

Features

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



Description

The LE200S-CD Series operate from a 90 ~ 305Vac input range. These units will provide up to a 0.7A of output current and a maximum output voltage of 285Vdc for 200 W maximum output power. They are designed to be highly efficient and highly reliable. The standard features include dimming control, lightning protection, over voltage protection, short circuit protection, and over temperature protection.

Model Selection

Model Number	Output Current	Output Voltage	Efficiency*		Ripple & Noise**	Regulation		Overvoltage Trip Level
			110Vac	220Vac		Line	Load	
LE200S70CD	665mA-735mA	143V – 285V	90%-91%	92%-93%	8.6V pk-pk max.	±1%	±3%	342V – 428V

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.

General Specifications

AC Input	90-305Vac, 47-63Hz, 1Ø	Turn On Time	1.0 seconds, max.
Input Current	100Vac: 2.4A, 220Vac: 1.2A	Overload Protection	Constant Current
Inrush Current	230Vac, cold start: will not exceed 65A	Dimming Function	1-10Vdc source or External Resistor can be used for dimming control. See below.
Input Fuses	XA, 250VAC fuses provided on all models		

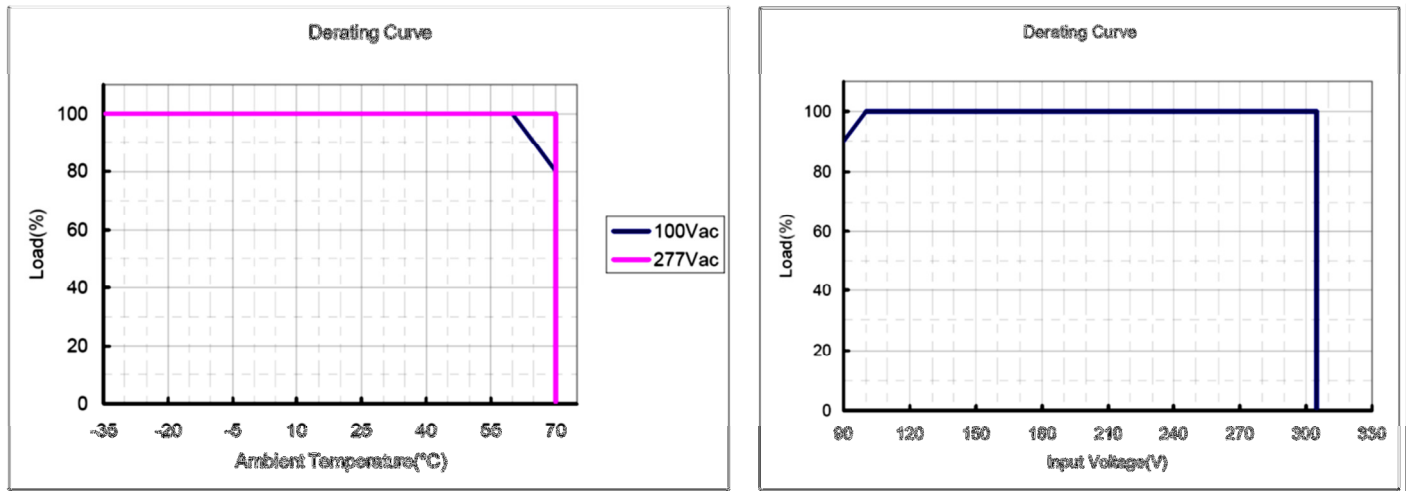
General Specifications (continued)

Earth Leakage Current	<0.75mA@277Vac, 50Hz	Short Circuit Protection	Provided - no damage to unit, self-recovery.
Efficiency	See Models chart.	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.
Output Power	200W continuous	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.
Ripple and Noise	See chart	Operating Temperature	Operating: -35°C to +70°C Non-operating: -40°C to +85°C
Output Voltage	See chart	Relative Humidity	10% to 100% operating 5% to 100%, non-operating
Total Regulation	+/- 3%. See chart	Safety Standards	UL8750, UL935, UL1012, CSA-C22.2 No. 107.1, EN61347-1, EN61347-2-13
Dimensions	W: 3.13" x L: 9.37" x H: 1.81"	MTBF	330,000 hours (450mA model, 110Vac input, 80% load, 25°C ambient, per MIL-HDBK-217F).
Weight	1500g	Lifetime	90,000 hours (1400mA model, at 110Vac input, 80% load, 45°C ambient temperature).

