

50W Constant Current (700mA) Dimming LED Driver

IZC070-050A-9267C-SA

Product Overview

The IZC070-050A-9267C-SA operate from a 90 - 305 Vac input range. This unit will provide up to a 700mA of output current and a maximum output voltage of 72Vdc for 50 W maximum output power. It is designed to be highly efficient and highly reliable. Features include over voltage protection, short circuit protection and over load protection.

Technical Features:

- High Efficiency
- Constant Current Output
- Active Power Factor Correction
- Waterproof (IP67)
- Constant Current Output
- Dimming with 0-10V source or 20k resistor
- Lightning Protection
- All-Round Protection: OVP, SCP, OTP
- Comply With UL8750 & EN61347 Safety Regulations



Model

Output Current	Input Voltage	Max. Output Voltage	Max. Output Power	Typical Efficiency(1)	Power Factor	
					110Vac	220Vac
700 mA	90 - 305 Vac	72 Vdc	50 W	88%	0.99	0.92

N.B Measured at full load and 220 Vac input.

Input Specifications

Parameter	Min.	Typ.	Max.	Notes
Input Voltage	90 V	-	305 V	
Input Frequency	47 Hz	-	63 Hz	
Input AC Current	-	-	0.6 A	Measured at full load and 100 Vac input.
	-	-	0.3 A	Measured at full load and 220 Vac input.
Inrush Current	-	-	20 A	At 230Vac input 25°C Cold Start

Output Specifications

Parameter	Min.	Typ.	Max.	Notes
Output Current Range $I_o = 700$ mA	665mA	-	735mA	
Output Voltage Range $I_o = 700$ mA	24V		72V	
Ripple and Noise (pk-pk)	-	-	10% V_o	Measured by 20 MHz bandwidth oscilloscope and the output paralleled a 0.1 μ F ceramic capacitor and a 10 μ F electrolytic capacitor.
Line Regulation	-	-	2%	
Load Regulation	-	-	5%	
Turn-on Delay Time	-	1.7 S	2.0 S	Measured at 110Vac input.
	-	0.7 S	1.0 S	Measured at 220Vac input.
Output Overshoot / Undershoot	-	-	10%	When power on or off.

Protection Functions

Parameter	Min.	Typ.	Max.	Notes
Over Voltage Protection $I_o = 700$ mA	92V	94V	96V	Hiccup mode. The power supply shall be self-recovery when the fault condition is removed.
Over Load Protection	-	1.25 P_o	-	Hiccup mode. The power supply shall be self-recovery when the fault condition is removed.
Short Circuit Protection	No damage shall occur when any output operating in a short circuit condition. The power supply shall be self-recovery when the fault condition is removed.			

General Specifications

Parameter	Min.	Typ.	Max.	Notes
Efficiency $I_o = 700$ mA	86%	87%	-	Measured at full load and 110 Vac input.
Efficiency $I_o = 700$ mA	87%	88%	-	Measured at full load and 220 Vac input.
No Load Power Dissipation	≤ 3 W			
MTBF	487,000 hours			Measured at 110Vac input, 80%Load and 25°C ambient temperature (MIL-HDBK-217F).
Life Time	66,000 hours			Measured at 110Vac input, 80%Load and 45°C ambient temperature
Dimensions Inches (L x W x H) Millimeters (L x W x H)	6.77 x 1.36 x 1.67 172 x 34.5 x 42.5			
Net Weight		480 g		

Note: All specifications are typical at 25 °C unless otherwise stated.

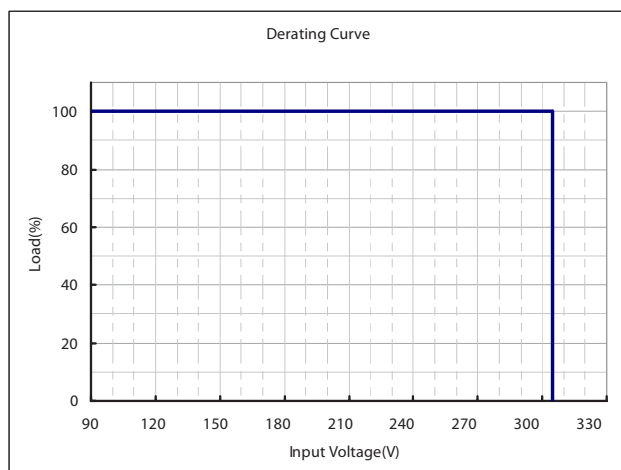
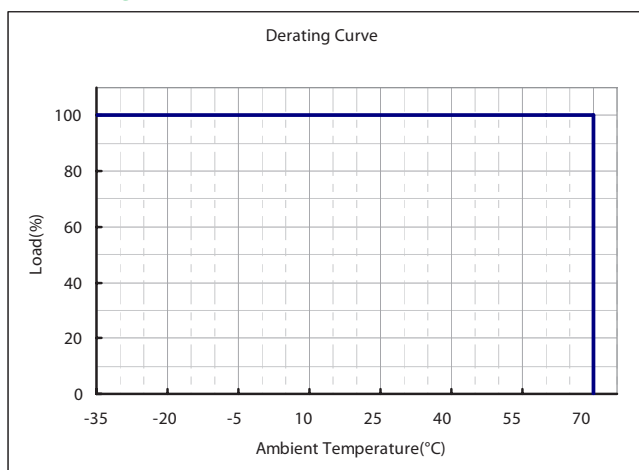
Environmental Specifications

