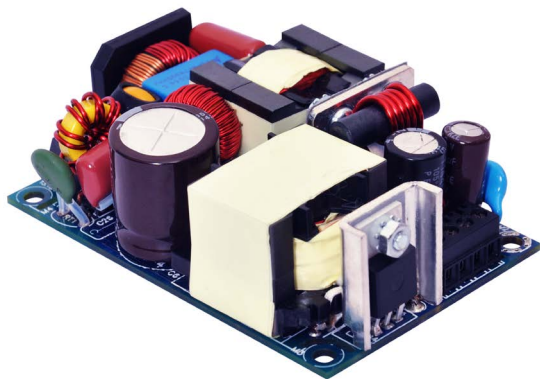




## Features

- 3 x 2 x 1 Inches Form factor
- 75 Watts Convection
- Efficiencies upto 93%
- -40 to 70 degree operating temperature
- Thermal Shut-Down feature
- 2.00m Hours, Telcordia-SR332-issue 3
- No Load Power < 0.3W

## Electrical Specifications

|                                    |                                                                                            |                     |
|------------------------------------|--------------------------------------------------------------------------------------------|---------------------|
| Input Voltage                      | 85-264 VAC/390 VDC <sup>4</sup> , Universal (Derate from 75W at 100V AC to 65W at 85V AC)  |                     |
| Input Frequency                    | 47-63 Hz                                                                                   |                     |
| Input Current                      | 115 VAC: 1 A max.                                                                          | 230 VAC: 0.5 A max. |
| No Load Power                      | less than 0.3W typical                                                                     |                     |
| Inrush Current                     | 115 VAC – 25 A, 230 VAC – 45 A, 264 VAC – 75 A                                             |                     |
| Efficiency                         | 93%(48V,58V), 91%(24V,30V), 90%(12V,15V)                                                   |                     |
| Hold-up Time                       | >16 ms typical                                                                             |                     |
| Power Factor                       | exceeds 0.95 with Full Load, Active PFC                                                    |                     |
| Output Power                       | 75W Convection                                                                             |                     |
| Output Voltage Adjustability       | +/-3%                                                                                      |                     |
| Line Regulation                    | +/-0.5%                                                                                    |                     |
| Load Regulation                    | +/-1%                                                                                      |                     |
| Transient Response                 | 25% step load change, at 0.1A/uS slew rate, 50% duty cycle, 50Hz=4% , recovery time < 5 ms |                     |
| Rise Time                          | 55ms typical                                                                               |                     |
| Set Point Tolerance                | +/-1%                                                                                      |                     |
| Over Current Protection            | Typ 110%                                                                                   |                     |
| Over Voltage Protection            | 110 to 140%, Latch type (AC recycling required)                                            |                     |
| Short Circuit Protection           | Hiccup mode                                                                                |                     |
| Switching Frequency                | 60 KHz typical                                                                             |                     |
| Operating Temperature <sup>3</sup> | - 40 to +70°C, * -40 to 0°C startup is guaranteed with spec deviation                      |                     |
| Storage Temperature                | -40 to +85°C                                                                               |                     |
| Relative Humidity                  | 5% to 95%, noncondensing                                                                   |                     |
| Altitude                           | Operating: 16,000 ft.; Nonoperating: 40,000 ft.                                            |                     |
| MTBF                               | 2.00m Hours, Telcordia-SR332-issue 3                                                       |                     |
| Isolation Voltage                  | Input to Output – 3000V AC for ITE application<br>Input to GND - 1500 VAC                  |                     |
| Cooling                            | 75W with natural convection cooling at 100 to 264VAC.                                      |                     |

