

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 enclosed 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 TXL 025-05S TXL 025-12S TXL 025-15S TXL 025-24S TXL 025-48S	C	25 Watt	3.3 VDC 5 VDC 12 VDC 15 VDC 24 VDC 48 VDC	6.0 A 5.0 A 2.1 A 1.7 A 1.1 A 0.57 A
TXL 035-3.3S TXL 035-05S TXL 035-12S TXL 035-15S TXL 035-24S TXL 035-48S	D	35 Watt	3.3 VDC 5 VDC 12 VDC 15 VDC 24 VDC 48 VDC	9.0 A 7.0 A 3.0 A 2.4 A 1.5 A 0.75 A
TXL 050-05S TXL 060-12S TXL 060-15S TXL 060-24S			50 / 60 Watt	5 VDC 12 VDC 15 VDC 24 VDC
TXL 060-3.3S TXL 060-05S TXL 070-12S TXL 070-15S TXL 070-24S TXL 070-48S	E	60 / 70 Watt	3.3 VDC 5 VDC 12 VDC 15 VDC 24 VDC 48 VDC	15.0 A 12.0 A 6.0 A 4.8 A 3.0 A 1.5 A

Models with Single Output

Order Code	Case Type	Output Power max.	Output Voltage nom.	Output Current max.
TXL 100-3.3S TXL 100-05S TXL 100-12S TXL 100-15S TXL 100-24S TXL 100-48S	J	100 Watt	3.3 VDC 5 VDC 12 VDC 15 VDC 24 VDC 48 VDC	25.0 A 20.0 A 8.5 A 6.8 A 4.5 A 2.1 A
TXL 120-12S TXL 120-15S TXL 120-24S TXL 120-48S	K	120 Watt	12 VDC 15 VDC 24 VDC 48 VDC	10.0 A 8.0 A 5.0 A 2.5 A
TXL 150-05S TXL 150-12S TXL 150-24S TXL 150-48S	L	150 Watt	5 VDC 12 VDC 24 VDC 48 VDC	30.0 A 12.5 A 6.3 A 3.2 A
TXL 220-12S TXL 220-24S TXL 220-48S	N	220 Watt	12 VDC 24 VDC 48 VDC	18.4 A 9.2 A 4.6 A
TXL 300-24S TXL 300-48S	O	300 Watt	24 VDC 48 VDC	12.5 A 6.5 A
TXL 600-24S TXL 600-48S	P	600 Watt	24 VDC 48 VDC	25.0 A 12.5 A
NEW TXL 1000-24S* TXL 1000-48S*	Q	1000 Watt	24 VDC 48 VDC	40.0 A 20.0 A

