

- **4:1 Input Range**
- **Efficiency to 92%**
- **Six-sided Shield Metal Case**
- **continuous short circuit Protection**
- **Over Current Protection**
- **Input Under Voltage Protection**
- **Safety meets EN60950-1**



Model Number	Input Voltage	Output Voltage	Output Current	Input No Load	Current Full Load	% Eff.	Capac. Load max
TPQ60W-24S3.3	9 – 36 V	3.3 VDC	15 A	10 mA	2300 mA	90	15 mF
TPQ60W-24S05	9 – 36 V	5 VDC	12 A	10 mA	2700 mA	92	12 mF
TPQ60W-24S12	9 – 36 V	12 VDC	5 A	10 mA	2700 mA	92	5 mF
TPQ60W-24S15	9 – 36 V	15 VDC	4 A	10 mA	2700 mA	92	4 mF
TPQ60W-24D12	9 – 36 V	±12VDC	±2.5 A	10 mA	2750 mA	91	2.5 mF
TPQ60W-24D15	9 – 36 V	±15VDC	±2.0 A	10 mA	2750 mA	91	2 mF
TPQ60W-48S3.3	18 – 75 V	3.3 VDC	15 A	8 mA	1150 mA	90	5 mF
TPQ60W-48S05	18 – 75 V	5 VDC	12 A	8 mA	1360 mA	92	4 mF
TPQ60W-48S12	18 – 75 V	12 VDC	5 A	8 mA	1360 mA	92	15 mF
TPQ60W-48S15	18 – 75 V	15 VDC	4 A	8 mA	1360 mA	92	12 mF
TPQ60W-48D12	18 – 75 V	±12VDC	±2.5 A	8 mA	1380 mA	91	2.5 mF
TPQ60W-48D15	18 – 75 V	±15VDC	±2.0 A	8 mA	1380 mA	91	2 mF

All Specifications are Typical at Nominal Line, Full load, and 25°C Unless Otherwise Noted / © TP 2015

INPUT SPECIFICATIONS

UNDER VOLTAGE LOCKOUT	.....24Vin power up	..... 8.4V typ	.....24Vin power down	.....8.0V typ
			.....48Vin power up	.....17V typ
			.....48Vin power down	.....16V typ
INPUT SURGE VOLTAGE (100ms max)	.....	24V	.....	50VDC max
		48V	.....	100VDC max
POSITIVE LOGIC REMOTE ON/OFF CONTROL				
	Logic Compatibility	.....	Open Collector TTL, ref. to –Vin	
	Module ON	.....	> 3.5V to 75V or Open Circuit	
	Module OFF	.....	<1.2 Vdc	
INPUT FILTER	.....			PI Type

OUTPUT SPECIFICATIONS

Voltage Accuracy.....		±1.5% max
Voltage Balance (Dual)		±1.0% max
Ripple and Noise, 20MHz BW	Vo = 3,3V & 5V.....	max. 100mVpp.
	Vo = 12V & 15V.....	max. 150mVpp.
Temperature Coefficient		±0.02%/C max
Line Regulation ¹⁾		±0.2%
Load Regulation ²⁾		±0.5%
External Trim Adj. Range ... (only single output)		±10%
Short Circuit Protection		continuous (Hiccup Mode)
Over Voltage Protection		Zener Diode
Current Limit		110% - 160% Nominal Output
Start up time		30 ms typ.

