

### 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  $-25^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$
- ◆ 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. input at 230 VAC / 115 VAC	Output Voltage	Output Current
TIW 06-103	4 W	3.3 VDC	1.2 A
TIW 06-105	5 W	5.0 VDC	1.0 A
TIW 06-106	6 W	6.0 VDC	1.0 A
TIW 12-112	12 W / 9 W	12 VDC	1.0 A
TIW 12-115	12 W / 9 W	15 VDC	0.8 A
TIW 12-124	12 W / 9 W	24 VDC	0.5 A

### Input Specifications

Input voltage range	<ul style="list-style-type: none"> <li>- nominal</li> <li>- ranges</li> <li>- output power derating for 12 W models</li> </ul>	115 – 230 VAC 93 – 264 VAC (universal input) 0.45 %/V below 187 VAC down to 132 VAC (9 W operation at 115 – 132 VAC input) 1 %/V below 115 VAC
Input frequency		47 – 63 Hz
Zero load power consumption		tba.
External input fuse required (recommended values)		2.0 A slow blow
Harmonic limits		EN 61000-3-2, Class A

### Output Specifications

Voltage set accuracy		±2 %
Regulation	<ul style="list-style-type: none"> <li>- Input variation</li> <li>- Load variation (0–100%)</li> </ul>	1 % max. 2 % max.
Ripple and noise (20 Mhz Bandwidth)	3.3 – 6.0 VDC models: other models:	<300 mVp-p <500 mVp-p
Overload protection by current limit	3.3 – 6.0 VDC models: other models:	<2.5 A <3.5 A
Short circuit protection		foldback (automatic recovery)