Parameter	Min.	Typ.	Max.	Notes
Operating Temperature	-35 °C		+70 °C	Humidity: 10% RH to 100% RH
Storage Temperature	-40 °C		+85 °C	Humidity: 5% RH to 100% RH

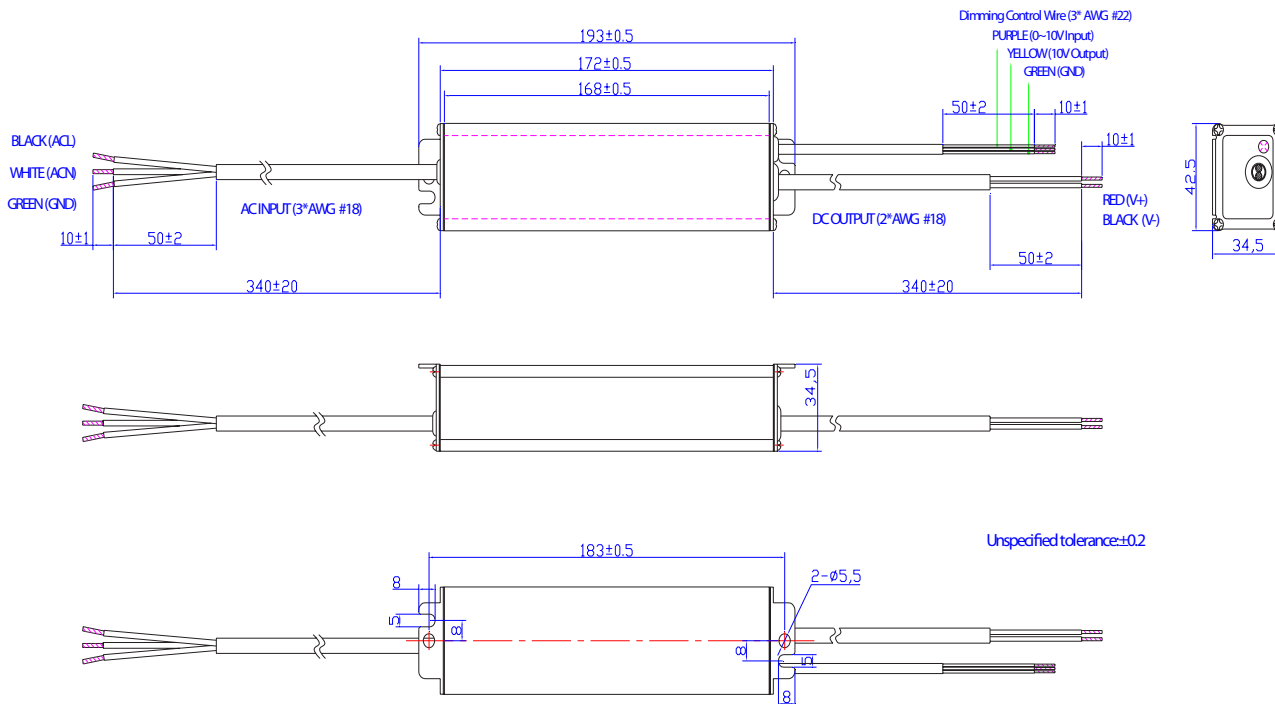
Safety & EMC Compliance

Safety Category	Country	Standard
CUL	USA & Canada	UL8750 Compliance to UL1310 Class2, UL1012 UL953, CAN/CSA-C22.2 No. 0, CSA-C22.2 No. 107.1, CSA-C22.2 No. 250.0
CE	Europe	EN61347-1, EN61347-2-13
EMI Standards		Notes
EN 55015		Conducted emission Test & Radiated emission Test with 6 dB margin
EN 61000-3-2		Harmonic current emissions
EN 61000-3-3		Voltage fluctuations & flicker
EN 61000-4-2		Electrostatic Discharge (ESD): 8 kV air discharge, 4 kV contact discharge
EN 61000-4-3		Radio-Frequency Electromagnetic Field Susceptibility Test-RS
EN 61000-4-4		Electrical Fast Transient / Burst-EFT
EN 61000-4-5		Surge Immunity Test: AC Power Line: line to line 2 kV, line to earth 4 kV
EN 61000-4-6		Conducted Radio Frequency Disturbances Test-CS
EN 61000-4-8		Power Frequency Magnetic Field Test
EN 61000-4-11		Voltage Dips
EN 61547		Electromagnetic Immunity Requirements Applies to Lighting Equipment

Derating Curve

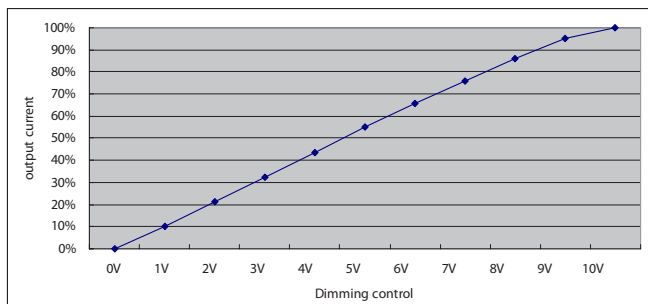
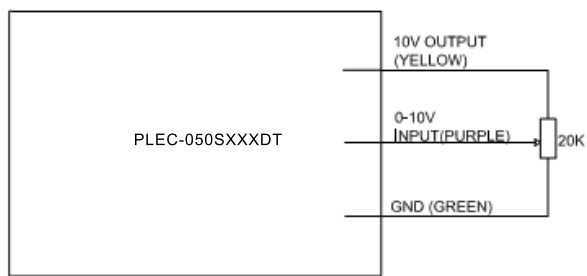


Mechanical Outline

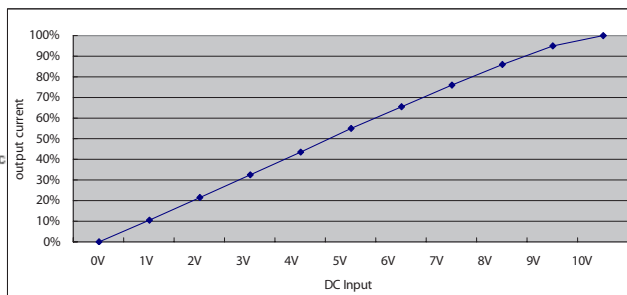
