

- Efficiency to 93%
- Safety meets EN60950-1
- Half-brick Package
- OCP/ OVP/ OTP
- continuous short circuit Protection
- Remote ON/OFF



Model Number	Input Voltage	Output Voltage	Output Current	Input Current		% Eff.	Max capacitive Load
				No Load	Full Load		
TP200-24S33	18 - 36 V	3.3 VDC	50 A	140 mA	7.64 A	90	10 mF
TP200-24S05	18 - 36 V	5 VDC	40 A	240 mA	9.16 A	91	10 mF
TP200-24S12	18 - 36 V	12 VDC	16.7 A	230 mA	9.03 A	92.5	10 mF
TP200-24S24	18 - 36 V	24 VDC	8.3 A	40 mA	9.12 A	91	2.2 mF
TP200-24S48	18 - 36 V	48 VDC	4.2 A	70 mA	9.23 A	91	2 mF
TP200-48S33	36 - 75 V	3.3 VDC	50 A	80 mA	3.80 A	90.5	10 mF
TP200-48S05	36 - 75 V	5 VDC	40 A	120 mA	4.55 A	91.5	10 mF
TP200-48S12	36 - 75 V	12 VDC	16.7 A	90 mA	4.49 A	93	10 mF
TP200-48S24	36 - 75 V	24 VDC	8.3 A	50 mA	4.56 A	91	2.2 mF
TP200-48S28	36 - 75 V	28 VDC	4.2 A	60 mA	4.59 A	91.5	2 mF

All Specifications are Typical at Nominal Line, Full load, and 25°C Unless Otherwise Noted / © TECHNO-PROJEKT 2013

- NOTE:
1. Nominal Input Voltage 24, 48VDC
 2. The output terminal of 48Vout models required a minimum capacitor 47µF to maintain specified regulation.

INPUT SPECIFICATIONS

INPUT VOLTAGE RANGE	24V	18V – 36V
	48V	36V – 75V
INPUT SURGE VOLTAGE (100ms max).....	24V	50VDC max
	48V	100VDC max

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INPUT UNDER-VOLTAGE LOCKOUT.....	24Vin power down	16V typ
	24Vin power up	17V typ
	48Vin power down	33V typ
	48Vin power up	35V typ
POSITIVE LOGIC REMOTE ON/OFF CONTROL		
Logic Compatibility	Open Collector TTL, ref. to -Vin	
Module ON	>+3.5 to 75VDC or Open Circuit	
Module OFF.....	<1.2 Vdc	
INPUT FILTER.....	PI Type	

OUTPUT SPECIFICATIONS

Voltage Accuracy.....	±1.5% max	
Transient Response: 25% step load change	< 500µs	
Ripple and Noise, 20MHz BW	Vo = 3,3V & 5V.....	max. 100mVpp.
	Vo = 12V	max. 120mVpp.
	Vo = 24V & 48V	max. 280mVpp.
Temperature Coefficient	±0.03%/C max	
Line Regulation ⁽¹⁾	±0.2%.	
Load Regulation ⁽²⁾	±0.2%.	
External Trim Adj. Range ⁽⁶⁾	±10%	
Short Circuit Protection	continuous	
Over Voltage Protection.....	115 – 140%	
Current Limit	105% - 140% Nominal Output	
Start up time	175ms typ	

GENERAL SPECIFICATIONS

ISOLATION VOLTAGE.....	Input/ Output	1500VDC max.
	Input/Case, Output/ Case	1500VDC max.
ISOLATION RESISTANCE	10 MOhm	
ISOLATION CAPACITANCE	2000pF typ.	
SWITCHING FREQUENCY.....	3.3V & 5V	300KHz typ.
	12V & 24V & 48V	330KHz typ.
OPERATING TEMPERATURE RANGE.....	-40°C TO +100°C	
THERMAL SHUT DOWN; CASE TEMPERATURE	110°Cmax.	
STORAGE TEMPERATURE RANGE.....	-55°C TO +105°C	
CASE MATERIAL	Aluminium Base Plate with Plastic Case	
DIMENSIONS	2,28×2,40×0.52 INCHES (57.9 × 61.0 × 13.2mm)	

NOTE:

1. LINE REGULATION: Measured From High Line To Low Line
2. LOAD REGULATION: Measured From Full Load To Zero Load
3. Output ripple and noise is measured with 10µF tantalum and 1µF Ceramic capacitor across output
4. Suffix "N" to the model number with negative logic remote ON/OFF

