

75W Constant Current (700mA) LED Driver

IZC070-075A-9267C-SA

Product Overview

The IZC070-075A-9267C-SA operates from a 90 - 305 Vac input range. This unit will provide up to 700mA of output current and a maximum output voltage of 108 Vdc for 75 W maximum output power. It is designed to be highly efficient and highly reliable. Features include dimming control, over voltage protection, short circuit protection and over temperature protection.

Technical Features:

- High Efficiency (Up to 92%)
- Active Power Factor Correction (0.99 Typical)
- Constant Current Output
- 1-10V source & potentiometer dimming function
- Lightning Protection
- All-Round Protection: OVP, SCP, OTP
- Waterproof (IP67)
- 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	108 Vdc	75 W	91%	0.99	0.96

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	
Leakage Current	-	-	1 mA	At 277Vac 50Hz input
Input AC Current	-	-	0.9 A	Measured at full load and 100 Vac input.
	-	-	0.42 A	Measured at full load and 220 Vac input.
Inrush Current	-	-	50 A	At 230Vac input 25°C Cold Start

Output Specifications

Parameter	Min.	Typ.	Max.	Notes
Output Current Range $I_o = 700$ mA	665mA	700mA	735mA	
Output Voltage Range $I_o = 700$ mA				
Ripple and Noise (pk-pk)	-	-	5% 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	-	-	1%	
Load Regulation	-	-	3%	
Turn-on Delay Time	-	0.5 S	0.8 S	Measured at 110Vac input.
	-	0.4 S	0.6 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	-	118V	130V	Latch mode. The power supply shall return to normal operation only after the power is turn-on again.
Over Temperature Protection	-	110 °C	-	Latch mode. The power supply shall return to normal operation only after the power is turn-on again.
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	87%	89%		Measured at full load, 110Vac input, 25 °C ambient temperature, after the unit is thermally stabilized. It will be lower about 2%, if measured immediately after startup.
Efficiency $I_o = 700$ mA	89%	91%	-	Measured at full load, 220Vac input, 25 °C ambient temperature, after the unit is thermally stabilized. It will be lower about 2%, if measured immediately after startup.
MTBF	450,000 hours			110 Vac input, 80% Load and 25 °C ambient temperature (MIL-HDBK-217F)
Life Time	65,000 hours			
Dimensions Inches (L x W x H) Millimeters (L x W x H)	5.91 x 2.66 x 1.46 150 x 67.5 x 37			
Net Weight		750 g		

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

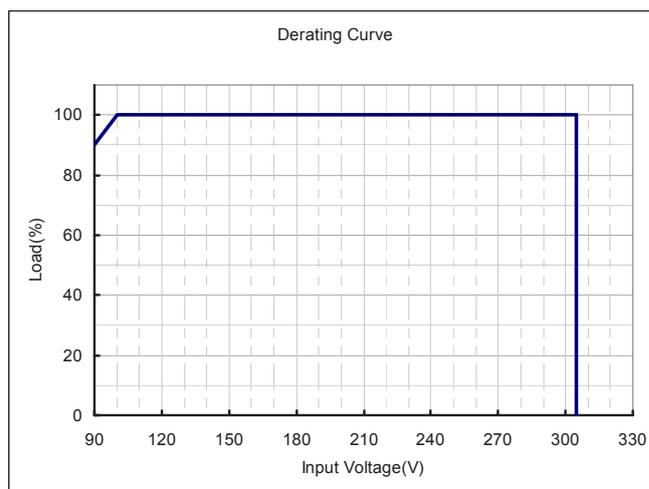
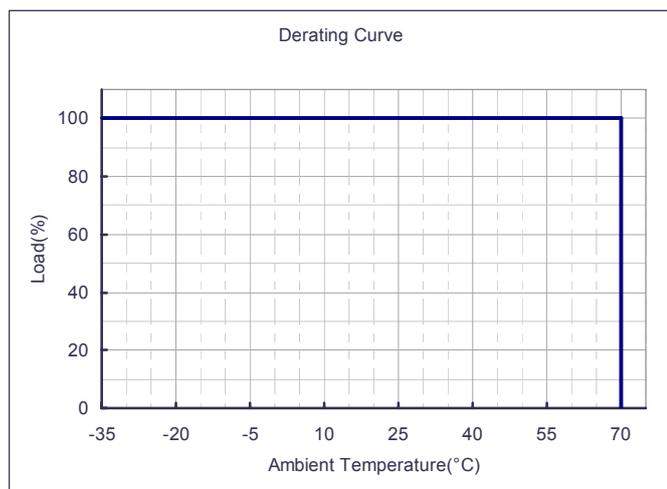
Environmental Specifications

