GLSV-320 series

320W 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-320B012	264.0	12	22.00	91%	0.97
GLSV-320B024	319.9	24	13.33	92%	0.96
GLSV-320B036	320.4	36	8.90	91%	0.96
GLSV-320B048	320.2	48	6.67	94%	0.97

© APPROVAL MARKS and SYMBOLS

GLSV-320B012	RoHS IP67 SELV	tc: 85°C ta: 50°C
GLSV-320B024	RoHS IP67 SELV	tc: 85°C ta: 50°C
GLSV-320B036	RoHS IP67 SELV	tc: 85°C ta: 50°C
GLSV-320B048	RoHS IP67 SELV	tc: 85°C ta: 50°C

© MODEL ENCODING

GLSV	-	320	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-320B012	GLSV-320B024	GLSV-320B036	GLSV-320B048
OUTPUT				
Output Voltage	12VDC	24VDC	36VDC	48VDC
No Load Voltage (max.)	12.96VDC	24.96VDC	37.44VDC	49.92VDC
Load Current Range	0 ÷ 22A	0 ÷ 13.33A	0 ÷ 8.9A	0 ÷ 6.67A
Rated Power	264W	319.9W	320.4W	320.2W
Output Voltage Precision	± 8.0%	± 5.0%	± 4.0%	
Line Regulation (from 115VAC to 305VAC)	± 3.0%			
Load Regulation (from 50% to 100% load)	± 3.0%			
Output Voltage Ripple	< 6% v_{OUT}	< 5% v_{OUT}	< 2% v_{OUT}	
Turn-on Delay Time	3s for 100% load			
INPUT				
Voltage Range	90 ÷ 305VAC (Refer to Input Voltage vs. Load Curve)			
Frequency Range	47 ÷ 63Hz			
Efficiency at 100% load (typ.)	91%	92%	91%	94%
	Refer to Efficiency vs. Output Load Curve			
AC Current (max.)	4.0A			
Inrush Current (max.)	150A / 230VAC (Refer to Inrush Current Waveform)			
Leakage Current (max.)	0.75mA/230VAC			
Power Factor (typ.)	0.97	0.96	0.96	0.97
	For 230VAC and 100% load (Refer to Power Factor vs. Load Curve)			
THD	< 20% / 230VAC at 70-100% load (Refer to THD 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 ÷ 46.8VDC	52.8 ÷ 62.4VDC
	Type: shut off output voltage, re-power on to recovery.			
Over Current	100-150% rated output current		110-150% rated output current	
	Type: hiccup mode, auto-recovery.		Type: constant current, auto-recovery.	
Over Temperature	Temperature Tc > 90°C			
	Type: shut off output voltage, re-power on to recovery.			
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)	

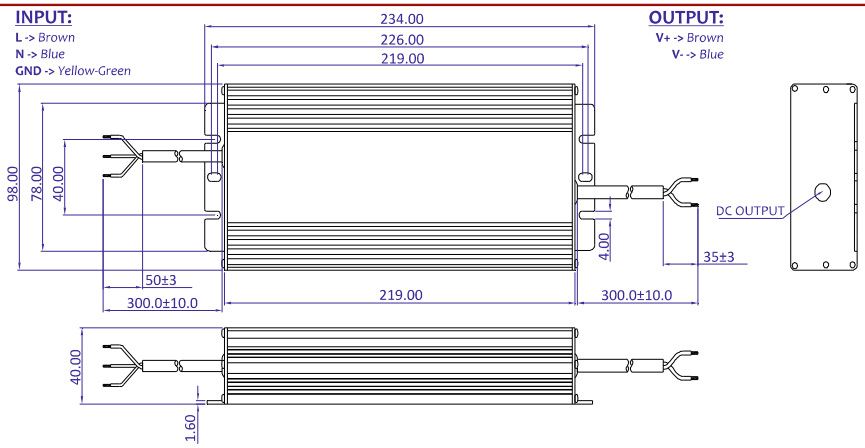
OTHERS

Input Wire	CCC+VDE 3 x 1.0mm^2, length = 300 ± 10mm
Output Wire	CCC+VDE 2 x 2.5mm^2, length = 300 ± 10mm for GLSV-320B012 and GLSV-320B024
	CCC+VDE 2 x 1.5mm^2, length = 300 ± 10mm for GLSV-320B036 and GLSV-320B048
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 < 70°C (Refer to Life Time vs. T_C Curve)
Dimensions (Length * Width x Height)	234.0 * 98.0 * 40.0mm
Weight	1750 ± 100g