| Model Number                         | Description         | Voltage | Max. Load<br>(Convection) | Min. Load | Ripple <sup>1</sup> |
|--------------------------------------|---------------------|---------|---------------------------|-----------|---------------------|
| LFWLP75-1001                         | with Screw Terminal | 12 V    | 6.25A                     | 0.0 A     | 1%                  |
| LFWLP75-1301                         | with Molex Header   | 12 V    | 6.25A                     | 0.0 A     | 1%                  |
| LFWLP75-1002                         | with Screw Terminal | 15 V    | 5.00A                     | 0.0 A     | 1%                  |
| LFWLP75-1302                         | with Molex Header   | 15 V    | 5.00A                     | 0.0 A     | 1%                  |
| LFWLP75-1003                         | with Screw Terminal | 24 V    | 3.12A                     | 0.0 A     | 1%                  |
| LFWLP75-1303                         | with Molex Header   | 24 V    | 3.12A                     | 0.0 A     | 1%                  |
| LFWLP75-1004                         | with Screw Terminal | 48 V    | 1.56A                     | 0.0 A     | 1%                  |
| LFWLP75-1304                         | with Molex Header   | 48 V    | 1.56A                     | 0.0 A     | 1%                  |
| LFWLP75-1005                         | with Screw Terminal | 30 V    | 2.50A                     | 0.0 A     | 1%                  |
| LFWLP75-1305                         | with Molex Header   | 30 V    | 2.50A                     | 0.0 A     | 1%                  |
| LFWLP75-1006                         | with Screw Terminal | 58 V    | 1.29A                     | 0.0 A     | 1%                  |
| LFWLP75-1306                         | with Molex Header   | 58 V    | 1.29A                     | 0.0 A     | 1%                  |
| LFWLP75-CK metal cover kit accessory |                     |         |                           |           |                     |

| Connectors |         |            |
|------------|---------|------------|
| J1         | Pin 1   | AC LINE    |
|            | Pin 2   | NOT FITTED |
|            | Pin 3   | AC NEUTRAL |
| J2         | Pin 1,2 | V1 -VE     |
|            | Pin 3,4 | V1 +VE     |

#### Notes

1. Ripple is peak to peak with 20 MHz bandwidth and 10  $\mu$ F (Electrolytic capacitor) in parallel with a 0.1  $\mu$ F capacitor at rated line voltage and load ranges.
2. Specifications are for nominal input voltage, 25°C unless otherwise stated.
3. Output ripple can be more than 10% of the output voltage.
4. Functional, not approved.
5. When used in Cover Kit, de-rate output power to 70 % under all operating conditions.
6. For Class II version Enquire with EOS Sales Rep before Order.



Innovations in Power

## Mechanical Specifications

|                                   |                                             |          |                                                      |
|-----------------------------------|---------------------------------------------|----------|------------------------------------------------------|
| AC Input Connector (J1) Option 1  | Molex: 39357-0003<br>Tyco: 2-1776112-3      | Option 2 | Molex: 1722861103<br>(Mating conn: Molex 1722561003) |
| DC Output Connector (J2) Option 1 | Molex: 39357 -0004<br>Tyco: 2-1776112-4     | Option 2 | Molex: 1722861104<br>(Mating conn: Molex 1722561004) |
| Dimensions                        | 3 x 2 x 1 inches<br>(76.2 x 50.8 x 25.4 mm) |          |                                                      |
| Weight                            | 180gm Max.                                  |          |                                                      |

## EMC

| Parameter                          | Conditions/Description             | Criteria                                                                        |
|------------------------------------|------------------------------------|---------------------------------------------------------------------------------|
| Conducted Emissions                | EN55032-B, CISPR22-B, FCC PART15-B | Pass                                                                            |
| Radiated Emissions                 | EN 55032 A                         | Pass<br>Level B with external core (King core K5B RC 25x12x15-M in input cable) |
| Input Current Harmonics            | EN 61000-3-2                       | Class D                                                                         |
| Voltage Fluctuation and Flicker    | EN 61000-3-3                       | Pass                                                                            |
| ESD Immunity                       | EN 61000-4-2                       | Level 3, Criterion A                                                            |
| Radiated Field Immunity            | EN 61000-4-3                       | Level 3, Criterion A                                                            |
| Electrical Fast Transient Immunity | EN 61000-4-4                       | Level 3, Criterion A                                                            |
| Surge Immunity                     | EN 61000-4-5                       | Level 3, Criterion A                                                            |
| Conducted Immunity                 | EN 61000-4-6                       | Level 3, Criterion A                                                            |
| Magnetic Field Immunity            | EN 61000-4-8                       | Level 3, Criterion A                                                            |
| Voltage dips, interruptions        | EN 61000-4-11                      | Criterion A & B                                                                 |