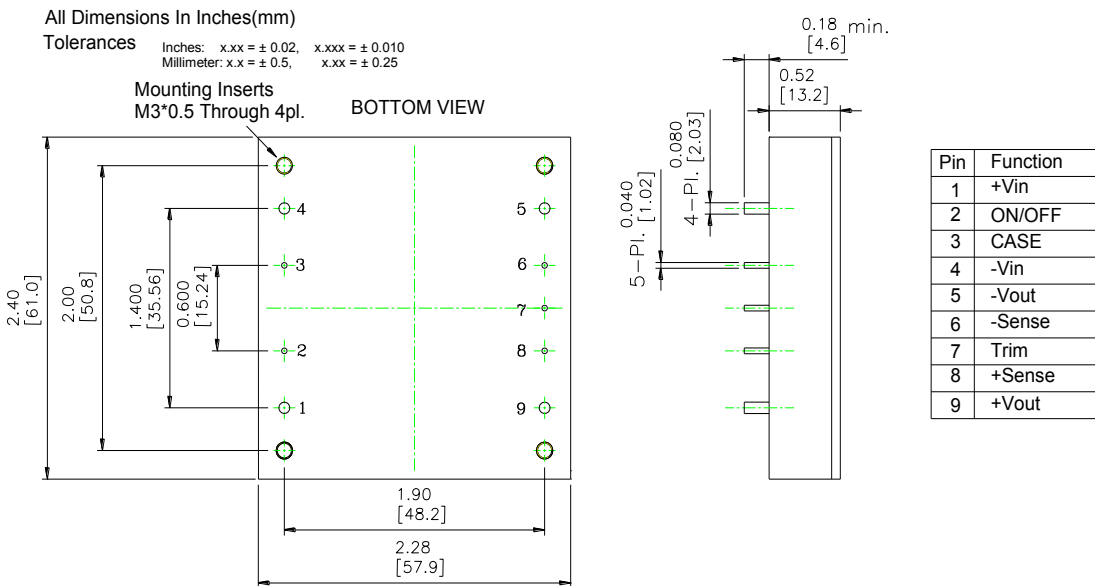
Modul ON	< 1.2Vdc
Modul OFF	> 3.5Vdc to 75Vdc or Open Circuit
5. Suffix "C" to the model number with clear mounting insert (3.2mm DIA)

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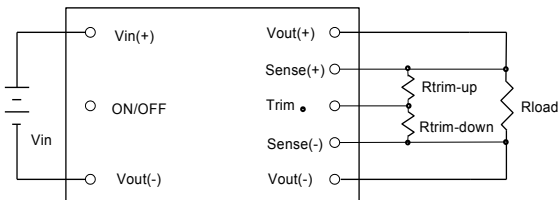
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- Trim up connect a resistor between the trim pin and + Sense
- Trim down connect a resistor between the trim pin and – Sense
- The input terminal recommend to parallel with 220µF for 48V_{in} and 470µF for 24V_{in}; ESR < 0.7 Ohm
To reduce the input ripple voltage.

MECHANICAL SPECIFICATIONS



External Output TRIM



$$R_{trim-down} = \left[\frac{511}{\Delta\%} - 10.22 \right] k\Omega$$

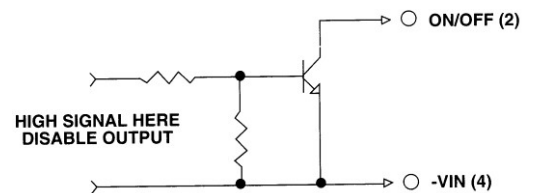
Example: reduction Vout -5%
With $\Delta\% = 5 \rightarrow R_{trim} = 92k\Omega$

$$R_{trim-up} = \left[\frac{5.11V_{out}(100+\Delta\%)}{1.225 \times \Delta\%} - \frac{511}{\Delta\%} - 10.22 \right] k\Omega$$

Example: Increasing Vout +5%
With $\Delta\% = 5 \rightarrow R_{trim} = 937k\Omega$

REMOTE ON/OFF CONTROL

Logic Compatibility CMOS or Open collector TTL
 Modul ON >+3.5 to 75VDC or Open Circuit
 Modul OFF <1.2 Vdc



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