

ESS1048 Series

High Power Constant Current LED Driver

Total Power	48 Watts max.
Input Voltages	120 ~ 240VAC, 277VAC
Number of Outputs	One

Product Specifications

ANZ#: Z187b, August 20, 2012

SPECIAL FEATURES

- Universal Input range from 110VAC~304VAC, 50/60Hz
- Stud-mount and Tab-mount design maximize design flexibility
- Size: 4.25" (L) x 3.00" (W) x 1.18" (H)
- Suitable for dry and damp location applications
- Standard 1-10V dimming; compatible with fluorescent dimmers
- UL8750 and CE compliant
- Wide selection of pre-adjusted C/C outputs

ENVIRONMENTAL

Operating temperature:	-20 to +50 ° C, Tc: 80 ° C
Storage temperature:	-40 to +85 ° C
Humidity (Non-Condensing):	5% to 95%
Cooling:	Convection
Vibration Frequency:	5 to 50 Hz
MTBF:	>100,000 Hours at full load and 25°C ambient conditions (MIL-217F)



The picture shown is not to scale

SPECIFICATIONS :

Input Range : 100 ~ 264VAC; 277VAC	Frequency : 47 to 63Hz
Power Factor: > 0.92 at 65% to 100% load, 115VAC or 230VAC	Inrush Current : 50.0 Amps max. at 230VAC, cold start 25°C
Input Current : 0.6 Amps max. at 115VAC	Efficiency : 83% Typical
Output Current Regulation : ±5%	Maximum Power : 48W
Protection : OCP, SCP, OLP – Auto Recovery	Leakage Current : 300uA typ.
Dimming method : 0-10V dimmer / fluorescent dimmer	Dimension: 108mm (L) x 76mm (W) x 30mm (H)
Hold up time: Half cycle min. at 120VAC and 80% rated load	Regulation Compliance: UL8750 or EN61347, EN55015, EN61547

MODEL SELECTION :

Model Number	Constant Voltage Mode			Model Number	Constant Current Mode		
	V (DC)	A (mA)	Max. W		A (mA)	V (DC)	Max. W
ESS1048-24	24, ±5%	2000	48	ESS1048-24-C2500	2500 - 2000	14 – 25	48
ESS1048-36	36, ±5%	1330	48	ESS1048-36-C1660	1660 – 1330	24 – 36	48
ESS1048-48	48, ±5%	960	48	ESS1048-48-C1200	1200 - 960	30 – 50	48
Note: Constant Voltage models are not dimmable				ESS1048-72-C0830	830 - 660	40 – 72	48

MECHANICAL

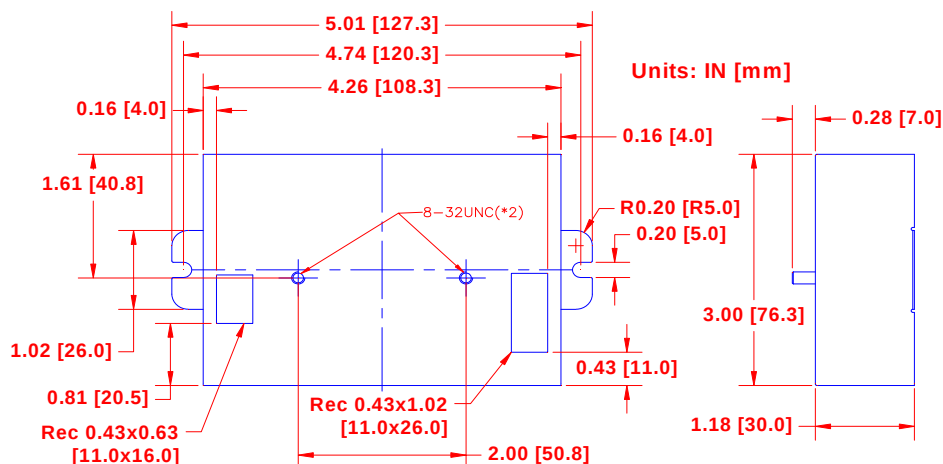
XX = Maximum Forward Voltage (Vf)

