Enclosed Power Supplies

TXL Series, 25–1000 Watt

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 59 models in this range with single, dual, and triple output voltages from 3.3 VDC to 48 VDC in 10 power ranges from 25 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 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	0.75 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
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

Models with Single Output

Order Code	Case Type	Output Power max.	Output Voltage nom.	Output Current max.
TXL 100-3.3S	J	100 Watt	3.3 VDC	25.0 A
TXL 100-05S			5 VDC	20.0 A
TXL 100-12S			12 VDC	8.5 A
TXL 100-15S			15 VDC	6.8 A
TXL 100-24S			24 VDC	4.5 A
TXL 100-48S			48 VDC	2.1 A
TXL 120-12S	K	120 Watt	12 VDC	10.0 A
TXL 120-15S			15 VDC	8.0 A
TXL 120-24S			24 VDC	5.0 A
TXL 120-48S			48 VDC	2.5 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 220-12S	N	220 Watt	12 VDC	18.4 A
TXL 220-24S			24 VDC	9.2 A
TXL 220-48S			48 VDC	4.6 A
TXL 300-24S	O	300 Watt	24 VDC	12.5 A
TXL 300-48S			48 VDC	6.5 A
TXL 600-24S	P	600 Watt	24 VDC	25.0 A
TXL 600-48S			48 VDC	12.5 A
NEW TXL 1000-24S*	Q	1000 Watt	24 VDC	40.0 A
TXL 1000-48S*			48 VDC	20.0 A

* Specifications to be advised

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/ 1.5 A	
TXL 035-0524D			+5 VDC/ 4.0 A	+24 VDC/ 1.3 A	
TXL 035-1212D			+12 VDC/ 1.5 A	–12 VDC/ 1.5 A	
TXL 035-1515D			+15 VDC/ 1.3 A	–15 VDC/ 1.3 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/ 6.0 A	
TXL 100-0524DI			+5 VDC/ 10.0 A	+24 VDC/ 4.0 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/ 3.0 A	–15 VDC/ 1.5 A
TXL 100-0534TI			+5 VDC/ 12.0 A	+12 VDC/ 3.0 A	+24 VDC/ 2.0 A

* Total power must not exceed specified max. output power

Input Specifications

Input voltage range		85–264 VAC 88–264 VAC (TXL 100 & TXL 300 models)	
Input frequency		47–63 Hz	
Input current (at full load)		Vin = 115 VAC	Vin = 230 VAC
	TXL 025 models	0.54 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 120 models	1.30 A typ.	0.65 A typ
	TXL 150 models	2.10 A typ.	1.10 A typ.
	TXL 220 models	3.00 A typ.	1.60 A typ.
	TXL 300 models	3.30 A typ.	1.70 A typ
	TXL 600 models	6.30 A typ.	3.10 A typ
Input current (at no load)		Vin = 115 VAC	Vin = 230 VAC
	TXL 025 models	10 mA typ.	17 mA typ.
	TXL 035 models	50 mA typ.	55 mA typ.
	TXL 120 models	135 mA typ.	125 mA typ.
	TXL 220/300 models	115 mA typ.	140 mA typ.
	TXL 600 models	210 mA typ.	220 mA typ.
	other models	100 mA typ.	80 mA typ.
Recommended circuit breaker (characteristic C) or slow blow fuse	TXL 025/035/060/070 models	5 A	
	TXL 100/120/150/220 models	10 A	
	TXL 300 models	15 A	
	TXL 600 models	20 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	1 % max.	
	– Load variation (10–100%) single output models	2 % max.	
	multiple output models	4 % max. for main output	
		6 % max. for output 2/3 (20–100 % load)	
	– Minimum load on main output of multiple output models (to provide the regulation on the auxilary outputs)	0.3 A for TXL 035 1.0 A for TXL 060 1.5 A for TXL 100	
Ripple and noise (20 MHz bandwidth)	3.3VDC output	< 50mV	
	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.	3.3 VDC–12 VDC output models	10'000 µF	
	TXL 070: 24 VDC & 48VDC output models	10'000 µF	
	TXL 100/150: 24 VDC & 48VDC output models	4'700 µF	
	TXL 035/ 120: 24 VDC & 48VDC output models	1'000 µF	
	TXL 025/ TXL 220: models	5'000 µF	
	TXL 300 models	17'000 µF	
	TXL 600 models	44'000 µF	

