

Features

- ◆ Compact metal case with screw terminal block
- ◆ Dual and triple output models with isolated outputs
- ◆ Universal input 85–264 VAC
- ◆ EMI/EMC compliance with EN 61000-6-3 and EN 61000-6-1
- ◆ Compliance to EN 61000-3-2 (PFC)
- ◆ Short circuit and overvoltage protection
- ◆ International safety approvals
- ◆ 3-year product warranty



The TRACOPOWER TXL series is a family of encased power supplies designed for a wide range of cost critical applications. With a low profile metal case and screw terminal block connection, they are easy to install in any equipment.

There are 64 models in this range with single, dual, and triple output voltages from 3.3 VDC to 48 VDC in 12 power ranges from 15 W to 1000 W. These power supplies have universal input and comply with European EMC standards and the Low Voltage Directive (LVD).

Models with Single Output

Order Code	Case Type	Output Power max.	Output Voltage nom.	Output Current max.
TXL 015-3.3S	B	15 Watt	3.3 VDC	3.0 A
TXL 015-05S			5 VDC	3.0 A
TXL 015-12S			12 VDC	1.3 A
TXL 015-15S			15 VDC	1.0 A
TXL 015-24S			24 VDC	0.63 A
TXL 015-48S			48 VDC	0.32 A
TXL 025-3.3S	C	25 Watt	3.3 VDC	6.0 A
TXL 025-05S			5 VDC	5.0 A
TXL 025-12S			12 VDC	2.1 A
TXL 025-15S			15 VDC	1.7 A
TXL 025-24S			24 VDC	1.1 A
TXL 025-48S			48 VDC	0.57 A
TXL 035-3.3S	D	35 Watt	3.3 VDC	9.0 A
TXL 035-05S			5 VDC	7.0 A
TXL 035-12S			12 VDC	3.0 A
TXL 035-15S			15 VDC	2.4 A
TXL 035-24S			24 VDC	1.5 A
TXL 035-48S			48 VDC	0.8 A
TXL 050-05S		50 / 60 Watt	5 VDC	10.0 A
TXL 060-12S			12 VDC	5.0 A
TXL 060-15S			15 VDC	4.0 A
TXL 060-24S			24 VDC	2.5 A

Models with Single Output

Order Code	Case Type	Output Power max.	Output Voltage nom.	Output Current max.
TXL 060-3.3S	E	60 / 70 Watt	3.3 VDC	15.0 A
TXL 060-05S			5 VDC	12.0 A
TXL 070-12S			12 VDC	6.0 A
TXL 070-15S			15 VDC	4.8 A
TXL 070-24S			24 VDC	3.0 A
TXL 070-48S			48 VDC	1.5 A
TXL 100-3.3S	J	100 Watt	3.3 VDC	23.0 A
TXL 100-05S			5 VDC	20.0 A
TXL 100-12S			12 VDC	8.5 A
TXL 100-15S			15 VDC	7.0 A
TXL 100-24S			24 VDC	4.3 A
TXL 100-48S			48 VDC	2.3 A
TXL 150-05S	L	150 Watt	5 VDC	30.0 A
TXL 150-12S			12 VDC	12.5 A
TXL 150-24S			24 VDC	6.3 A
TXL 150-48S			48 VDC	3.2 A
TXL 230-12S	N	230 Watt	12 VDC	19.2 A
TXL 230-24S			24 VDC	9.6 A
TXL 230-48S			48 VDC	4.8 A
TXL 350-24S	O	350 Watt	24 VDC	14.7 A
TXL 350-48S			48 VDC	7.5 A
TXL 750-24S	P	750 Watt	24 VDC	31.3 A
TXL 750-48S			48 VDC	15.8 A
TXL 1000-24S	Q	1000 Watt	24 VDC	40.0 A
TXL 1000-48S			48 VDC	21.0 A

Models with Multiple Output

Order Code	Case Type	Output Power max.	* Output1 (Main Output)	* Output 2	* Output 3
TXL 035-0512D	D	35 Watt	+5 VDC/ 4.0 A	+12 VDC/ 2.5 A	
TXL 035-0524D			+5 VDC/ 4.0 A	+24 VDC/ 1.3 A	
TXL 035-1212D			+12 VDC/ 3.0 A	-12 VDC/ 1.5 A	
TXL 035-1515D			+15 VDC/ 2.4 A	-15 VDC/ 1.5 A	
TXL 060-0512DI	E	60 Watt	5 VDC/ 8.0 A	12 VDC/ 4.0 A	
TXL 060-0524DI			5 VDC/ 6.0 A	24 VDC/ 2.2 A	
TXL 060-0521TI			5 VDC/ 8.0 A	12 VDC/ 3.5 A	5 VDC/ 1.0 A
TXL 060-0522TI			5 VDC/ 7.0 A	12 VDC/ 3.5 A	12 VDC/ 1.0 A
TXL 060-0533TI			5 VDC/ 7.0 A	15 VDC/ 3.0 A	15 VDC/ 1.0 A
TXL 060-0534TI			5 VDC/ 6.0 A	12 VDC/ 1.5 A	24 VDC/ 1.2 A
TXL 100-0512DI	J	100 Watt	5 VDC/ 12.0 A	12 VDC/ 7.0 A	
TXL 100-0524DI			5 VDC/ 12.0 A	24 VDC/ 3.5 A	
TXL 100-0521TI			5 VDC/ 12.0 A	12 VDC/ 5.0 A	5 VDC/ 1.5 A
TXL 100-0522TI			5 VDC/ 12.0 A	12 VDC/ 5.0 A	12 VDC/ 1.5 A
TXL 100-0533TI			5 VDC/ 12.0 A	15 VDC/ 4.0 A	15 VDC/ 1.5 A
TXL 100-0534TI			5 VDC/ 12.0 A	12 VDC/ 4.0 A	24 VDC/ 2.0 A