* Specifications to be advised

Models with Multiple Output

Order Code	Case Type	Output Power max.	* Output 1 (Main Output)	* Output 2	* Output 3
TXL 035-0512D TXL 035-0524D TXL 035-1212D TXL 035-1515D	D	35 Watt	+5 VDC/ 4.0 A +5 VDC/ 4.0 A +12 VDC/ 1.5 A +15 VDC/ 1.3 A	+12 VDC/ 1.5 A +24 VDC/ 1.3 A -12 VDC/ 1.5 A -15 VDC/ 1.3 A	
TXL 060-0512DI TXL 060-0524DI TXL 060-0521TI TXL 060-0522TI TXL 060-0533TI TXL 060-0534TI	E	60 Watt	+5 VDC/ 8.0 A +5 VDC/ 6.0 A +5 VDC/ 8.0 A +5 VDC/ 7.0 A +5 VDC/ 7.0 A +5 VDC/ 6.0 A	+12 VDC/ 4.0 A +24 VDC/ 2.2 A +12 VDC/ 3.5 A +12 VDC/ 3.5 A +15 VDC/ 3.0 A +12 VDC/ 1.5 A	-5 VDC/ 1.0 A -12 VDC/ 1.0 A -15 VDC/ 1.0 A +24 VDC/ 1.2 A
TXL 100-0512DI TXL 100-0524DI TXL 100-0521TI TXL 100-0522TI TXL 100-0533TI TXL 100-0534TI	J	100 Watt	+5 VDC/ 12.0 A +5 VDC/ 10.0 A +5 VDC/ 12.0 A +5 VDC/ 12.0 A +5 VDC/ 12.0 A +5 VDC/ 12.0 A	+12 VDC/ 6.0 A +24 VDC/ 4.0 A +12 VDC/ 5.0 A +12 VDC/ 5.0 A +15 VDC/ 3.0 A +12 VDC/ 3.0 A	-5 VDC/ 1.5 A -12 VDC/ 1.5 A -15 VDC/ 1.5 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)		<table border="0"> <tr> <td></td> <td>Vin = 115 VAC</td> <td>Vin = 230 VAC</td> </tr> <tr> <td>TXL 025 models</td> <td>0.54 A typ.</td> <td>0.22 A typ.</td> </tr> <tr> <td>TXL 035 models</td> <td>0.70 A typ.</td> <td>0.42 A typ.</td> </tr> <tr> <td>TXL 060/ 070 models</td> <td>1.00 A typ.</td> <td>0.60 A typ.</td> </tr> <tr> <td>TXL 100 models</td> <td>1.65 A typ.</td> <td>0.95 A typ.</td> </tr> <tr> <td>TXL 120 models</td> <td>1.30 A typ.</td> <td>0.65 A typ.</td> </tr> <tr> <td>TXL 150 models</td> <td>2.10 A typ.</td> <td>1.10 A typ.</td> </tr> <tr> <td>TXL 220 models</td> <td>3.00 A typ.</td> <td>1.60 A typ.</td> </tr> <tr> <td>TXL 300 models</td> <td>3.30 A typ.</td> <td>1.70 A typ.</td> </tr> <tr> <td>TXL 600 models</td> <td>6.30 A typ.</td> <td>3.10 A typ.</td> </tr> </table>		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.
	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)		<table border="0"> <tr> <td></td> <td>Vin = 115 VAC</td> <td>Vin = 230 VAC</td> </tr> <tr> <td>TXL 025 models</td> <td>10 mA typ.</td> <td>17 mA typ.</td> </tr> <tr> <td>TXL 035 models</td> <td>50 mA typ.</td> <td>55 mA typ.</td> </tr> <tr> <td>TXL 120 models</td> <td>135 mA typ.</td> <td>125 mA typ.</td> </tr> <tr> <td>TXL 220/300 models</td> <td>115 mA typ.</td> <td>140 mA typ.</td> </tr> <tr> <td>TXL 600 models</td> <td>210 mA typ.</td> <td>220 mA typ.</td> </tr> <tr> <td>other models</td> <td>100 mA typ.</td> <td>80 mA typ.</td> </tr> </table>		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.									
	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	<table border="0"> <tr> <td>TXL 025/035/060/070 models</td> <td>5 A</td> </tr> <tr> <td>TXL 100/120/150/220 models</td> <td>10 A</td> </tr> <tr> <td>TXL 300 models</td> <td>15 A</td> </tr> <tr> <td>TXL 600 models</td> <td>20 A</td> </tr> </table>	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																							
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	<ul style="list-style-type: none"> – Input variation – Load variation (10–100%) – Minimum load on main output of multiple output models (to provide the regulation on the auxiliary outputs) 	<table border="0"> <tr> <td>single output models</td> <td>1 % max.</td> </tr> <tr> <td>multiple output models</td> <td>2 % max.</td> </tr> <tr> <td></td> <td>4 % max. for main output</td> </tr> <tr> <td></td> <td>6 % max. for output 2/3 (20–100 % load)</td> </tr> <tr> <td></td> <td>0.3 A for TXL 035</td> </tr> <tr> <td></td> <td>1.0 A for TXL 060</td> </tr> <tr> <td></td> <td>1.5 A for TXL 100</td> </tr> </table>	single output models	1 % max.	multiple output models	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
single output models	1 % max.															
multiple output models	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)	<table border="0"> <tr> <td>3.3VDC output</td> <td>< 50mV</td> </tr> <tr> <td>Output 3 (on triple output models)</td> <td>< 1.5% of Vout</td> </tr> <tr> <td>all other output voltages</td> <td>< 1.0% of Vout nom.</td> </tr> </table>	3.3VDC output	< 50mV	Output 3 (on triple output models)	< 1.5% of Vout	all other output voltages	< 1.0% of Vout nom.									
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.	<table border="0"> <tr> <td>3.3 VDC–12 VDC output models</td> <td>10'000 µF</td> </tr> <tr> <td>TXL 070: 24 VDC & 48VDC output models</td> <td>10'000 µF</td> </tr> <tr> <td>TXL 100/150: 24 VDC & 48VDC output models</td> <td>4'700 µF</td> </tr> <tr> <td>TXL 035/ 120: 24 VDC & 48VDC output models</td> <td>1'000 µF</td> </tr> <tr> <td>TXL 025/ TXL 220: models</td> <td>5'000 µF</td> </tr> <tr> <td>TXL 300 models</td> <td>17'000 µF</td> </tr> <tr> <td>TXL 600 models</td> <td>44'000 µF</td> </tr> </table>	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	
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															