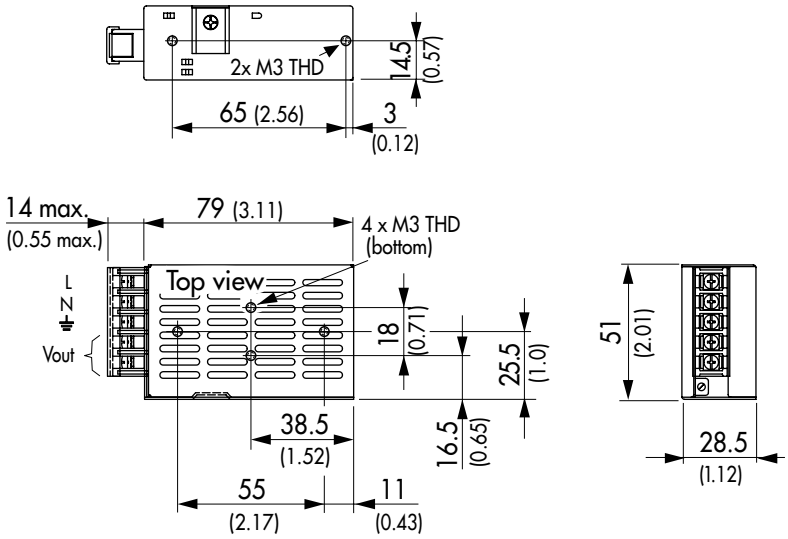
General Specifications

Temperature ranges	– Operating	– 10 °C to +70 °C
	– Load derating above 45°C	2% /°K (2.5%/°K for TXL 120/220)
	– Storage (non operating)	– 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 (60sec)	– Input/Output	3'000 VAC
	– Input/Case	1'500 VAC
	– Output/Case	500 VAC
	– Output/Output	
	60-100 Watt multiple output models:	500 VAC (for all outputs of triple output models!)
	35 Watt dual output models:	outputs not isolated
Reliability /calculated MTBF (MIL-HDBK-217F)		>250'000 h @ 25 °C typ.
Electromagnetic compatibility (EMC), Emissions	– Conducted input RI suppression	EN 55022, class B, FCC part 15, level B
	– Harmonic current emissions	IEC/EN 61000-3-2, class D (TXL 120/150/220)
		IEC/EN 61000-3-2, class A (others)
	– Flicker	IEC/EN 61000-3-3
Electromagnetic compatibility (EMC), Immunity	– Electrostatic discharge ESD	IEC/EN 61000-4-2 4 kV / 8 kV
	– RF field immunity	IEC/EN 61000-4-3 3 V/m
	– Electrical fast transients/burst immunity	IEC/EN 61000-4-4 1 kV
	– Surge	IEC/EN 61000-4-5 1 kV / 2 kV
	– Conducted RF	IEC/EN 61000-4-6 3 V/m
	– Magnetic field	IEC/EN 61000-4-8 3 A/m
	– Voltage dip	IEC/EN 61000-4-11
Safety standards		UL 60950-1, IEC 60950-1, EN 60950-1
Safety approval		cUL/UL File E188913
Case material	TXL 025/035	nickel plated steel (chassis & cover)
	TXL 50/60/70/100	aluminium (chassis), nickel plated steel (cover)
	others	aluminium (chassis & cover)

