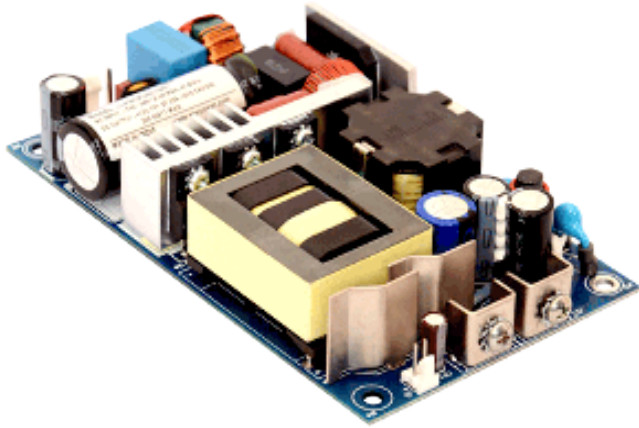




## Features

- 5 x 3 x 1 Inches Form factor
  - 350 Watts Forced Cooled & 200 Watts Convection Cooled
  - Efficiencies upto 94% & No Load Power < 0.5W
  - -40 to 70 degree operating temperature\*
  - 12V / 0.5A Fan Output, Thermal Shut-Down feature
  - 2.56m Hours, Telcordia -SR332-issue 3 MTBF
  - Remote ON/OFF **New**
  - Now IEC/EN/UL62368-1:2018 (Ed 3.0) Certified **New**
  - IEC/EN61558 Compliant **New\*\*\***
- (Suitable for Household and Similar electrical equipment's certified under IEC/EN60335-1 standards)
- Approved with metal enclosures/accessories

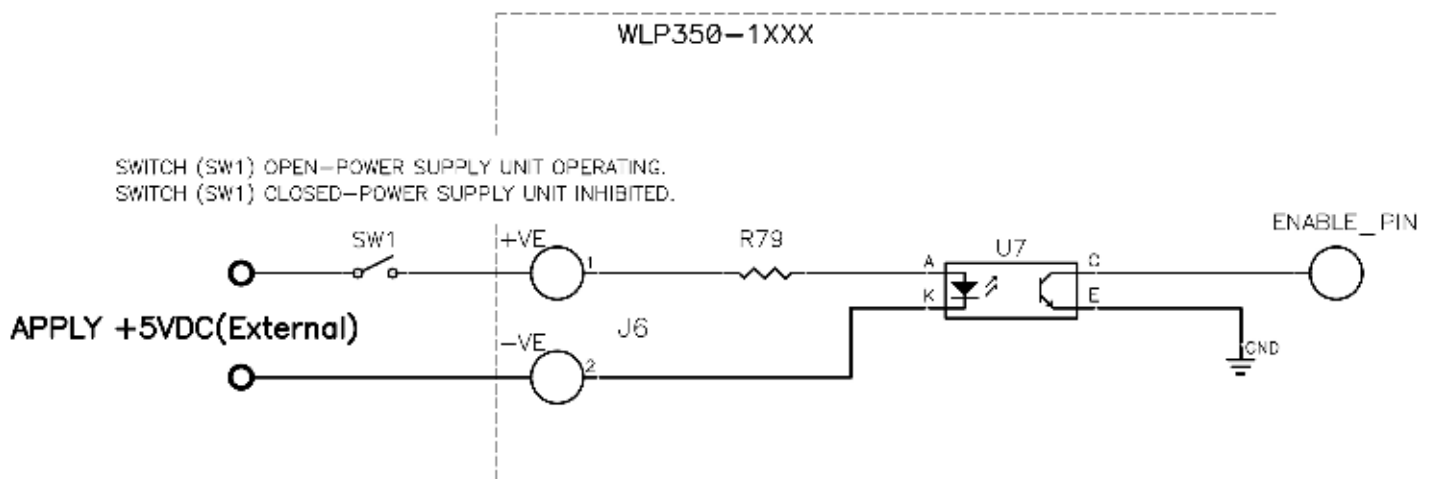
## Electrical Specifications

|                              |                                                                                                                 |                                 |
|------------------------------|-----------------------------------------------------------------------------------------------------------------|---------------------------------|
| Input Voltage                | 90-264 VAC/390 VDC, Universal (Derate from 100% at 100V AC to 90% at 90V AC)                                    |                                 |
| Input Frequency              | 47-63 Hz                                                                                                        |                                 |
| Input Current                | 115 VAC: 3.6 A max.                                                                                             | 230 VAC: 1.8 A max.             |
| No Load Power                | less than 0.5W typical                                                                                          |                                 |
| Inrush Current               | 115 VAC – 25 A, 230 VAC – 45 A, 264 VAC – 75 A                                                                  |                                 |
| Leakage Current              | 300 uA Typical                                                                                                  |                                 |
| Efficiency                   | 94%(48V,58V), 93%(24V,30V), 92%(12V,15V)                                                                        |                                 |
| Hold-up Time                 | Full Load > 8 ms typical                                                                                        | Convection Load > 14 ms typical |
| Power Factor                 | exceeds 0.95 with Full Load                                                                                     |                                 |
| Output Power                 | upto 350W with 375 LFM, upto 200W Convection                                                                    |                                 |
| Output Voltage Adjustability | +/-3%                                                                                                           |                                 |
| Line Regulation              | +/-0.5%                                                                                                         |                                 |
| Load Regulation              | +/-1%                                                                                                           |                                 |
| Transient Response           | 50-100% step load change, at 0.1A/uS slew rate, 50% duty cycle, 50Hz=5% , recovery time < 5 ms                  |                                 |
| Rise Time                    | 55 ms typical                                                                                                   |                                 |
| Set Point Tolerance          | +/-1%                                                                                                           |                                 |
| Over Current Protection      | >110% ,Hiccup mode / Auto Recovery                                                                              |                                 |
| Over Voltage Protection      | 110 to 140% , Hiccup mode / Auto Recovery                                                                       |                                 |
| Short Circuit Protection     | Hiccup mode / Auto Recovery                                                                                     |                                 |
| Switching Frequency          | PFC – 70 to 130 KHz ,PWM – 50-80 KHz                                                                            |                                 |
| Operating Temperature        | -40 to +70°C, * -40 to 0°C startup is guaranteed with spec deviation (ref note 6)                               |                                 |
| Storage Temperature          | -40 to +85°C                                                                                                    |                                 |
| Relative Humidity            | 5% to 95%, noncondensing                                                                                        |                                 |
| Altitude                     | Operating: 16,000 ft.; Nonoperating: 40,000 ft.                                                                 |                                 |
| MTBF                         | 2.56m Hours, Telcordia -SR332-issue 3                                                                           |                                 |
| Isolation Voltage            | Input to Output – 4000 VDC for ITE application, Input to GND - 2500 VAC                                         |                                 |
| Cooling                      | 350W with 375 LFM forced air cooling at 100 to 264VAC<br>200W with natural convection cooling at 100 to 264VAC. |                                 |

