Output Specifications

Voltage set accuracy		5 & 10 W models:	±2%
		single output 15 & 30 W models:	±2%
		dual output 15 & 30 W models:	±5%
		triple output 15 W models:	±3%
		triple output 30 W models:	±2% (output 1)
		triple output 30 W models:	±5% (output 2 & 3)
Regulation	– Input variation		0.3 % max.
	– Load variation (10–100%)		
		single output models:	1.0 % max.
		dual / triple output models:	5 % max.
Minimum load		single output models:	5 %
		dual output models:	3 % (each output)
		triple output 15 W models:	10 % (main output only)
		triple output 30 W models:	20 % (each output)
Ripple and noise (20 MHz bandwidth)		– 3.3 & 5 VDC output models:	<1.5 % of Vout
		– other models:	<1.0 % of Vout
Current limitation			120– 80 % fold back
Short circuit protection			hiccup mode, indefinite (automatic recovery)
Maximum capacitive load			470–50'000 µF depending on model

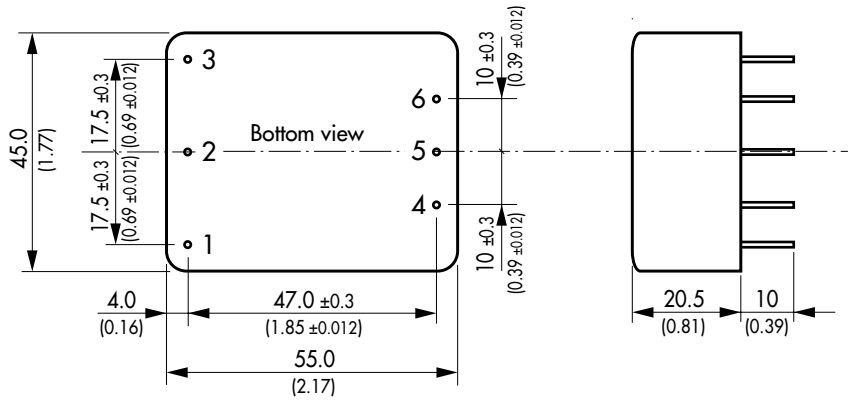
General Specifications

Temperature ranges	– Operating	–25 °C to +60 °C
	– Power derating above 50 °C	3.75 %/°C
	– Storage (non operating)	–40 °C to +85 °C
Temperature coefficient		0.02 %/°C
Efficiency		72–80 % (depending on model)
Humidity (non condensing)		95 % rel max.
Switching frequency		100 kHz typ. (pulse width modulation PWM)
Hold-up time		40 ms min. (Vin 115...230 VAC)
Isolation voltage	– Input/Output	3'000 VAC
Reliability /calculated MTBF (MIL-HDBK-217F at +25°C, ground benign)		>660'000 h
EMI / RFI conducted		EN 55022, class B, FCC part 15, level B
EMC compliance	– Electrostatic discharge ESD	IEC / EN 61000-4-2 4 kV / 8 kV
	– RF field susceptibility	IEC / EN 61000-4-3 3 V/m
	– Electrical fast transients/bursts on mainsline	IEC / EN 61000-4-4 1 kV
Safety class II (only 30 watt models)		to IEC / EN 60536
Safety standards	– UL/cUL 60950-1	UL 60950-1 and CSA C22.2 No. 60950-1-07
	– IEC/EN 60950-1 re-aprroval June 2016 according:	EN 60950-1:2006/A11:2009/A1:2010/ A12:2011/A2:2013 IEC 60950-1 (ed.2), Am 1&2
	No re-approval according further amendments and safety-standard releases!	
Safety approval	– cUL/UL 60950-1 online certification File E188913	www.ul.com -> certifications
	– IEC/EN 60950-1 CB test certificate	www.tracopower.com/products/tml-primary-certification.zip (new in July 2016 as a last version)
Case material		plastic resin + fiberglass (flammability to UL 94-V0)
Environmental compliance	– Reach	www.tracopower.com/products/tml-reach.pdf
	– RoHS	RoHS directive 2011/65/EU

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

Outline Dimensions

TML 5 Models



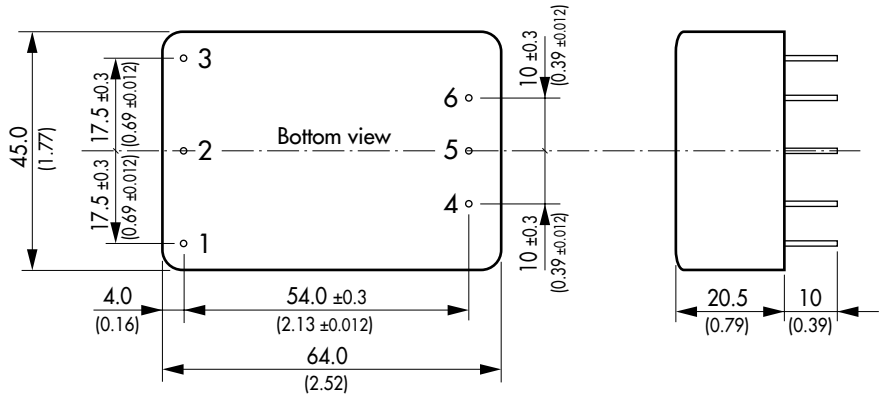
Pin-Out		
Pin	**Single**	**Dual**
1	FG	FG
2	AC(N)	AC(N)
3	AC(L)	AC(L)
4	–V out	–V out
5	NC	Common
6	+V out	+V out

NC = Not to connect

Pin diameter ø 1.0 mm

Weight: 80 g (2.8 oz)

TML 10 Models



Pin-Out		
Pin	**Single**	**Dual**
1	FG	FG
2	AC(N)	AC(N)
3	AC(L)	AC(L)
4	–V out	–V out
5	NC	Common
6	+V out	+V out

NC = Not to connect

Pin diameter ø 1.0 mm

Weight: 95 g (3.4 oz)

( ) = Inches
Tolerances = 0.5mm (0.02)