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

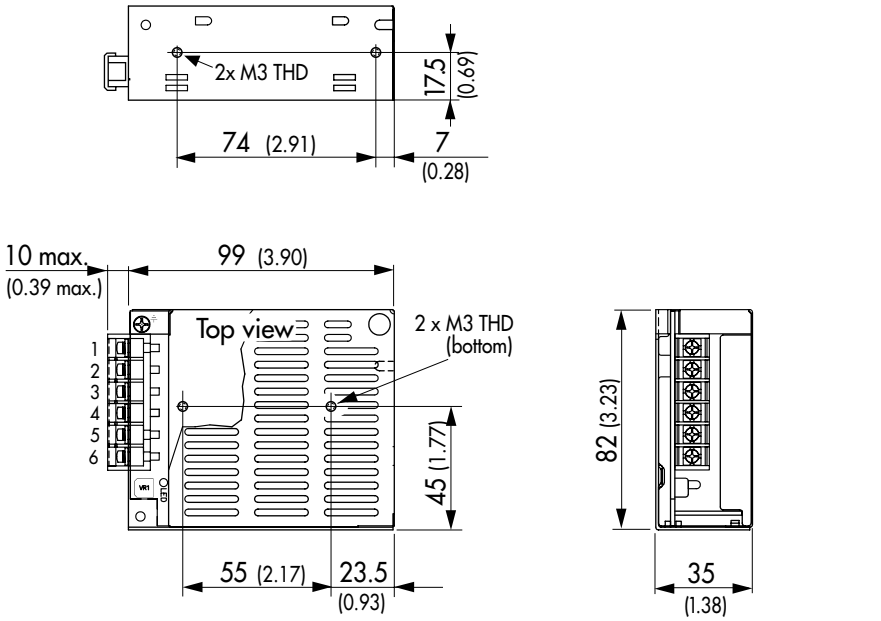
Case Dimensions

Case C



Weight: 0.19 kg (6.7 oz)

Case D



Weight: 0.3 kg (10 oz)

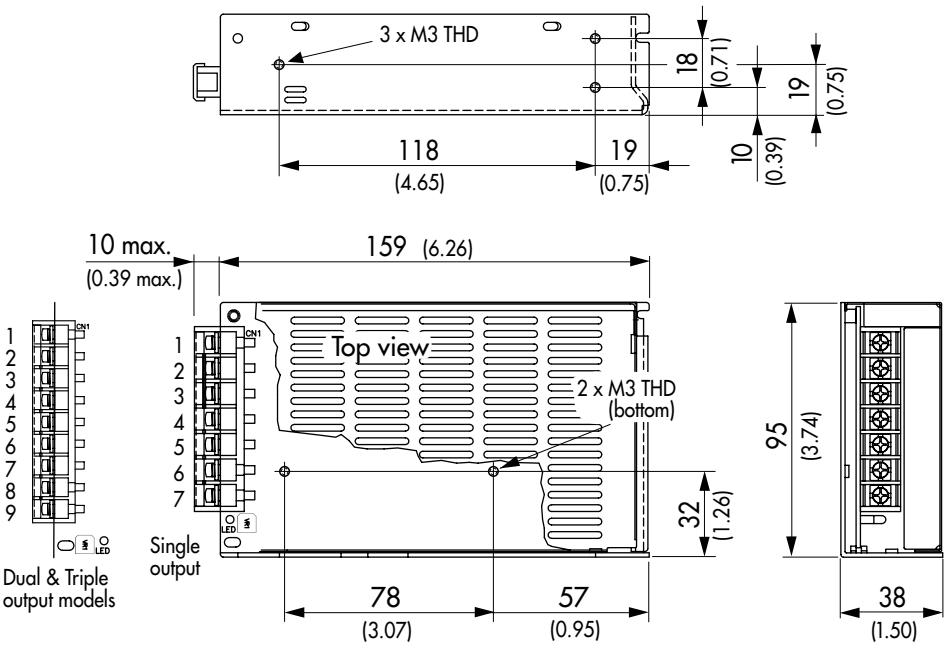
Connection		
	single	**dual**
1	AC L	AC L
2	AC N	AC N
3	AC FG	AC FG
4	–V out	Common
5	+V out	V out 1
6	No con.	V out 2

