

Features

- ◆ 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, EN 60335-1
- ◆ Universal input range 93 to 264 VAC
- ◆ Regulated output voltage
(models from 3.3 to 24 VDC)
- ◆ Operating temp. range -25°C to +50°C
- ◆ Short circuit and overload protection
- ◆ 3-year product warranty



(Mounted in standard flush box)

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 modules cases fit in the standardized in-wall flush boxes or also can be mounted on walls. For connection there are models available with flying wires. The power supplies comply fully 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 i.e. DC-motors, controllers, indicators, etc.

Models

Order Code	Output Power max.	Output Voltage	Output Current	Efficiency
TIW 06-103	4 W	3.3 VDC	1.2 A	75 %
TIW 06-105	5 W	5.0 VDC	1.0 A	75 %
TIW 06-106	6 W	6.0 VDC	1.0 A	80 %
TIW 12-112	12 W*	12 VDC	1.0 A	80 %
TIW 12-115	12 W*	15 VDC	0.8 A	80 %
TIW 12-124	12 W*	24 VDC	0.5 A	80 %
TIW 24-112	24 W*	12 VDC	2.0 A	83 %
TIW 24-124	24 W*	24 VDC	1.0 A	85 %

* If these models are used with 115 VAC input voltage, a 25% load reduction must be applied.

Input Specifications

Input voltage range	– nominal	115 – 230 VAC
	– ranges	93 – 264 VAC (universal input)
	– output power derating for 12 & 24 W models	0.45 %/V below 187 VAC down to 132 VAC
		1 %/V below 115 VAC
Input frequency		47 – 63 Hz
No load power consumption (acc. ErP directive EC No.278/2009)		< 300 mW
External input fuse required (recommended values)		2.0 A slow blow
Harmonic limits		EN 61000-3-2, Class A

Output Specifications

Voltage set accuracy		±3 % max.
Regulation	– Input variation	1 % max.
	– Load variation (0–100%)	2 % max.
Ripple and noise (20 Mhz Bandwidth)	TIW 06-xxx models:	<300 mVp-p
	TIW 12-xxx models:	<500 mVp-p
	TIW 24-xxx models:	<200 mVp-p
Overload protection by current limit	TIW 06-xxx & TIW 24-xxx models:	<2.5 A
	TIW 12-xxx models:	<3.5 A
Short circuit protection		foldback (automatic recovery)

General Specifications

Operating Temperature		–25°C to +50°C
Over temperature protection		built in
Reliability, calculated MTBF according to IEC 61709		www.tracopower.com/products/tiw-mtbf.pdf
Humidity (non condensing)		5 – 95 % rel. H max.
Hold-up time	– Vin = 115 VAC	5 ms typ.
	– Vin = 230 VAC	20 ms typ.
Start-up time		<1s
Safety standards	– safety of information technology equipment	IEC/EN 60950-1, UL Std. 60950-1 (2nd Edition) +Am1:2011, CAN/CSA-C22.2 No. 60950-1-07 +Am1:2011
	– Standard for Class 2 Power Units	UL 1310 (6th Edition), CAN/CSA-C22.2 No. 223-M91(R2008) Outputs
	– Electronic equipment for use in power installations	EN 50178
	– Safety of household and similar electrical appliances	EN 60335-1
Safety approvals	– CB report according IEC/EN 60950-1	www.tracopower.com/products/tiw-cb.pdf
	– GS certification (for other standards)	www.tracopower.com/products/tiw-gs.pdf
	– BG certificate	www.tracopower.com/products/tiw-bg.pdf
	– CSA certificate	www.tracopower.com/products/tiw-csa.pdf
Electromagnetic compatibility (EMC), emissions		EN 61000-6-3
	– Conducted RI suppression on input	EN 55022 class B
	– Radiated RI suppression	EN 55022 class B
Electromagnetic compatibility (EMC), immunity		EN 61000-6-2-1, IEC 61204-3
	– Electrostatic discharge (ESD)	EN 61000-4-2 4 kV / 8 kV
	– Radiated RF field immunity	EN 61000-4-3 3 V/m
	– Electrical fast transient / burst immunity	EN 61000-4-4 1 kV / 0.5 kV
	– Surge immunity line – ground	EN 61000-4-5 2 kV
	– Surge immunity line – line	EN 61000-4-5 1 kV
	– Surge immunity output	EN 61000-4-5 0.5 kV
	– Immunity to conducted RF disturbances	EN 61000-4-6 3 V
	– Mains voltage dips and interruptions	EN 61000-4-11 30 % /10 mS, 60 % /100 mS

