

### FEATURES AND BENEFITS

|  |   |
|--|---|
| High Efficiency (up to 93%)                          | Dimming Function  |
| Wide Range Universal Input 90-305 VAC                | Meets UL8750 & EN61347 Safety                           |
| Active Power Factor Correction (0.99 typical)        | Lightning Protection                                    |
| Constant Current Output                              | Waterproof (IP67)                                       |
| Overcurrent, Overvoltage, Overtemperature Protection | Minimum of 3 Year Warranty, Consult factory for 5 Years |



### MODEL SELECTION

| Model Number | Output Current  | Output Voltage | Efficiency* |           | Ripple & Noise**  | Regulation |      | Overvoltage Trip Level |
|--------------|-----------------|----------------|-------------|-----------|-------------------|------------|------|------------------------|
|              |                 |                | 110Vac      | 220Vac    |                   | Line       | Load |                        |
| LE150S140CD  | 1330mA - 1470mA | 53V - 107V     | 89% - 90%   | 91% - 92% | 3.2V pk - pk max. | ±1%        | ±3%  | 128V - 161V            |
| LE150S70CD   | 665mA - 735mA   | 107V - 214V    | 90% - 91%   | 92% - 93% | 6.5V pk - pk max. | ±1%        | ±3%  | 257V - 321V            |

- Notes: 1. Efficiency measured at full load, at input voltage noted.  
2. Measured at 20MHz bandwidth, with noise probe directly across output terminals, and load terminated with 0.1µF ceramic and 10µF low ESR electrolytic capacitors.

### INPUT

|                       |   |
|-----------------------|---|
| AC Input              | 90-305Vac, 47-63Hz, 1Ø                  |
| Input Current         | 100Vac: 1.8A, 220Vac: 0.9A              |
| Inrush Current        | 230Vac, cold start: will not exceed 65A |
| Input Fuses           | XA, 250VAC fuses provided on all models |
| Earth Leakage Current | <0.75mA@277Vac, 50Hz                    |
| Efficiency            | See models chart                        |

### OUTPUT

|                  |  |
|------------------|--|
| Turn On Time     | 2.0 seconds, max.  |
| Dimming Function | 1-10Vdc source or External Resistor can be used for dimming control. See below |
| Output Power     | 150W continuous  |
| Output Voltage   | See models chart on pg 1   |
| Ripple and Noise | See models chart on pg 1   |
| Total Regulation | +/- 3%. See chart  |

### PROTECTION

|                            |   |
|----------------------------|---|
| Overtemperature Protection | Latch mode. AC input will need to be reset To return to normal operation after an OTP condition. Trip Temperature = 110°C typical |
| Overload Protection        | Constant Current  |
| Short Circuit Protection   | Provided - no damage to unit, self-recovery   |
| Overvoltage Protection     | Latch mode. AC input will need to be reset to return to normal operation after an OVP condition. See chart for trip range         |



### EMI/EMC COMPLIANCE

|   |   |
|---|---|
| Emissions                               | EN55015, Radiated & Conducted with 6db of margin      |
| EMI for Lighting Equipment              | EN61547   |
| Static Discharge Immunity               | EN61000-4-2, 4kV Contact Discharge, 8kV air discharge |
| Radiated RF Immunity                    | EN61000-4-3   |
| EFT/Burst Immunity                      | EN61000-4-4   |
| Line Surge Immunity                     | EN61000-4-5, 2kV line-line, 4kV line-earth            |
| Conducted RF Immunity                   | EN61000-4-6   |
| Power Frequency Magnetic Field Immunity | EN61000-4-8   |
| Voltage Dip Immunity                    | EN61000-4-11  |
| Line Harmonic Emissions                 | EN61000-3-2   |
| Flicker Test                            | EN61000-3-3   |

### SAFETY

|                  |   |
|------------------|---|
| Safety Standards | UL8750, UL935, UL1012, CSA-C22.2 No. 107.1, EN61347-1, EN61347-2-13 |
|------------------|---|

### RELIABILITY

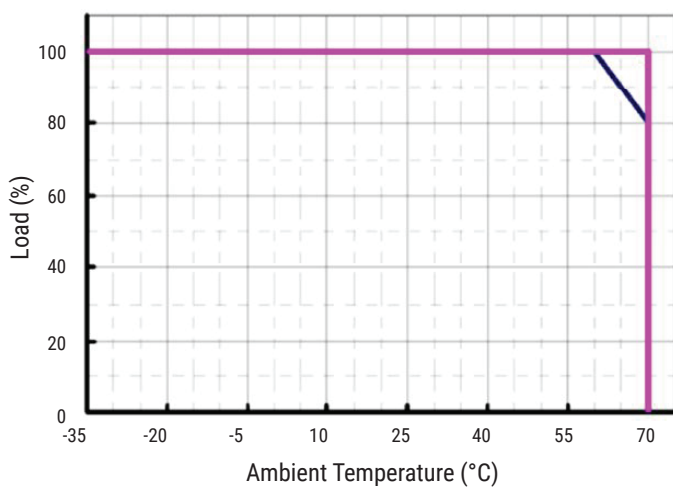
|          |   |
|----------|---|
| MTBF     | 340,000 hours (1400mA model, 110Vac input, 80% load, 25°C ambient, per MIL-HDBK-217F) |
| Lifetime | 58,000 hours (1400mA model, at 110Vac input, 80% load, 45°C ambient temperature)      |