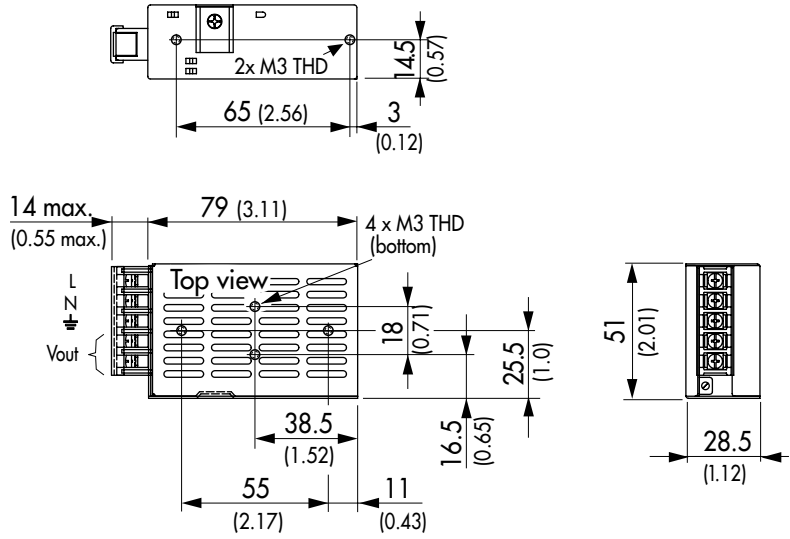
General Specifications

Temperature ranges	– Operating – Load derating above 45°C – Storage (non operating)	– 10 °C to +70 °C 2% /°K (2.5%/°K for TXL 120/220) – 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 – 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)		>250'000 h @ 25 °C typ.
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 60950-1, EN 60950-1
Safety approval		cUL/UL File E188913
Case 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.

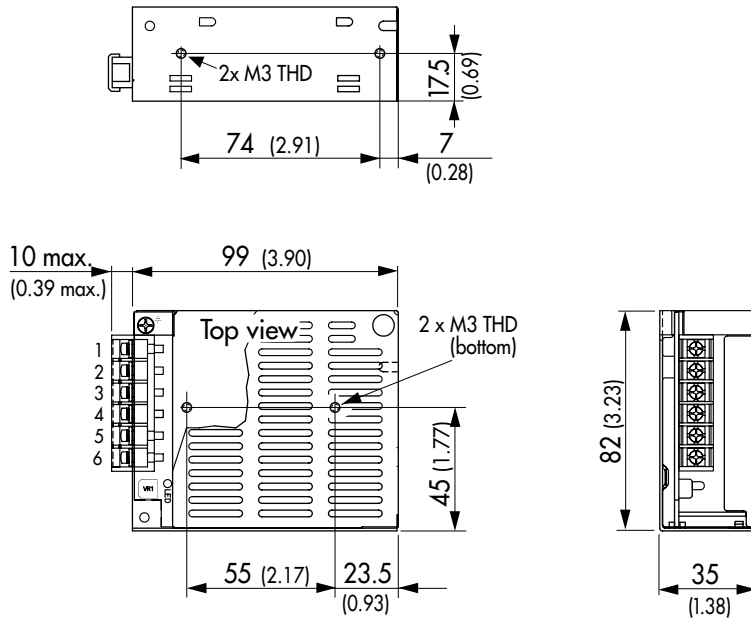
Case Dimensions

Case C



Weight: 0.19 kg (6.7 oz)