| Model Number                                                                   | Power Supply Unit & its Installation Type | Power | Voltage | Max. Load (Convection) | Max. Load (Convection) (375 LFM) |
|--------------------------------------------------------------------------------|-------------------------------------------|-------|---------|------------------------|----------------------------------|
| LFWLP350-1X01-CK                                                               | In CK cover Kit                           | 126 W | 12 V    | 10.5 A                 | -                                |
| LFWLP350-1301 <sup>7</sup>                                                     | In Open Frame                             | 225 W | 12 V    | 15 A                   | 18.75 A                          |
| LFWLP350-1301-L                                                                | With L Bracket                            |       |         |                        |                                  |
| LFWLP350-1301-B                                                                | With Base Plate                           |       |         |                        |                                  |
| LFWLP350-1301-U                                                                | With U channel                            |       |         |                        |                                  |
| LFWLP350-1001                                                                  | In Open Frame                             | 300 W | 12 V    | 15 A                   | 25 A                             |
| LFWLP350-1001-L                                                                | With L Bracket                            |       |         |                        |                                  |
| LFWLP350-1001-B                                                                | With Base Plate                           |       |         |                        |                                  |
| LFWLP350-1001-U                                                                | With U channel                            |       |         |                        |                                  |
| LFWLP350-1X02-CK                                                               | In CK cover Kit                           | 126 W | 15 V    | 8.4 A                  | -                                |
| LFWLP350-1302 <sup>7</sup>                                                     | In Open Frame                             | 270 W | 15 V    | 12A                    | 18 A                             |
| LFWLP350-1302-L                                                                | With L Bracket                            |       |         |                        |                                  |
| LFWLP350-1302-B                                                                | With Base Plate                           |       |         |                        |                                  |
| LFWLP350-1302-U                                                                | With U channel                            |       |         |                        |                                  |
| LFWLP350-1002                                                                  | In Open Frame                             | 325 W | 15 V    | 12 A                   | 21.67 A                          |
| LFWLP350-1002-L                                                                | With L Bracket                            |       |         |                        |                                  |
| LFWLP350-1002-B                                                                | With Base Plate                           |       |         |                        |                                  |
| LFWLP350-1002-U                                                                | With U channel                            |       |         |                        |                                  |
| LFWLP350-1X03-CK                                                               | In CK cover Kit                           | 140 W | 24 V    | 5.83 A                 | -                                |
| LFWLP350-1X03                                                                  | In Open Frame                             | 350 W | 24 V    | 8.33 A                 | 14.60 A                          |
| LFWLP350-1X03-L                                                                | With L Bracket                            |       |         |                        |                                  |
| LFWLP350-1X03-B                                                                | With Base Plate                           |       |         |                        |                                  |
| LFWLP350-1X03-U                                                                | With U channel                            |       |         |                        |                                  |
| LFWLP350-1X04-CK                                                               | In CK cover Kit                           | 140 W | 48 V    | 2.92 A                 | -                                |
| LFWLP350-1X04                                                                  | In Open Frame                             | 350 W | 48 V    | 4.17 A                 | 7.30 A                           |
| LFWLP350-1X04-L                                                                | With L Bracket                            |       |         |                        |                                  |
| LFWLP350-1X04-B                                                                | With Base Plate                           |       |         |                        |                                  |
| LFWLP350-1X04-U                                                                | With U channel                            |       |         |                        |                                  |
| LFWLP350-1X05-CK                                                               | In CK cover Kit                           | 140 W | 30 V    | 4.67 A                 | -                                |
| LFWLP350-1X05                                                                  | In Open Frame                             | 350 W | 30 V    | 6.67 A                 | 11.67 A                          |
| LFWLP350-1X05-L                                                                | With L Bracket                            |       |         |                        |                                  |
| LFWLP350-1X05-B                                                                | With Base Plate                           |       |         |                        |                                  |
| LFWLP350-1X05-U                                                                | With U channel                            |       |         |                        |                                  |
| LFWLP350-1X06-CK                                                               | In CK cover Kit                           | 140 W | 58 V    | 2.39 A                 | -                                |
| LFWLP350-1X06-CK                                                               | In Open Frame                             | 350 W | 58 V    | 3.42 A                 | 6.04 A                           |
| LFWLP350-1X06-L                                                                | With L Bracket                            |       |         |                        |                                  |
| LFWLP350-1X06-B                                                                | With Base Plate                           |       |         |                        |                                  |
| LFWLP350-1X06-U                                                                | With U channel                            |       |         |                        |                                  |
| For Screw Terminal version replace "X" above with "0" (example: LFWLP350-1005) |                                           |       |         |                        |                                  |
| For Header version replace "X" above with "3" (example: LFWLP350-1305)         |                                           |       |         |                        |                                  |
| Add Suffix 'O' for Remote On/Off option (example: LFWLP350-1304-O)             |                                           |       |         |                        |                                  |

| Pin Connection                   |             |                |
|----------------------------------|-------------|----------------|
| J1                               | Pin 1       | AC LINE        |
|                                  | Pin 2       | NOT FITTED     |
|                                  | Pin 3       | AC NEUTRAL     |
| J2 Option 1<br>(Screw Terminal)  | Pin 1       | V1 +VE         |
|                                  | Pin 2       | V1 -VE         |
| J2 Option 2<br>(Molex Connector) | Pin 1,2,3,4 | V1 +VE         |
|                                  | Pin 5,6,7,8 | V1 -VE         |
| J3                               | Pin 1       | FAN +VE        |
|                                  | Pin 2       | FAN -VE        |
| J6 (Remote On/Off)               | Pin 1       | +VE (External) |
|                                  | Pin 2       | -VE (External) |

