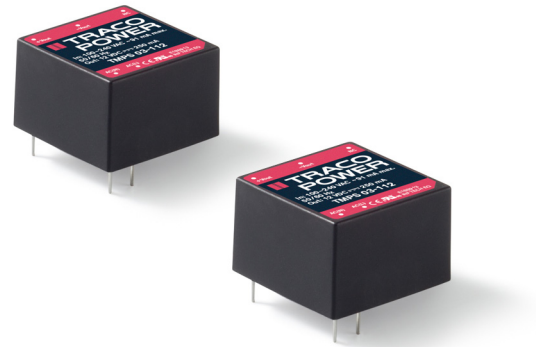


### Features

- ◆ PCB Power module in 1" x 1" package
- ◆ No load input power <150mW, to comply with ErP directive
- ◆ Operating temperature range -25°C to +70°C
- ◆ Certified to EN60335-1 for household appliance
- ◆ EMI meets EN 55022, class B
- ◆ Protection class II prepared
- ◆ 3-year product warranty



The TMPS-03 series are ultra compact AC/DC power supplies in a fully encapsulated plastic casing for PCB mount. Their safety approvals and extended operating temp. range from -25°C to +70°C qualify them for worldwide markets. They are certified to EN 60335-1 for household appliance and offer an interesting solution for space critical applications in commercial, and industrial electronic equipment and if compliance to ErP directive is required.

### Models

Order code	Output power max.	Output Voltage	Output Current		Efficiency
			max.	peak <sup>1)</sup>	
TMPS 03-103	3 W	3.3 VDC	900 mA	1170 mA	70 %
TMPS 03-105		5.0 VDC	600 mA	780 mA	72 %
TMPS 03-109		9.0 VDC	333 mA	430 mA	77 %
TMPS 03-112		12 VDC	250 mA	320 mA	78 %
TMPS 03-115		15 VDC	200 mA	260 mA	78 %
TMPS 03-124		24 VDC	125 mA	160 mA	78 %

<sup>1)</sup> < 30s with maximum duty cycle of 10%, average output power must not exceed 3W

### Input Specifications

Input voltage ranges	– AC input – DC Input	85 – 264 VAC 120 – 370 VDC
Input frequency		47 – 63 Hz
Input current at full load (115 VAC or 230 VAC nominal input)		60 mA typ.
Inrush current (115 VAC / 230 VAC nominal input)		15 A max. / 25 A max.
No-Load power consumption		150 mW max.

### Output Specifications

Voltage set accuracy		±2 % max.
Minimum load		no minimum load required
Ripple and noise (20 MHz bandwidth)		70 mVp-p max.
Regulation – Input variation		1 % max.
Regulation – Load variation		1 % max.
Hold-up time		8 ms typ. (at 115 VAC and full load)
Current limitation (Operation under over-load conditions may cause damage)		at 150 % typ. (auto recovery)
Short circuit protection		hiccup, automatic recovery
Max. capacitive load	3.3 VDC model: 5.0 VDC model: 9.0 VDC model: 12 VDC model: 15 VDC model: 24 VDC model:	1200 µF 820 µF 470 µF 330 µF 270 µF 180 µF

### General Specifications

Temperature ranges	– Operating (convection cooling) – Power derating above +60°C – Storage (non operating)	–25°C to +70°C 5.0 %/K –40°C to +85°C
Temperature coefficient		0.05 %/°C
Humidity (non condensing)		95 % rel max.
Switching frequency (pulse width modulation PWM)		65 kHz typ.
Isolation voltage	– Input/Output	4'242 VDC
Isolation resistance (500 VDC)		>100 MOhm
Reliability /calculated MTBF (MIL-HDBK-217F, at +25°C, ground benign)		1.2 mio h
Electromagnetic compatibility (EMC), emissions	– Conducted input RI suppression – Radiated input suppression	EN 55022, class B, FCC part 15, level B EN 55014-1
Electromagnetic compatibility (EMC), Immunity	– Electrostatic discharge ESD – RF field immunity – Electrical fast transients/burst immunity – Surge – Conducted RF – Magnetic field immunity – Mains voltage dips and interruptions	EN 55014-2, EN 61204-3, EN 55024 EN 61000-4-2, air 8 kV / 4 kV, criteria A EN 61000-4-3, 10 V/m, criteria A EN 61000-4-4, 2 kV, criteria A EN 61000-4-5, 1 kV, criteria A EN 61000-4-6, 10 Vrms, criteria A EN 61000-4-8, 30 A/m, criteria A EN 61000-4-11, >95 % 0.5 periods, criteria A 60 %, 10 periods, criteria A 30 %, 25 periods, criteria A

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