Case D



Weight: 0.3 kg (10 oz)

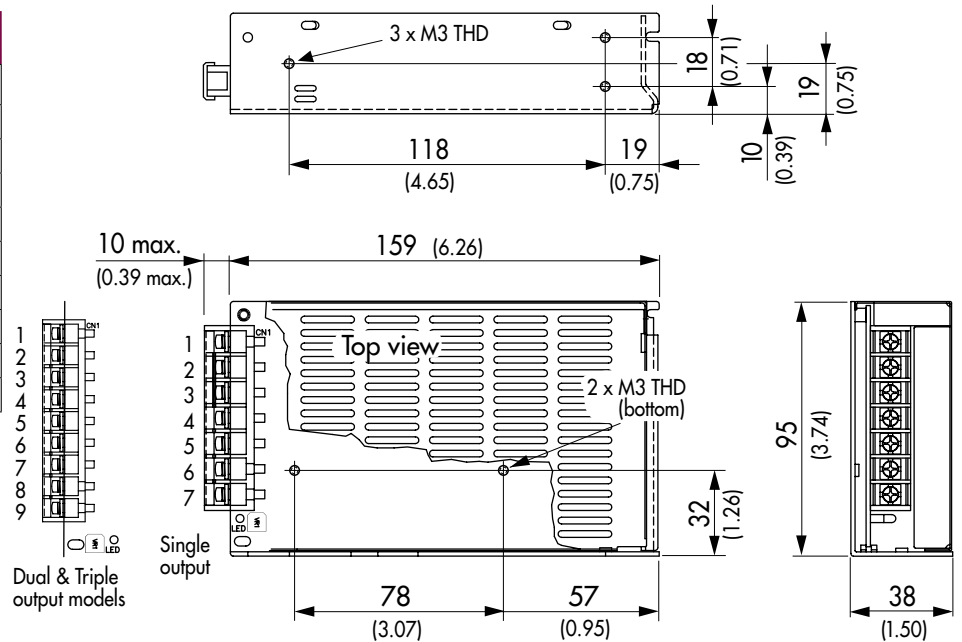
Connection		
	single	dual
1	AC L	AC L
2	AC N	AC N
3	AC FG	AC FG
4	-V out	Common
5	+V out	V out 1
6	No con.	V out 2

Tolerances and max. screw penetration see page 9

Case Dimensions

Case E

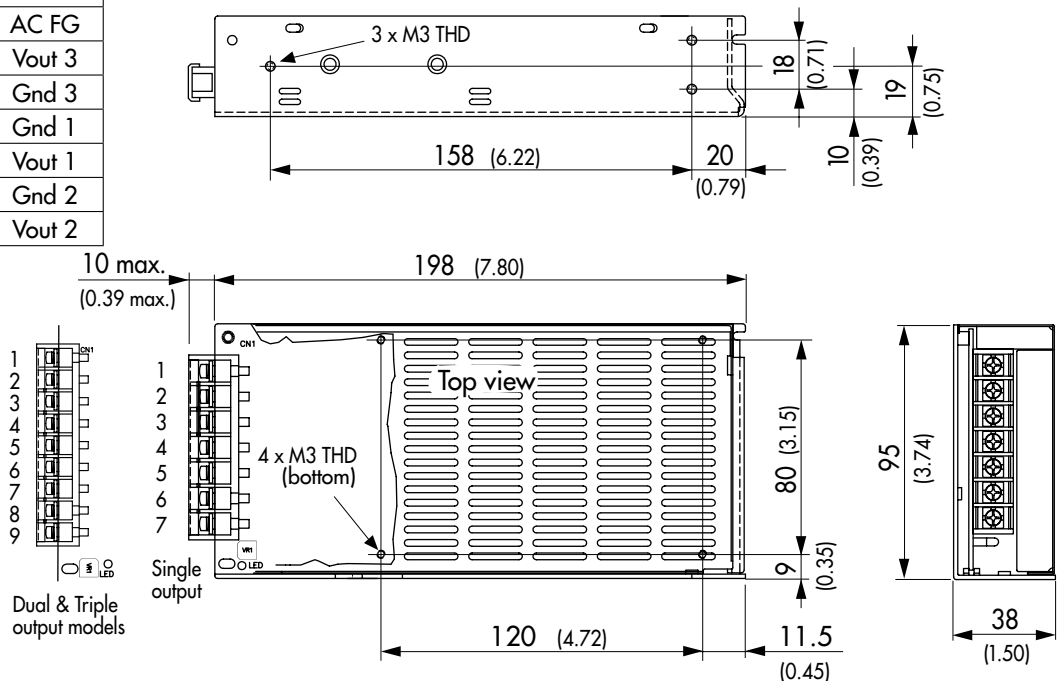
Connection			
	Single	Dual	Triple
1	AC L	AC L	AC L
2	AC N	AC N	AC N
3	AC FG	AC FG	AC FG
4	-Vout	No con.	Vout 3
5	-Vout	No con.	Gnd 3
6	+Vout	Gnd 1	Gnd 1
7	+Vout	Vout 1	Vout 1
8	-	Gnd 2	Gnd 2
9	-	Vout 2	Vout 2