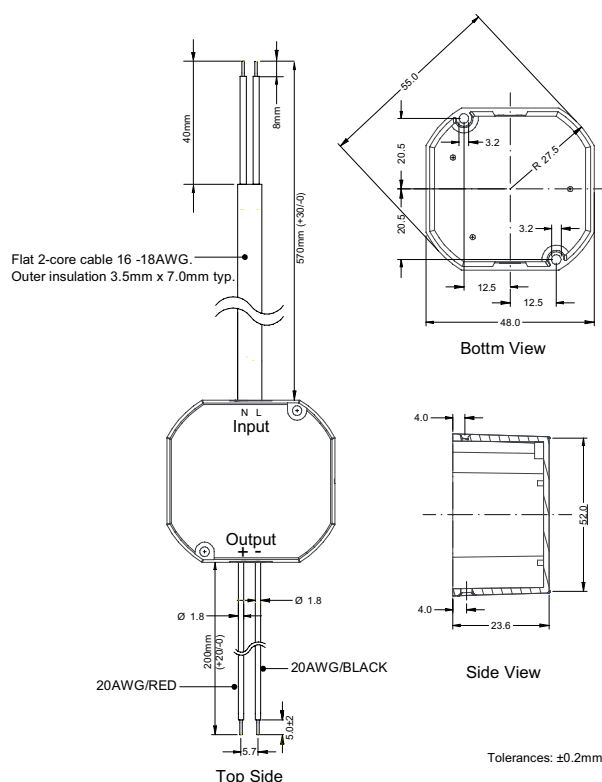
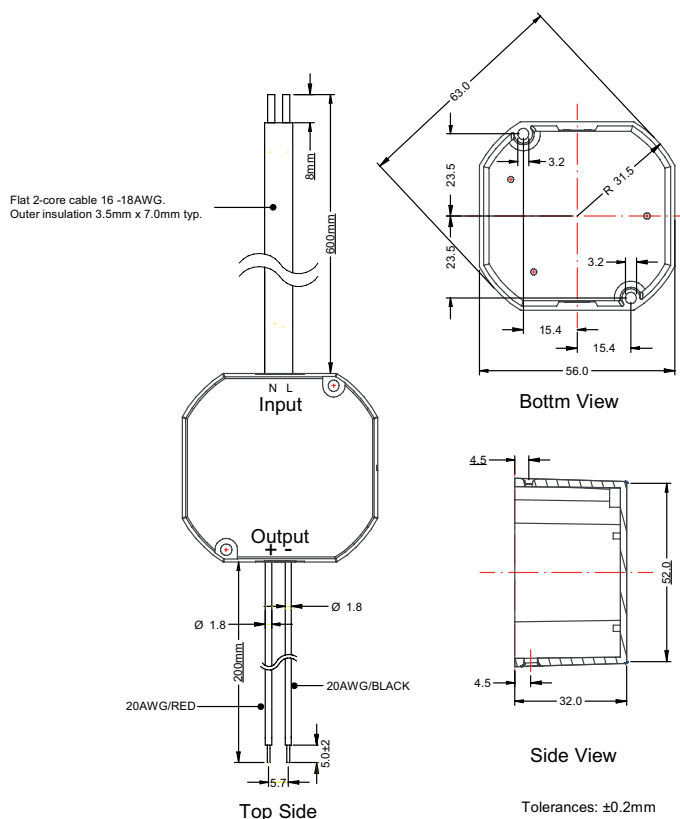
All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.

General Specifications

Protection class		class II as per IEC/EN 61140
Casing material		plastic (UL 94V-0 rated)
Casing protection		IP 67
Environment	– Vibration acc. IEC 60068-2-6 – Shock acc. IEC 60068-2-27	Part 2, test Fe: Vibration (sinusoidal) Part 2, test Ea: Shock
Connection wires	– Input – Output	2 x 570 mm +30/-0 (black/white) AWG 18 2 x 200 mm +20/-0 (red/black) AWG 20
Environmental compliance	– Reach – RoHS	www.tracopower.com/products/tiw-reach.pdf RoHS directive 2011/65/EU
Weight	– 24 Watt models: – other models:	100 g (3.8 oz) 80 g (2.7 oz)

Outline Dimensions

TIW 6 & 12 Watt models:

**TIW 24 Watt model:**

Specifications can be changed without notice! Make sure you are using the latest documentation, downloadable at www.tracopower.com