

20 Watt Triac Series

CONSTANT CURRENT LED DRIVER



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

www.greenwattpower.com
925-687-4411 / 800-542-3355
email: sales@greenwattpower.com

Description

The GLCT 20 Watt series provides a Triac/ELV dimmer compatible, constant current power supply for use in LED applications. The GLCT 20 provides a maximum of 20 watts continuous output with air convection.

- Universal AC Input / Full Range
- 100-277 VAC Input for North America
- Triac/ELV Dimmer Compatible
- High Reliability
- Efficiency up to 84%
- Over Voltage Protection
- Short Circuit Protection
- Over Current Protection
- Over Temperature Protection
- Waterproof IP65
- RoHS Compliant
- 5 Year Warranty



Model Selection

Model Number	Output Current ± 5%	Current Range * with Dimming	Voltage Range Preliminary (Subject to Change)
GLCT-0400-20	400 mA	40 mA - 400 mA	14 - 28V
GLCT-0500-20	500 mA	50 mA - 500 mA	14 - 28V
GLCT-0600-20	600 mA	60 mA - 600 mA	14 - 28V
GLCT-0700-20	700 mA	70 mA - 700 mA	14 - 28 V

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Specifications

Input Parameters			
Input Voltage Range* *Designed to optimum performance at 110 and 220 nominal lines	MIN TYP MAX	100 230 277	VAC
Input Frequency	TYP	47 - 63	Hz
Power Factor 110 VAC Input, Full Load 220 VAC Input, Full Load		0.99 0.95	
Input Current 110 VAC, Full Load 220 VAC, Full Load	MAX	0.22 0.12	A
Inrush Current 115 VAC/60Hz, Full Load Cold Start	MAX	10	A

Output Parameters			
Ripple & Noise (Io max.)		±30	%
Total Harmonic Noise (THD) 220V (w/o dimmer)	MAX	<20	%
Setup Time 115VAC Input - Full Load 220VAC Input - Full Load	MAX	2 1	s s
Rise Time - (See Note 4)	MAX	150	ms
Overshoot and Undershoot Response (Power On/Off)	MAX	±10	%

Dimming Function	
Triac 100-10% Dimmable 120 VAC Nom with Dimmer	LEVITON: 6633-P/6684/6613-P/RPI06 LUTRON: NTLV-600/DVPDC-203P
ELV 80-10% Dimmable 120 VAC Nom with Dimmer	LUTRON: MAELV-600

General Specifications	
Over Voltage Protection	The output voltage that triggers OVP should be no higher than 35Vdc. The supply shall enter auto-recovery mode during OVP, and return to normal operation after the power is turned on again.
Short Circuit Protection	The unit will enter hiccup mode, and shall auto-recover when the fault condition is removed.

Open Circuit Protection	When output is open, the unit will enter hiccup mode, and shall auto-recover when the fault 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 Test Method: I/P - O/P	500 VDC 10MΩ/min (at room temperature)		
Grounded Impedance	25A/3 SEC		
MTBF: (MIL-HDBK-217F 25°C)	≥ 500,000	Hours	
Temperature - Operating	MIN TYP MAX	-25 25 60	°C
Temperature - Storage	MIN TYP MAX	-40 25 85	°C
Case Size	3.74" x 1.57" x 0.98" 95mm x 40mm x 25mm		
Unit Weight	0.157 kg		
Agency Approval Depending on Model	PENDING		