YYY = Constant Current Output (If)

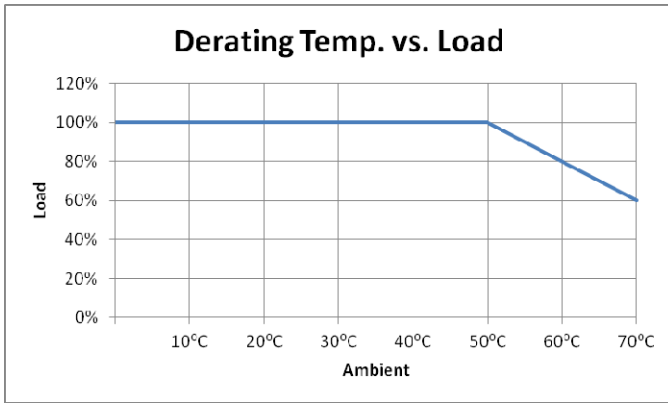
AC input terminal block

DC output terminal block

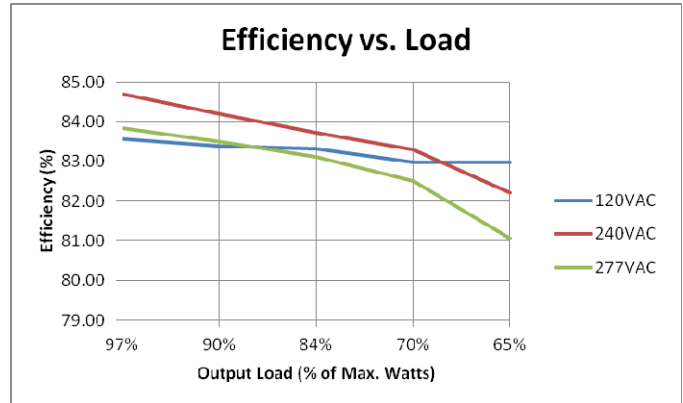
1-10V dimming control terminal block



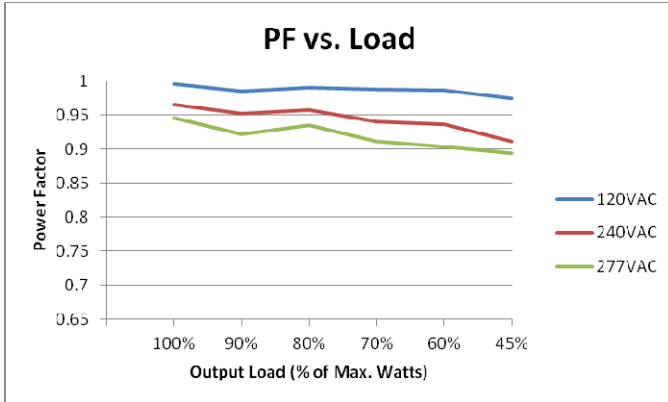
De-rating Temp. vs. Load



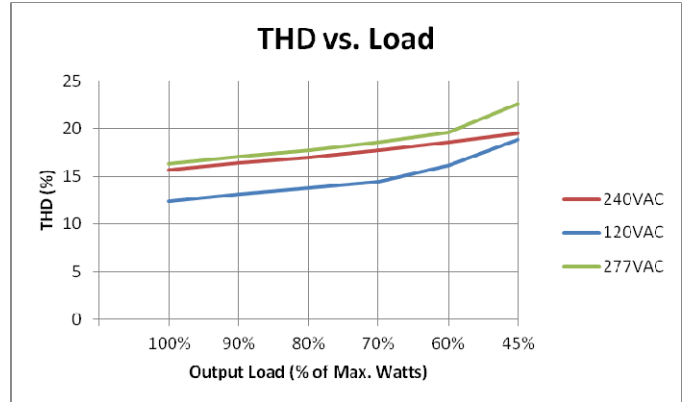
Efficiency vs. Load



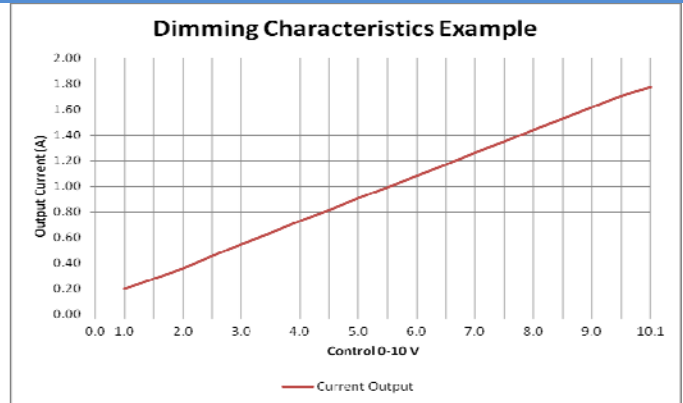