## REMOTE ON/OFF INHIBIT



Note : External supply voltage can be changed with pre Information

### 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. Combined output power of main output, fan supply shall not exceed max. Power rating.
3. Fan supply output voltage tolerance including set point accuracy, line and load regulation is  $\pm 10\%$  and Ripple and noise is less than 10%.
4. Specifications are for nominal input voltage, 25°C unless otherwise stated.
5. Thermal shutdown feature : The power supply goes in hiccup mode when the temperature of PCB exceeds 110 °C ( $\pm 10$  °C).
6. Output ripple can be more than 10% of the output voltage.
7. When used in Cover Kit, de-rate output power to 70 % under all operating conditions.
8. Class II version available.Add “-II” suffix at the end of the Model Number to Order.
9. For more information and pricing details, please contact our sales team.

## Mechanical Specifications

|                                                        |                                                                                                                                                                                                                                                                                                 |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AC Input Connector (J1)                                | Molex: 26-60-4030<br>Mating: 09-50-3031; Pins: 08-50-0106                                                                                                                                                                                                                                       |
| Earth (J4)                                             | Molex: 19705-4301<br>Mating: 19003-0001                                                                                                                                                                                                                                                         |
| DC Output Connector (J2) Option 1<br>(Screw Terminal)  | 6-32 inches Screw Pan HD<br>Mating: Designed to accept Ring Tongue Terminal AMP : 8-31886-1, wherein one 16 AWG(max) wire can be crimped.<br>Note : One Ring Tongue Terminal with 16 AWG is recommended for current upto 11A only.<br>Use multiple tongue terminals with wire for more current. |
| DC Output Connector (J2) Option 2<br>(Molex Connector) | Molex: 26-60-4080<br>Mating: 09-50-3081; Pins: 08-50-0106                                                                                                                                                                                                                                       |
| Aux (Fan) Output(J3)<br>Remote ON/OFF (J6)             | AMP :640456-2<br>Mating: 640440-2                                                                                                                                                                                                                                                               |
| Dimensions                                             | 5 x 3 x 1 inches<br>(127 x 76.2x 25.4 mm)                                                                                                                                                                                                                                                       |
| Weight                                                 | 300 gm approx                                                                                                                                                                                                                                                                                   |

## EMC

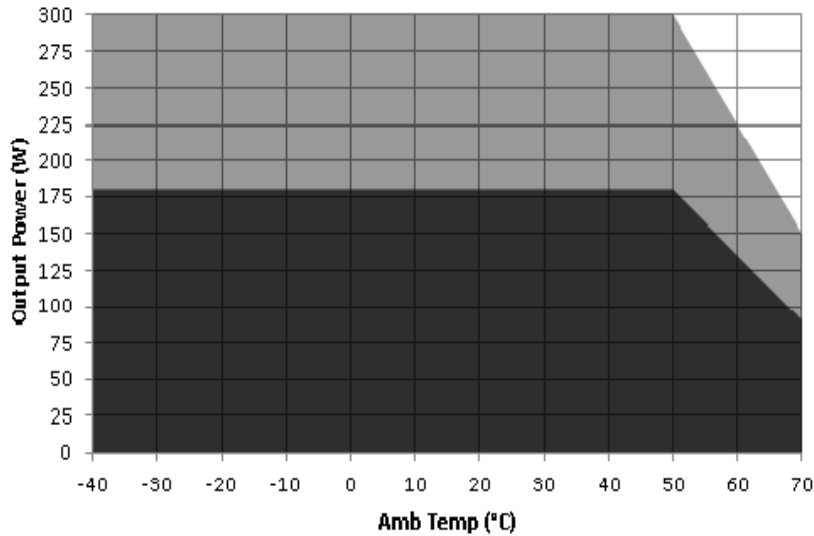
| Parameter                          | Conditions/Description             | Criteria                                                                        |
|------------------------------------|------------------------------------|---------------------------------------------------------------------------------|
| 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 4, 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                                                                                                                                                                                                                                                                          |
| Safety Standard(s)    | IEC 62368-1:2018, IEC 61558-1:2005, IEC 61558-1:2005/AMD1:2009, IEC 61558-2-16:2009, IEC 61558-2-16:2009 /AMD1:2013, IEC 60950-1(ed.2);am1;am2, EN 61558-2-16:2009;A1, EN 61558-1:2005;A1, UL 62368-1 and CAN/CSA C22.2 No. 62368-1:19, GB 17625.1-2012; GB 4943. 1-2011; GB/T 9254-2008 |
| Safety File Number(s) | Class-I : UL: Certificate Number 20200430-E514578, Nemko: Certificate No. P19223410, CB Certificate No.: NO110346, CCC Certificate No.: 2015010907830085                                                                                                                                 |

