	90 %	2000UF	112*100*46
901003032-42482	TPS150-DRD24D	9 - 75	24/24	0 - 3.1/0 - 3.1	90 %	1000UF	112*100*46
901003026-42483	TPS300-DRD12D	9 - 75	12/12	0 - 12.5/0 - 12.5	90 %	2000UF	112*100*92
901003027-42482	TPS300-DRD24D	9 - 75	24/24	0 - 6.2/0 - 6.2	90 %	1000UF	112*100*92

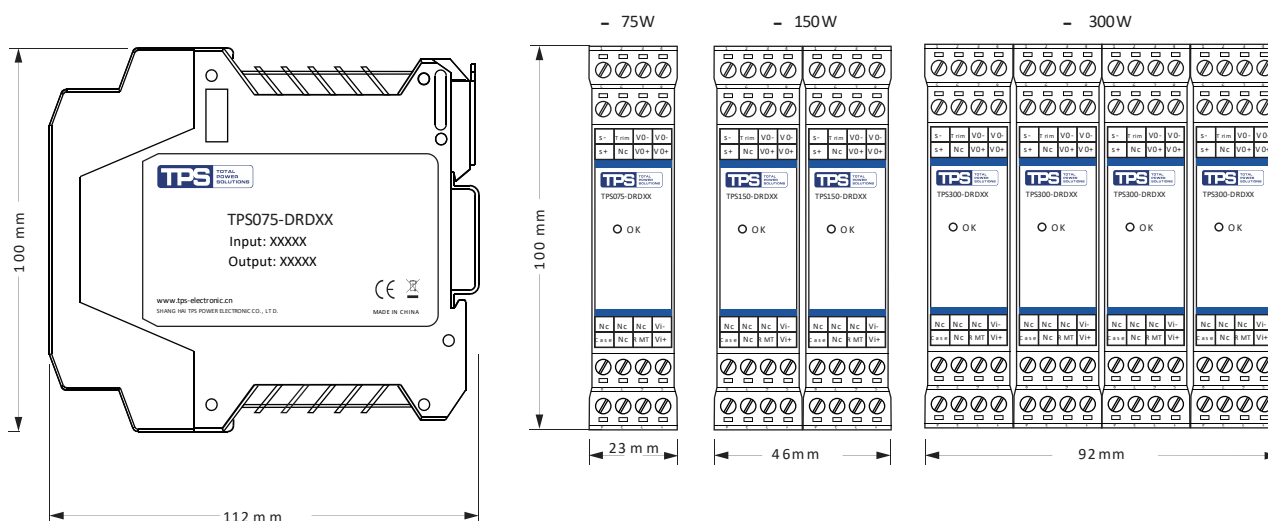
Accessories and Packing

Output Voltage Adj.

1 x Power Supply
1 x Manual



Pin Assignment and Dimension (mm)



Dieses elektronische Gerät darf am Ende seiner Lebensdauer nicht im Hausmüll entsorgt werden. Zur Rückgabe stehen in Ihrer Nähe kostenfreie Sammelstellen für Elektroaltgeräte sowie ggf. weitere Annahmestellen für die Wiederverwendung der Geräte zur Verfügung. Entsprechende Adressen erhalten Sie von Ihrer Stadt- bzw. Kommunalverwaltung. Sollte das alte Elektro- bzw. Elektronikgerät personenbezogene Daten enthalten, sind Sie selbst für die Löschung dieser Ihrer Daten verantwortlich, bevor sie es zurück geben. Weitere nützliche Informationen finden sie auf: www.elektrogesetz.de
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