Tolerances and max. screw penetration see page 9

Case Dimensions

Case E

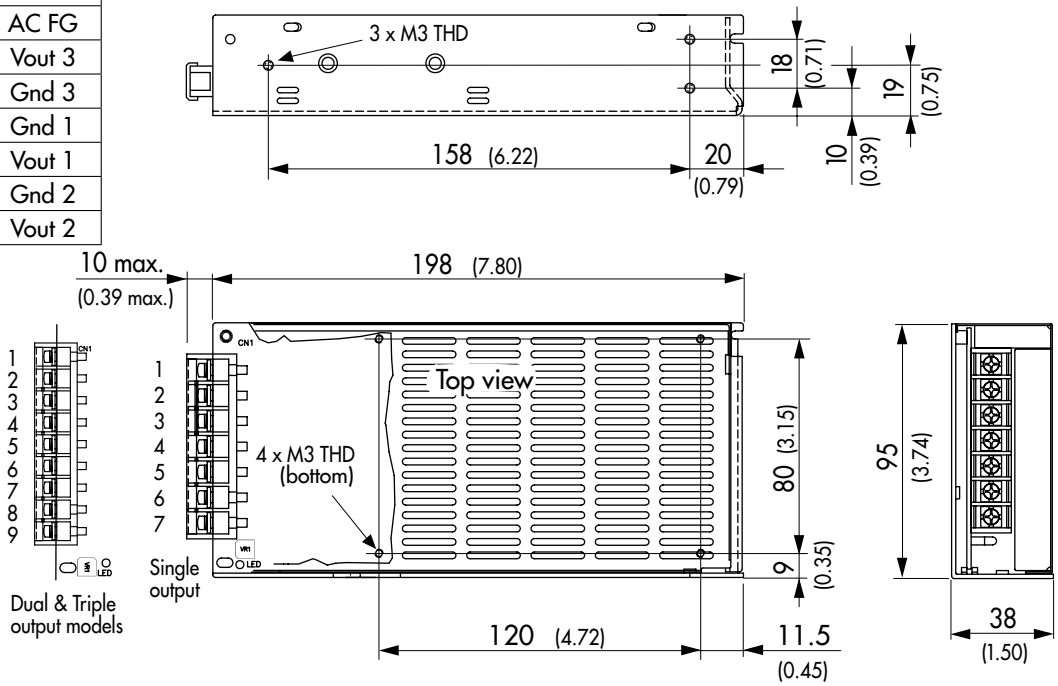
Connection			
	Single	Dual	Triple
1	AC L	AC L	AC L
2	AC N	AC N	AC N
3	AC FG	AC FG	AC FG
4	–Vout	No con.	Vout 3
5	–Vout	No con	Gnd 3
6	+Vout	Gnd 1	Gnd 1
7	+Vout	Vout 1	Vout 1
8	–	Gnd 2	Gnd 2
9	–	Vout 2	Vout 2



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	Gnd 3
6	+Vout	Gnd 1	Gnd 1
7	+Vout	Vout 1	Vout 1
8	–	Gnd 2	Gnd 2
9	–	Vout 2	Vout 2