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

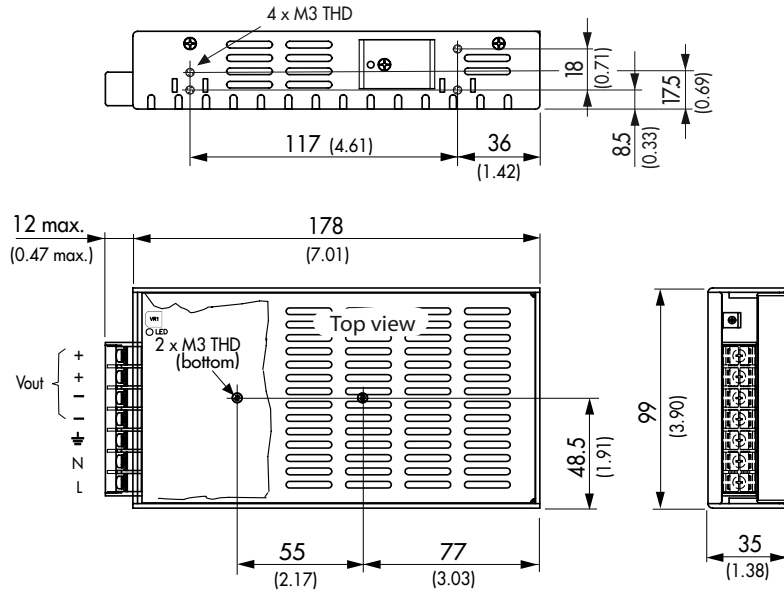


Weight: 0.8 kg (28 oz)