## Derating Curve

### Power de-rating : 12V output for Open Frame/Base Plate/L Bracket/U Channel



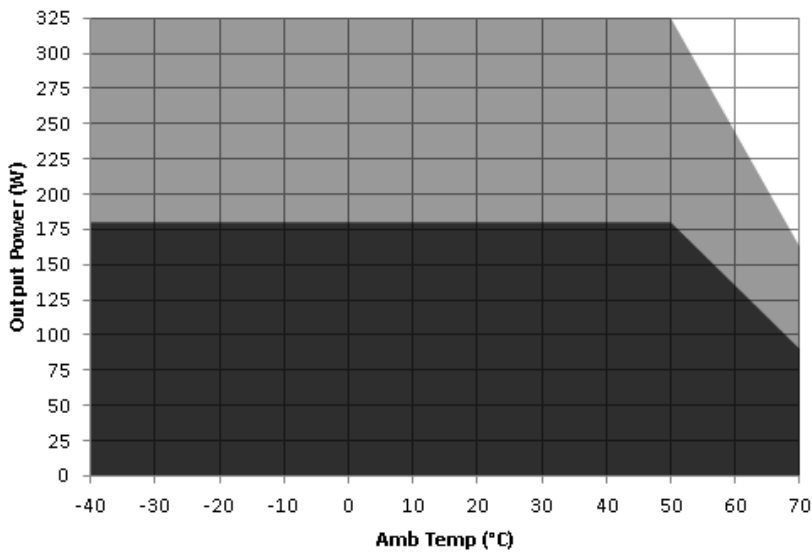
Convection load: 180W up to 50 °C  
De-rate above 50 °C @ 2.5% per °C

Forced air cooled load: 300W up to 50°C  
De-rate above 50 °C @ 2.5% per °C

■ Forced air  
■ Convection

## Derating Curve

### Power de-rating : 15V output for Open Frame / Base Plate / L Bracket/U Channel



Convection load: 180W up to 50 °C  
De-rate above 50 °C @ 2.5% per °C

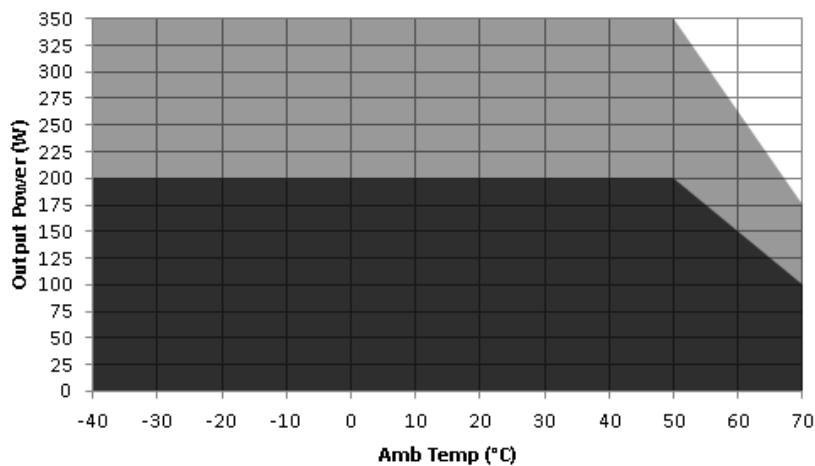
Forced air cooled load: 325W up to 50°C  
De-rate above 50 °C @ 2.5% per °C

■ Forced air  
■ Convection

Derating Curve Note : Between -40 to 0°C startup is guaranteed with spec deviation ( ref note 6)

## Derating Curve

**Power de-rating : 24V, 30V, 48V, 58V outputs for  
Open Frame/Base Plate/L Bracket/U Channel**



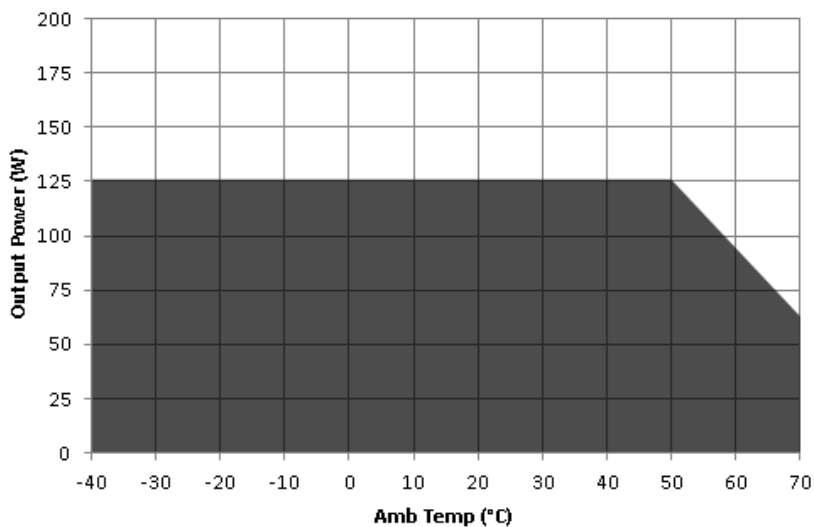
Convection load: 200W up to 50 °C  
De-rate above 50 °C @ 2.5% per °C

