

Output Specifications

Regulation – Load variation	TML 20 single output models: 1 %, 0–100 % load TML 20 dual output models: 3 % (each output), 10–100 % symmetric load TML 20 triple output models: 2 % for output 1, 20–100 % load 5 % for output 2&3, 20–100 % symmetric load TML 40 single output models: 0.5 % 1–100 % load TML 40 symmetric dual output models: 1 % (each output), 10–100 % symmetric load TML 40 asymmetric dual output models: 2 % for output 1, 25–100 % load 6 % for output 2, 25–100 % load TML 40 triple output models: 3 % for output 1, 25–100 % load 7 % for output 2&3, 25–100 % symmetric load
Current limitation	above 105 % of rated output current
Overvoltage protection (main output only)	by Zener diode
Short circuit protection	hiccup mode, indefinite (automatic recovery)
Overtemperature protection (TML 40 models only)	at +100°C

Max. capacitive load		Model series	
		TML 20	TML 40
Output:			
Single output models	3.3 VDC	25'000 µF	60'000 µF
	5.0 VDC	13'000 µF	40'000 µF
	12 VDC	920 µF	8'600 µF
	15 VDC	820 µF	6'600 µF
	24 VDC	600 µF	1'400 µF
Dual output models symmetric	+5.0 / -5.0 VDC	4'300 / 4'300 µF	12'000 / 12'000 µF
	+12 / -12 VDC	560 / 560 µF	4'400 / 4'400 µF
	+15 / -15 VDC	220 / 220 µF	1'000 / 1'000 µF
Dual output models asymmetric	+5.0 / +12 VDC	–	10'000 / 470 µF
	+5.0 / +24 VDC	–	10'000 / 400 µF
Triple output models	+5.0 / +12 / -12 VDC	3'500 / 220 / 220 µF	10'000 / 780 / 780 µF
	+5.0 / +15 / -15VDC	3'500 / 150 / 150 µF	10'000 / 900 / 900 µF

General Specifications

Temperature ranges	– Operating	TML 20 models: -25°C to +70°C TML 40 models: -40°C to +60°C
	– Power derating above +50°C	TML 20 models: 3.75 %/K TML 40 models: 3.0 %/K
	– Case max.	+95°C
	– Storage (non operating)	-40°C to +85°C
Temperature coefficient		TML 20 models: 0.02 %/K TML 40 models: 0.01 %/K
Efficiency		74 – 84 % (depending on model)
Humidity (non condensing)		95 % rel max.
Switching frequency (pulse width modulation PWM)		TML 20 models: 100 kHz typ. TML 40 models: 132 kHz typ.
Hold-up time		10 ms min.
Isolation voltage	– Input/Output	3'000 VAC
Reliability /calculated MTBF (MIL-HDBK-217F, at +25°C, ground benign)		>200'000 h
EMI / RFI conducted		EN 55022, class B, FCC part 15, level B
EMC compliance		EN 55024

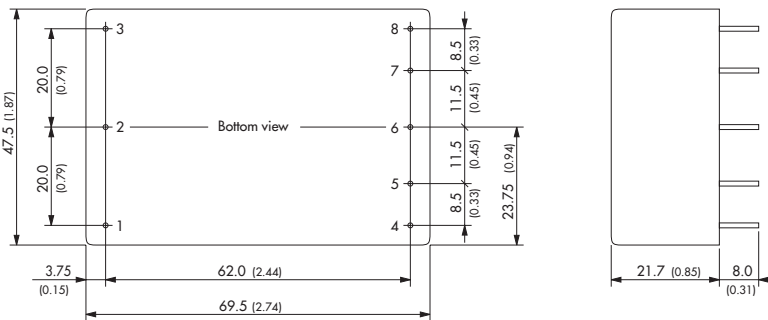
All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.

General Specifications

Protection class	class II to IEC/EN 60536
Safety standards	UL/cUL 60950-1, IEC/EN 60950-1 www.tracopower.com/overview/tml
Casing material	plastic resin + fiberglass (UL 94V-0 rated)
Environmental compliance	- Reach - RoHS www.tracopower.com/products/reach-declaration.pdf RoHS directive 2011/65/EU

Outline Dimensions

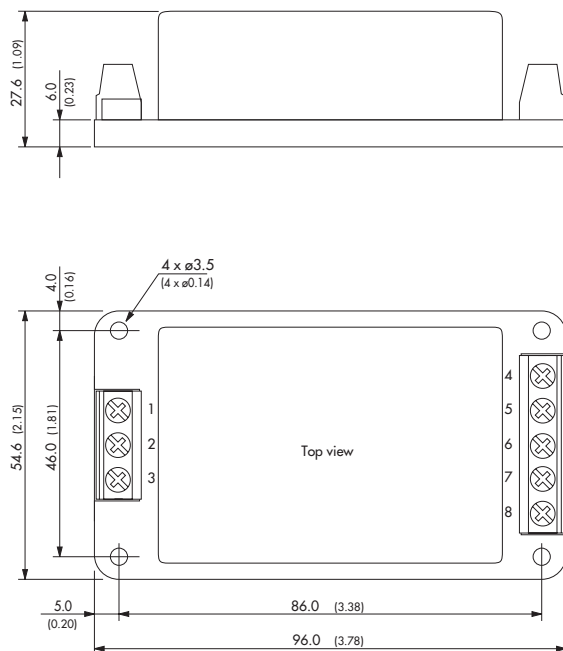
TML 20 models
for PCB mount:



Pin diameter \varnothing 1.0 mm (0.039)

Weight: 110 g (3.9 oz)

TML 20C models
for chassis mount:



Weight: 155 g (5.5 oz)

Pinout / Connection

Pin/ con.	Single output	Dual output	Triple output
1	FG		
2	AC in (N)		
3	AC in (L)		
4	no pin / nc	no pin / nc	Vout 3
5	-Vout 1	Vout 2	com. 2/3
6	no pin	com. 1/2	Vout 2
7	+Vout 1	+Vout 1	-Vout 1
8	no pin	no pin	+Vout 1

nc = not to connect

Dimensions in [mm], () = Inches
Tolerances = 0.5mm (0.02)