Tolerances and max. screw penetration see page 9

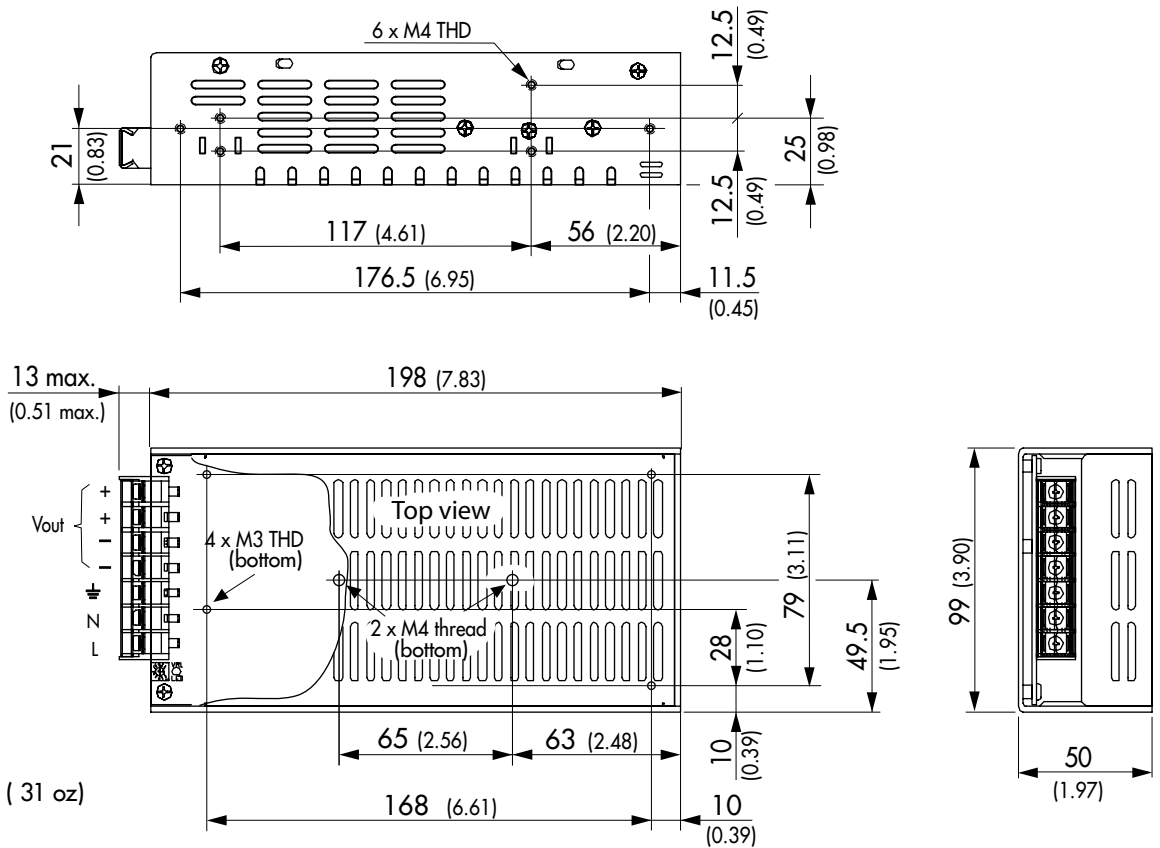
Case Dimensions

Case K



Weight: 0.82 kg (29 oz)

