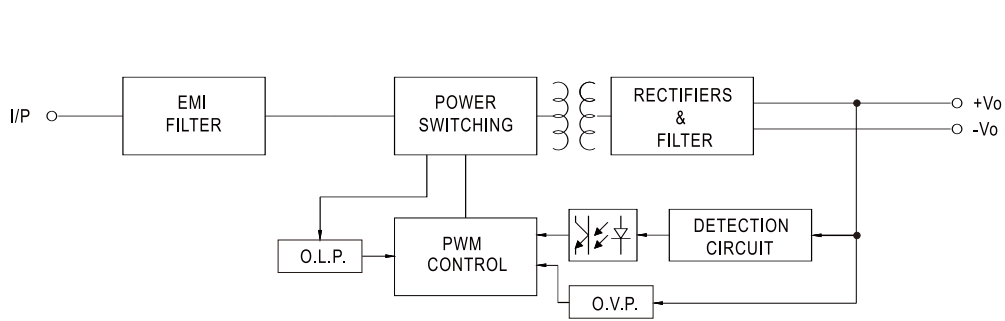




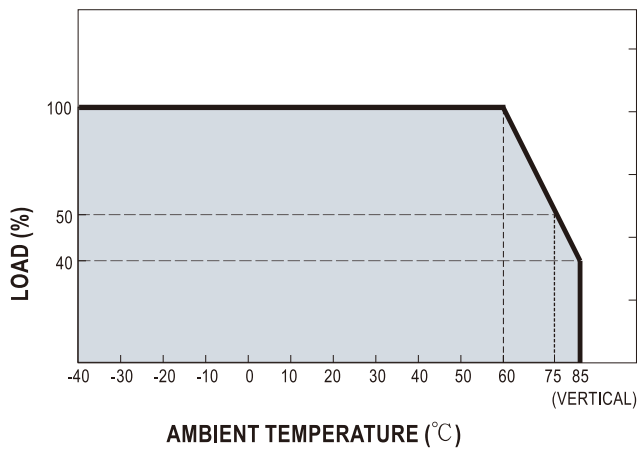
**SPECIFICATION**

| MODEL                            |   | DDR-15L-3.3   | DDR-15L-5    | DDR-15L-12                 | DDR-15L-15   | DDR-15L-24   |
|----------------------------------|---|---|--------------|----------------------------|--|--------------|
| OUTPUT                           | DC VOLTAGE  | 3.3V  | 5V           | 12V                        | 15V  | 24V          |
|                                  | RATED CURRENT   | 4.5A  | 3A           | 1.25A                      | 1A   | 0.63A        |
|                                  | CURRENT RANGE   | 0 ~ 4.5A  | 0 ~ 3A       | 0 ~ 1.25A                  | 0 ~ 1A   | 0 ~ 0.63A    |
|                                  | RATED POWER   | 15W   | 15W          | 15W                        | 15W  | 15W          |
|                                  | RIPPLE & NOISE (max.) Note.2  | 50mVp-p   | 50mVp-p      | 60mVp-p                    | 75mVp-p  | 100mVp-p     |
|                                  | VOLTAGE ADJ. RANGE  | 3.0 ~ 3.6V  | 4.5 ~ 5.5V   | 9 ~ 13.2V                  | 13.5 ~ 16.5V                                       | 21.6 ~ 28V   |
|                                  | VOLTAGE TOLERANCE Note.3  | ±2.0%   | ±2.0%        | ±2.0%                      | ±2.0%  | ±2.0%        |
|                                  | LINE REGULATION   | ±0.5%   | ±0.5%        | ±0.5%                      | ±0.5%  | ±0.5%        |
|                                  | LOAD REGULATION   | ±1.5%   | ±1%          | ±0.5%                      | ±0.5%  | ±0.5%        |
|                                  | SETUP, RISE TIME  | 120ms, 85ms at full load  |              |                            |  |              |
|                                  | HOLD UP TIME (Typ.)   | L-type: 16ms@48Vdc input  |              |                            |  |              |
| EXTERNAL CAPACITANCE LOAD (Max.) | 3300 $\mu$ F  | 3300 $\mu$ F  | 1200 $\mu$ F | 1200 $\mu$ F               | 680 $\mu$ F  |              |
| INPUT                            | VOLTAGE RANGE Note.4  | 18 ~ 75Vdc  |              |                            |  |              |
|                                  | EFFICIENCY (Typ.)   | 84%   | 85%          | 86%                        | 86%  | 87%          |
|                                  | DC CURRENT (Typ.)   | 0.4A/48Vdc  |              |                            |  |              |
|                                  | INRUSH CURRENT (Typ.)   | 15A/48Vdc   |              |                            |  |              |
| PROTECTION                       | OVERLOAD  | 110 ~ 150% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed |              |                            |  |              |
|                                  | OVER VOLTAGE  | 3.8 ~ 4.7V  | 5.75 ~ 7V    | 13.8 ~ 16.2V               | 17.25 ~ 20.25V                                     | 28.8 ~ 32.4V |
|                                  |   | Protection type : Shut down o/p voltage, re-power on to recover   |              |                            |  |              |
|                                  | REVERSE POLARITY  | By internal MOSFET, no damage, recovers automatically after fault condition removed                                     |              |                            |  |              |
| UNDER VOLTAGE LOCKOUT            | Power ON $\geq$ 18V, OFF $\leq$ 17V   |   |              |                            |  |              |
| ENVIRONMENT                      | WORKING TEMP.   | -40 ~ +85°C (Refer to "Derating Curve")   |              |                            |  |              |
|                                  | WORKING HUMIDITY  | 5 ~ 95% RH non-condensing   |              |                            |  |              |
|                                  | STORAGE TEMP., HUMIDITY   | -40 ~ +85°C, 5 ~ 95% RH non-condensing  |              |                            |  |              |
|                                  | TEMP. COEFFICIENT   | $\pm$ 0.03%/°C (0 ~ 60°C)   |              |                            |  |              |
