

## 500 Watt, SD Series, Fully Enclosed DC-DC Converter

**ALL PSU LTD**  
Electronic Power Solutions

- Wide 4:1 & 2:1 Inputs (19~72 & 72~144 VDC)
- Isolated Output (2000 VAC)
- Remote On/Off Function
- Protections, Short Circuit, Over Load, Over Volt, Over Temperature
- Built In Remote Sense Function
- 3 Year Warranty
- Output OK Signal
- DC Input Active Surge Current Limiting



### Specification

|                            |  |
|----------------------------|--|
| Input Voltage Ranges.....  | 19~72V, 72~144V  |
| Output Voltage.....        | See table below, plus adjustment range   |
| Line Regulation.....       | +/-0.5% (max)  |
| Load Regulation.....       | +/-0.5% (max)  |
| Over Load Protection.....  | 105~125% constant current limiting (up to 5 sec)                                       |
| Vibration.....             | 10-500Hz, 2G 10 min/1 cycle, 60 min along each axis                                    |
| Isolation Voltage.....     | 2 kVAC (input to output)   |
| Operating Temperature..... | -20 to +60 °C (see derating curve)   |
| Safety Standards.....      | IEC60950-1, CB approved by TUV   |
| EMC Standards.....         | EN55022 class B, EN61000-4-2, 3, 4, 6, 8<br>ENV50204 light industrial level criteria A |
| Dimensions.....            | 215(L) x 115(W) x 50(H) mm   |
| MTBF.....                  | 196.3 k hrs (MIL-HDBK-217F) @ 25 °C  |
| Weight.....                | 1.15 kg  |

### Models and Ratings

| Model      | Input Voltage | Output Volts / Amps | Output Adjustment | Ripple & Noise | Efficiency |
|------------|---------------|---------------------|-------------------|----------------|------------|
| SD-500L-12 | 19~72 VDC     | 12 V / 40 A         | 11~15 V           | 150 mV         | 85%        |
| SD-500L-24 | 19~72 VDC     | 24 V / 21 A         | 23~30 V           | 150 mV         | 88%        |
| SD-500L-48 | 19~72 VDC     | 48 V / 10.5 A       | 46~60 V           | 150 mV         | 89%        |
| SD-500H-12 | 72~144 VDC    | 12 V / 40 A         | 11~15 V           | 150 mV         | 86%        |
| SD-500H-24 | 72~144 VDC    | 24 V / 21 A         | 23~30 V           | 150 mV         | 89%        |
| SD-500H-48 | 72~144 VDC    | 48 V / 10.5 A       | 46~60 V           | 150 mV         | 90%        |

#### Notes:

Low voltage input (code L) units derate linearly to 75% power from 24VDC down to 19VDC input

