TRACO POWER

AC/DC Power Supply

TIW 06 Series, 6 Watt

- **High efficiency switching power supplies**
- **Easy installation into standard flush boxes**
- **Fully encapsulated plastic housing**
- **Dust and waterproof to IP 67**
- **Protection class II**
- **Safety approval to IEC/EN 60950-1, EN 50178, IEC/EN 60335-1**
- **Approved for mounting onto wood or materials with unknown flammability**
- **Ready to meet ErP directive**
- **Universal input range 90 to 264 VAC**
- **Regulated output voltage**



IEC 60950-1

The TIW series is a new range of small size DC-power supplies which have been designed particularly for applications in home and office installations. The compact module cases fit in the standardized in-wall flush boxes or also can be mounted on walls. The power supplies fully comply with the safety and EMC standards requested for commercial and residential class II installations. Typical applications are powering of electric devices used in home automation and in security systems like e.g. controllers, indicators, etc.

Models

Order Code	Output Power max.	Output Voltage nom.	Output Current max.	Output Current peak	Efficiency typ.
TIW 06-103	4 W	3.3 VDC	1'200 mA	1'560 mA	73 %
TIW 06-105	5 W	5 VDC	1'000 mA	1'300 mA	76 %
TIW 06-106	6 W	6 VDC	1'000 mA	1'300 mA	81 %

Input Specifications

Input Voltage	- AC Range	90 - 264 VAC (Full Range)
	- DC Range	130 - 375 VDC (Designed for, no certification)
Input Frequency		47 - 63 Hz
Power Consumption	- At no load	300 mW max. (Ready to meet ErP directive)
Input Inrush Current	- At 230 VAC	24 A max.
	- At 115 VAC	12 A max.
Recommended Input Fuse		6000 mA (slow blow) (The need of an external fuse has to be assessed in the final application.)

Output Specifications

Voltage Set Accuracy		±3% max.
Regulation	- Input Variation (Vmin - Vmax)	1% max.
	- Load Variation (0 - 100%)	2% max.
Output Current peak		Boost Power: 130% of Output Current max. Duration 10 s max. Duty 10% max.
Ripple and Noise (20 MHz Bandwidth)		200 mVp-p max.
Minimum Load		Not required
Hold-up Time	- At 230 VAC	20 ms min.
	- At 115 VAC	5 ms min.
Start-up Time	- At 230 VAC	1'000 ms max.
	- At 115 VAC	1'000 ms max.
Short Circuit Protection		Continuous, Automatic recovery
Output Current Limitation		250% max. of Iout max.

Safety Specifications

Safety Standards	- IT / Multimedia Equipment	EN 60950-1 IEC 60950-1 UL 60950-1
	- Household	EN 60335-1 IEC 60335-1
	- Power Installation	EN 50178 IEC 62103
	- LED Modules Controlgear	EN 61347-1 EN 61347-2-13
	- Luminaires for Furniture	VDE 0710-14
	- Power Transformers	EN 61558-1 EN 61558-2-8 EN 61558-2-16
	- Certification Documents	www.tracopower.com/overview/tiw06
Protection Class		Class II (Prepared): Reinforced Insulation
Class 2 Power Units		UL 1310

EMC Specifications

EMI Emissions		EN 61000-6-3 (Generic Residential)
	- Conducted Emissions	EN 55014-1 (internal filter) EN 55032 class B (internal filter)
	- Radiated Emissions	EN 55014-1 (internal filter) EN 55032 class B (internal filter)
	- Harmonic Current Emissions	EN 61000-3-2, class A

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

EMS Immunity			EN 61000-6-2 (Generic Industrial) EN 61204-3 (Low Voltage Power Supplies)
	- Electrostatic Discharge	Air:	EN 61000-4-2, ±8 kV, perf. criteria B
		Contact:	EN 61000-4-2, ±4 kV, perf. criteria B
	- RF Electromagnetic Field		EN 61000-4-3, 3 V/m, perf. criteria A
	- EFT (Burst) / Surge		EN 61000-4-4, ±0.5 kV, perf. criteria A EN 61000-4-4, ±2 kV, perf. criteria B
		L to L:	EN 61000-4-5, ±1 kV, perf. criteria A
	- Conducted RF Disturbances		EN 61000-4-6, 3 Vrms, perf. criteria A
	- Voltage Dips & Interruptions	230 VAC / 50 Hz:	EN 61000-4-11 30%, 0.5 periods, perf. criteria A 60%, 5 periods, perf. criteria B
		115 VAC / 60 Hz:	EN 61000-4-11 30%, 0.5 periods, perf. criteria B 60%, 5 periods, perf. criteria B

