GLSV-100 series

100W Constant Voltage Outdoor LED Power Supply

GLP GLOBAL LEADER POWER

Features:

- *Constant voltage design*
- *Built-in active PFC function*
- *Universal AC input / Full range up to 305VAC*
- *Protections: Short Circuit / Over Voltage / Over Current / Over Temperature*
- *Surge immunity: Differential Mode – 5kV, Common Mode - 10kV*
- *Cooling by free air convection*
- *IP67 design for indoor and outdoor applications*

Application:

- *Landscape lighting*
- *LED street lighting*
- *Industrial lighting*



© MODEL INFORMATION

Model Number	Output Power [W]	Output Voltage [V]	Output Current [A]	Efficiency typ. [%]	Power Factor typ.
GLSV-100B012	99.96	12	8.33	91%	0.96
GLSV-100B024	100.08	24	4.17	91%	0.96
GLSV-100B036	100.08	36	2.78	92%	0.96
GLSV-100B048	99.84	48	2.08	92%	0.96

© APPROVAL MARKS and SYMBOLS

GLSV-100B012	RoHS IP67 SELV	tc: 85°C ta: 60°C
GLSV-100B024	RoHS IP67 SELV	tc: 85°C ta: 60°C
GLSV-100B036	RoHS IP67 SELV	tc: 85°C ta: 60°C
GLSV-100B048	RoHS IP67 SELV	tc: 85°C ta: 60°C

© MODEL ENCODING

GLSV	-	100	B	xxx
Series name		Rated Output Power [W]	Option name	**012** - rated output voltage is 12V
				024 - rated output voltage is 24V
				036 - rated output voltage is 36V
				048 - rated output voltage is 48V

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ELECTRICAL SPECIFICATION

MODEL	GLSV-100B012	GLSV-100B024	GLSV-100B036	GLSV-100B048
OUTPUT				
Output Voltage	12VDC	24VDC	36VDC	48VDC
No Load Voltage (max.)	12.6VDC	25.2VDC	37.8VDC	50.4VDC
Load Current Range	0 ÷ 8.33A	0 ÷ 4.17A	0 ÷ 2.78A	0 ÷ 2.08A
Rated Power	99.96W	100.08W	100.08W	99.84W
Output Voltage Precision	± 5.0%			
Line Regulation (from 115VAC to 305VAC)	± 3.0%			
Load Regulation (from 50% to 100% load)	± 3.0%			
Output Voltage Ripple	< 3% v_{OUT}		< 2% v_{OUT}	
Turn-on Delay Time	1s for 100% load 230VAC / 0.5s for 100% load 115VAC			
INPUT				
Voltage Range	90 ÷ 305VAC (Refer to Input Voltage vs. Load Curve)			
Frequency Range	47 ÷ 63Hz			
Efficiency at 100% load (typ.)	91%	91%	92%	92%
	Refer to Efficiency vs. Load Curve			
AC Current (max.)	1.5A			
Inrush Current (max.)	75A / 230VAC (Refer to Inrush Current Waveform)			
Leakage Current (max.)	0.75mA/230VAC			
Power Factor (typ.)	0.96 / 230VAC at 100% load (Refer to Power Factor vs. Load Curve)			
THD	< 15% / 230VAC at 70 – 100% load (Refer to THDi vs. Load Curve)			
PROTECTIONS				
Short Circuit	Type: decrease of input power, auto-recovery.			
Over Voltage	13.2 ÷ 15.6VDC	26.4 ÷ 31.2VDC	39.6 ÷ 50.4VDC	52.8 ÷ 67.2VDC
	Type: shut off output voltage, restart on to recovery.			
Over Current	130-190% rated output current		110-150% rated output current	
	Type: hiccup mode, auto-recovery.		Type: constant current, auto-recovery.	
Over Temperature	Temperature Tc > 90°C		Tc > 85°C	
	Type: shut off output voltage, re-power on to recovery.		Type: Output current is limited in 30% (typ.)	
WORKING ENVIRONMENT				
Working Temperature	-40°C ÷ 60°C (Refer to Derating Curve)			
Working Humidity	20 ÷ 95% RH non-condensing			
Storage Temperature and Humidity	-40°C ÷ 85°C, 20 ÷ 95% RH non-condensing			
Vibration	10 to 500Hz sweep at constant acceleration 1G (depth 3.5mm) for 1 hour for each X, Y, Z axes			
Degree Of Protection [2]	IP67			

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SAFETY AND EMC REGULATIONS

Safety Standards	CE	EN61347-1; EN61347-2-13
EMC Standards	CE	EN55015; IEC61000-3-2; IEC61000-3-3; IEC61547
Withstand Voltage	IN/OUT: 3.75kVAC; IN/GND: 1.6kVAC; OUT/GND: 1.6kVAC; 60s, current < 10mA	
Grounding Resistance	< 0.1Ω (60S/25A)	
Insulation Resistance	IN/OUT, IN/GND, OUT/GND > 100MΩ (500VDC/60s)	