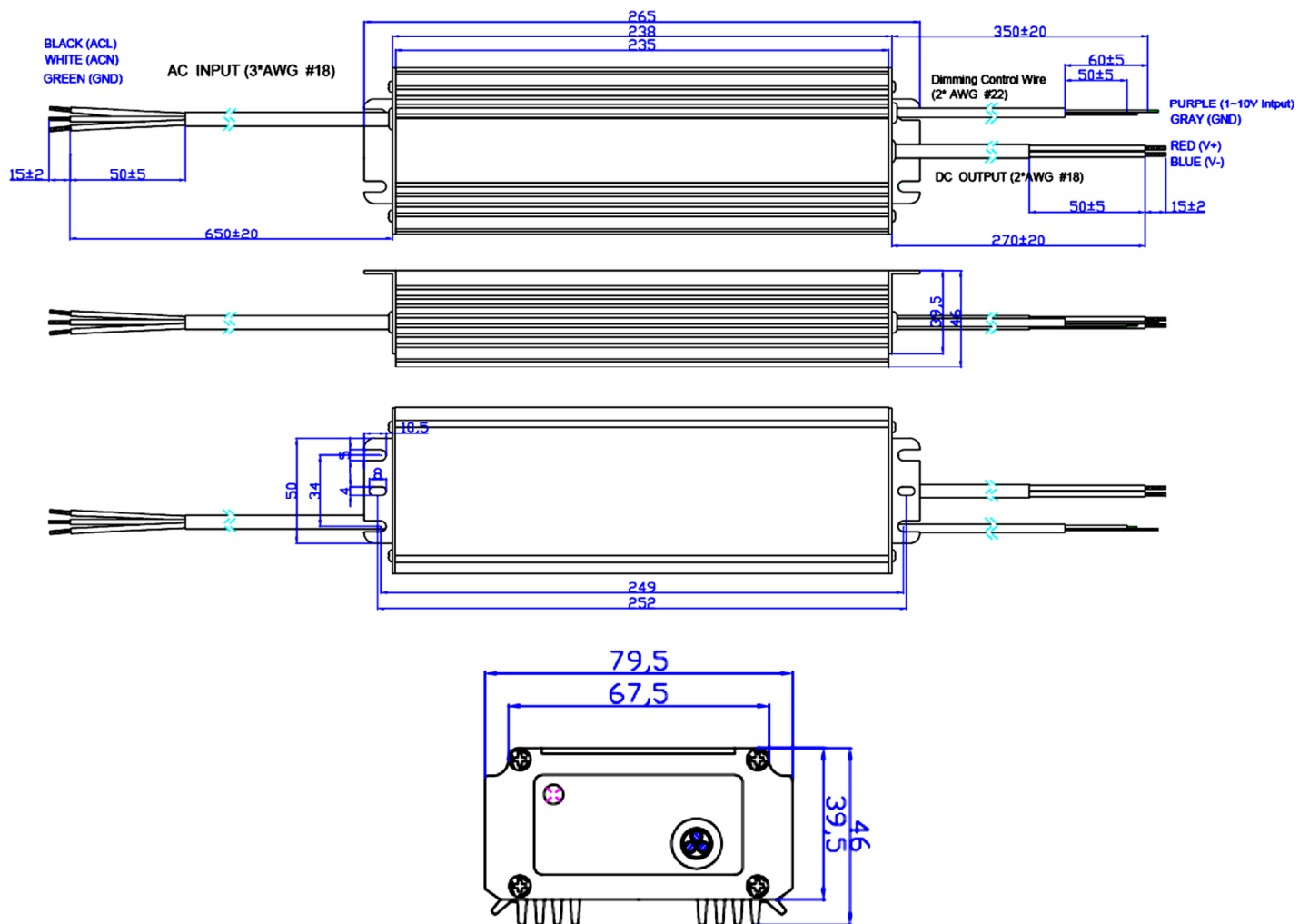
EMI/EMC Compliance

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, 4kV line-line, 6kV 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