|                                  | VIBRATION   | Component:10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6            |              |                            |  |              |
|                                  | OPERATING ALTITUDE  | 2000 meters   |              |                            |  |              |
| SAFETY & EMC (Note 5)            | SAFETY STANDARDS  | IEC 62368-1 (LVD), AS/NZS 62368.1 approved; Design refer to UL508   |              |                            |  |              |
|                                  | WITHSTAND VOLTAGE   | I/P-O/P:4KVdc   |              |                            |  |              |
|                                  | ISOLATION RESISTANCE  | I/P-O/P>100M Ohms / 500Vdc / 25°C / 70% RH  |              |                            |  |              |
|                                  | EMC EMISSION  | Parameter   | Standard     |                            | Test Level / Note                                  |              |
|                                  |   | Conducted   | EN55032      |                            | Class B  |              |
|                                  |   | Radiated  | EN55032      |                            | Class B  |              |
|                                  |   | Voltage Flicker   | EN61000-3-3  |                            | -----  |              |
|                                  | EMC IMMUNITY  | EN55024, EN61000-6-2(EN50082-2)   |              |                            |  |              |
|                                  |   | Parameter   | Standard     |                            | Test Level / Note                                  |              |
|                                  |   | ESD   | EN61000-4-2  |                            | Level 3, 8KV air; Level 3, 6KV contact; criteria A |              |
|                                  |   | Radiated  | EN61000-4-3  |                            | Level 3, 10V/m; criteria A                         |              |
|                                  |   | EFT / Burst   | EN61000-4-4  |                            | Level 3, 2KV; criteria A                           |              |
|                                  |   | Surge   | EN61000-4-5  |                            | Level 3, 1KV/Line-Line; criteria A                 |              |
| Conducted                        |   | EN61000-4-6   |              | Level 3, 10V; criteria A   |  |              |
| Magnetic Field                   |   | EN61000-4-8   |              | Level 4, 30A/m; criteria A |  |              |
| OTHERS                           | MTBF  | 907K hrs min. MIL-HDBK-217F (25°C)  |              |                            |  |              |
|                                  | DIMENSION   | 17.5*90*54.5mm (W*H*D)  |              |                            |  |              |
|                                  | PACKING   | 68g; 160pcs/12Kg/1.19CUFT   |              |                            |  |              |
| NOTE                             | <p>1. All parameters NOT specially mentioned are measured at 48VDC input, rated load and 25°C of ambient temperature.</p> <p>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 <math>\mu</math>f &amp; 47 <math>\mu</math>f parallel capacitor.</p> <p>3. Tolerance : includes set up tolerance, line regulation and load regulation.</p> <p>4. Derating may be needed under low input voltage. Please check the derating curve for more details.</p> <p>5. The power supply is considered as an independent unit, but the final equipment still need to re-confirm that the whole system complies with the EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on <a href="http://www.meanwell.com">http://www.meanwell.com</a>)</p> <p>6. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).</p> |   |              |                            |  |              |

### Block Diagram



### Derating Curve



### Output derating VS input voltage