Remotes sense will compensate for up to 0.5V drop

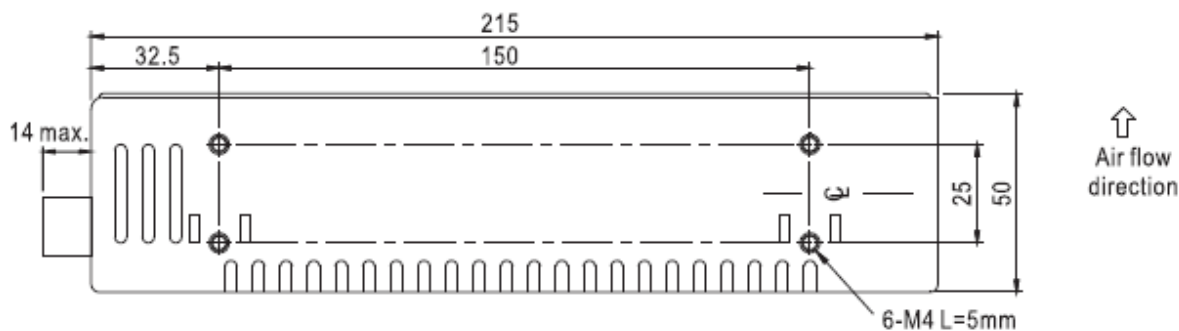
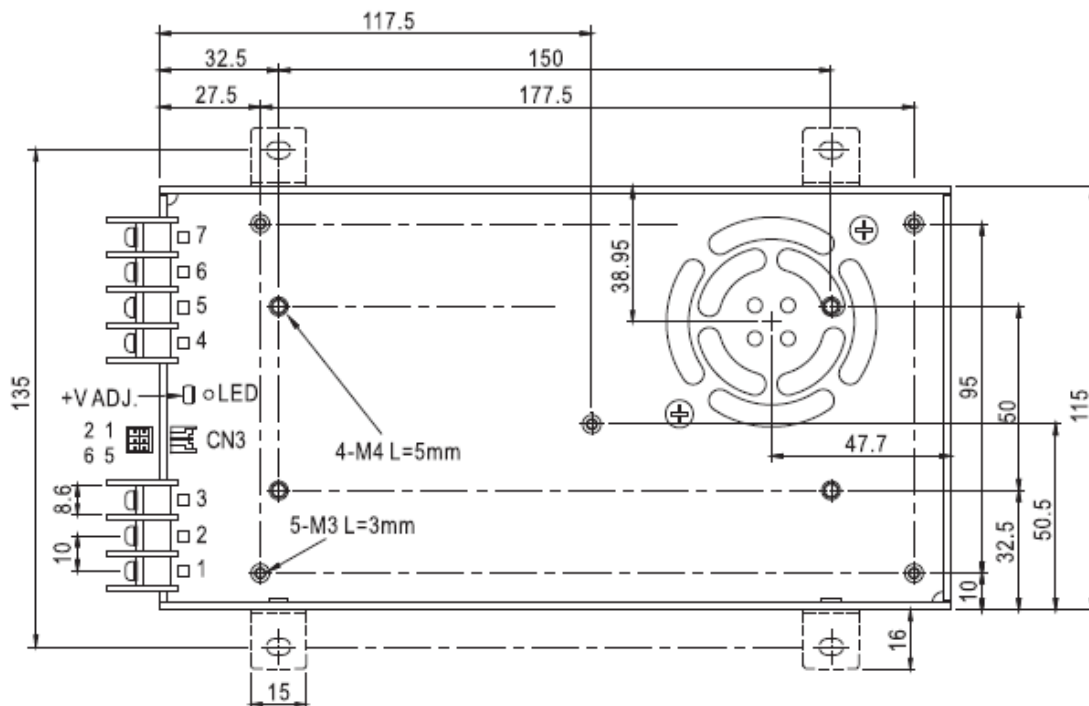
DC OK is an open collector signal and is referenced to pin 4 on connector CN3. The max sink current is 10mA and the max voltage is 13V

**For mechanical details & connection details see next page**

**ALL PSU Ltd, Unit D6 Laser Quay, Culpeper Close, Medway City Estate,  
Rochester, Kent, ME2 4HU, Tel : 01634 725527, Fax : 01634 739111  
Email: sales@allpsu.co.uk Web: www.allpsu.co.uk**

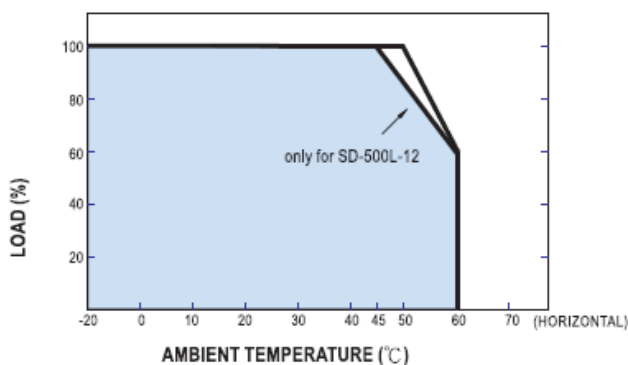
## Mechanical Details

(Drawing below is shown with optional 4 x MHS-012 mounting brackets fitted)



| Terminal                    | Function        |
|-----------------------------|-----------------|
| <b>CN1 (Main Terminals)</b> |                 |
| 1                           | + DC In         |
| 2                           | - DC In         |
| 3                           | Input Earth     |
| 4                           | - DC Out        |
| 5                           | - DC Out        |
| 6                           | + DC Out        |
| 7                           | + DC Out        |
| <b>CN3 (Signals)</b>        |                 |
| 1                           | + Sense         |
| 2                           | - Sense         |
| 3                           | DC Output OK    |
| 4                           | DC OK Rtn       |
| 5                           | + Remote On/Off |
| 6                           | - Remote On/Off |

## Temperature Derating



Specifications may change without notice, E&OE. ALL PSU Terms & Conditions apply.

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Email: [sales@allpsu.co.uk](mailto:sales@allpsu.co.uk) Web: [www.allpsu.co.uk](http://www.allpsu.co.uk)**