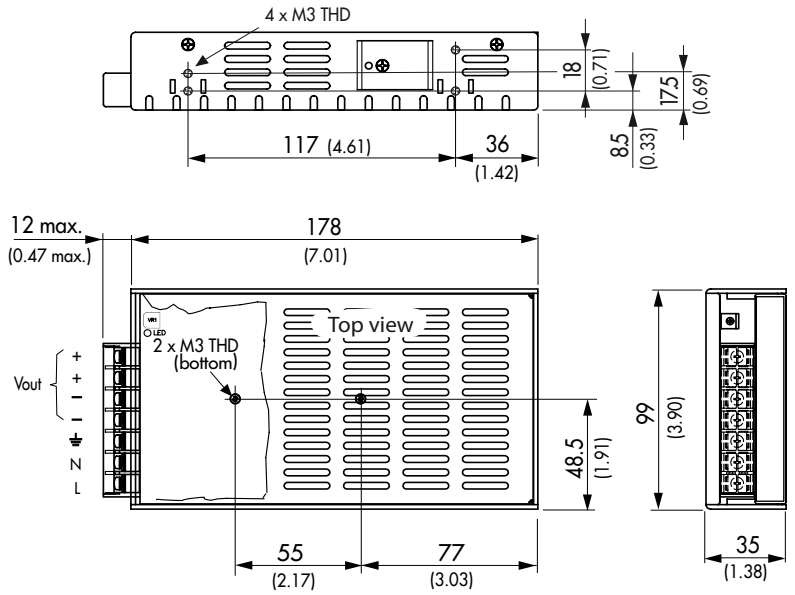


Weight: 0.8 kg (28 oz)