Parameter	Min.	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

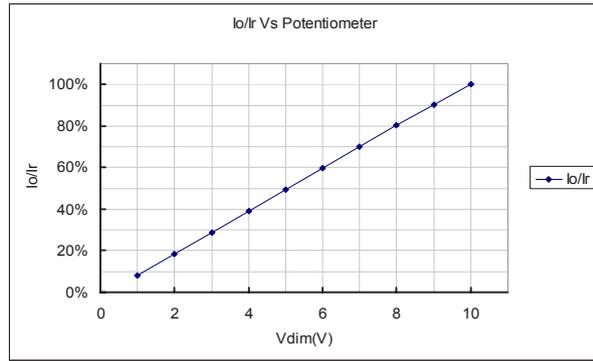
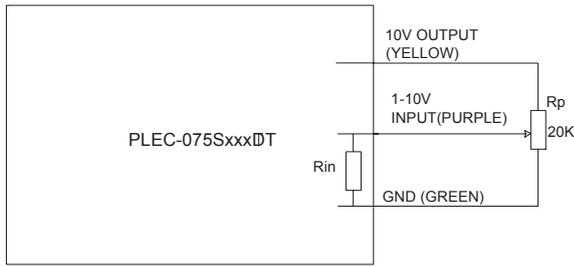
Safety Category	Country	Standard
CUL	USA & Canada	UL8750 Compliance to UL1310 Class2, UL1012 UL953, CAN/CSA-C22.2 No. 0, CSA-C22.2 No. 107.1, CSA-C22.2 No. 250.0
CE	Europe	EN61347-1, EN61347-2-13
EMI Standards		Notes
EN 55015		Conducted emission Test & Radiated emission Test with 6 dB margin
EN 61000-3-2		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

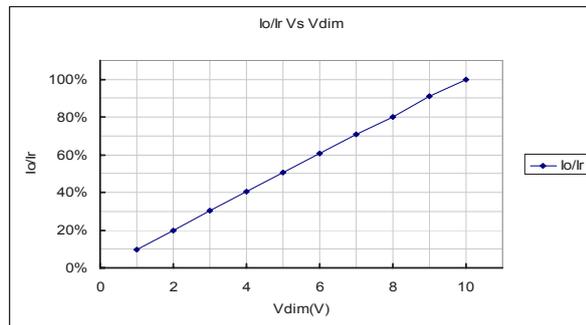
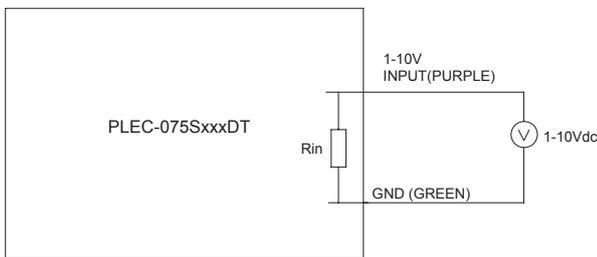


Dimming Control (On secondary side)

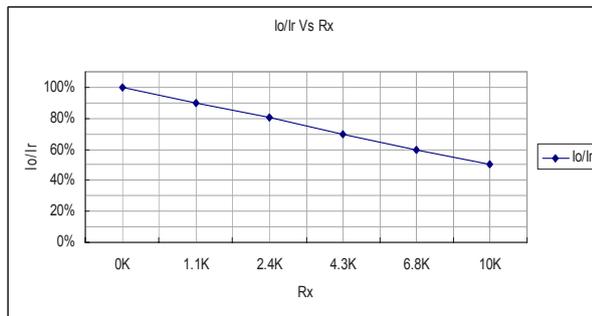
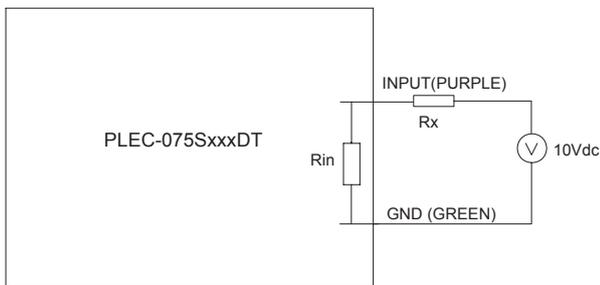
Parameter	Min.	Typ.	Max.
10V output voltage	9.8 V	10 V	10.2 V
10V output source current	-10 mA	-	10 mA
Absolute maximum voltage on the 1-10V input pin	-2 V	-	12 V
Source current on 1-10V input pin	0 mA	-	1 mA
Value of Rin (the resistor inside the LED driver which locate between the 1-10V input pin and ground pin)	-	10K	



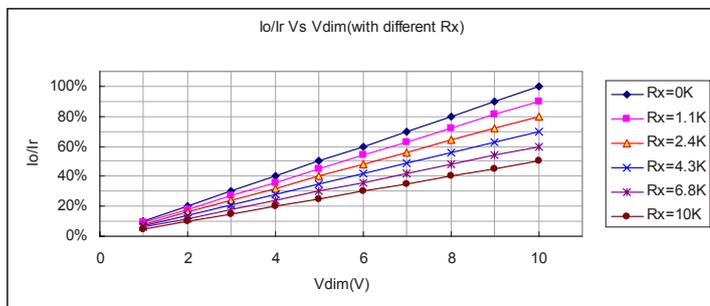
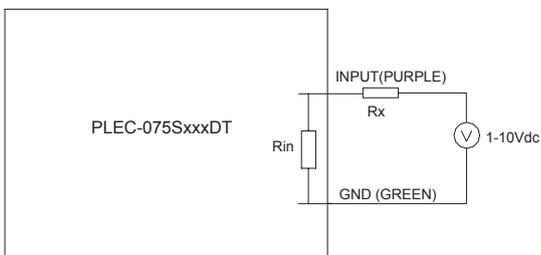
Implementation 1: Potentiometer control



