

Output Specifications

Voltage set accuracy	5 & 10 W models: $\pm 2\%$ single output 15 & 30 W models: $\pm 2\%$ dual output 15 & 30 W models: $\pm 5\%$ triple output 15 W models: $\pm 3\%$ triple output 30 W models: $\pm 2\%$ (output 1) triple output 30 W models: $\pm 5\%$ (output 2 & 3)
Regulation	– Input variation – 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

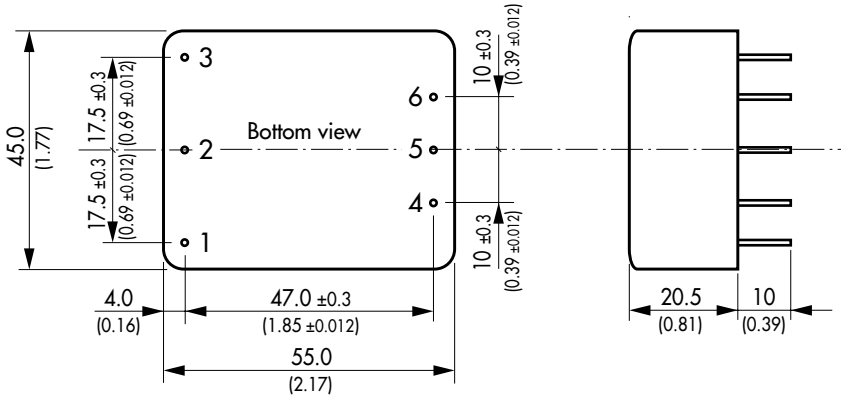
General Specifications

Temperature ranges	– Operating – Power derating above 50 °C – Storage (non operating)	–25 °C to +60 °C 3.75 %/°C –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 – RF field susceptibility – Electrical fast transients/bursts on mainsline	IEC / EN 61000-4-2 4 kV / 8 kV IEC / EN 61000-4-3 3 V/m IEC / EN 61000-4-4 1 kV
Safety class II (only 30 watt models)		to IEC / EN 60536
Safety standards	– UL/cUL 60950-1 – IEC/EN 60950-1 re-approval June 2016 according:	UL 60950-1 and CSA C22.2 No. 60950-1-07 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 – IEC/EN 60950-1 CB test certificate	www.ul.com -> certifications 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 – RoHS	www.tracopower.com/products/tml-reach.pdf 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



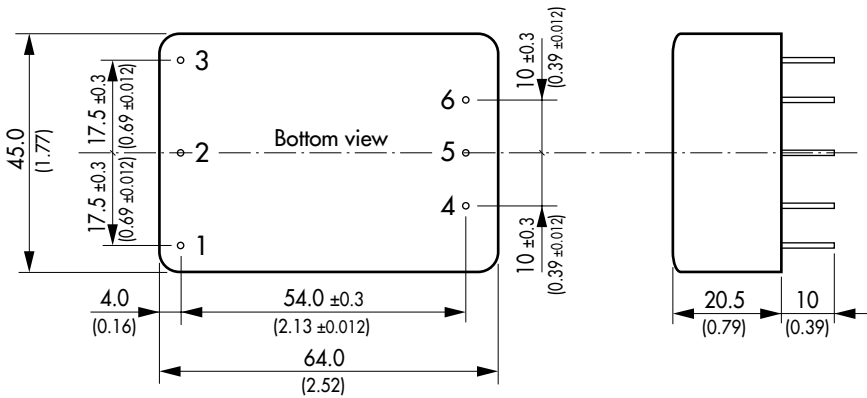
Pin-Out		
Pin	Single	Dual
1	FG	FG
2	AC(N)	AC(N)
3	AC(L)	AC(L)
4	-V out	-V out
5	NC	Common
6	+V out	+V out

NC = Not to connect

Pin diameter \varnothing 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 \varnothing 1.0 mm

Weight: 95 g (3.4 oz)

() = Inches

Tolerances = 0.5mm (0.02)