* Total power must not exceed specified max. output power

Input Specifications

Input voltage range	– nominal – AC range (universal input) – DC range	100 – 240 VAC 85 – 264 VAC for 15 to 300 Watt model 90 – 264 VAC for 600 & 1000 Watt models 120 – 375 VDC for 15 to 350 Watt model 127 – 375 VDC for 750 & 1000 Watt models
Input voltage frequency		47 – 63 Hz
Input current (at full load)		Vin = 115 VAC Vin = 230 VAC TXL 015/025 models: 0.50 A typ. 0.22 A typ. TXL 035 models: 0.70 A typ. 0.42 A typ. TXL 060/070 models: 1.00 A typ. 0.60 A typ. TXL 100 models: 1.65 A typ. 0.95 A typ. TXL 150 models: 2.10 A typ. 1.10 A typ. TXL 230 models: 3.20 A typ. 1.70 A typ. TXL 350 models: 3.30 A typ. 1.70 A typ. TXL 750 models: 8.0 A typ. 3.90 A typ. TXL 1000 models: 11.0 A typ. 5.0 A typ.
Input current (at no load)		Vin = 115 VAC Vin = 230 VAC TXL 015/025 models: 10 mA typ. 17 mA typ. TXL 035 models: 50 mA typ. 55 mA typ. TXL 230/350 models: 115 mA typ. 140 mA typ. TXL 750 models: 210 mA typ. 220 mA typ. TXL 1000 models: 330 mA typ. 350 mA typ. other models: 100 mA typ. 80 mA typ.
Recommended circuit breaker (characteristic C) or slow blow fuse		up to 70 Watt models: 5 A up to 350 Watt models: 10 A TXL 750 & 1000 Watt models: 16 A

Output Specifications

Output voltage adjustment range		±10 % – 35 Watt dual output models: range Vout 1–2 – other multi output models: Vout 1
Regulation	– Input variation – Load variation (10–100%) – Minimum load on main output of multiple output models: (to provide the regulation on the auxiliary outputs)	1 % max. 2 % max. 4 % max. for main output 6 % max. for output 2/3 (20–100 % load) 0.3 A for TXL 035 1.0 A for TXL 060 1.5 A for TXL 100
Ripple and noise (20 MHz bandwidth)		3.3 VDC output < 50 mV Output 3 (on triple output models) < 1.5 % of Vout all other output voltages < 1.0 % of Vout nom.
Output current limitation		105 % – 150 % of Iout max.
Overload protection mode		Fold back, automatic recovery
Over voltage protection (only output 1)		115 % – 140 % of Vout nom. (depending on model)
Capacitive load, max.		www.tracopower.com/products/txl-capload.pdf