Tolerances and max. screw penetration see page 9

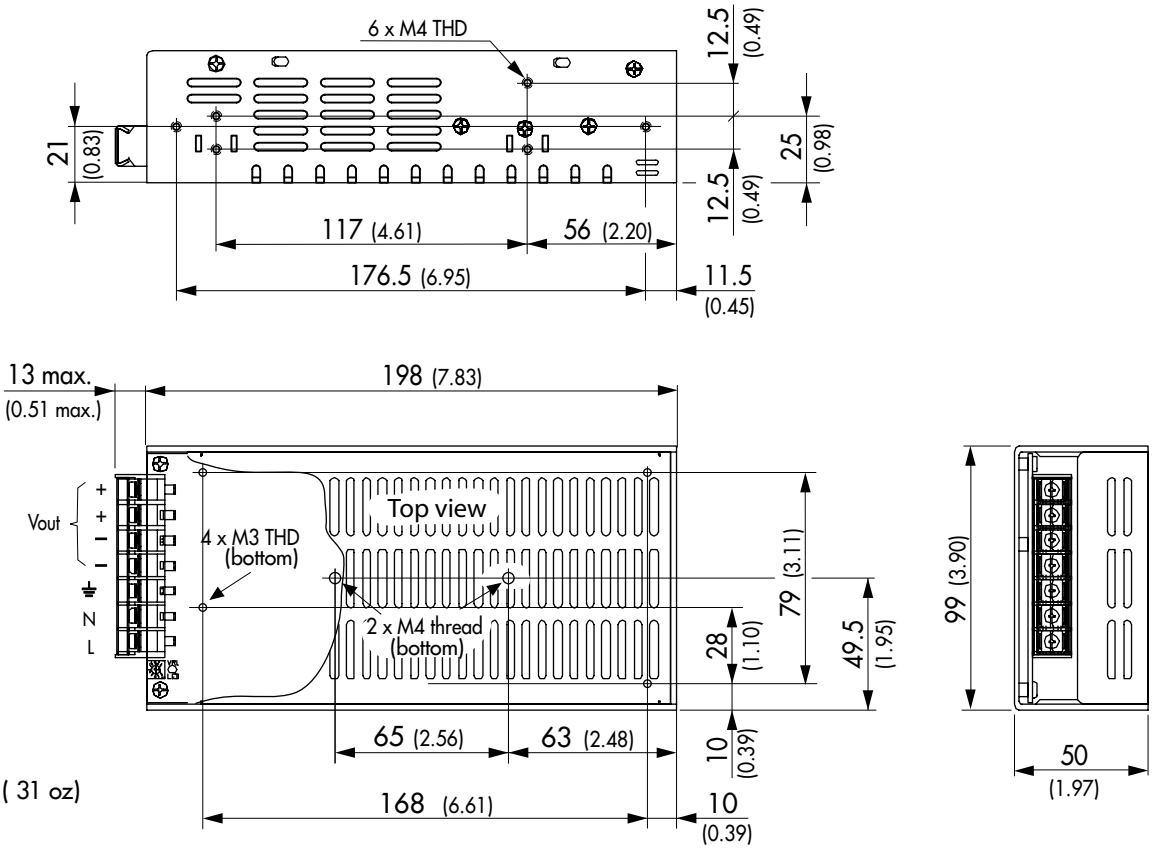
Case Dimensions

Case K



Weight: 0.82 kg (29 oz)

Case L

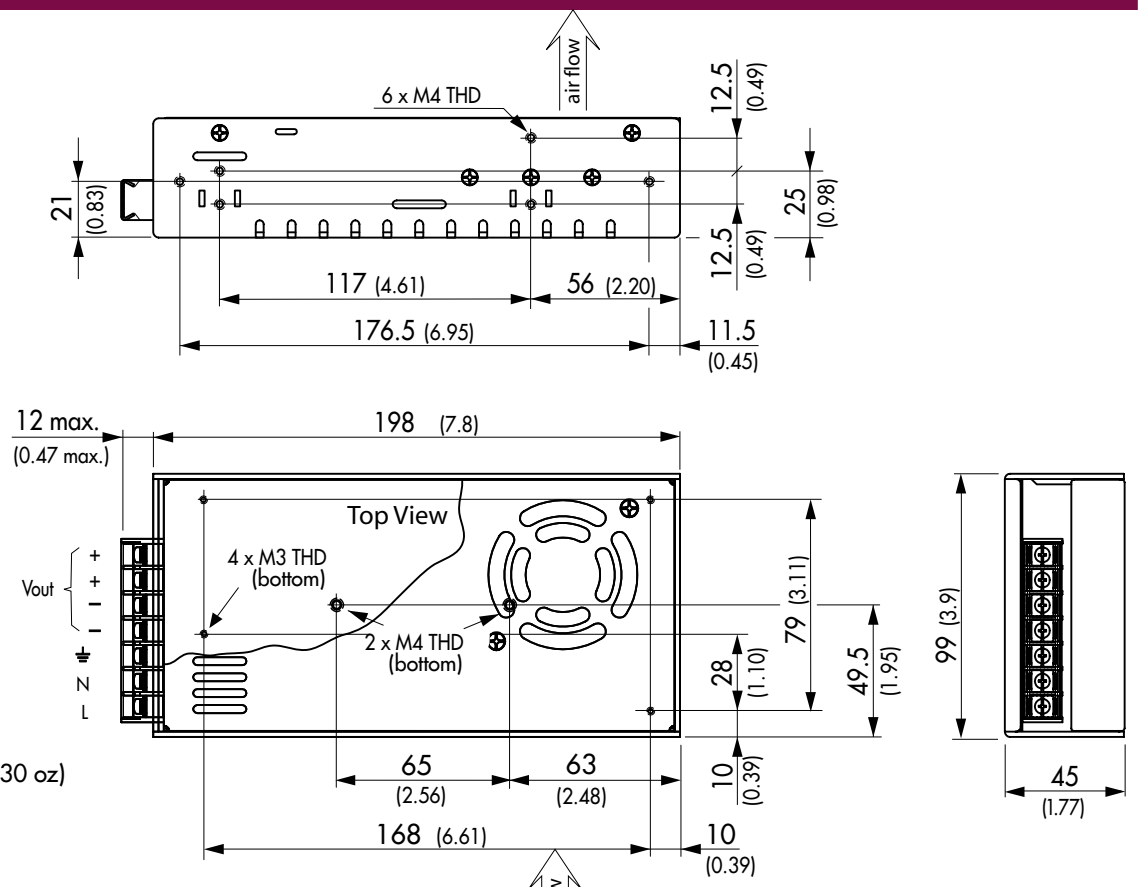


Weight: 0.89 kg (31 oz)