Forced air cooled load : 350W up to 50°C  
De-rate above 50 °C @ 2.5% per °C

■ Forced air  
■ Convection

## Derating Curve

**Power de-rating : 12V,15V outputs with CK cover kit**

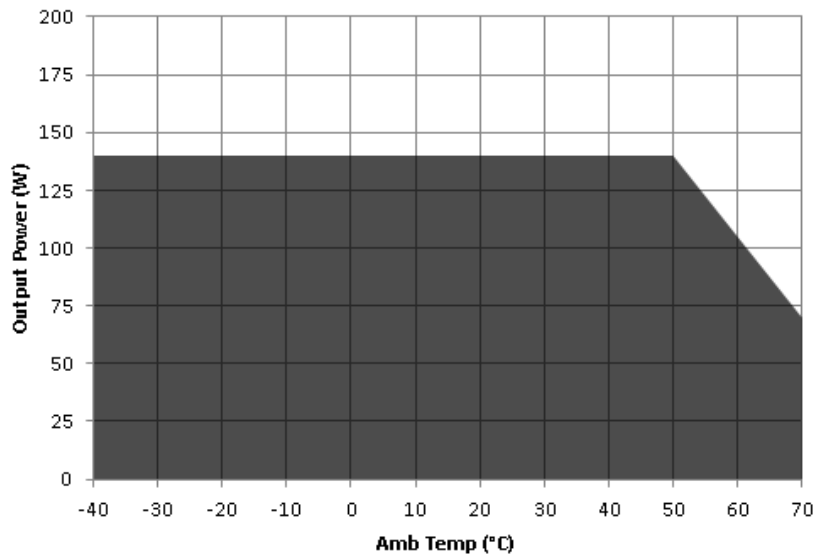


Convection load: 126W up to 50 °C  
De-rate above 50 °C @ 2.5% per °C

■ Convection

## Derating Curve

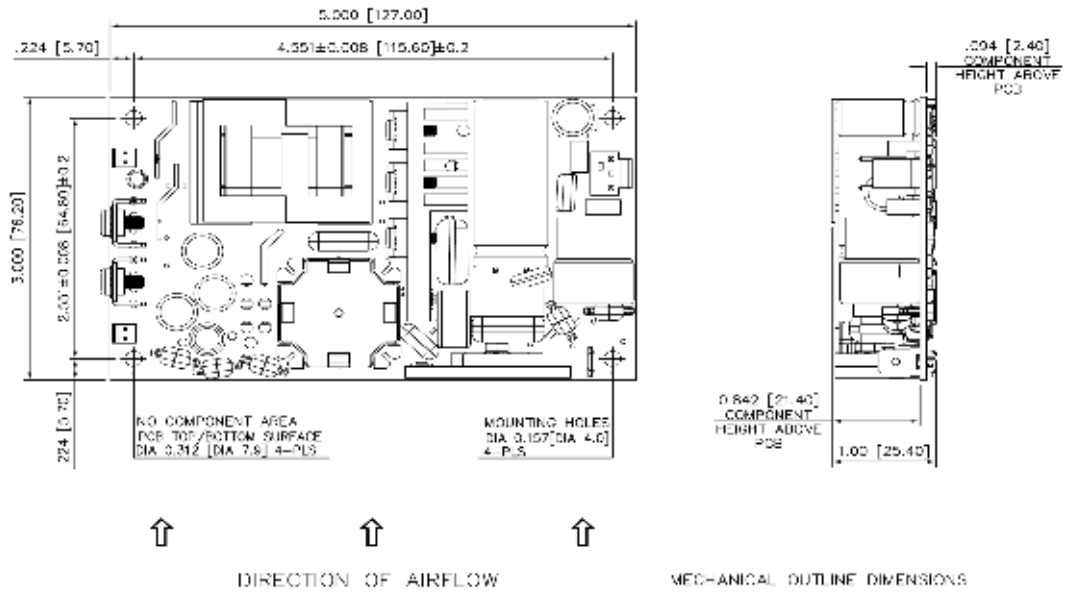
Power de-rating : 24V, 30V, 48V, 58V outputs with CK cover kit



Convection load: 140W up to 50 °C  
De-rate above 50 °C @ 2.5% per °C

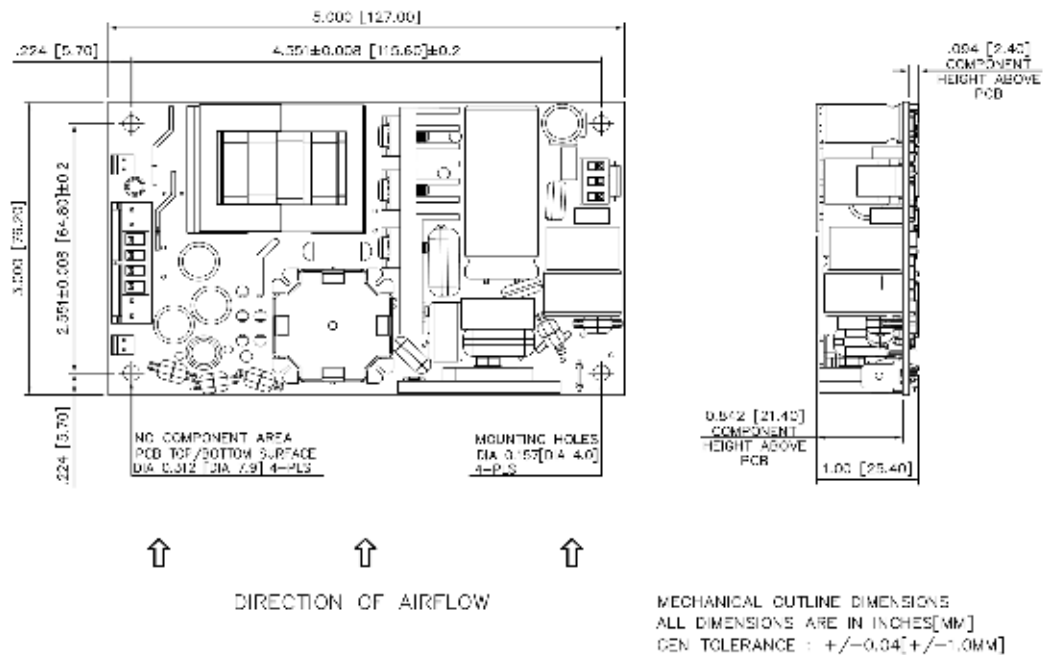
■ Convection

## Mechanical Drawing



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.



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

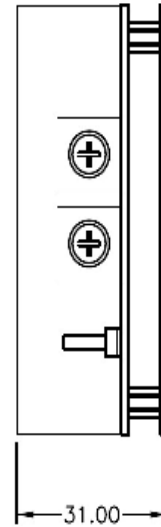
1. Stand off, used to mount PCB has OD of 5.4 mm max.
2. Screws, used to fix PCB on stand off, have head dia of 6.0 mm max.
3. Washer, if used, to have dia of 6.5 mm max.

