

Convel 42000 Series Operators Guide

These power supplies are intended for installation by suitably qualified personnel in enclosures that provide safety protection and as such are not user accessible. They are convection cooled and provision must be made for free air to flow round the unit.

Models with case size B must be mounted on a horizontal DIN rail.

It is not abnormal for outer case temperatures to exceed 80°C. Worst case condition temperatures in excess of 100°C may be found.

AVOID TOUCHING THE CASE WHEN THE UNIT IS POWERED, OR IMMEDIATELY AFTER SWITCHING OFF.

Additional cooling will improve the long term reliability normally achieved by mounting on a large metal surface, or if this is not possible by fan cooling.

AC CONNECTION AND FUSING

The 42000 SERIES regulated power supplies have link selectable inputs of 115 Vac or 230 Vac ($\pm 10\%$). See Figures 1 and 2 overleaf.

OVERLOAD PROTECTION

All models are fitted with foldback current limiting. This feature is factory set at 120% of I_{max} to minimise the risk of erroneous tripping due to line spikes etc. It is not recommended to run the power supply at greater than I_{max} continuously.

PARALLEL CONNECTION

1. Units of the same type may be connected in parallel in order to achieve greater output currents. In simple parallel operation the unit with the highest output voltage will supply the load current up to its limit whereon the next highest will provide the additional current up to its limit etc. To operate safely in this way the current limit should be adjusted to the nominal max unit current to avoid a constant overload situation.

2. On some units provision is made to operate in a master-slave mode in which all units connected provide approximately the same current.

3. In some cases it is desirable to have each supply capable of delivering 100% of the load current (parallel redundant) in this case the units should be connected as shown in figure 3 overleaf.

TECHNICAL SPECIFICATION

Input Voltage
115 or 230VAC ($\pm 10\%$) link selectable, 50 to 60Hz

Ripple & Noise
<5mV rms

Output Voltage Tolerance
 $\pm 5\%$ maximum

Load Regulation
 $\pm 0.2\%$ for 50% load change

Line Regulation
 $\pm 0.05\%$ for 10% line change

Isolation: Input to Output
3750Vac minimum

Temperature rating
Standard range:
0°C to +40°C full-rated,
derated linearly to 40% at
70°C

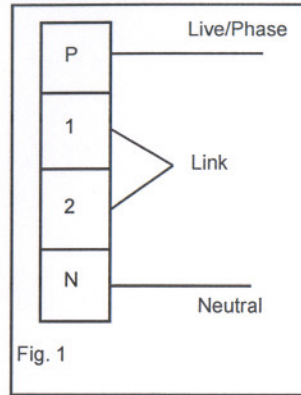
Safety
In accordance with EN60950

Overall Dimensions (l x w x h)
Case size 'A':
100 x 70 x 112mm
Case size 'B':
162 x 105 x 98mm
Both cases rated to IP20

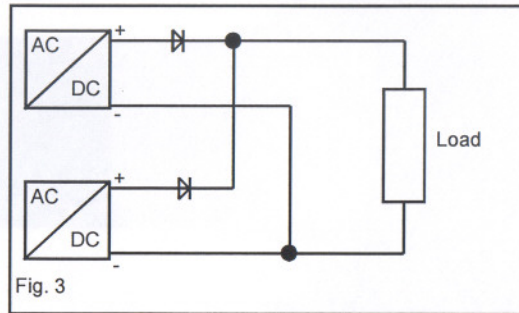
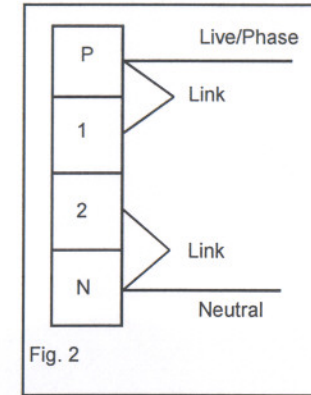
Weight
Case size 'A': 1.3 kg
Case size 'B': 2.5kg

Material
Case 'A': Polycarbonate (self extinguishing to UL 94V-0)
Case 'B': Steel housing with aluminium base

INPUT CONNECTION DIAGRAM 230VAC



INPUT CONNECTION DIAGRAM 115VAC



GENERAL SPECIFICATION

Calex Model	Output (V)	Output (A)	Input fuse		Case Size
			115V	230V	
42012A	12	1.0	0.5A	0.25A	A
42012A/2	12	2.0	0.5A	0.25A	A
42015A	15	1.0	0.5A	0.25A	A
42015A/2	15	2.0	0.5A	0.25A	A
42024A	24	1.0	0.5A	0.25A	A
42024A/2	24	2.0	1.0A	0.5A	A
42024B/3	24	3.0	1.0A	0.5A	B
42024B	24	4.0	2.0A	1.0A	B