### ENVIRONMENT

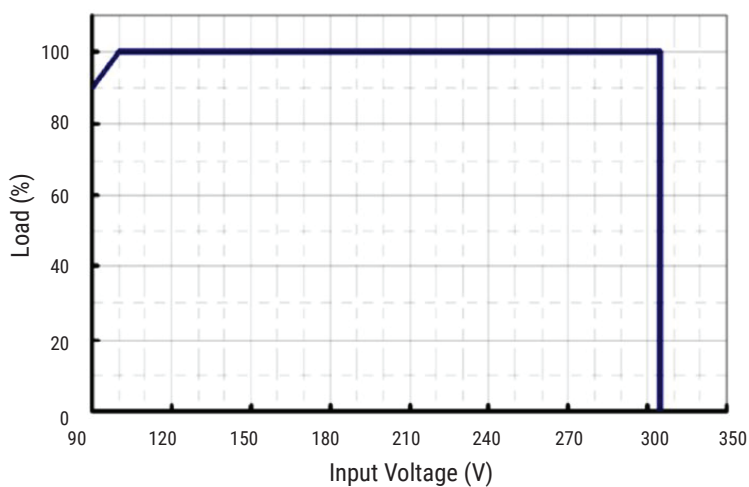
|                       |  |
|-----------------------|--|
| Operating Temperature | Operating: -35°C to +70°C, Non-operating: -40°C to +85°C |
| Relative Humidity     | 10% to 100% operating, 5% to 100%, non-operating         |
| Weight                | 1500g  |
| Dimensions            | W: 3.13" x L: 9.37" x H: 1.81"                           |