General Specifications

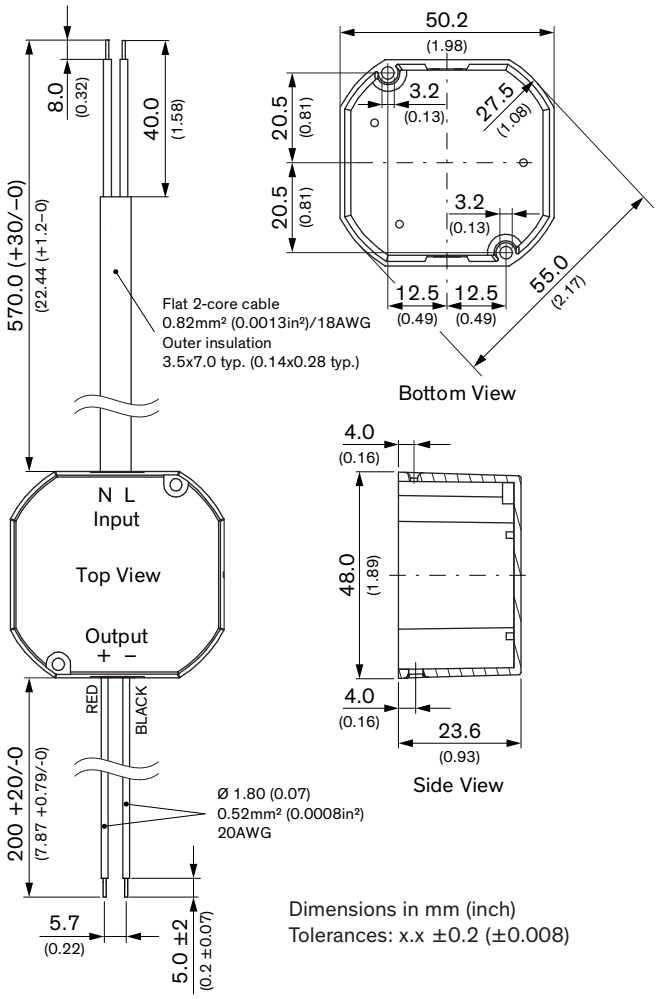
Relative Humidity		100% max.
Temperature Ranges	- Operating Temperature	–25°C to +50°C (Please take heat sources (such as lamps) nearby into consideration for ambient temperature of the power supply.)
Over Temperature Protection Switch Off	- Protection Mode	140°C typ. (Automatic recovery)
	- Measurement Point	Internal IC temperature
Cooling System		Natural convection (20 LFM)
Altitude During Operation		3'000 m max.
Insulation System		Reinforced Insulation
Isolation Test Voltage	- Input to Output, 60 s	3'000 VAC
Leakage Current (at 254.4 VAC / 60Hz)	- Touch Current	0.25 mA max.
Reliability	- Calculated MTBF	(Please refer to application-note.)
Environment	- Vibration	IEC 60068-2-6 5 g, 3 axis, sine sweep, 60-500 Hz
	- Mechanical Shock	IEC 60068-2-27 50 g, 3 axis, half sine, 11 ms
Case Ingress Protection		IP 67 (acc. IEC 60529)
Housing Material		Plastic (UL 94 V-0 rated)
Connection Type		Wired
Weight		80 g
Environmental Compliance	- Reach	www.tracopower.com/info/reach-declaration.pdf
	- RoHS	www.tracopower.com/info/rohs-declaration.pdf

Supporting Documents

Overview Link (for additional Documents)	www.tracopower.com/overview/tiw06

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Outline Dimensions



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Specifications can be changed without notice.