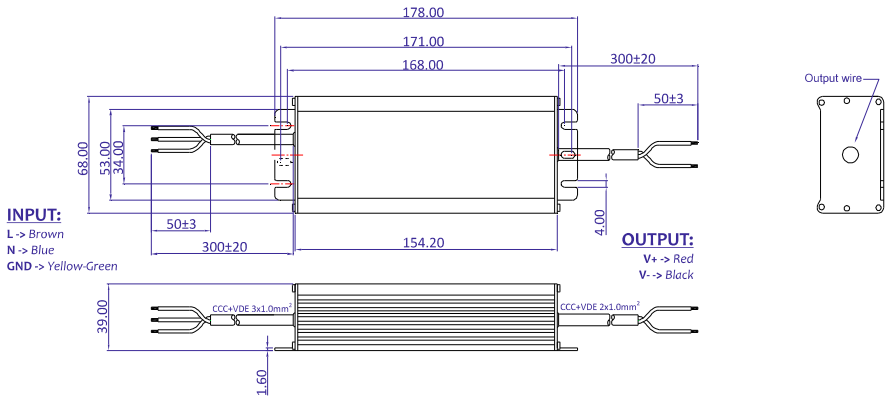
OTHERS

Input Wire	CCC+VDE 3 x 1.0mm^2, length = 300 ± 10mm
Output Wire	16AWG 2C, length = 300 ± 10mm for GLSV-100B012 and GLSV-100B024
	CCC+VDE 2 x 1.0mm^2, length = 300 ± 10mm for GLSV-100B036 and GLSV-100B048
MTBF (MIL-HDBK-217F)	212 000h at 230VAC / 80% load and ta < 25°C
Life Time (min.)	50 000h at 230VAC / 100% load and tc < 60°C (Refer to Life Time vs. T_C Curve)
Dimensions (Length * Width x Height)	178 * 68 * 39 mm
Weight	775 ± 50g

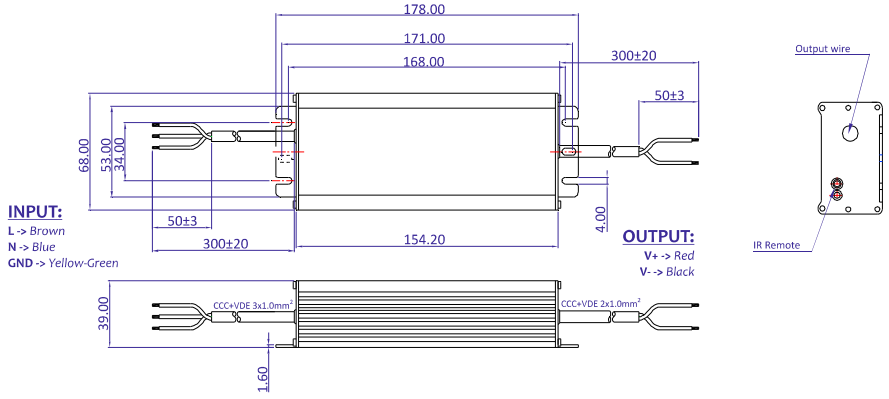
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Suitable for indoor or outdoor use. Please avoid direct exposure to sunlight and immersion in water for over 30 minutes.
3. Power supply is considered as component not indented to apply by end-user. Power supply meets safety and EMC standards however the final equipment with power supply must be re-quality to comply with EMC and LVD Directives.