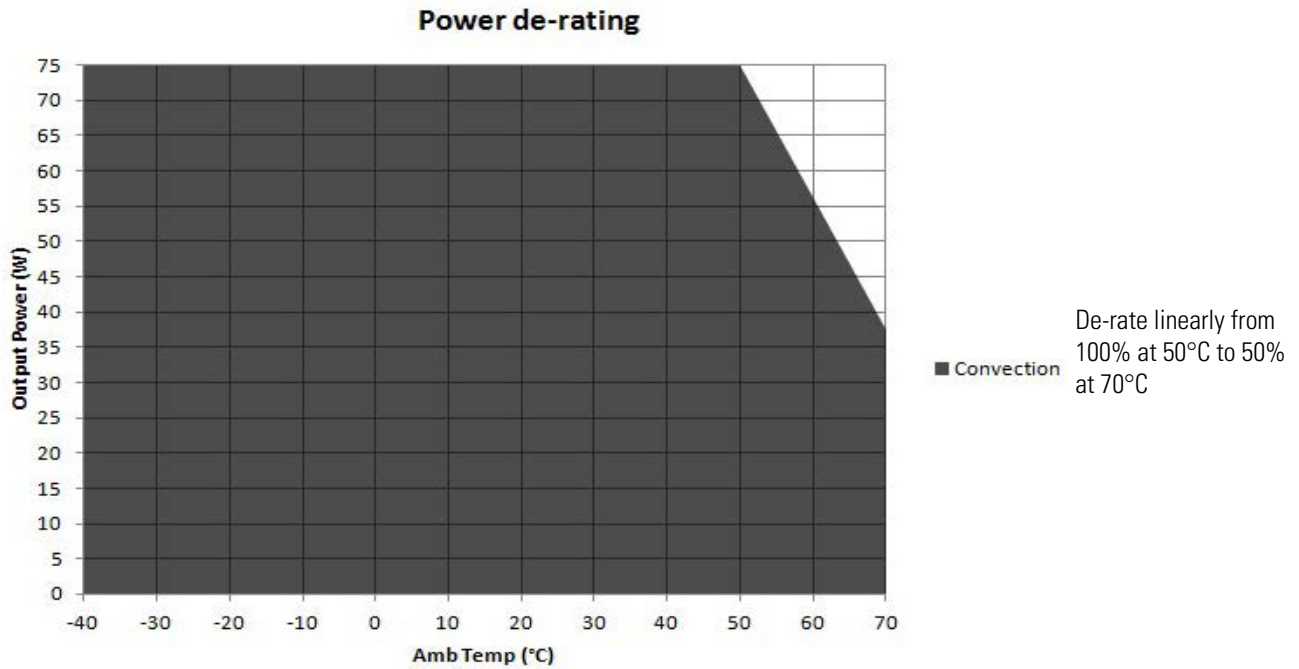
## Safety

|                       |                                                                                                                                        |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| CE Mark               | Complies with LVD Directive                                                                                                            |
| Approval Agency       | Nemko, UL, C-UL, CCC                                                                                                                   |
| Safety Standard(s)    | EN60950-1, IEC 60950-1:2005 (Ed 2), UL 60950-1 Ed 2, CAN/CSA C22.2 No. 60950-1-07 Ed 2, GB4943. 1-2011 ; GB9254-2008 ; GB17625. 1-2012 |
| Safety File Number(s) | CB TEST CERTIFICATE : NO88704<br>Nemko: No. P15220324<br>UL: E150565                                                                   |