# Mechanical Drawing

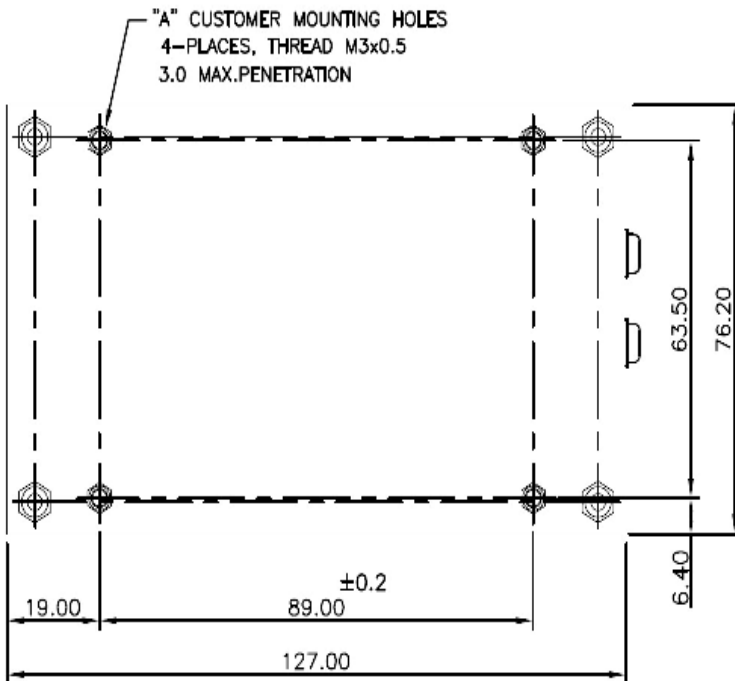
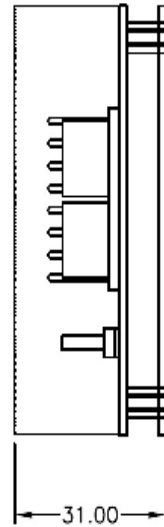
## WLP350 SERIES WITH BASE PLATE



OPTION 1  
-10XX SUFFIX.



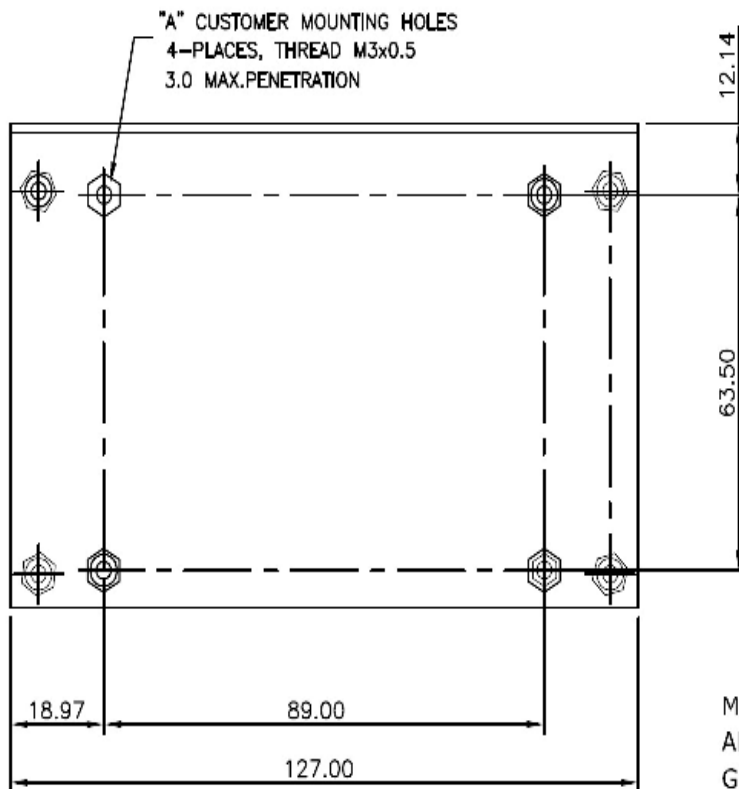
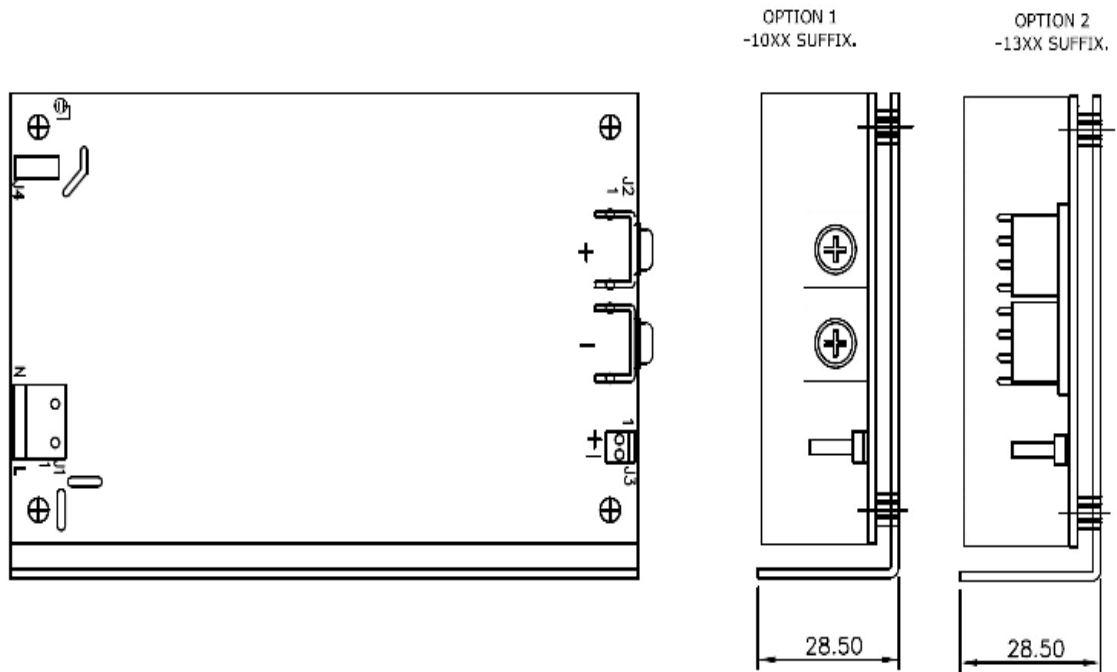
OPTION 2  
-13XX SUFFIX.