General Specifications

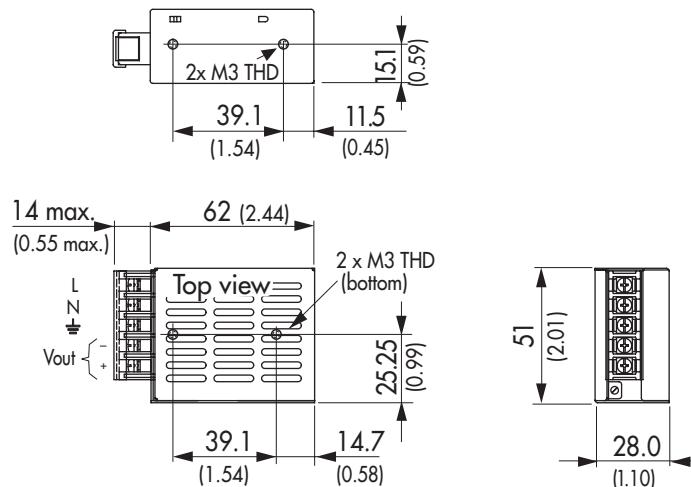
Temperature ranges	– Operating – Load derating above 45°C – Storage (non operating)	–10°C to +70°C 2 %/°K (2.5 %/°K for TXL 120/230/1000) –10°C to +75°C
Temperature coefficient		0.02 %/°C
Efficiency		70 – 84 % (depending on model)
Humidity (non condensing)		85 % rel max. (non condensing)
Switching frequency		50 kHz typ. (pulse width modulation)
Hold-up time		20 ms min.
Isolation voltage (60 sec.)	– Input/Output – Input/Case – Output/Case – Output/Output	3'000 VAC 1'500 VAC 500 VAC 60–100 Watt multiple output models: 35 Watt dual output models: 500 VAC (for all outputs of triple output models!) outputs not isolated
Reliability /calculated MTBF (MIL-HDBK-217F, at +25°C typ., ground benign)		>250'000 h
Electromagnetic compatibility (EMC), Emissions	– Conducted input RI suppression – Harmonic current emissions – Flicker	EN 55022, class B, FCC part 15, level B IEC/EN 61000-3-2, class D (TXL 120/150/220) IEC/EN 61000-3-2, class A (others) IEC/EN 61000-3-3
Electromagnetic compatibility (EMC), Immunity	– Electrostatic discharge ESD – RF field immunity – Electrical fast transients/burst immunity – Surge – Conducted RF – Magnetic field – Voltage dip	IEC/EN 61000-4-2 4 kV / 8 kV IEC/EN 61000-4-3 3 V/m IEC/EN 61000-4-4 1 kV IEC/EN 61000-4-5 1 kV / 2 kV IEC/EN 61000-4-6 3 V/m IEC/EN 61000-4-8 3 A/m IEC/EN 61000-4-11
Safety standards		UL 60950-1, IEC/EN 60950-1 2nd edition
Safety approvals	– UL/cUL – CB report	www.ul.com -> certifications -> File: e188913 TXL 015 models: www.tracopower.com/products/txl015-cb.pdf TXL 025 models: www.tracopower.com/products/txl025-cb.pdf TXL 035 models: www.tracopower.com/products/txl035-cb.pdf TXL 060/070 models: www.tracopower.com/products/txl060-cb.pdf TXL 100 models: www.tracopower.com/products/txl100-cb.pdf TXL 150 models: www.tracopower.com/products/txl150-cb.pdf TXL 230 models: www.tracopower.com/products/txl230-cb.pdf TXL 350 models: www.tracopower.com/products/txl350-cb.pdf TXL 750 models: www.tracopower.com/products/txl750-cb.pdf TXL 1000 models: www.tracopower.com/products/txl1000-cb.pdf
Environmental compliance	– Reach – RoHS	www.tracopower.com/products/txl-reach.pdf RoHS directive 2011/65/EU
Casing material	TXL 025/035 TXL 50/60/70/100 others	nickel plated steel (chassis & cover) aluminium (chassis), nickel plated steel (cover) aluminium (chassis & cover)

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

Case Dimensions

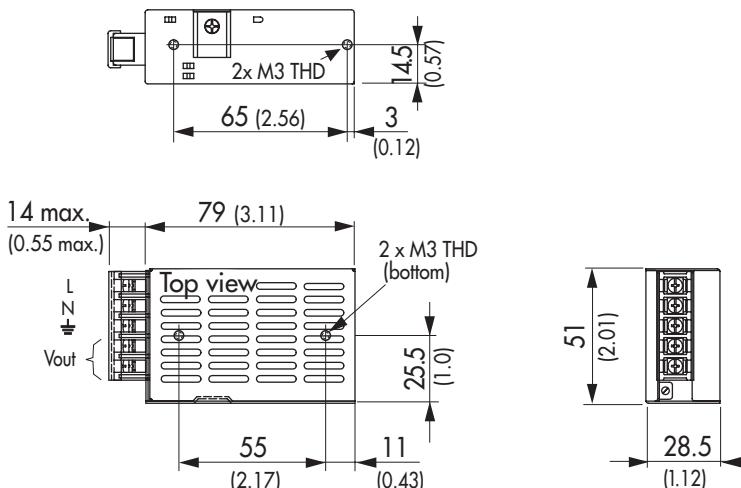
Case B

Weight: 0.13 kg (4.6 oz)



Case C

Weight: 0.19 kg (6.7 oz)

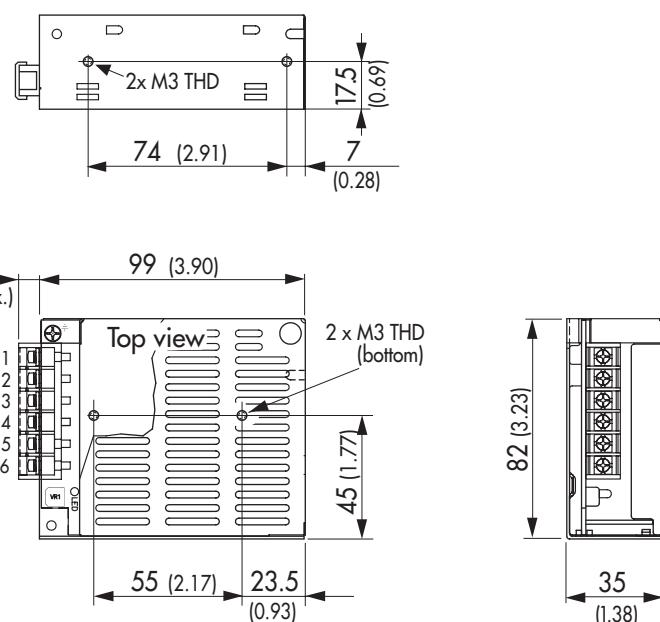


Case D

Connection		
	single	dual
1	AC L	AC L
2	AC N	AC N
3	AC FG	AC FG
4	-Vout	Common
5	+Vout	Vout 1
6	No con.	Vout 2

Weight: 0.3 kg (10 oz)

Max mounting screw penetration: 2.0 mm (0.08)



