

## EMC Specifications

<b>EMC Emission</b>		EN 60601-1-2 edition 4 (Medical Devices) EN 55011 class B (internal filter) EN 55014-1 EN 55032 class B (internal filter) FCC Part 15, class B FCC Part 18, class B
- Conducted Emissions		
- Radiated Emissions		EN 55011 class B (internal filter) EN 55014-1 EN 55032 class B (internal filter) FCC Part 15, class B FCC Part 18, class B
- Harmonic Current Emissions		EN 61000-3-2, class A
- Voltage Fluctuations & Flicker		EN 61000-3-3
<b>EMC Immunity</b>		EN 55024 (IT Equipment) EN 60601-1-2 edition 4 (Medical Devices) EN 55014-2 (Household Appliances Tools)
- Electrostatic Discharge		Air: EN 61000-4-2, $\pm 15$ kV, perf. criteria A Contact: EN 61000-4-2, $\pm 8$ kV, perf. criteria A EN 61000-4-3, 20 V/m, perf. criteria A EN 61000-4-4, $\pm 2$ kV, perf. criteria A L to L: EN 61000-4-5, $\pm 1$ kV, perf. criteria A EN 61000-4-6, 20 Vrms, perf. criteria A EN 61000-4-8, 30 A/m, perf. criteria A
- RF Electromagnetic Field		
- EFT (Burst)		
- Surge		
- Conducted RF Disturbances		
- PF Magnetic Field		
- Voltage Dips & Interruptions	230 VAC / 50 Hz:	EN 61000-4-11 30%, perf. criteria A, 25 periods 60%, perf. criteria A, 1 periods >95%, perf. criteria A, 1 period >95%, perf. criteria A, 250 periods
	115 VAC / 60 Hz:	EN 61000-4-11 30%, 25 periods, perf. criteria A 60%, 1 periods, perf. criteria A >95%, 1 period, perf. criteria A >95%, 250 periods, perf. criteria A

## General Specifications

<b>Relative Humidity</b>		95% max. (non condensing)
<b>Temperature Ranges</b>	- Operating Temperature	-40°C to +85°C
	- Storage Temperature	-40°C to +85°C
<b>Power Derating</b>	- High Temperature	see application note <a href="http://www.tracopower.com/overview/tpp15a-d">www.tracopower.com/overview/tpp15a-d</a>
	- Low Input Voltage	4 %/V below 90V
<b>Cooling system</b>		Natural convection (no internal fan, 20 LFM)
<b>Altitude during Operation</b>		5000 m max.
<b>Switching Frequency</b>		75 - 95 kHz (PWM)
<b>Insulation System</b>		Reinforced Insulation
<b>Working Voltage (rated)</b>		250 VAC
<b>Isolation Test Voltage</b>	- Input to Output, 60 s	5'657 VDC
	- Input to Case or PE, 60 s	2'121 VDC
	- Output to Case or PE, 60 s	2'121 VDC
<b>Isolation Resistance</b>	- Input to Output, 500 VDC	100 MOhm min.
<b>Leakage Current</b> (264 VAC)	- Touch Current	75 $\mu$ A max.
<b>Creepage</b>		8 mm min.
<b>Clearance</b>		8 mm min.
<b>Reliability</b>	- Calculated MTBF	3'100'000 h (acc. to MIL-HDBK-217F)

All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.

Environment	- Vibration - Mechanical Shock	IEC 60068-2-6 IEC 60068-2-27
Connection Type		THD (through-hole device)
Weight		16.5 g
Environmental Compliance	- Reach - RoHS	<a href="http://www.tracopower.com/info/reach-declaration.pdf">www.tracopower.com/info/reach-declaration.pdf</a> <a href="http://www.tracopower.com/info/rohs-declaration.pdf">www.tracopower.com/info/rohs-declaration.pdf</a>

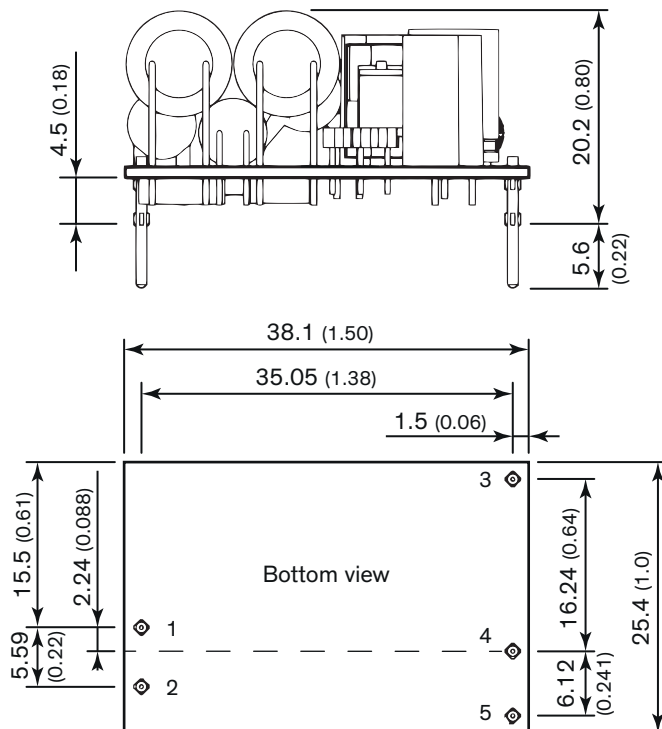
### Supporting Documents

Overview Link (for additional Documents)

[www.tracopower.com/overview/tpp15a-d](http://www.tracopower.com/overview/tpp15a-d)

### Outline Dimensions

12, 15, 24, 36, and 48 VDC models - without heatsink



PCB Pinout	
Pin	Function
1	Neutral
2	Line
3	Trim
4	-Vout
5	+Vout

Print thickness: 1.0 mm (0.04 inch)  
Pin diameter: 1.0 mm (0.04 inch)

Dimension in mm, ( ) = inch  
Tolerances: x.x  $\pm 0.50$  ( $\pm 0.02$ )  
                  x.xx  $\pm 0.25$  ( $\pm 0.01$ )  
Pin pitch tolerance:  $\pm 0.25$  ( $\pm 0.010$ )  
Pin dimension tolerance:  $\pm 0.10$  ( $\pm 0.004$ )

All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.