MECHANICAL OUTLINE DIMENSIONS  
ALL DIMENSIONS ARE IN MM  
GEN.TOLERANCE: +/-0.5 MM

# Mechanical Drawing

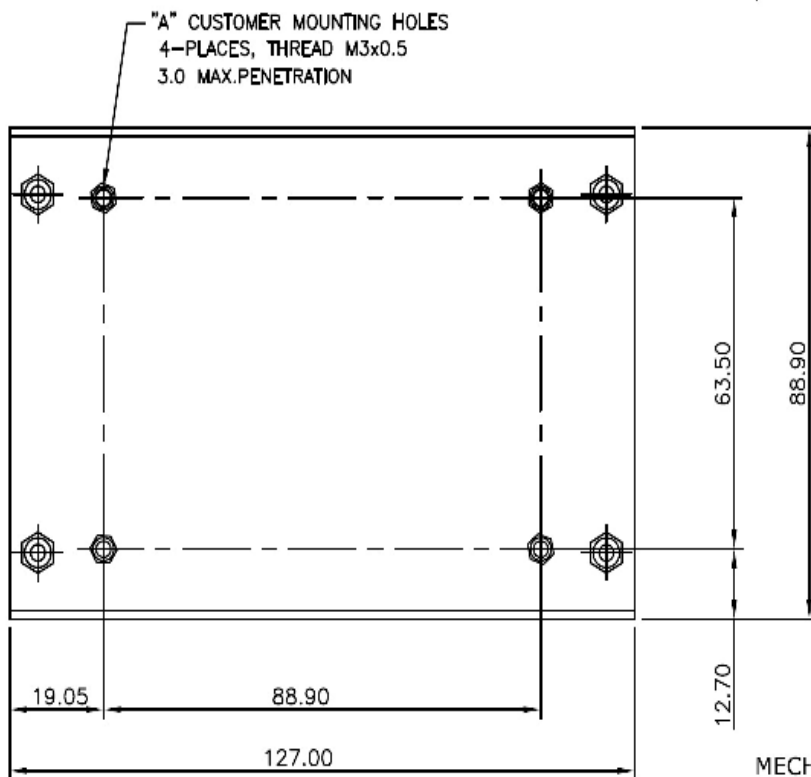
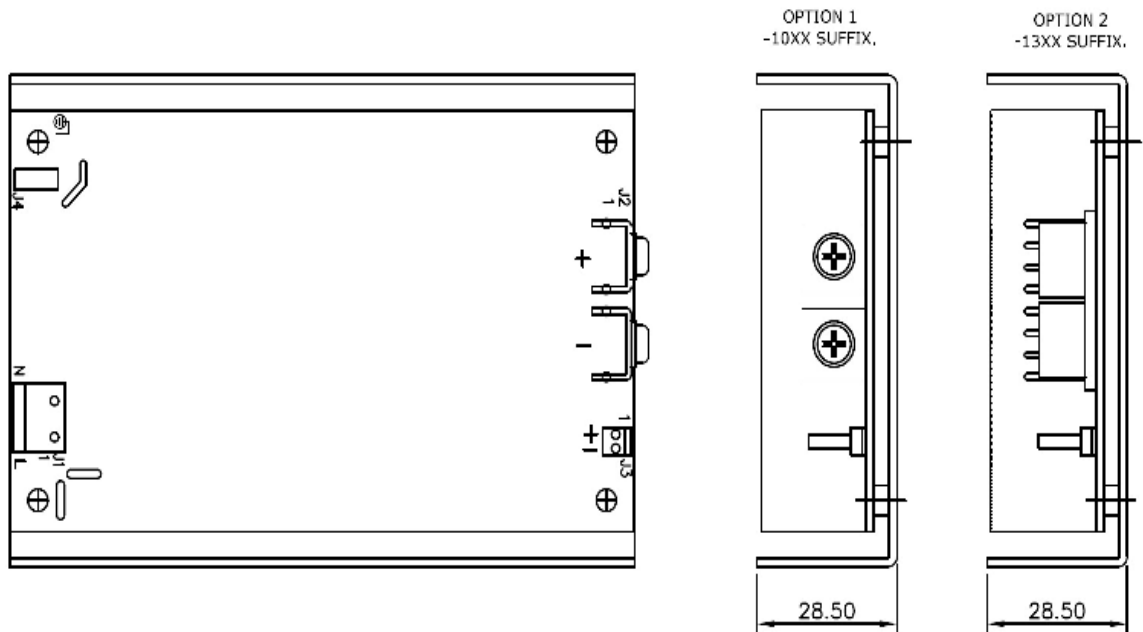
## WLP350 SERIES WITH 'L' BRACKET