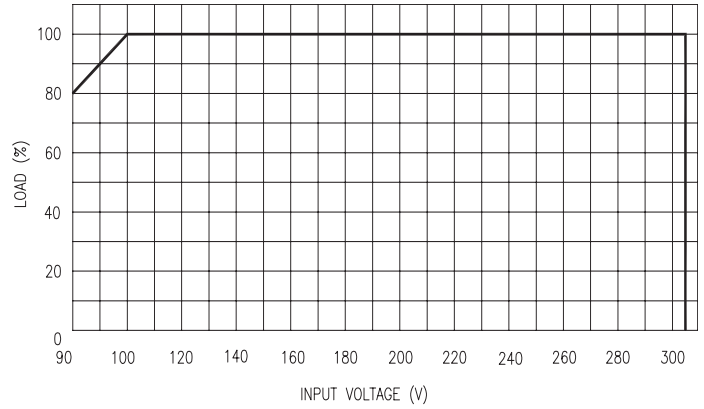
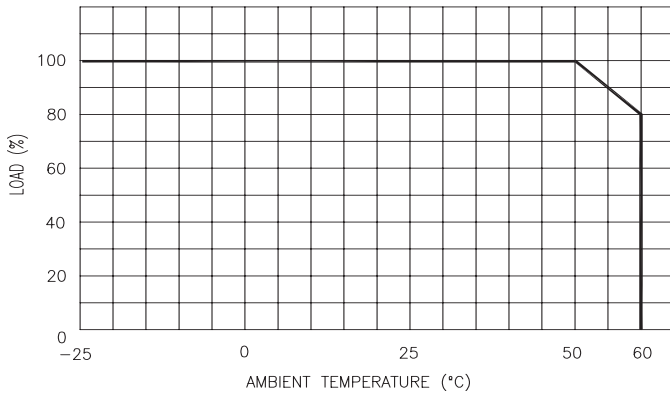
Notes:

- (1) Specifications are subject to change without notice.
- (2) Output Voltage will auto-adjust within the voltage range to provide the constant current as specified.
- (3) 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.
- (4) Rise Time - is change from 10% to 90% of rated load. The output voltages shall rise from 10% to 90% of their output voltage.
- (5) See Green Watt Power website for RoHS statement.
www.greenwattpower.com/pdf/rohs.pdf

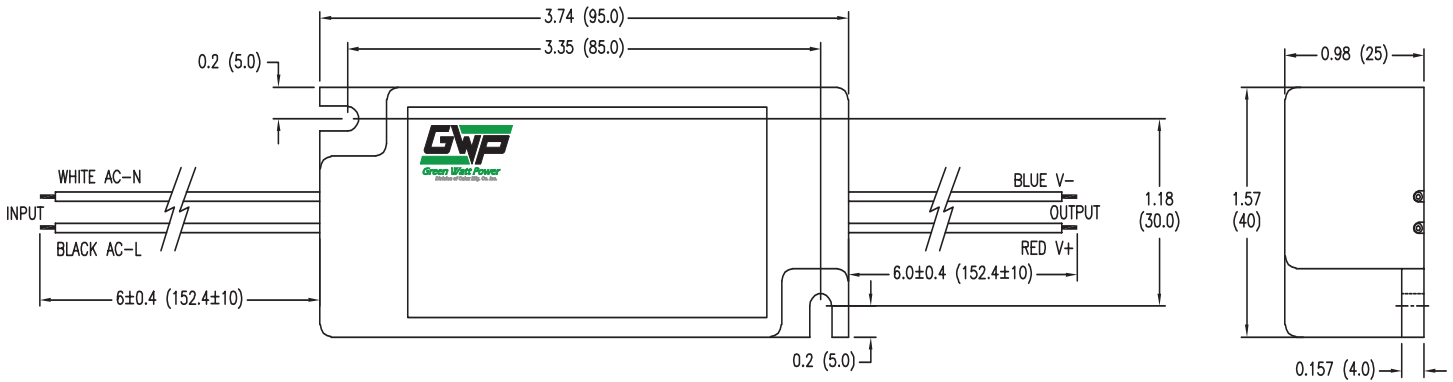
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Derating Curves



Case Specifications



All dimensions are inches (mm)

AC INPUT	DC OUTPUT
AC LINE - BLACK	+V OUT - RED
AC NEUTRAL - WHITE	- V OUT - BLUE

Wire color may vary. See label for actual designation.