## Environmental

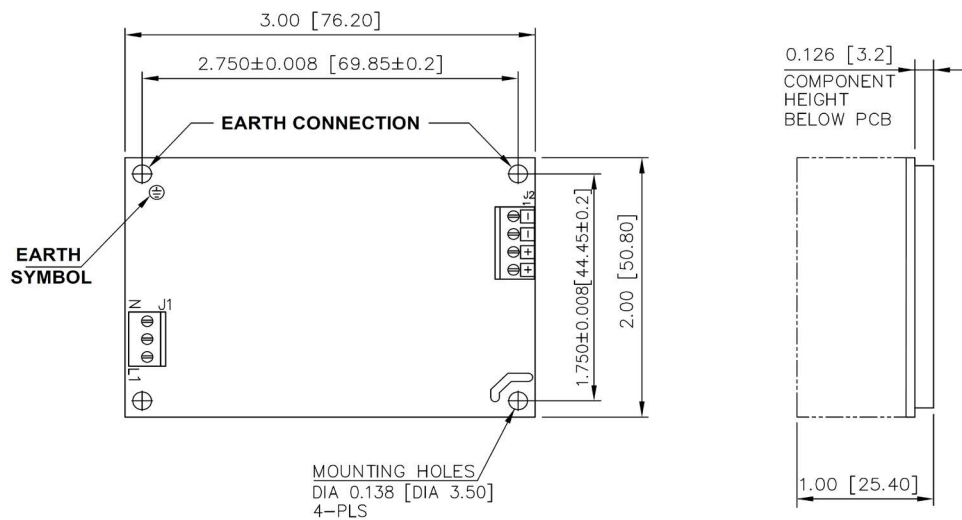
|              |                                                                                                  |
|--------------|--------------------------------------------------------------------------------------------------|
| RoHS Version | LFWLP75 series meet RoHS compliance as per european RoHS directive<br>(Directive 2011 / 65 / EU) |
|--------------|--------------------------------------------------------------------------------------------------|

## Derating Curve



## Mechanical Drawing

### Option -1



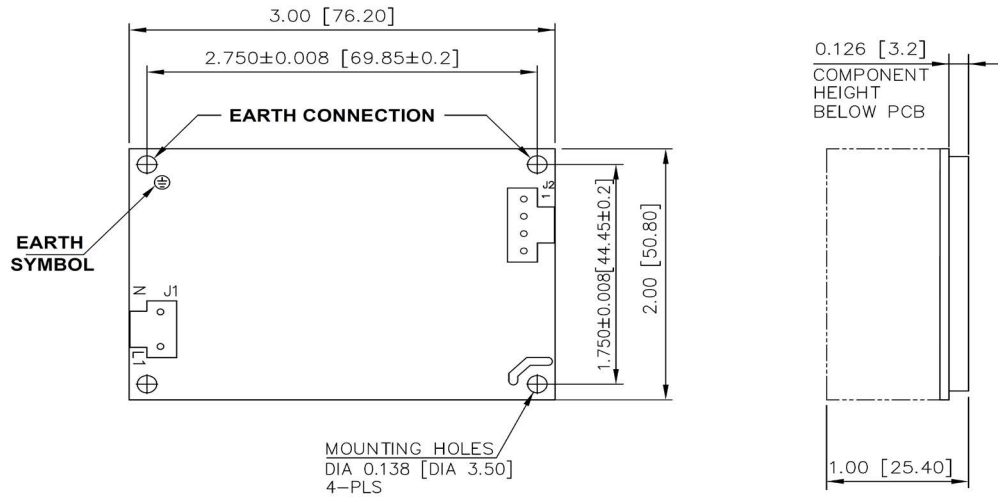
MECHANICAL OUTLINE DIMENSIONS  
ALL DIMENSIONS ARE IN INCHES[MM]  
GEN TOLERANCE:  $\pm 0.06$

Notes: In case the PCB is mounted in a metal enclosure, using metal hardware ensure the following

1. Stand off, used to mount PCB has OD of 5.4 mm max.
2. Screws, used to fix PCB on stand off, have head dia of 6.0 mm max.
3. Washer, if used, to have dia of 6.5 mm max.

## Mechanical Drawing

### Option -2



MECHANICAL OUTLINE DIMENSIONS  
ALL DIMENSIONS ARE IN INCHES[MM]  
GEN TOLERANCE: ±0.06

Notes: In case the PCB is mounted in a metal enclosure, using metal hardware ensure the following

1. Stand off, used to mount PCB has OD of 5.4 mm max.
2. Screws, used to fix PCB on stand off, have head dia of 6.0 mm max.
3. Washer, if used, to have dia of 6.5 mm max.