OPTION  E, EV, F, FV, EW, FW

The Analogue primary option is a factory fitted option board which provides the following functions:

1) Warning the AC input has been lost or that the converter has overheated.
2) Global inhibit / enable (Global meaning the option inhibits/enables all modules or outputs at the same time).
3) Auxiliary supply (fixed 5V for E, EV, F, FV variants or a voltage in the range 5–15V for EW & FW variants) which is present when AC is applied to the PSU regardless of the inhibit/enable status.

Refer to Lambda document 62308 for specifications of the Primary Options.
The Option board occupies a position to the left of slot 5 as shown:

<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AC fail and over temperature warning. C</td>
</tr>
<tr>
<td>2</td>
<td>AC fail and over temperature warning. E</td>
</tr>
<tr>
<td>3</td>
<td>0V of auxiliary supply and 0V &quot;reference&quot; or &quot;return&quot; for global inhibit / enable.</td>
</tr>
<tr>
<td>4</td>
<td>Auxiliary supply +ve</td>
</tr>
<tr>
<td>5</td>
<td>Global inhibit/enable logic &quot;0&quot; input</td>
</tr>
<tr>
<td>6</td>
<td>Global inhibit/enable logic &quot;1&quot; input</td>
</tr>
</tbody>
</table>

Mating connector information:
Note: housing and pins supplied with each power supply.
Molex housing 50-37-5063
Molex crimp pins 08-70-1039
Molex hand crimp tool 11-26-0167 (Japan)
Or 11-01-0194 (Europe or USA)

INHIBIT OR ENABLE.

One of two options are available (required option must be specified at time of ordering) : Inhibit or Enable.
Both are TTL compatible.
They are physically the same but with different functionality.

<table>
<thead>
<tr>
<th>Option specified = &quot;INHIBIT&quot;</th>
<th>PIN 5 taken to 0V-0.8V will turn outputs OFF.</th>
<th>PIN 6 to be taken to 2-5V will turn outputs OFF.</th>
</tr>
</thead>
<tbody>
<tr>
<td>All outputs normally &quot;ON&quot; (even if not connected)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Option specified = &quot;ENABLE&quot;</th>
<th>PIN 5 taken to 0V-0.8V will turn outputs ON.</th>
<th>PIN 6 to be taken 2-5V will turn outputs ON.</th>
</tr>
</thead>
<tbody>
<tr>
<td>All outputs normally &quot;OFF&quot; (even if not connected)</td>
<td></td>
<td></td>
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</table>

All voltages are with respect to auxiliary 0Volts (PIN3 ). Both Pin 5 and Pin 6 will draw almost no current being the input to a comparator with suitable hysteresis.
Auxiliary supply.

This is available for powering auxiliary circuits and is present when AC input is applied regardless of inhibit/enable state of the PSU outputs. The output is rated as SELV.

Output voltage: Fixed 5V +/- 5% (Option E, EV, F, FV) or 5–15V (Option EW, FW)
Max continuous output current: 100 mA (Option E, F) or 300mA (Option EV, FV) or 1A (Option EW, FW)
Overload protection: Current limited and thermally protected
Hold up time: 1 Sec minimum
Isolation to earth: 500V DC max

AC FAIL

This provides an opto-isolated output which provides a minimum of 5mS warning before loss of output power due to either loss of AC input or over temperature of the converter.

Ic max: 5mA
Vce max: 30V
Warning time to DC output fall: 5mS min (see timing diagrams below)
Vce saturated: Less than 0.4V
The signal can be configured in two ways:

**Either:**

![Diagram showing PIN 1 (AC FAIL SIGNAL), RES, 5V AUX, AC PRESENT, AC LOST, AC FAIL SIGNAL, OUTPUT VOLTAGE, >5ms, >1s, 5V, 0V, 5V AUX, 0V AUX, PIN 2, 0V AUX]

**Or:**

![Diagram showing PIN 1, RES, 5V AUX, AC PRESENT, AC LOST, AC FAIL SIGNAL, OUTPUT VOLTAGE, >5ms, 5V, 0V, 5V AUX, 0V AUX, PIN 2 (AC FAIL SIGNAL), 0V AUX]