Implementation 2: DC input



Implementation 3: External resistor



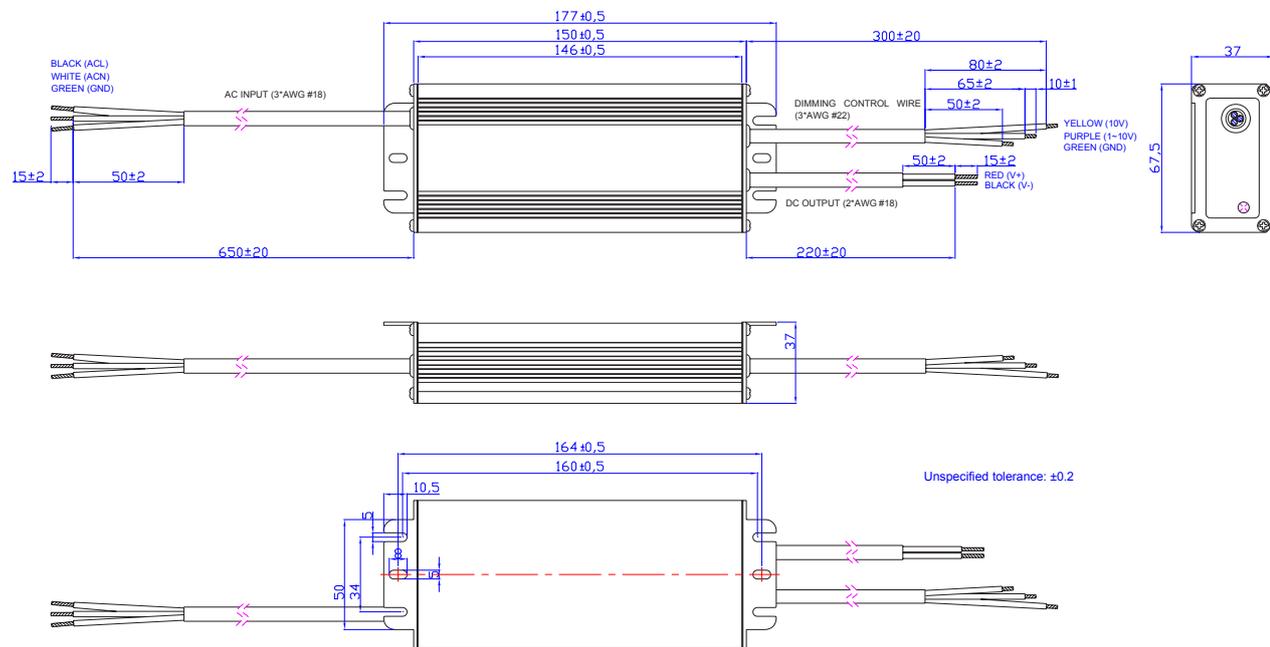
Implementation 4: External resistor and DC input

Specifications are subject to changes without notice.

Notes:

1. If the dimming function is not used, please short 10V output pin (yellow) and 1-10 input pin (purple).
2. I_o is actual output current and I_r is rated current without dimming control.
3. 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).
4. 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%.
5. The dimming signal is allowed to be less than 1V, however, when it for 0-1V, the output current cannot guarantee a good linearity.
6. The R_p , which stands for the potentiometer in the Implementation 1, is recommended between 10K~100K.
7. Do not connect the GND of dimming to the output; otherwise, the LED driver can not work normally.

Mechanical Outline



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.

Change Date	Rev.	Description of Change		
		Item	From	To
2009-09-15	V2.0	Change MTBF and Life Time		
2009-12-03	V3.0	Change OTP to latch mode		
2010-01-19	V3.1	Change the product photo and mechanical outline		
2010-03-03	A	Add notes of UL1310 Class 2 for all models. (3) (4) (5)		
		Effeciency $I_o = 700$ mA	Min. Typ. 88%, 89%	Min. Typ. 87%, 89%
		Effeciency $I_o = 700$ mA	Min. Typ. 90%, 91%	Min. Typ. 89%, 91%
		Change MTBF	498,000 hours	450,000 hours
		Add Leakage Current in Input Specifications	/	/
		Add Derating Curve	/	/
		Modify the tin-plated wire length tolerance in Mechanical Outline	±0.5	±2
		Add one note in Dimming Control	/	7. Do not connect the GND of dimming to the output; otherwise, the LED driver can not work normally.

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.