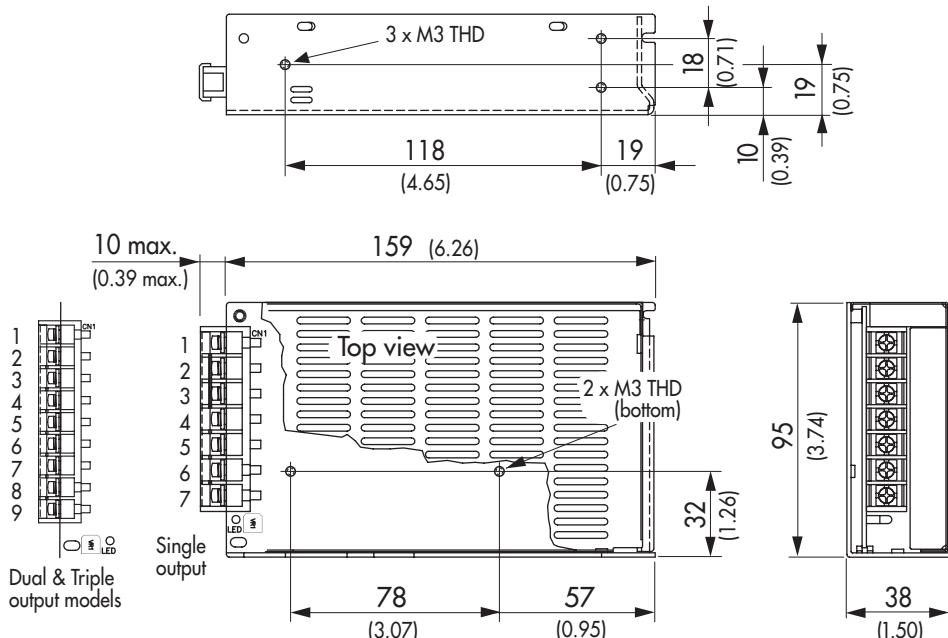
Case Dimensions

Case E

Connection			
	Single	Dual	Triple
1	AC L	AC L	AC L
2	AC N	AC N	AC N
3	AC FG	AC FG	AC FG
4	–Vout	No con.	+Vout 3*
5	–Vout	No con	–Vout 3*
6	+Vout	–Vout 1	–Vout 1
7	+Vout	+Vout 1	+Vout 1
8	–	–Vout 2	–Vout 2
9	–	+Vout 2	+Vout 2

* Opposite polarity for TXL 060-0534T1

Weight: 0.7 kg (25 oz)

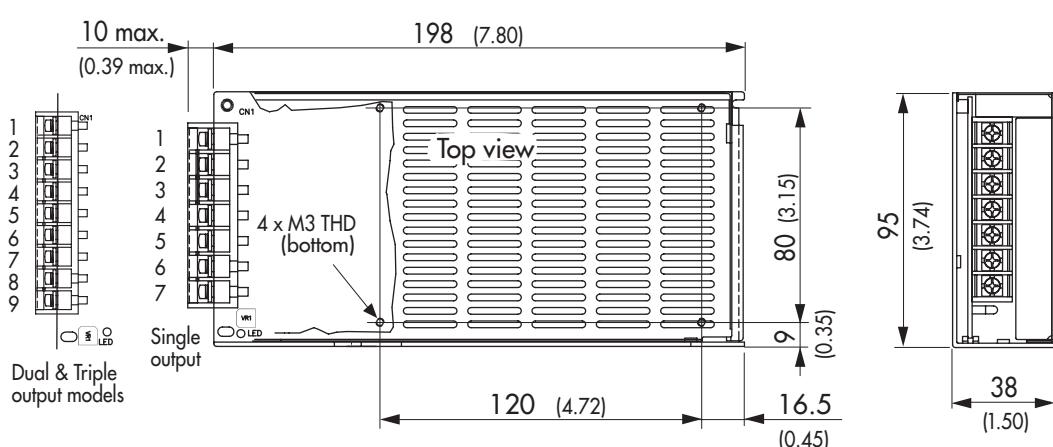
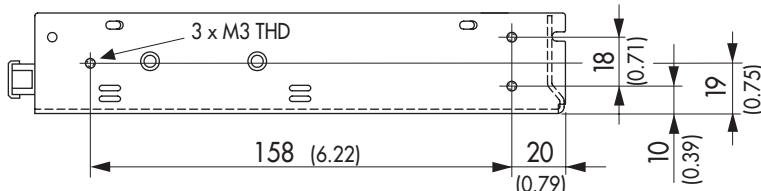


Case J

Connection			
	Single	Dual	Triple
1	AC L	AC L	AC L
2	AC N	AC N	AC N
3	AC FG	AC FG	AC FG
4	–Vout	No con.	+Vout 3*
5	–Vout	No con	–Vout 3*
6	+Vout	–Vout 1	–Vout 1
7	+Vout	+Vout 1	+Vout 1
8	–	–Vout 2	–Vout 2
9	–	+Vout 2	+Vout 2