### General Specifications

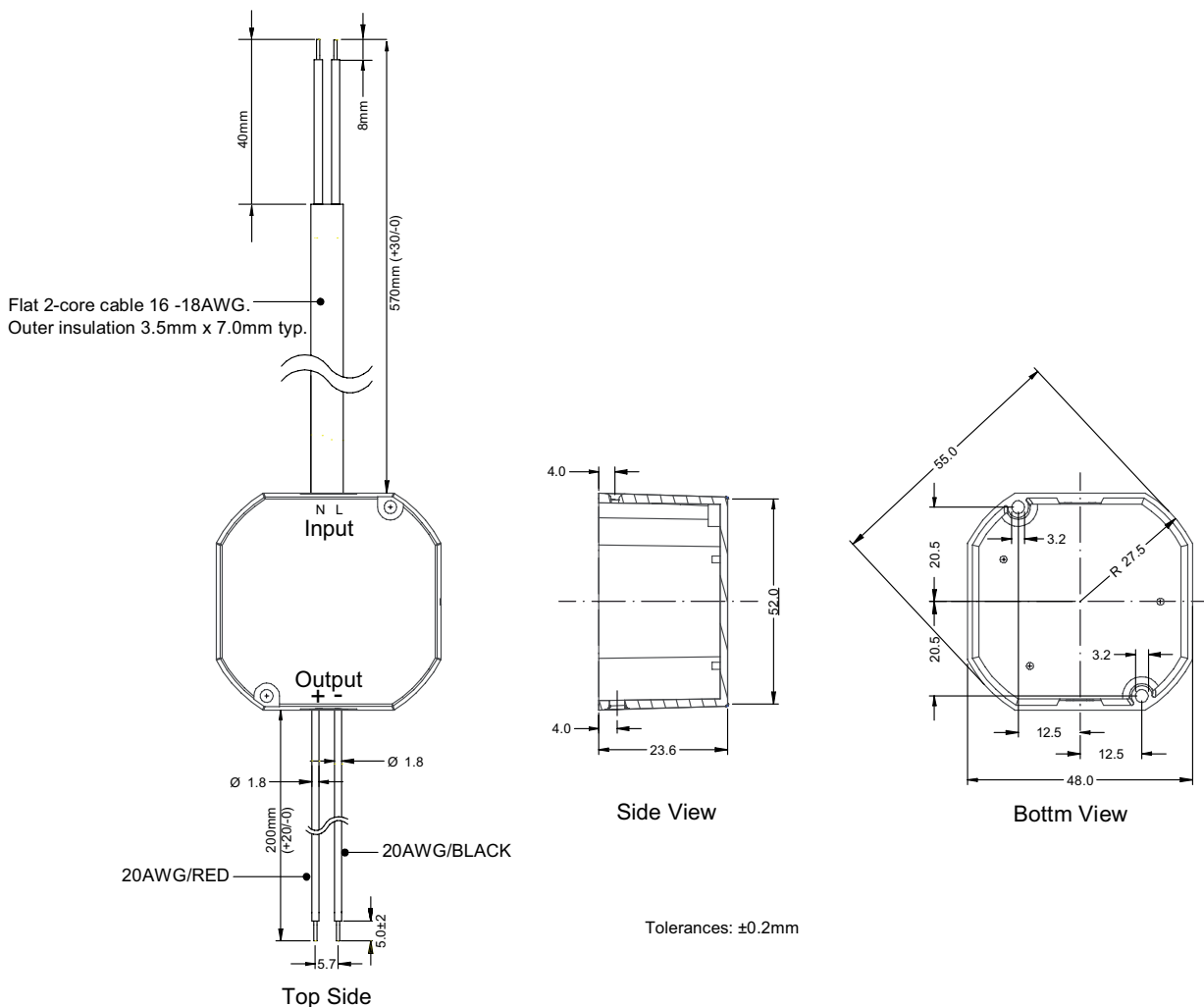
Operating Temperature		-25°C to +50°C
Over temperature protection		built in
Reliability, calculated MTBF according to IEC 61709		tba.
Humidity (non condensing)		5 – 95 % rel. H max.
Efficiency (at 230 VAC)	3.3 & 5.0 VDC models: other models:	75 % typ. 80 % typ.
Hold-up time	<ul style="list-style-type: none"> <li>- Vin = 115 VAC</li> <li>- Vin = 230 VAC</li> </ul>	5 ms typ. 20 ms typ.
Start-up time		<1s
Safety standards	<ul style="list-style-type: none"> <li>- safety of information technology equipment</li> <li>- Electronic equipment for use in power installations</li> <li>- Safety of household and similar electrical appliances</li> </ul>	IEC/EN 60950-1 EN 50178 EN 60335-1
Safety approvals	<ul style="list-style-type: none"> <li>- CB report according IEC/EN 60950-1</li> <li>- GS certification (for other standards)</li> <li>- UL approvals (entry pending)</li> </ul>	<a href="http://www.tracopower.com/products/tiw-cb.pdf">www.tracopower.com/products/tiw-cb.pdf</a> <a href="http://www.tracopower.com/products/tiw-gs.pdf">www.tracopower.com/products/tiw-gs.pdf</a> <a href="http://www.ul.com">www.ul.com</a> -> certifications -> File: e188913
Electromagnetic compatibility (EMC), emissions	<ul style="list-style-type: none"> <li>- Conducted RI suppression on input</li> <li>- Radiated RI suppression</li> </ul>	EN 61000-6-3 EN 55022 class B EN 55022 class B
Electromagnetic compatibility (EMC), immunity	<ul style="list-style-type: none"> <li>- Electrostatic discharge (ESD)</li> <li>- Radiated RF field immunity</li> <li>- Electrical fast transient / burst immunity</li> <li>- Surge immunity line – ground</li> <li>- Surge immunity line – line</li> <li>- Surge immunity output</li> <li>- Immunity to conducted RF disturbances</li> <li>- Mains voltage dips and interruptions</li> </ul>	EN 61000-6-2 EN 61000-4-2    4 kV / 8 kV EN 61000-4-3    3 V/m EN 61000-4-4    1 kV / 0.5 kV EN 61000-4-5    2 kV EN 61000-4-5    1 kV EN 61000-4-5    0.5 kV EN 61000-4-6    3 V 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	<a href="http://www.tracopower.com/products/tiw-reach.pdf">www.tracopower.com/products/tiw-reach.pdf</a> RoHS directive 2011/65/EU
Weight		80 g (2.7 oz)

**Outline Dimensions**



Specifications can be changed any time without notice.