Tolerances and max. screw penetration see page 9

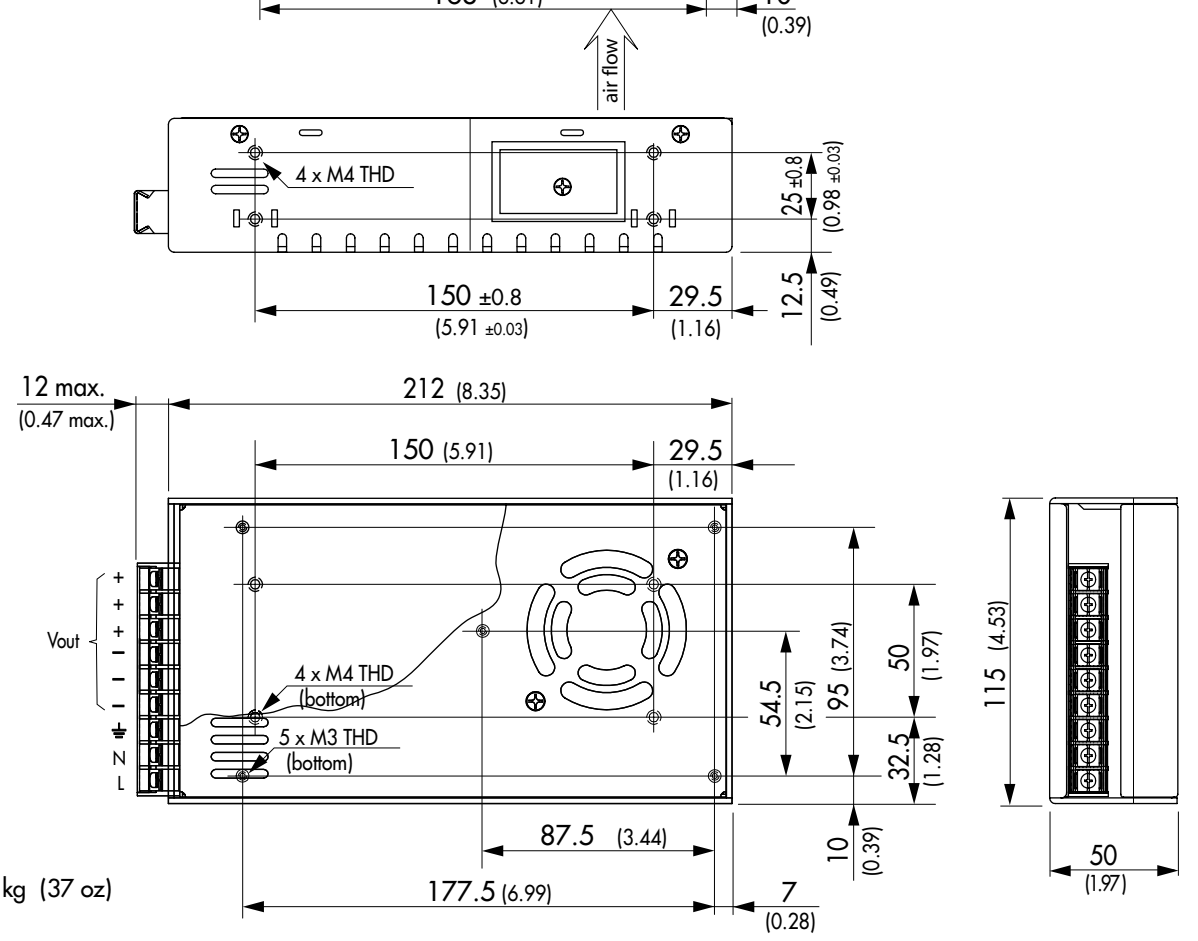
Outline Dimensions

Case N



Weight: 0.86 kg (30 oz)