* Opposite polarity for TXL 100-0534T1

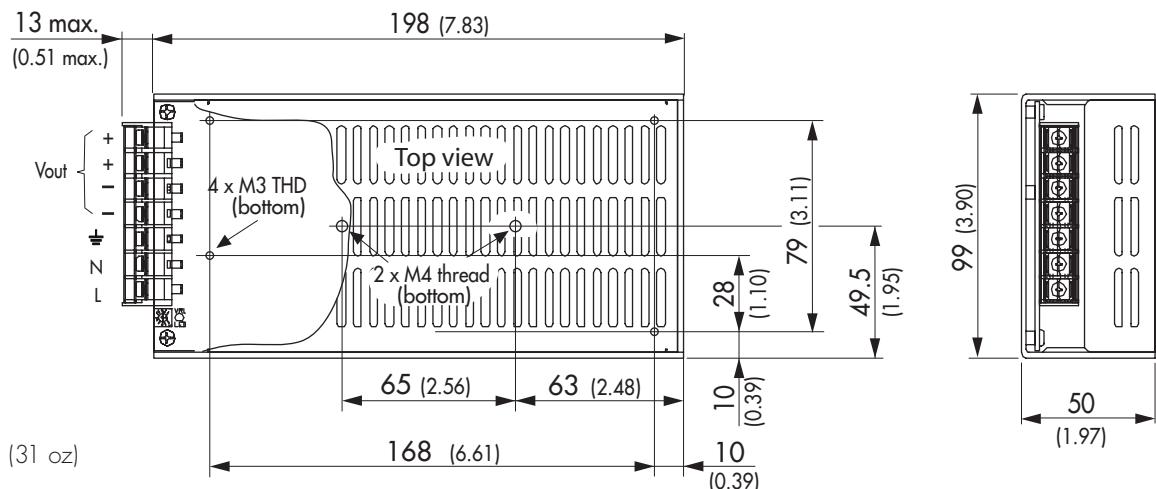
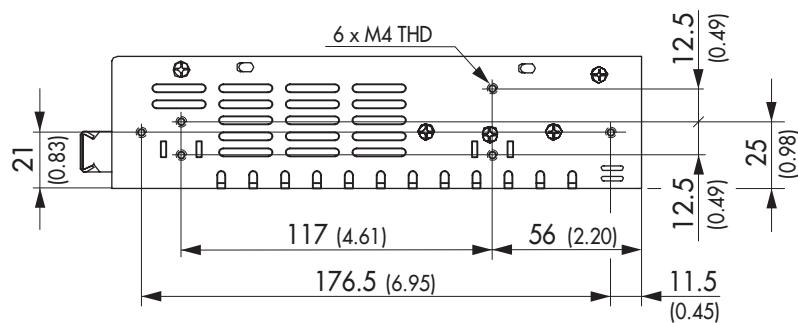
Weight: 0.8 kg (28 oz)



Max mounting screw penetration: 3.0 mm (0.12")

Case Dimensions

Case L



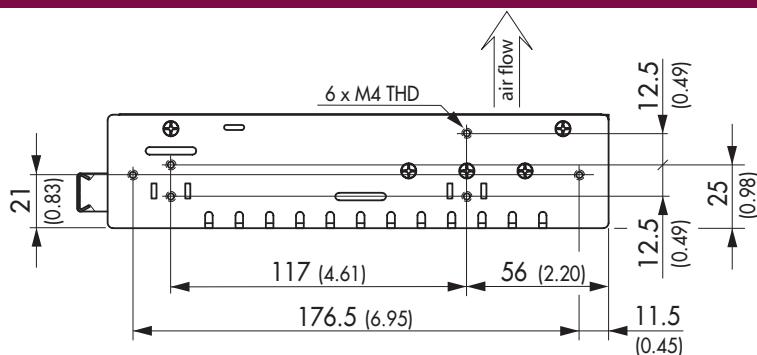
Weight: 0.89 kg (31 oz)

4x TXL-CMB chassis mount brackets included in shipment

Max mounting screw penetration: 3.0 mm (0.12)

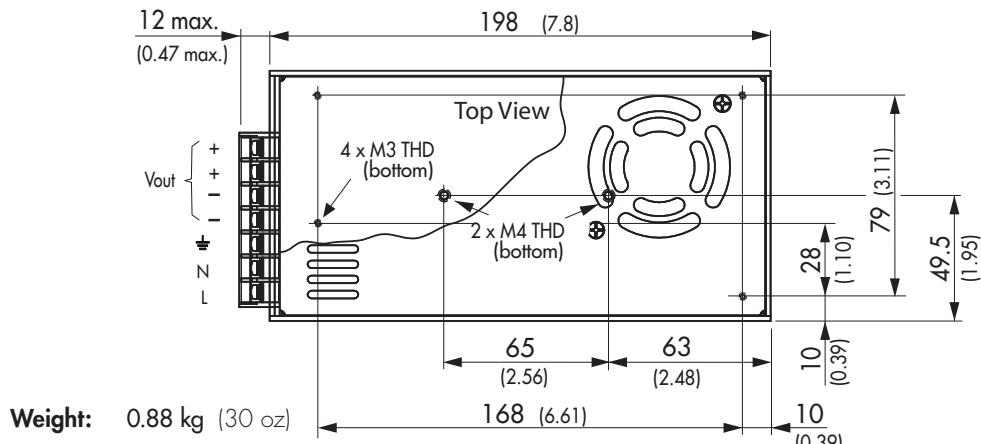
Outline Dimensions

Case N

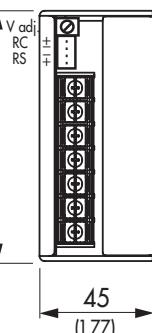


Connector

RC	Remote Control On/Off: RC+/RC-: 0–0.7 V = On 3–10 V = Off.
RS	Remote Sense Can be open or connected to the load under regard of polarity

