

- Efficiency to 92%
- 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 No Load	Current Full Load	% Eff.	Max capacitive Load
TP350-24S33	18 - 36 V	3.3 VDC	70A	140 mA	10.94 A	88	10 mF
TP350-24S05	18 - 36 V	5 VDC	70 A	260 mA	16.39 A	89	10 mF
TP350-24S12	18 - 36 V	12 VDC	29.2 A	250 mA	16.13 A	90	10 mF
TP350-24S24	18 - 36 V	24 VDC	14.6A	60 mA	16.40 A	89	10 mF
TP350-24S28	18 - 36 V	28 VDC	12.5 A	60 mA	16.11 A	90	7 mF <sup>(2)</sup>
TP350-48S33	36 - 75 V	3.3 VDC	70A	90 mA	5.41 A	89	10 mF
TP350-48S05	36 - 75 V	5 VDC	70 A	130 mA	8.01 A	91	10 mF
TP350-48S12	36 - 75 V	12 VDC	29.2 A	100 mA	7.89 A	92	10 mF
TP350-48S24	36 - 75 V	24 VDC	14.6A	60 mA	7.98 A	91	10 mF
TP350-24S28	36 - 75 V	28 VDC	12.5 A	60 mA	7.93 A	92	7 mF <sup>(2)</sup>

All Specifications are Typical at Nominal Line, Full load, and 25°C Unless Otherwise Noted / © TECHNO-PROJEKT 2010

- NOTE:
1. Nominal Input Voltage 24, 48VDC
  2. The output terminal of 28Vout models required a minimum capacitor 100µF 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
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 $-V_{in}$
Module ON .....	$>+3.5$ to 75VDC or Open Circuit
Module OFF .....	$<1.2$ Vdc

INPUT FILTER..... PI Type

### OUTPUT SPECIFICATIONS

Voltage Accuracy.....	$\pm 1.5\%$ max
Transient Response: 25% step load change .....	$< 500\mu s$
Ripple and Noise, 20MHz BW .....	$V_o = 3,3V \ \& \ 5V$ ..... max. 100mVpp.
	$V_o = 12V$ .....
	$V_o = 24V \ \& \ 28V$ .....
	max. 120mVpp.
	max. 280mVpp.
Temperature Coefficient .....	$\pm 0.03\%/C$ max
Line Regulation <sup>(1)</sup> .....	$\pm 0.2\%$ .
Load Regulation <sup>(2)</sup> .....	$\pm 0.2\%$ .
External Trim Adj. Range <sup>(6)</sup> .....	$\pm 10\%$
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 & 28V .....	330KHz typ.
OPERATING TEMPERATURE RANGE.....		$-40^{\circ}C$ TO $+100^{\circ}C$
THERMAL SHUT DOWN; CASE TEMPERATURE .....	::	$110^{\circ}C$ max.
STORAGE TEMPERATURE RANGE.....		$-55^{\circ}C$ TO $+105^{\circ}C$
CASE MATERIAL .....		Aluminium Base Plate with Plastic Case
DIMENSIONS .....	::	2,28x2,40x0.52 INCHES ( $57.9 \times 61.0 \times 13.2$ mm)

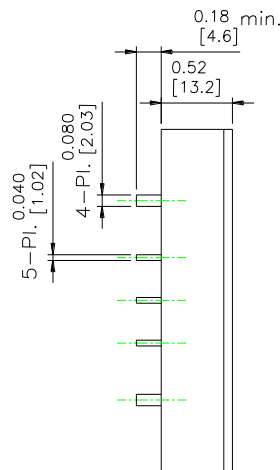
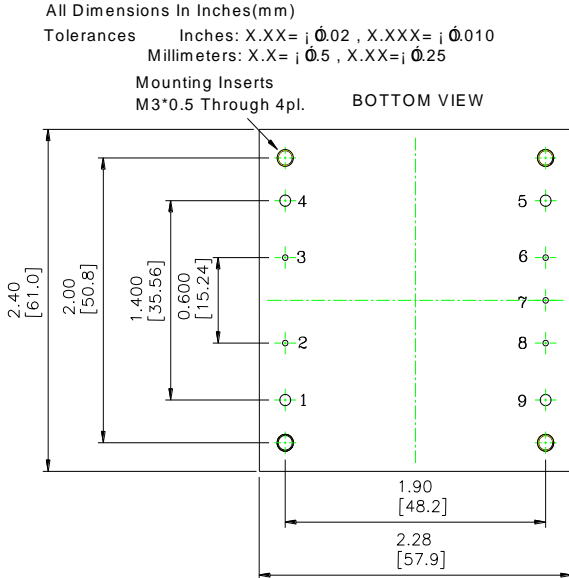
### NOTE:

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 10 $\mu$ F tantalum and 1 $\mu$ F 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)
6. Trim up connect a resistor between the trim pin and + Sense
7. Trim down connect a resistor between the trim pin and – Sense
8. The input terminal recommend to parallel with 220 $\mu$ F for 48V<sub>in</sub> and 470 $\mu$ F for 24V<sub>in</sub>; ESR  $< 0.7$  Ohm  
To reduce the input ripple voltage.

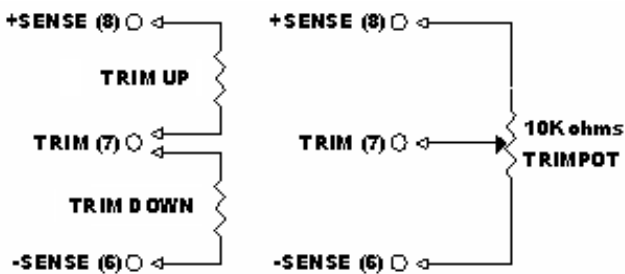
### MECHANICAL SPECIFICATIONS

All Dimensions In Inches(mm)  
 Tolerances Inches: X.XX=  $\pm 0.02$ , X.XXX=  $\pm 0.010$   
 Millimeters: X.X=  $\pm 0.5$ , X.XX=  $\pm 0.25$   
 Mounting Inserts  
 M3\*0.5 Through 4pl.



Pin	Function
1	+Vin
2	ON/OFF
3	CASE
4	-Vin
5	-Vout
6	-Sense
7	Trim
8	+Sense
9	+Vout

### External Output TRIM      REMOTE ON/OFF CONTROL



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