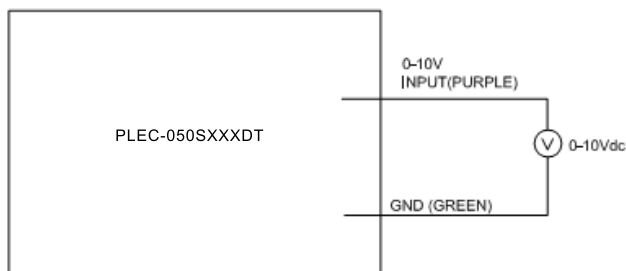


Dimming Control (On secondary side)

Parameter	Min.	Typ.	Max.
10V output voltage	9.8 V	10 V	10.2 V
10V output source current	-10 mA	-	2 mA
Absolute maximum voltage on the 1-10V input pin	-2 V	-	15 V
Source current on 1-10V input pin	0 mA	-	1 mA



Implementation 1: Potentiometer control



Implementation 2: DC input

Notes:

1. For the driver to operate properly, the load voltage must be maintained above the minimum voltage threshold (approx. 33% of the max. output voltage for any given model).
2. If the output voltage is maintained above 50% of the maximum output voltage, the dimmer control may be operated over the entire 0-10V range with output current varying from 100% down to practically 0%.
3. If the output voltage is maintained between 33-50% of the maximum output voltage, the dimmer control may be operated over 5-10V range with output current varying from 100% down to 50%. Dimming below 5V under these conditions is not guaranteed.

RoHS Compliance

Our products comply with the European Directive 2002/95/EC, calling for the elimination of lead and other hazardous substances from electronic products.

For further information please contact ILS

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.