

50 Watt Dimmable Series

CONSTANT CURRENT LED DRIVER



Green Watt Power
Division of Calnex Mfg. Co. Inc.

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Description

The GLCD 50 Watt series provides a dimmable constant current power supply for use in LED applications. The GLCD 50 provides a maximum of 50 watts continuous output with air convection.



- Universal AC Input / Full Range
- 100-277 VAC Input for North America
- Dimmable
- CE Approved
- High Reliability
- Efficiency up to 86%
- Over Voltage Protection
- Short Circuit Protection
- Over Current Protection
- Over Temperature Protection
- Waterproof IP67
- RoHS Compliant
- 5 Year Warranty



Model Selection

Model Number	Output Current	Current Range * with Dimming	Voltage Range Preliminary (Subject to Change)
GLCD-0500-50	500 mA	50 mA - 500 mA	65 - 100 V
GLCD-0700-50	700 mA	70 mA - 700 mA	45 - 72 V
GLCD-01050-50	1.05 A	105 mA - 1.05 A	30 - 48 V
GLCD-01400-50	1.4 A	140 mA - 1.40 A	22 - 36 V
GLCD-01750-50	1.75 A	175 mA - 1.75 A	18 - 30 V
GLCD-02100-50	2.1 A	210 mA - 2.10 A	15 - 24 V
GLCD-02800-50	2.8 A	280 mA - 2.80 A	12 - 18V

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Specifications

Input Parameters			
Input Voltage Range*	MIN	100	VAC
*Designed to optimum performance at 110 and 220 nominal lines	TYP	230	
	MAX	277	
Input Frequency	TYP	47 - 63	Hz
Power Factor			
110 VAC Input, Full Load		0.95	
220 VAC Input, Full Load		0.90	
Input Current			
110 VAC, Full Load	MAX	0.9	A
220 VAC, Full Load		0.45	
Inrush Current			
220 VAC/60Hz, Full Load Cold Start	MAX	30	A

Output Parameters			
Ripple & Noise	MAX	5	%
Total Harmonic Noise (THD)	MAX	<20	%
Setup Time			
220VAC Input - Full Load	MAX	2	s
Rise Time - (See Note 4)	MAX	200	ms
Overshoot and Undershoot Response (Power On/Off)	MAX	±10	%

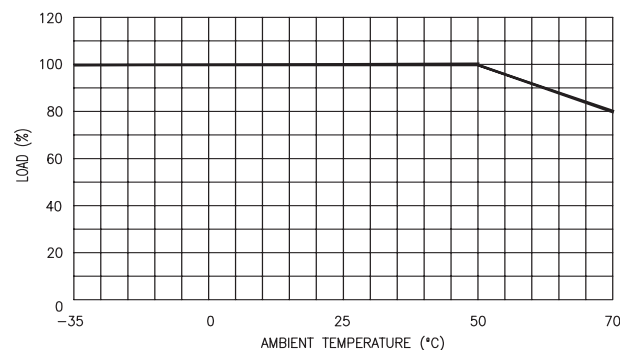
General Specifications			
Short Circuit Protection	Recovers automatically after fault condition is removed		
Withstand Voltage			
Test Method: I/P - O/P	3750 VAC or 5303 VDC 1 MIN. ≤ 10 mA		
Test Method: I/P - FG	1875 VAC or 2651 VDC 1 MIN. ≤ 10 mA		
Test Method: O/P - FG	500 VAC or 707 VDC 1 MIN. ≤ 10 mA		
Withstand Impedance	500 VDC 10MΩ/min (at room temperature)		
Test Method: I/P - O/P			
Grounded Impedance	25A/3 SEC		
MTBF: (MIL-HDBK-217F 25°C)	≥ 200,000	Hours	
Temperature - Operating	MIN	-35	°C
	TYP	25	
	MAX	70	
Temperature - Storage	MIN	-40	°C
	TYP	25	
	MAX	85	

Case Size	6.81" x 1.73" x 1.25" 173mm x 44mm x 31.5mm
Unit Weight	0.4Kg
Agency Approval Depending on Model	CE Marked

Notes:

- Specifications are subject to change without notice.
- Output Voltage will auto-adjust within the voltage range to provide the constant current as specified.
- DC Output Ripple & Noise Test Conditions: Oscilloscope should be limited at 20 MHz bandwidth. At output terminals with parallel 0.1 µF ceramic and 22 µF electrolytic capacitors.
- Rise Time - is change from 10% to 90% of rated load. The output voltages shall rise from 10% to 90% of their output voltage.
- See Green Watt Power website for RoHS statement.
www.greenwattpower.com/pdf/rohs.pdf

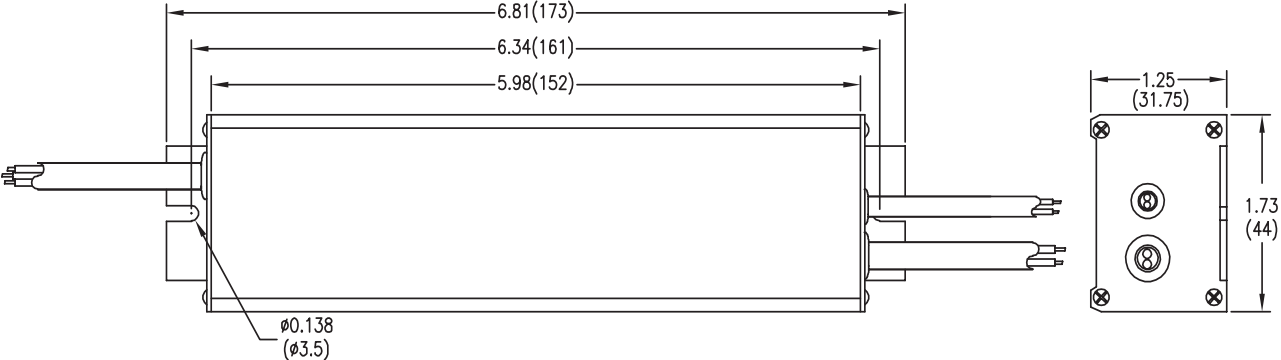
Derating Curves



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Case Specifications



All dimensions are inches (mm)

AC INPUT	DC OUTPUT
AC LINE - BROWN	+V OUT - RED
AC NEUTRAL - BLUE	- V OUT - BLACK
GND - YELLOW/GREEN	DIMMING CONTROL +DIM - GREEN
	DIMMING CONTROL -DIM - WHITE

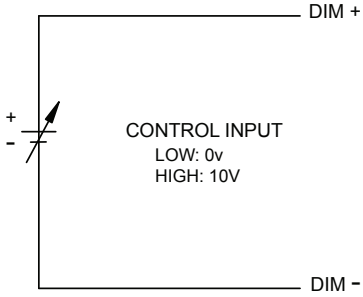
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Dimming Function

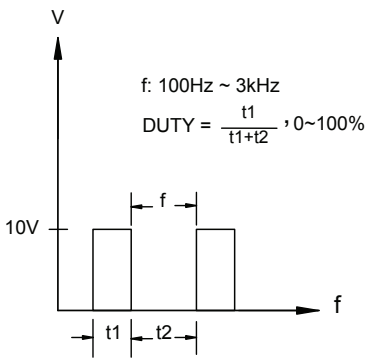
D Type:

0 - 10VDC ANALOG EXTERNAL DIMMING CONTROL INPUT



P Type:

PWM EXTERNAL DIMMING CONTROL INPUT



R Type:

10-100KΩ RESISTANCE EXTERNAL DIMMING CONTROL
OUTPUT CURRENT FROM 10% TO 100%

