



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
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RELIABILITY

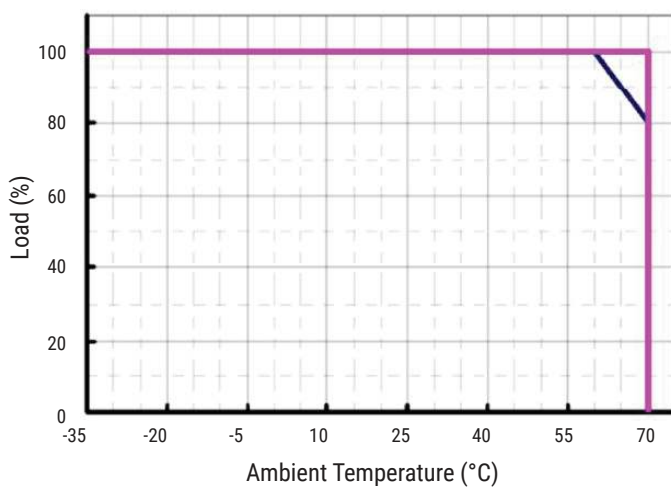
MTBF	340,000 hours (1400mA model, 110Vac input, 80% load, 25°C ambient, per MIL-HDBK-217F)
Lifetime	58,000 hours (1400mA model, at 110Vac input, 80% load, 45°C ambient temperature)

ENVIRONMENT

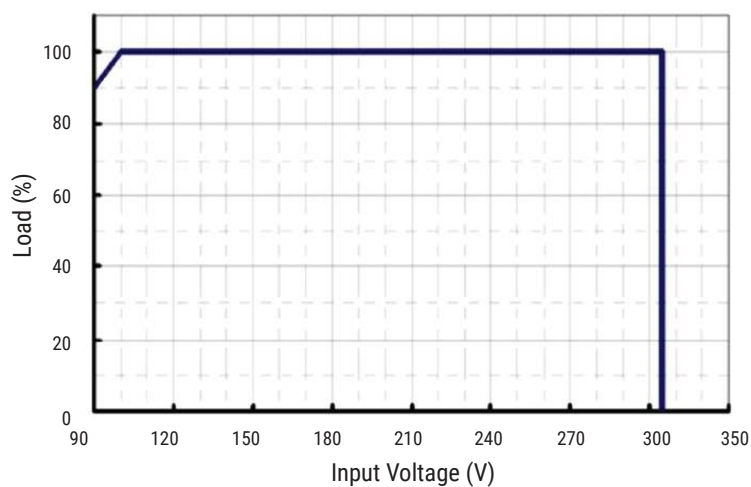
Operating Temperature	Operating: -35°C to +70°C, Non-operating: -40°C to +85°C
Relative Humidity	10% to 100% operating, 5% to 100%, non-operating
Weight	1500g
Dimensions	W: 3.13" x L: 9.37" x H: 1.81"