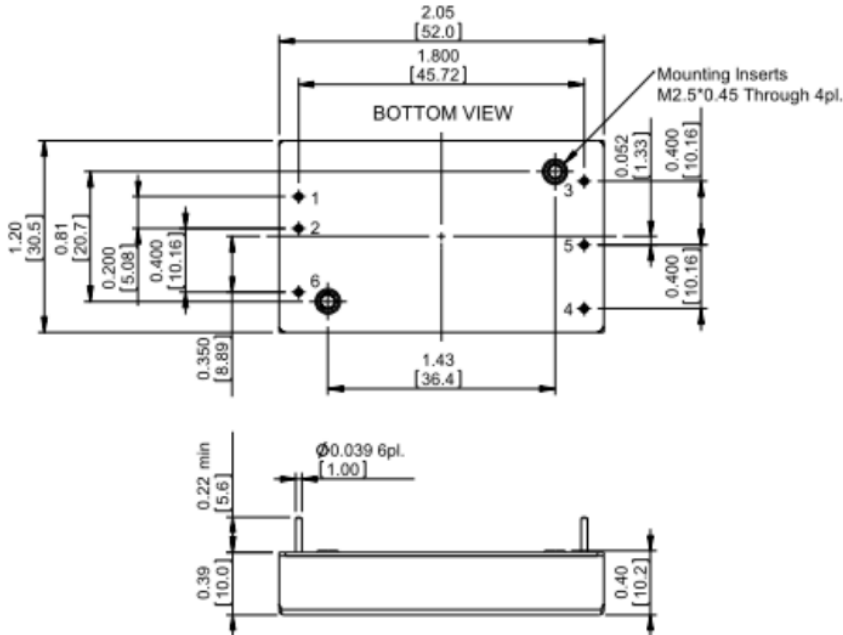
GENERAL SPECIFICATIONS

ISOLATION VOLTAGE.....	Input/ Output	1500VDC min
	Input/ Case	1000VDC min
	Output/ Case	1000VDC min
ISOLATION RESISTANCE		1000 MOhm
ISOLATION CAPACITANCE	Input/ Output	1500pF typ
	Input/ Case	1000pF typ
	Output/ Case	1000pF typ
SWITCHING FREQUENCY.....		260KHz typ.
OPERATING TEMPERATURE RANGE.....		-40°C TO +85°C
CASE TEMPERATURE ³⁾		Tc 105°Cmax.
THERMAL SHUT DOWN		Tc 110°Cmax.
STORAGE TEMPERATURE RANGE.....		-55°C TO +125°C
CASE MATERIAL		Aluminium
DIMENSIONS		2,05×1,20×0,40 INCHES (52.0 × 30.5 × 10.2mm)

NOTE:

1. LINE REGULATION: Measured From High Line To Low Line
2. LOAD REGULATION: Measured From Full Load To Zero Load
3. Max case temperature under any operating condition should not be exceeded 105°C

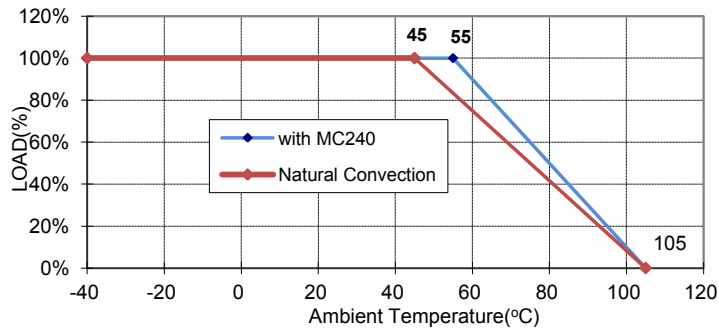
MECHANICAL SPECIFICATIONS



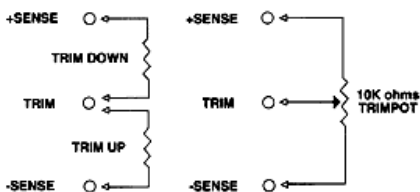
PIN Connection	
1	+Vin
2	-Vin
3	+Vout
4	Trim
5	-Vout
6	Remote ON/OFF

POWER DERATING

Typical Derating curve for Natural Convection



External Output TRIM REMOTE ON/OFF CONTROL



Logic Compatibility Open collector TTL refer to -Input
 Modul ON > 3.5V or Open Circuit
 Module OFF <1.2 Vdc