© MECHANICAL SPECIFICATION

GLSV-100B012
GLSV-100B024

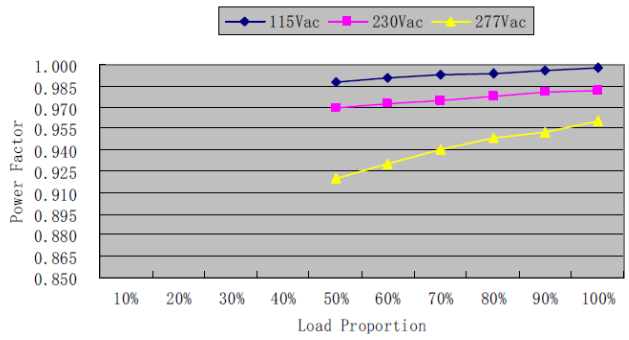


GLSV-100B036
GLSV-100B048

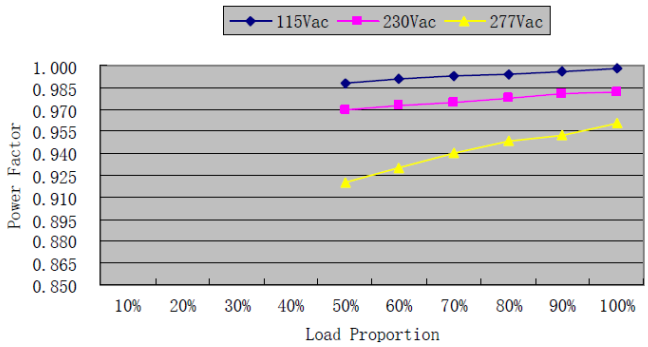


◎ Power Factor vs. Load Curve

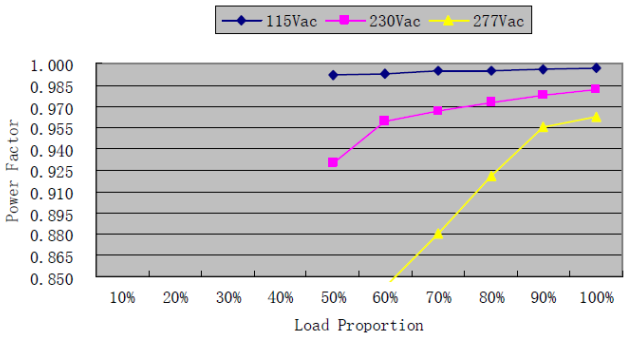
GLSV-100B012



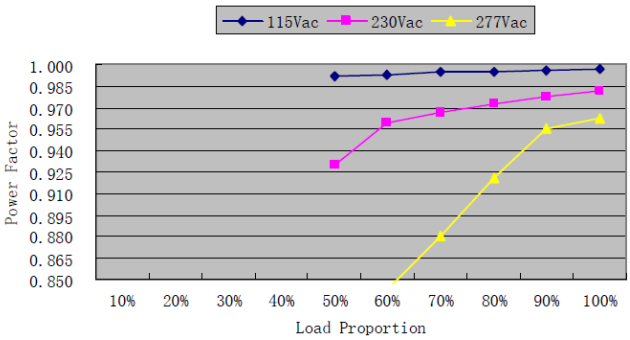
GLSV-100B024



GLSV-10B036

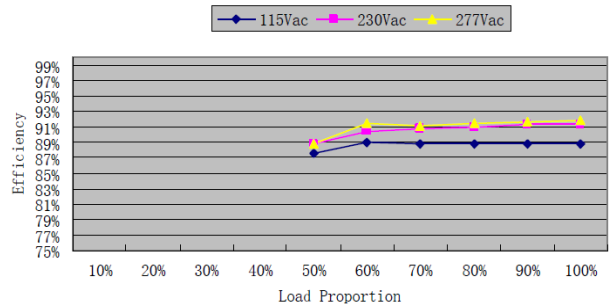


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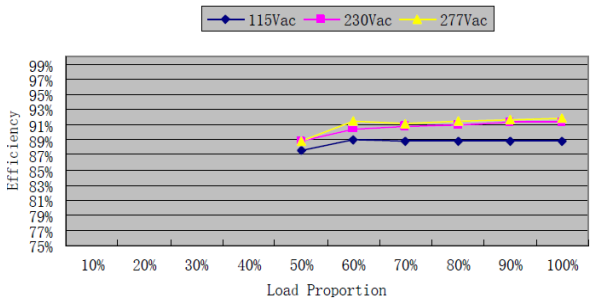


◎ Efficiency vs. Load Curve

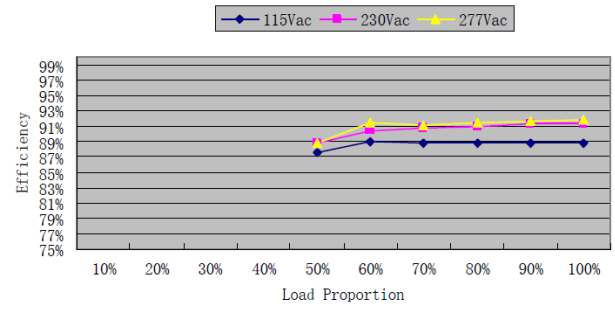
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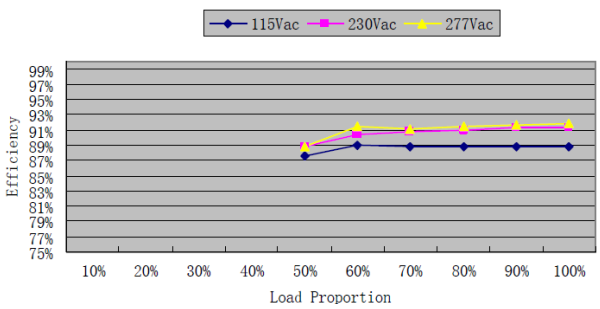
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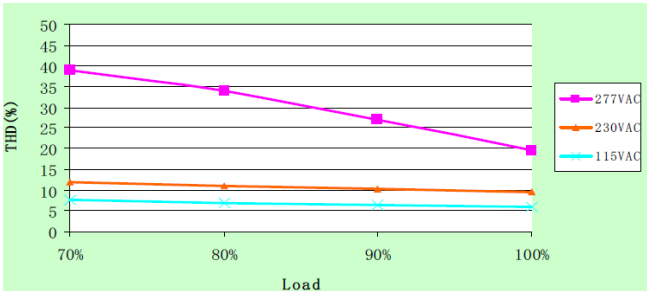