Case L

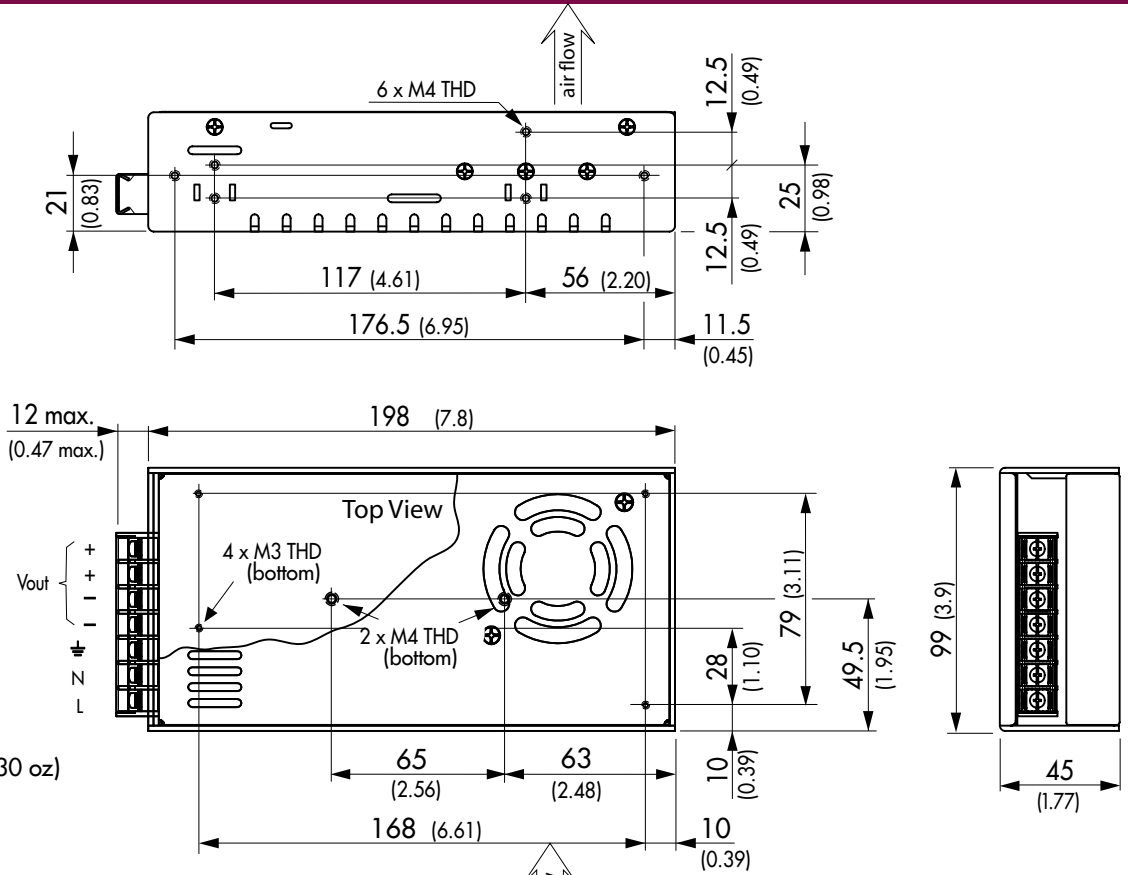


Weight: 0.89 kg (31 oz)