### DERATING CURVES

Derating Curve



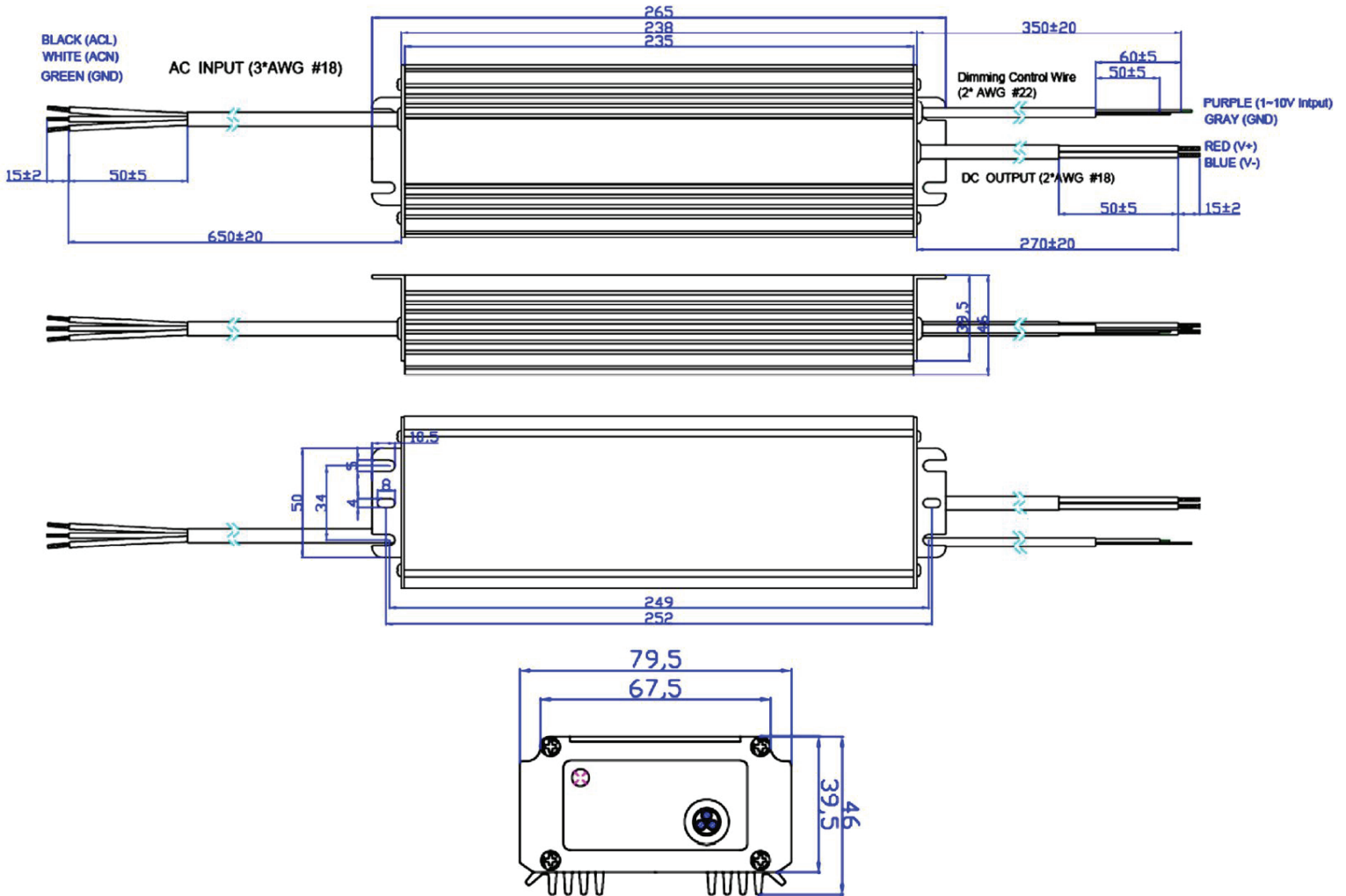
Derating Curve



— 100 Vac  
— 277 Vac



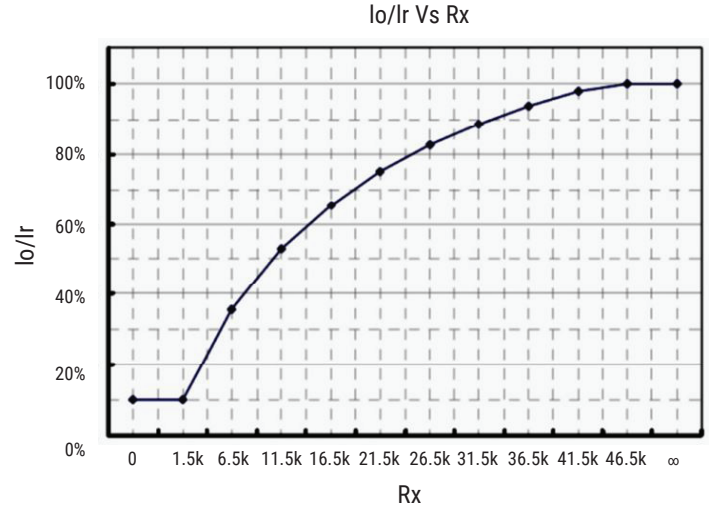
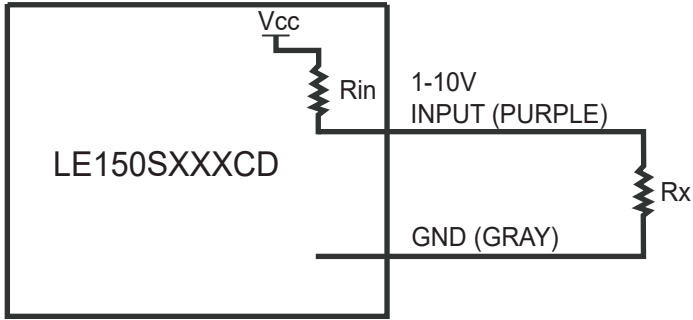
### MECHANICAL DRAWING



### DIMMING CONTROL

The dimming function shown below uses an internal pull-up resistor, with the output at full load when the dimming leads are not connected (floated).

| Parameter  | Min.  | Typ. | Max.  | Notes |
|--|-------|------|-------|-------|
| 10V Output Voltage   | 9.8V  | 10V  | 10.2V |       |
| 10V Output Source Current  | 0mA   | -    | 10mA  |       |
| Absolute Max. Voltage on the 1-10V input   | -2V   | -    | 12V   |       |
| Source Current on the 1-10V input  | 0mA   | -    | 1mA   |       |
| Value of Rin (resistor inside the LED Driver, which is located between the 1-10V input and 10V output) | 19.8K | 20K  | 20.2K |       |



Dimming Configuration using External Resistance

#### Dimming Control Notes:

1.  $I_o$  is actual output current and  $I_r$  is rated current without dimming control.
2. For the driver to operate properly, the load voltage must be maintained above the minimum voltage threshold (approx. 50% of the max. output voltage for any given model).
3. If the output voltage is maintained above 50% of the maximum output voltage, the dimming control may be operated over the entire 1-10V range with output current varying from 100% down to practically 10%.
4. The dimming signal is allowed to be less than 1V, however, when it for 0-1V, the output current is 10% $I_o$ .
5. The internal resistor  $R_{in}$  is 20K, and  $V_{cc}$  is about 15V.
6. Do not connect the GND of dimming to the output; otherwise, the LED driver can not work normally.