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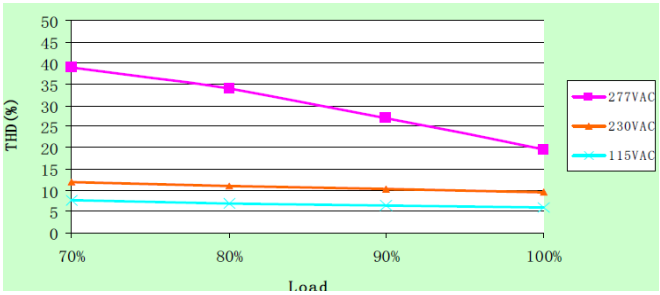


◎ THDi vs. Load Curve

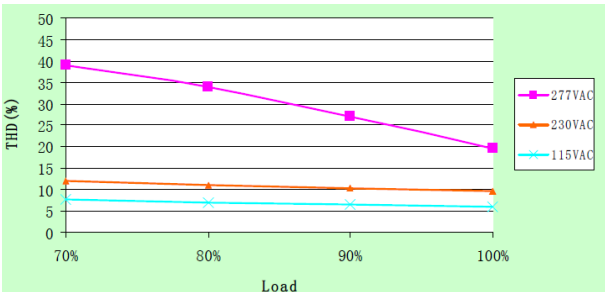
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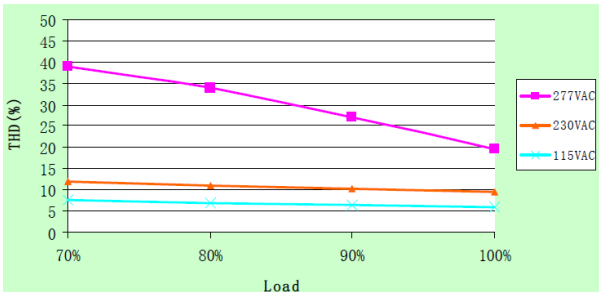
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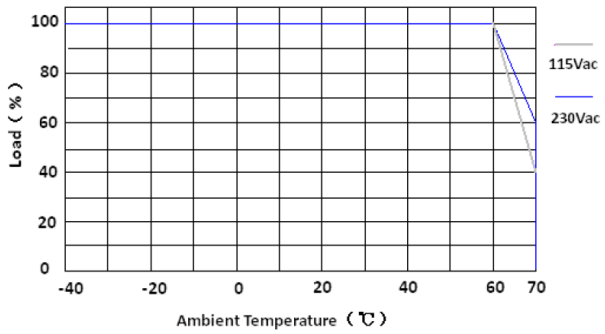
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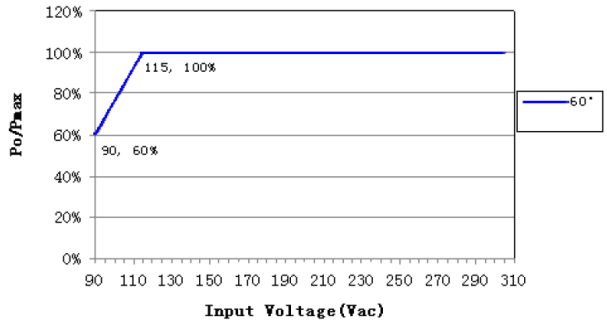
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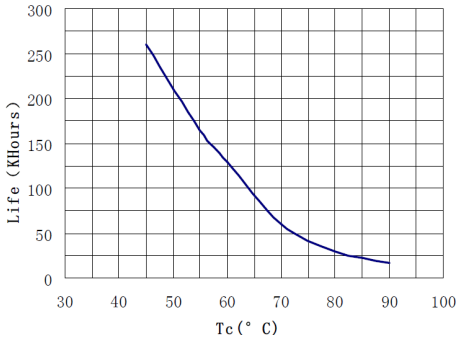
◎ Derating Curve



◎ Input Voltage vs. Load Curve



◎ Life time vs. T_C curve



◎ Inrush Current Waveform