Derating Curves



Mechanical Drawing

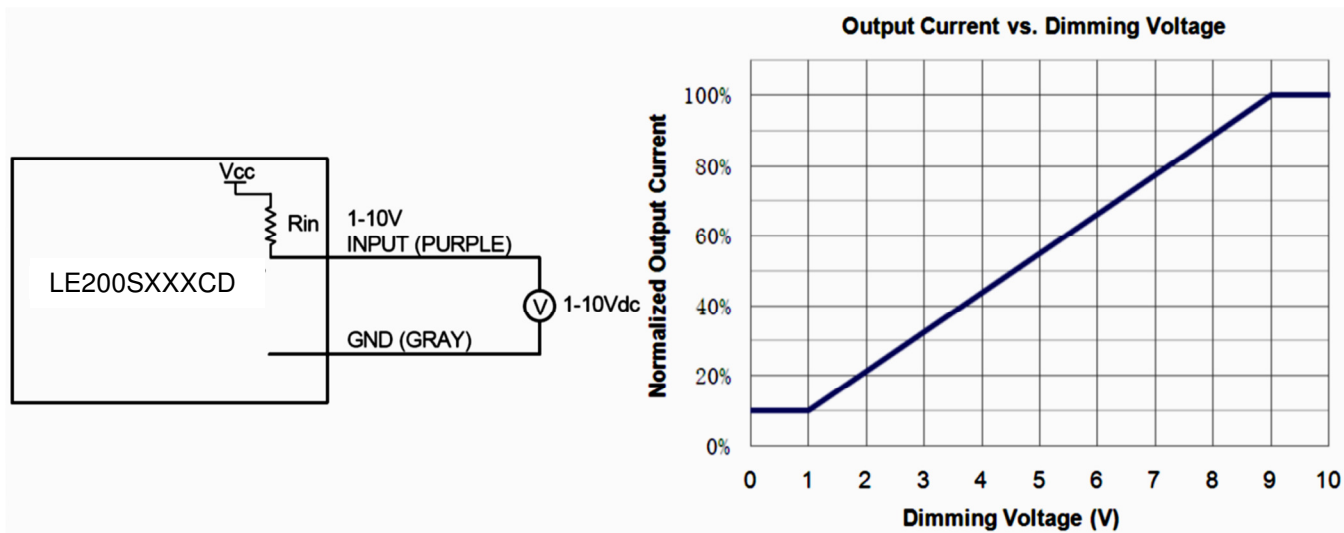


Dimming Control

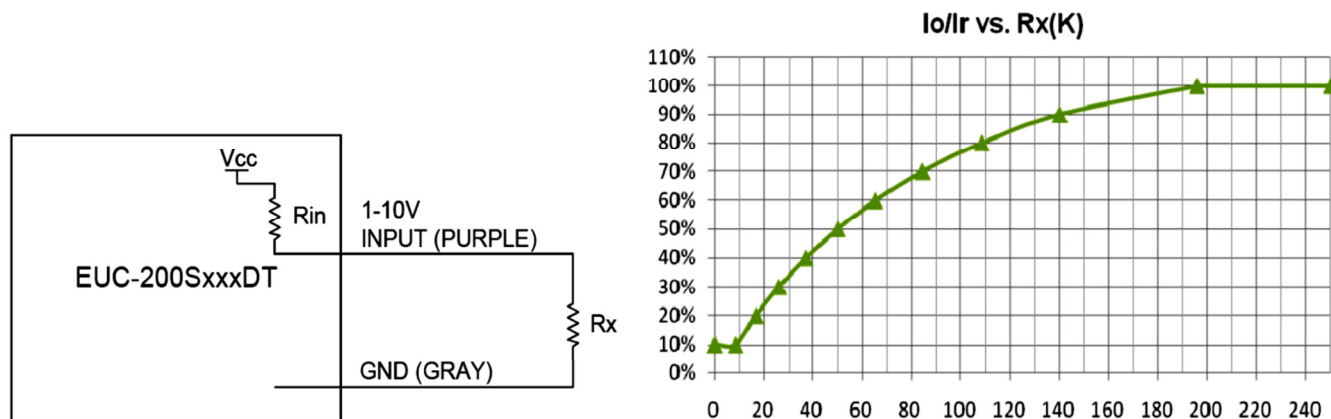
The dimmer control may be operated from either a potentiometer or from an input signal of 1 – 10 Vdc. Two recommended implementations are provided below.

Parameters:

Parameter	Min.	Typ.	Max.	Notes
Absolute Max. Voltage on the 1-10V input	-2V	-	12V	
Sink Current on the 1-10V input pin	0mA	-	1mA	



Dimming Configuration using External Voltage



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. Do not connect the GND of dimming to the output; otherwise, the LED driver can not work normally.