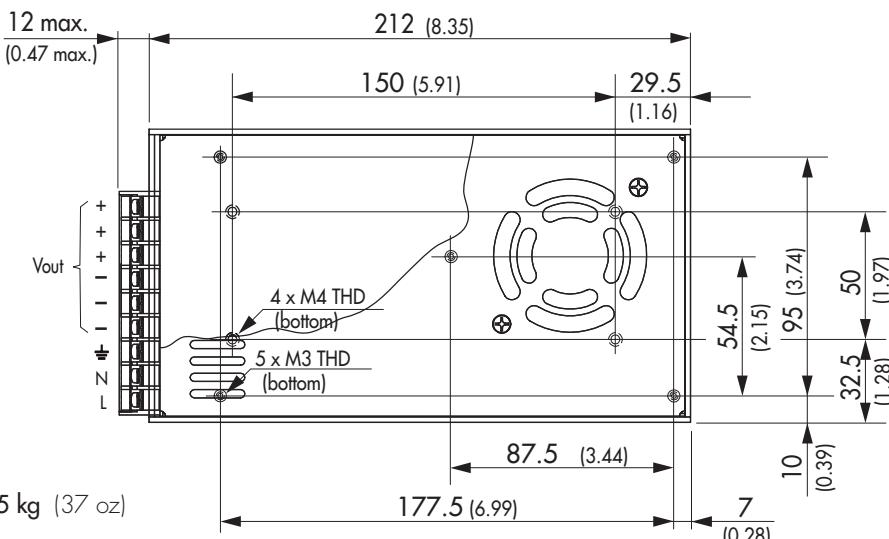
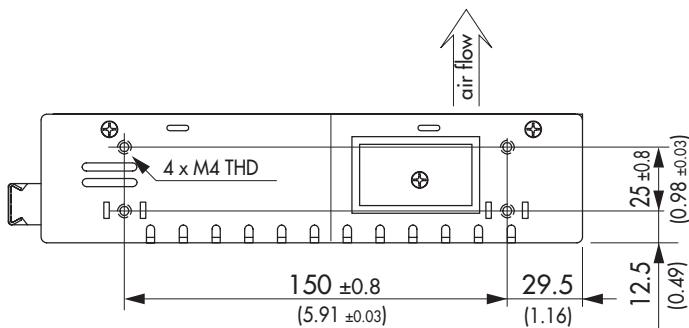


Weight: 0.88 kg (30 oz)

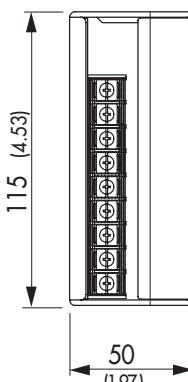


4x TXL-CMB chassis mount brackets included in shipment

Case O



Weight: 1.05 kg (37 oz)



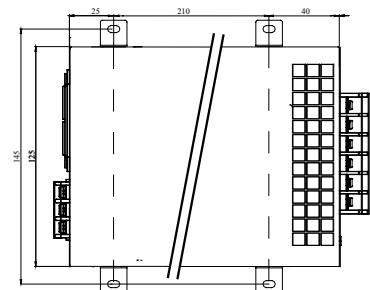
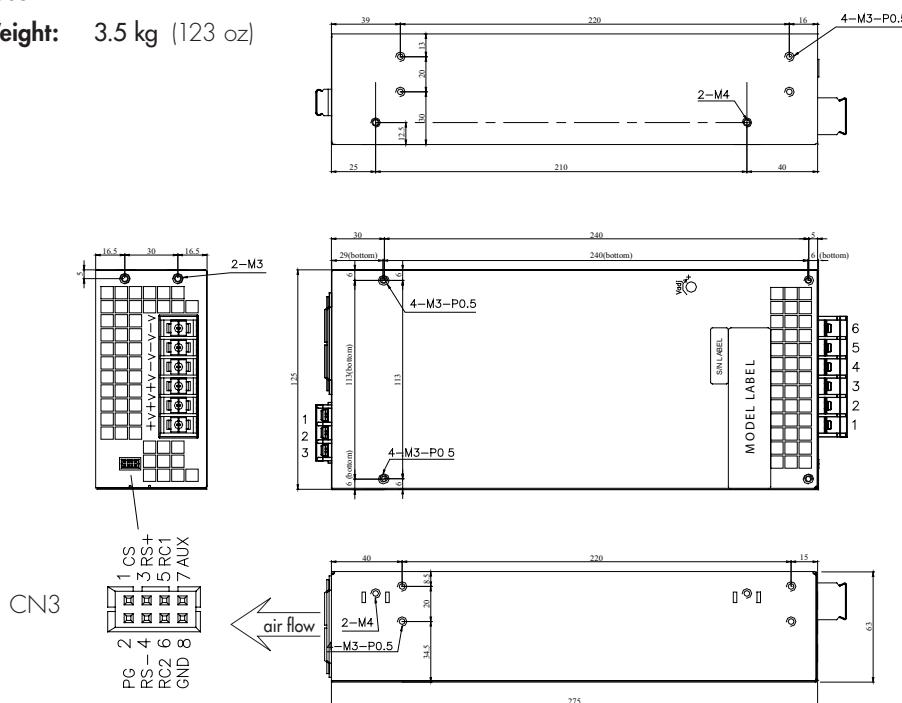
4x TXL-CMB chassis mount brackets included in shipment