Case O

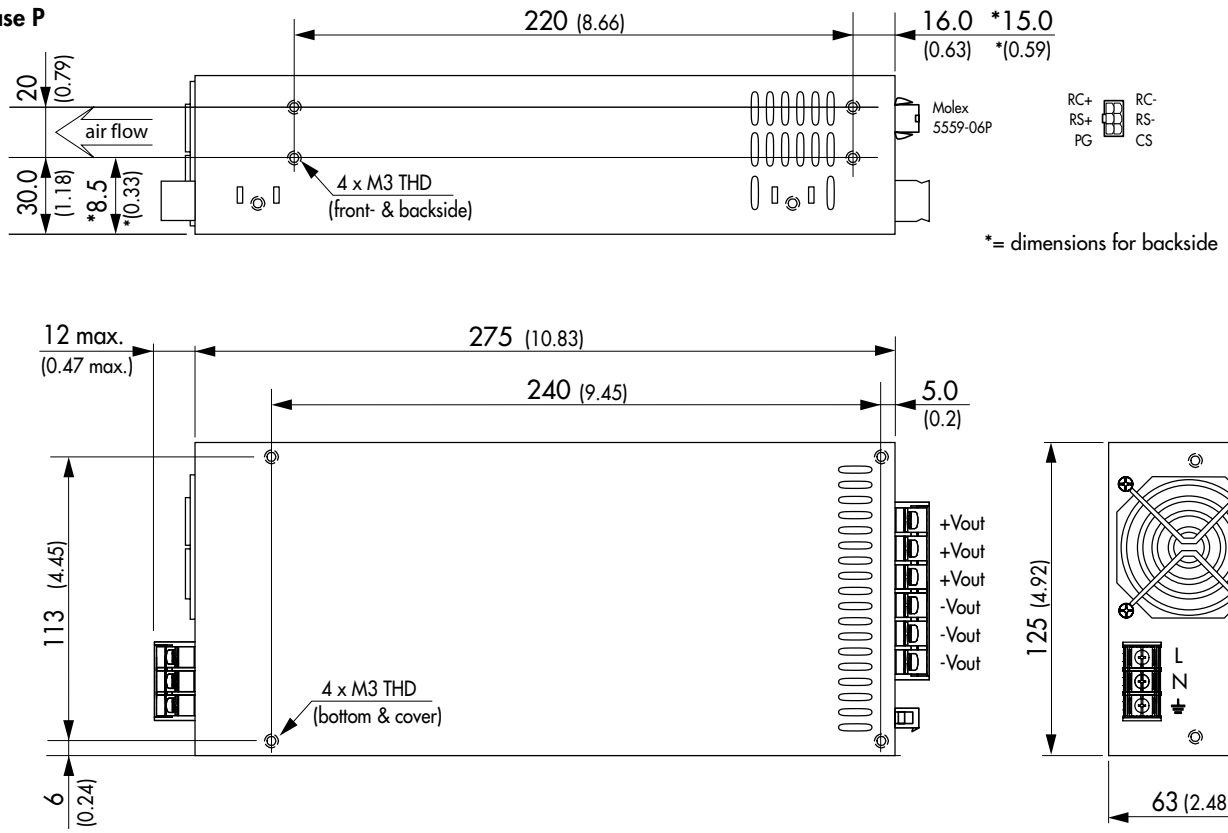


Weight: 1.05 kg (37 oz)

Tolerances and max. screw penetration see page 9

Outline Dimensions

Case P



Weight: 2.3 kg (81 oz)

Molex Connector	
RC	Remote Control On/Off: RC+/RC–: 0–0.7 V = On 3–5 V = Off. Sink Current: 3–10 mA.
RS	Remote Sense Can be open or connected to the load under regard of polarity
PG	Power Good Signal: High level TTL signal within 100–500 ms after power On
CS	Current Sharing: For parallel operation

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

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

Specifications can be changed any time without notice.

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