DERATING CURVES

Derating Curve



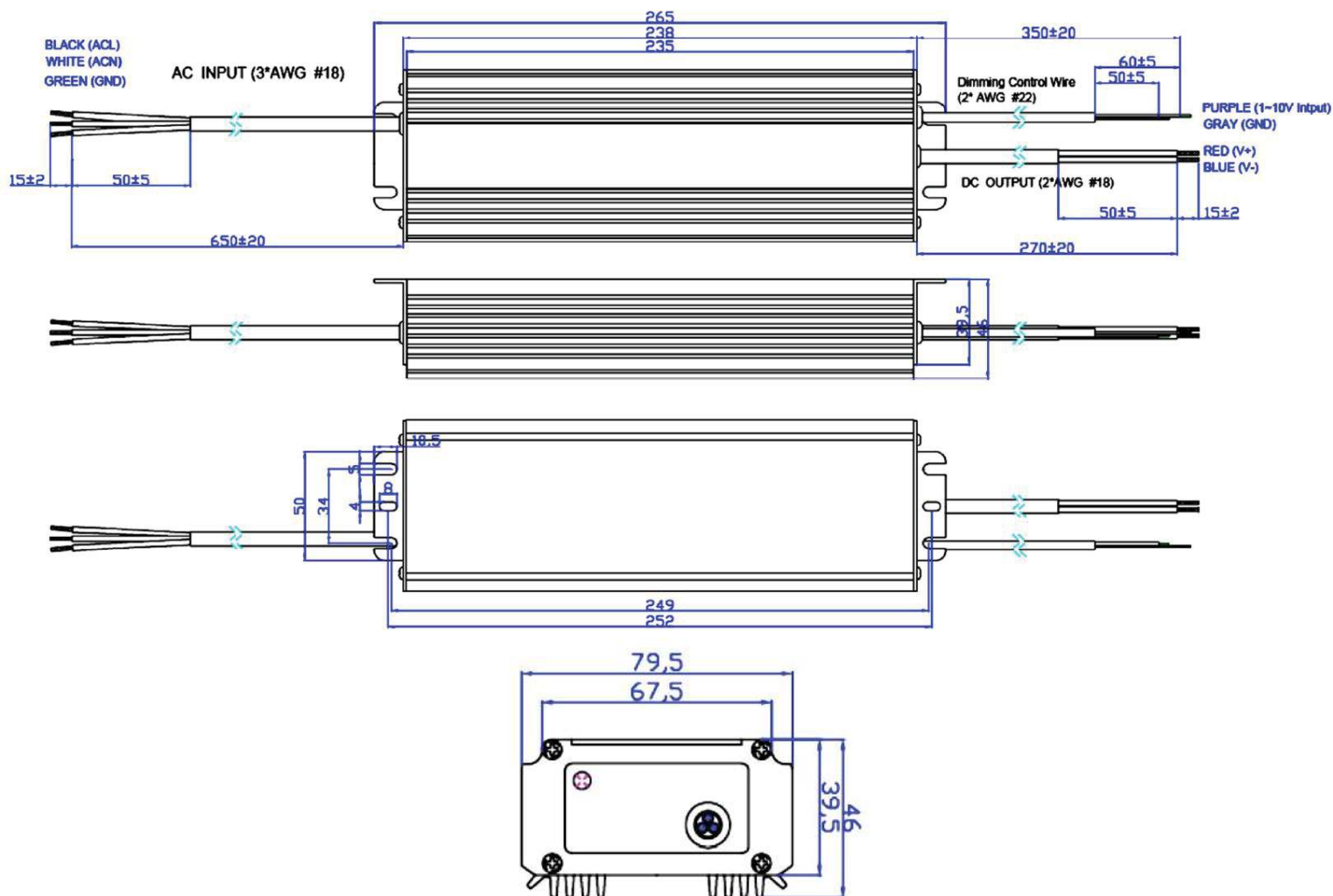
Derating Curve



— 100 Vac
— 277 Vac



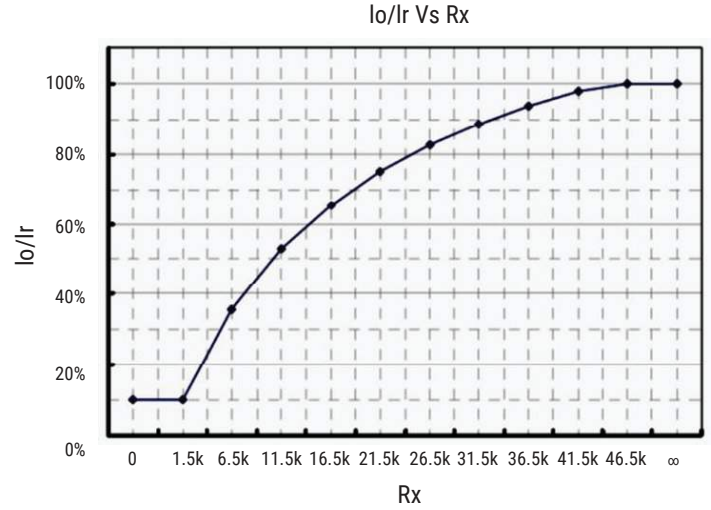
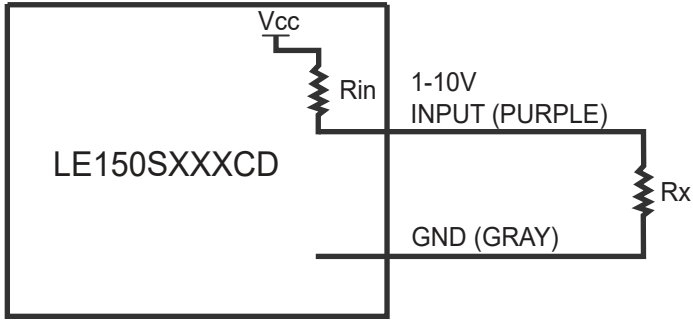
MECHANICAL DRAWING



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.