Max mounting screw penetration: 3.0 mm (0.12)

Outline Dimensions

Case P

Weight: 3.5 kg (123 oz)



TXL-CMB chassis mount bracketset(4pcs)
included in shipment. For dimensions
see page 11.

Max mounting screw penetration: 3.0 mm (0.12)

CN3 pin consideration:

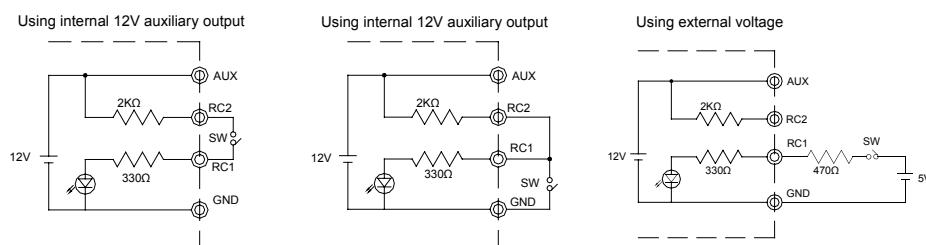
- Pin 1: Current sharing to interconnect up to 3 units at parallel operation
Max power = units x 0.9, max deviation of voltage adjustment among units = 100mV
- Pin 2: Power Good Signal, TTL (3mA max.): 0 – 1 VDC = DC-Off, 3.3 – 5.6 VDC = DC-OK
- Pin 3/4: Remote sense to be connected at load side under regard of polarity
- Pin 5/6: Remote control input RC1& RC2
- Pin 7/8: Auxiliary output 12VDC/0.1A for remote control function

Mating connector:

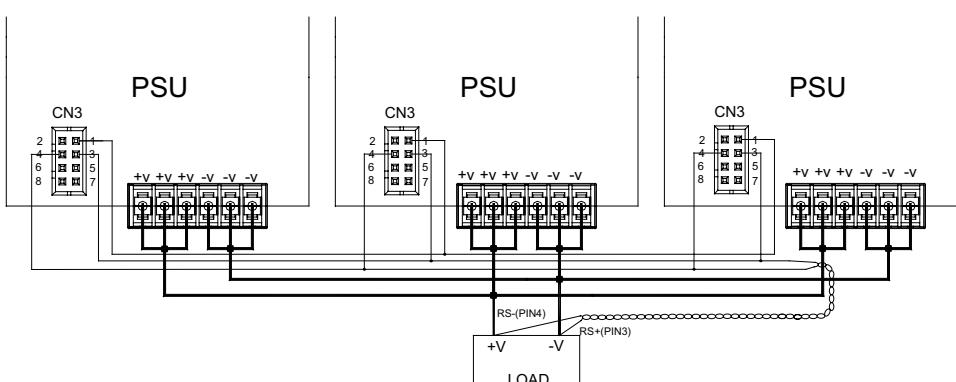
Housing: HRS DF11-08DS-2C
Terminal: HRS DF11-EP22SCB

Mating cable with 500mm flying leads included!

Remote On/Off function:

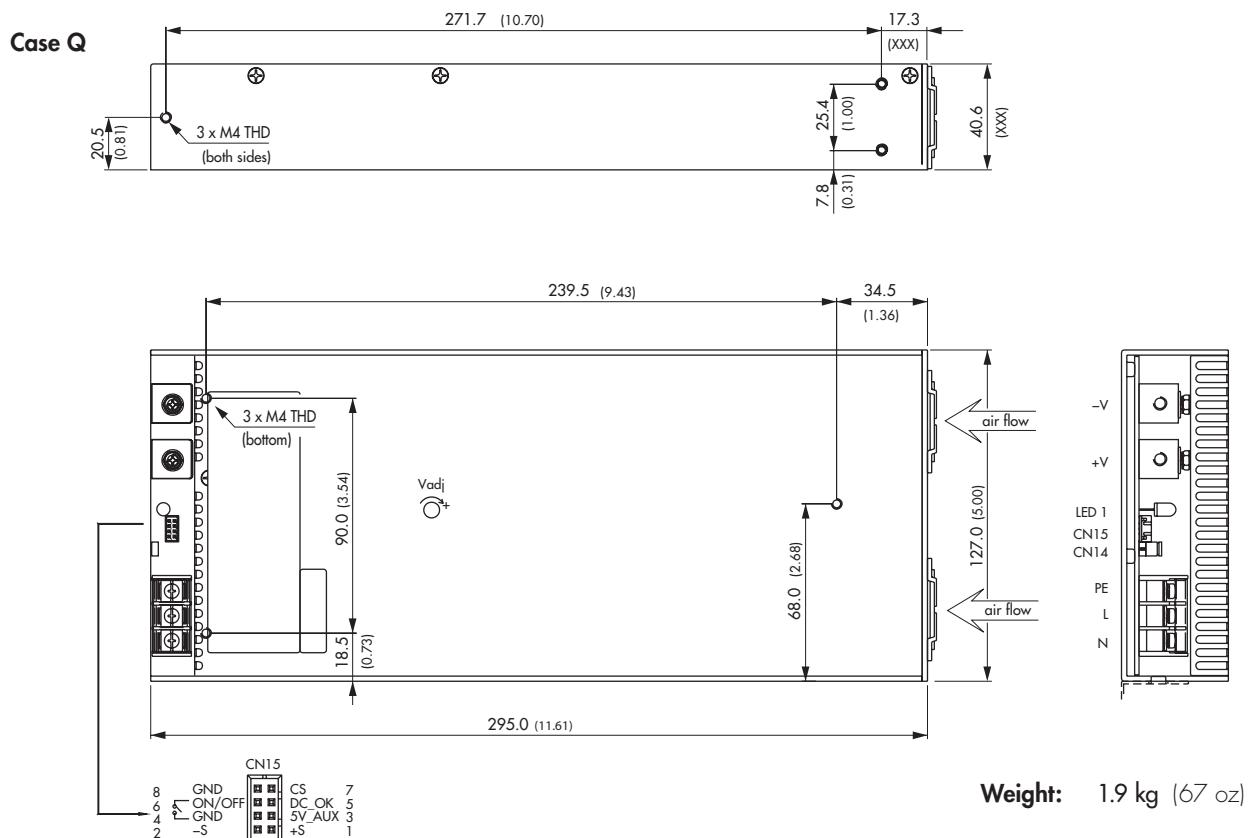


Parallel operation:



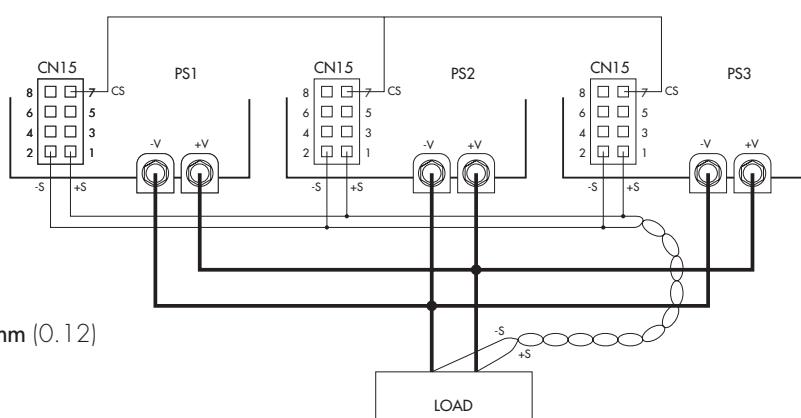
All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.

Outline Dimensions



- CN14 Jumper on CN14 disables the Remote Off function
- CN15 On/Off (pin 4 & 6): Contact closed = Power On, Contact open = Power Off
- CN15 -S/+S (pin 1 & 2): Remote sense to be connected at load side under regard of polarity
- CN15 5V Aux (pin 3 & 8): Auxiliary output 5 VDC / 0.5 A
- CN15 DC-OK (pin 5 & 8): TTL signal (2.2 mA max.): 0 – 1 VDC = DC-Off, 3.3 – 5.6 VDC = DC-OK
- CN15 CS (pin 7): Current Sharing to interconnect up to 4 units at parallel operation
Max power = units x 0.9, max deviation of voltage adjustment among units = 100mV

Parallel operation:



Dimensions in [mm], () = Inch
Tolerances ± 0.8 (± 0.03)
Mounting hole pitch tolerances ± 0.5 (± 0.02)

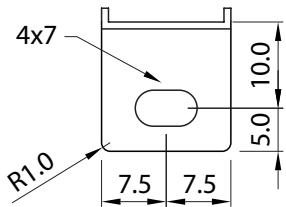
Caution! Max mounting screw penetration: 3.0 mm (0.12)

Specifications can be changed any time without notice.

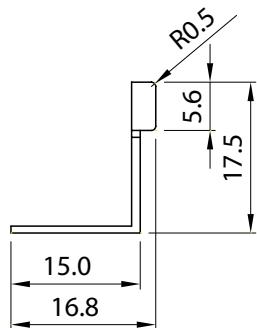
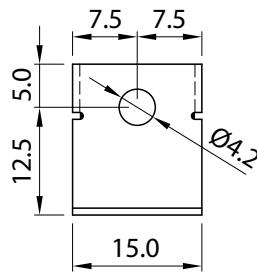
Chassi Mount Brackets

The chassis mount brackets are supplied along with the following models:

- TXL 150; Case L
- TXL 230; Case N
- TXL 350; Case O
- TXL 750; Case P
- TXL 1000; Case Q



Order code: TXL-CMB
contains 4pcs brackets and screws



Note:
1. Material: S.P.C.C.
2. Thickness: 0.8mm
3. Treatment: Nickel plated
4. Unit: mm

Specifications can be changed without notice! Make sure you are using the latest documentation, downloadable at www.tracopower.com