Tolerances and max. screw penetration see page 9

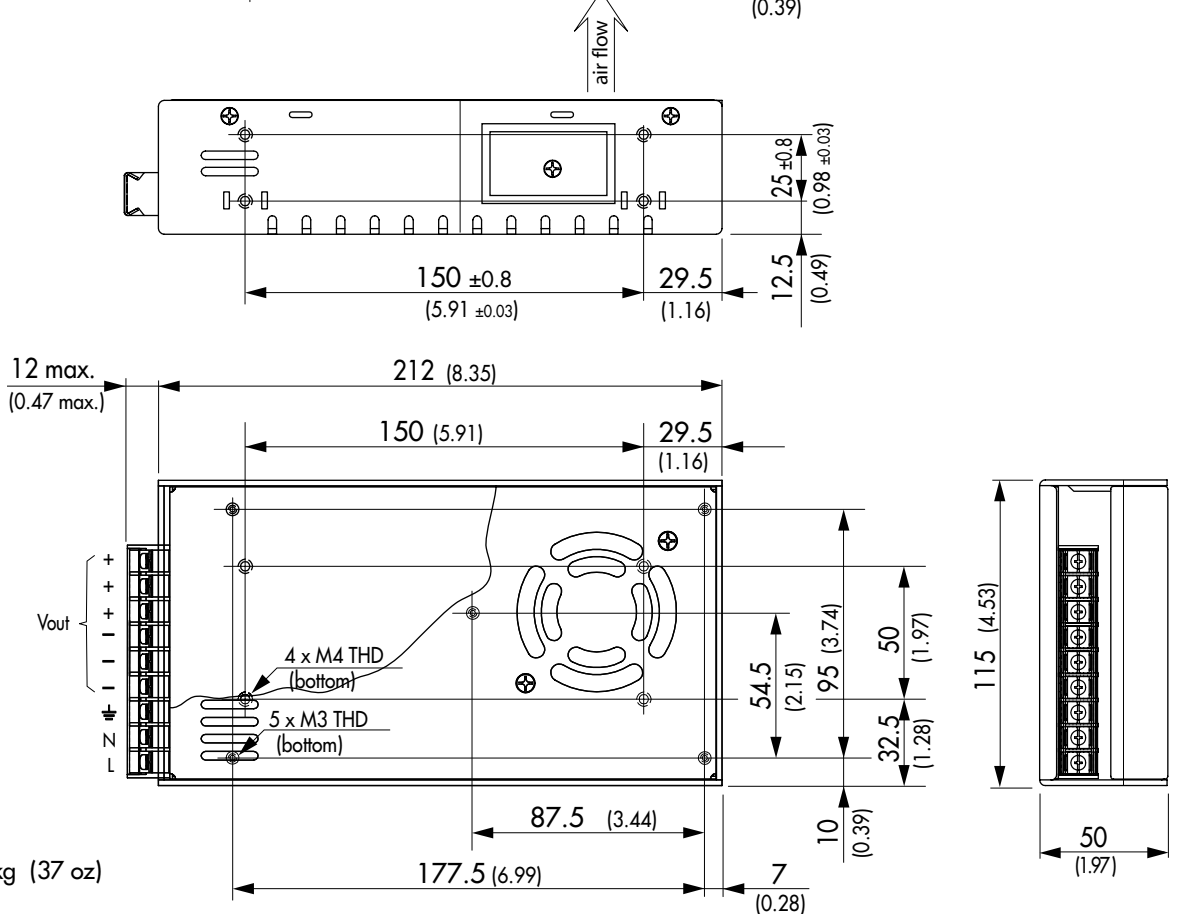
Outline Dimensions

Case N



Weight: 0.86 kg (30 oz)

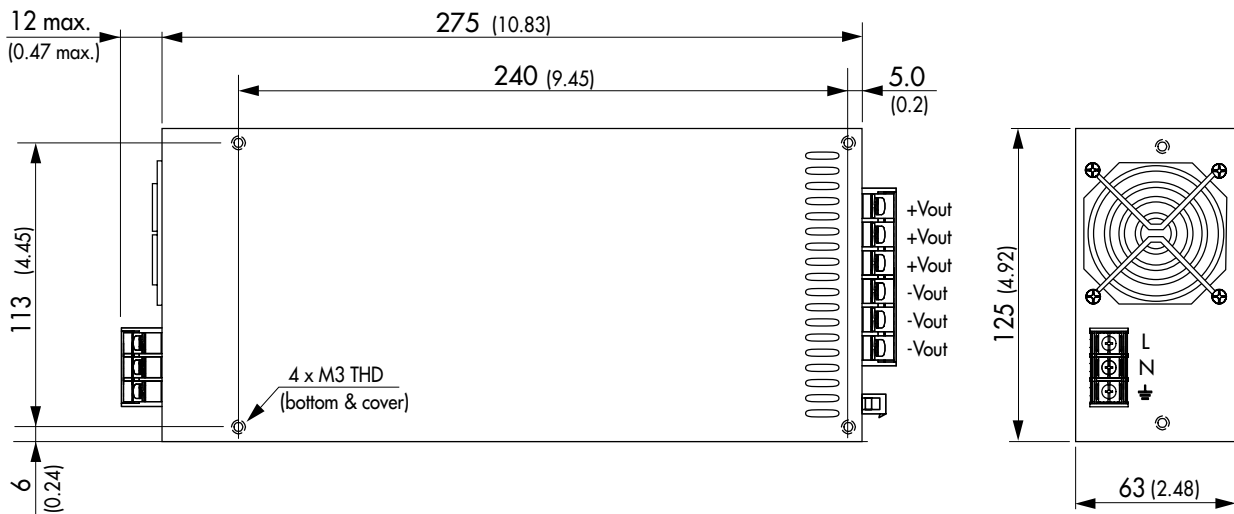
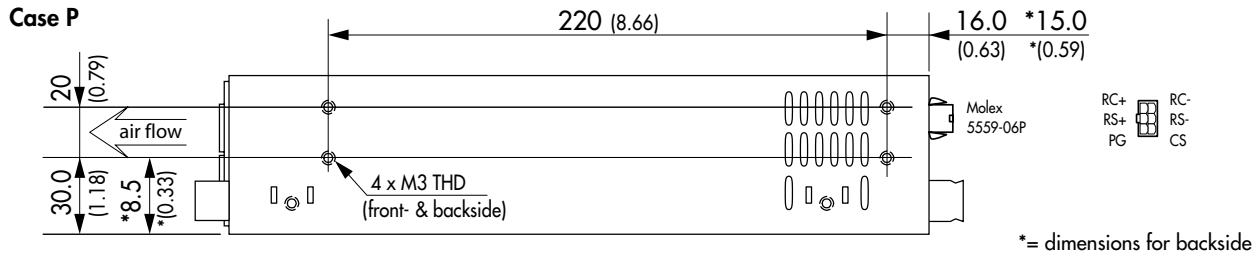
Case O



Weight: 1.05 kg (37 oz)

Tolerances and max. screw penetration see page 9

Outline Dimensions



Weight: 2.3 kg (81 oz)

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

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

Specifications can be changed any time without notice.

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