Calex BPS5000 Triple Output Bench Top Power Supply
Interconnectable Fixed Floating Outputs

The BPS5000 provides three fully stabilised and smoothed variable DC power sources. Maximum versatility is achieved by making each output isolated from the other so that they may be interconnected to provide plus and minus rails or added together for higher voltages.

Outputs are current limited. An internal diode protects against reverse connection. Further protection is provided by an internal thermal overload mechanism which decreases the output voltage on continued overload. Indicator lights give an indication of excessive output current being drawn. An indicator light also gives identification of the mains power being on.

Outputs are terminated on 4mm terminals which double either as binding posts for wires or sockets for 4mm plugs.

A double-section bobbin transformer and careful layout internally ensures that the maximum mains/output isolation is achieved for greater safety.

SPECIFICATION

Mains Input
240VAC (±7.5%) 50/60Hz

Mains Fuse
1A, 20 x 5mm (located on back panel).

Output Voltage
Output 1: 12V ±0.2V
Output 2: 12V ±0.2V
Output 3: 5V ±0.2V
(All outputs are isolated from one another).

Output Current
All outputs 1A max (for up to 4 hours) 0.75A continuous

Load Regulation
(0 to 1A) 1%

Line Regulation
(222V to 258V) 1%

Noise and Ripple
10mV rms

Overload Indication
Occurs at approximately 25% overload

Power On Indication
LED on front panel

Termination
For use with 4mm wander plugs or as a binding post for wire connection.

Ambient Temperature Range
0°C to 35°C

Storage Temperature Range
-10°C to 80°C

Dimensions (h x w x d)
110 x 165 x 175mm

Weight
2.39kg

MAINTENANCE
The BPS5000 does not contain any user-serviceable components.

In the event of difficulty, or apparent circuit malfunction, it is advisable to telephone the Quality Department or your local sales engineer or agent for advice before attempting repairs.
Calex BPS1000
Multi-range/Multi-cell Ni-Cd Battery Charger

The BPS1000 constant current nickel cadmium battery charger is designed for quick charging, overnight charging or float (trickle) charging of a single cell or up to a maximum of 7 cells in series – as in a battery pack.

Selection of current is based around the standard range of commonly available cell sizes. The charger output is protected against short circuits and reverse connections and will not discharge cells if left connected with the power off.

SPECIFICATION
Input Voltage Range
Nominal 240VAC @ 50 to 60Hz
Output Current Ranges
Off
10mA
60mA
120mA
240mA
480mA
Output Current Tolerance
±10%

CHARGING NICKEL CADMIUM CELLS

<table>
<thead>
<tr>
<th>Cell Type</th>
<th>Nominal Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>PP3</td>
<td>110 mAh</td>
</tr>
<tr>
<td>N</td>
<td>150mAh</td>
</tr>
<tr>
<td>1/2 AA</td>
<td>240mAh</td>
</tr>
<tr>
<td>AAA</td>
<td>500mAh</td>
</tr>
<tr>
<td>AA</td>
<td>1.2A</td>
</tr>
<tr>
<td>PPB</td>
<td>2.0A</td>
</tr>
<tr>
<td>RR</td>
<td>4.0A</td>
</tr>
<tr>
<td>C (HP11)</td>
<td>7.0A</td>
</tr>
<tr>
<td>D (HP2)</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td></td>
</tr>
</tbody>
</table>

Note: Capacities may very slightly from manufacturer to manufacturer.

The voltages can be adjusted by rotating graduated control on the front panel. The output voltages are adjustable over the range indicated by turning the control knobs.

Care should be exercised when charging cells at rates higher than the C/4 rate as continuous over-charging at these rates tends to damage cells. The higher the charge rate the more likely a cell is to be damaged by overcharge.

At charge rates less than the C/4 rate many cells may be overcharged without damage. At the C/8 rate and lower, cells may be left charging indefinitely.

Calex BPS1510 Bench Top Power Supply 0 to 15VDC, 1A

The BPS1510 and BPS3005 provide a fully stabilised and smooth variable DC power source. The voltage can be adjusted by rotating a graduated control on the front panel.

The output is short circuit and reverse connection protected. Additional protection is provided by current limiting and an internal thermal shut-down mechanism.

A 20mm x 5mm mains fuse accessible from the rear panel provides further protection.

SPECIFICATION
Mains Input
240VAC (+7.5%) 50Hz via 1 metre 3-core cable, on/off switch and 20mm x 5mm mains fuse rated 0.5A
Power-On Indication
LED on front panel
DC Output 1
4 to 6V, adjustable by front panel control. Maximum current 0.5A. On this output the indicated area on the front panel is for T.T.L. applications and provides a reminder of the voltage range (4.75 to 5.25)
DC Outputs 2 & 3
+12 to 15V and –12 to –15V. The two outputs share a common 0V, are adjusted simultaneously by a single front panel control and are isolated from output 1. Maximum current 0.5A.
Load Regulation
Typically 0.5%
Ripple and Noise
Typically 5mV rms

Calex BPS3005 Bench Top Power Supply 0 to 30VDC, 0.5A

The BPS4000 provides three fully stabilised and smoothed variable DC power sources.

The voltages can be adjusted by rotating graduated controls on the front panel. All three outputs are short circuit and reverse connection protected. Additional protection is provided by current limiting and an internal thermal shut-down mechanism.

A 20mm x 5mm mains fuse accessible from the rear panel provides further protection.

SPECIFICATION
Mains Input
240VAC (+7.5%) 50Hz via 1 metre 3-core cable, on/off switch and 20mm x 5mm mains fuse rated 0.5A
Power-On Indication
LED on front panel
DC Output 1
4 to 6V, adjustable by front panel control. Maximum current 0.5A. On this output the indicated area on the front panel is for T.T.L. applications and provides a reminder of the voltage range (4.75 to 5.25)
DC Outputs 2 & 3
+12 to 15V and –12 to –15V. The two outputs share a common 0V, are adjusted simultaneously by a single front panel control and are isolated from output 1. Maximum current 0.5A.
Load Regulation
Typically 0.5%
Ripple and Noise
Typically 5mV rms

OPERATING INSTRUCTIONS
The AC input to the unit is via a three core mains lead to which a suitable plug must be attached. Fit a 3A mains fuse

Note these units must be earthed via the mains input, yellow/green lead. Do not obstruct the ventilation holes in the unit case.

DC OUTPUTS
The variable DC output voltage is available by connecting suitable leads to the red and black screw terminals situated on the front panel. The output voltage is adjustable over the range indicated by turning the control knobs.