MECHANICAL OUTLINE DIMENSIONS  
ALL DIMENSIONS ARE IN MM  
GEN.TOLERANCE:  $\pm 0.5$  MM

# Mechanical Drawing

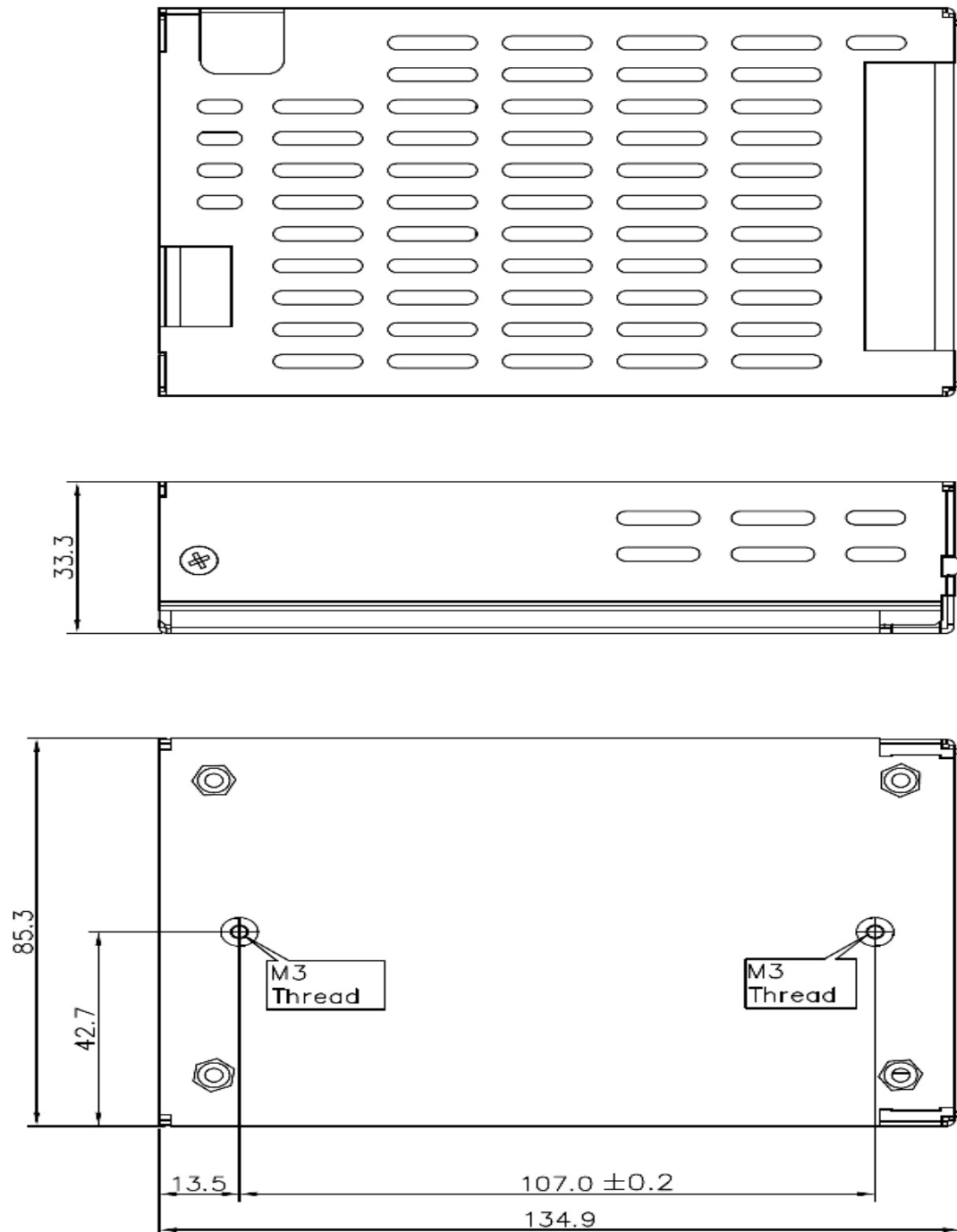
## WLP350 SERIES WITH 'U' CHANNEL



MECHANICAL OUTLINE DIMENSIONS  
ALL DIMENSIONS ARE IN MM  
GEN.TOLERANCE: +/-0.5 MM

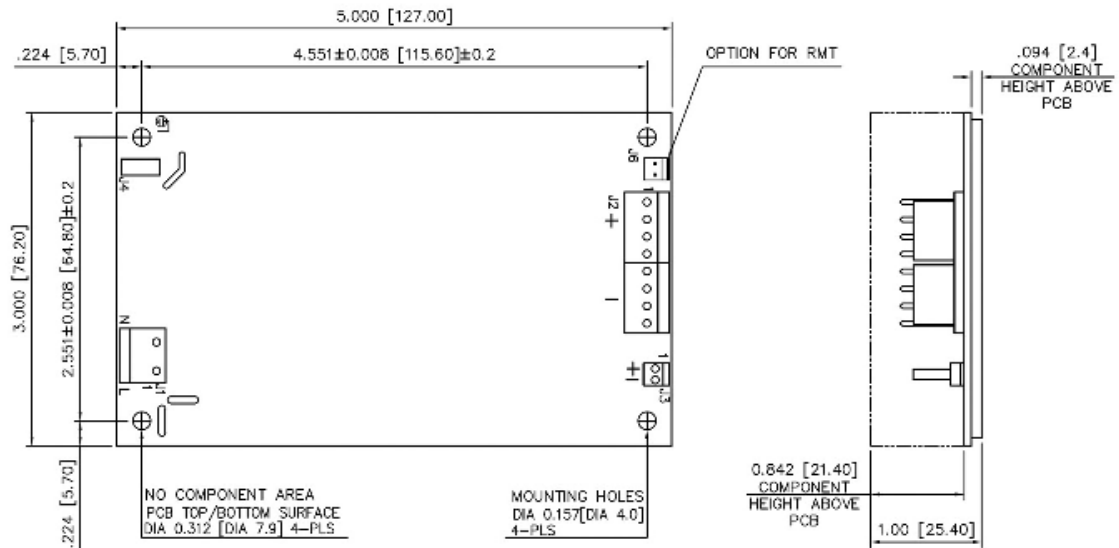
## Mechanical Drawing

WLP350-1002-CK WITH COVER KIT



**MECHANICAL OUTLINE DIMENSIONS**  
**ALL DIMENSIONS ARE IN MM.**  
**GEN. TOLERANCE: ±1.0 mm**

## WLP350 SERIES WITH REMOTE ON/OFF



DIRECTION OF AIRFLOW

MECHANICAL OUTLINE DIMENSIONS  
ALL DIMENSIONS ARE IN INCHES[MM]  
GEN TOLERANCE : +/-0.04[+/-1.0MM]