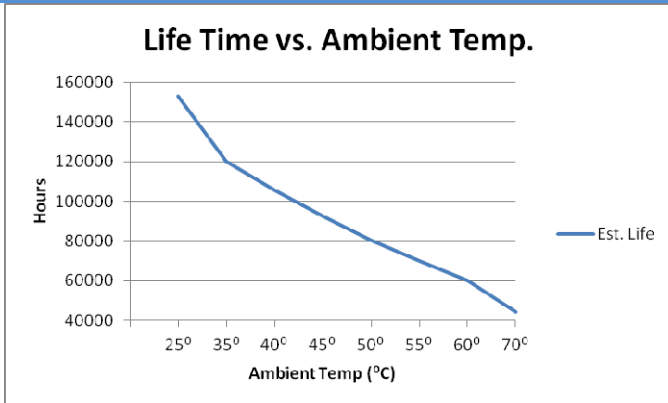
Power Factor vs. Load



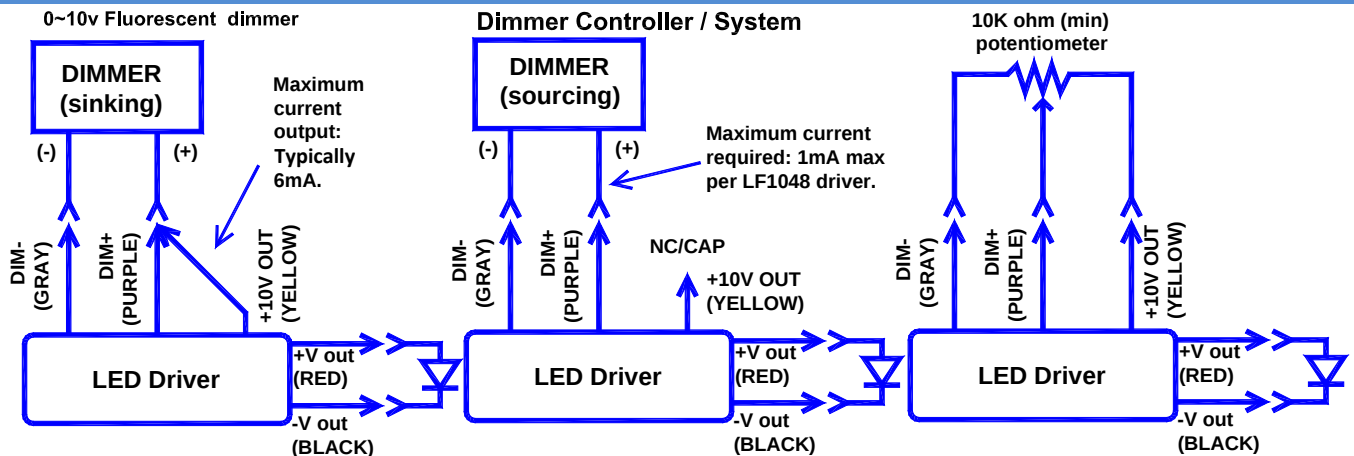
THD vs. Load



Life Time vs. Ambient Temp.



Dimming Wiring Diagram



For general operation and networking purposes where an OFF mode condition is required, our LED Driver dimming models (ESS & ESL) operate with 1-10V control input, where 1V input is minimum dim and less than 1V is OFF.