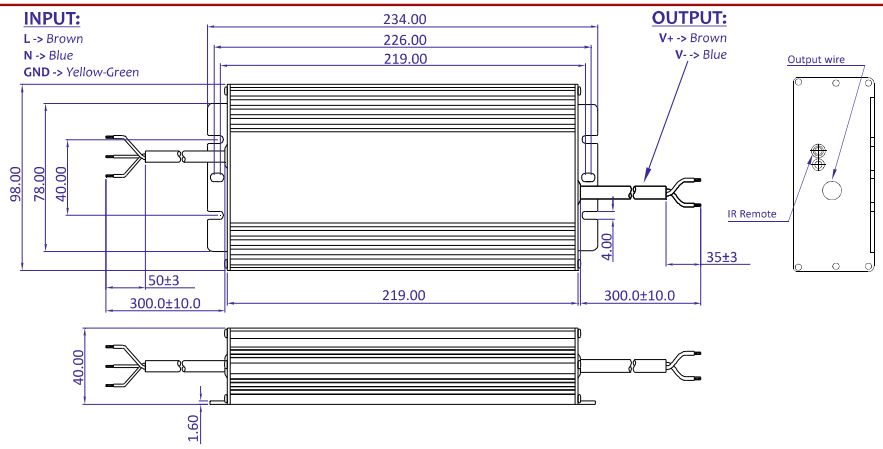
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Suitable for indoor or outdoor use. Please avoid direct exposure to sunlight and immersion in water for over 30 minutes.
3. Power supply is considered as component not indented to apply 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-320B012
GLSV-320B024

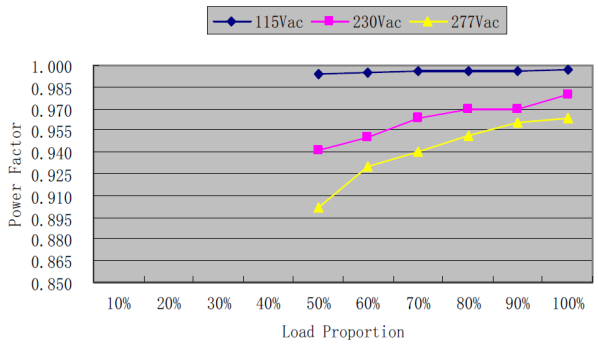


GLSV-320B036
GLSV-320B048

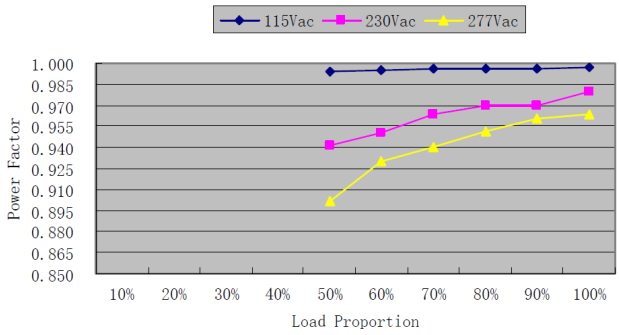


◎ Power Factor vs. Load Curve

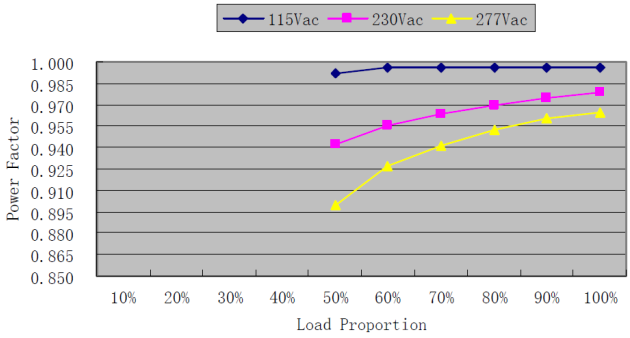
GLSV-320B012



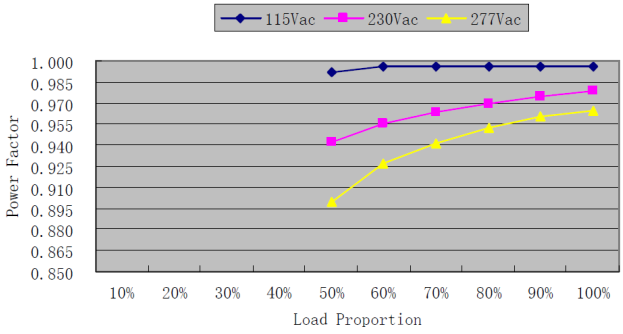
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GLSV-320B036

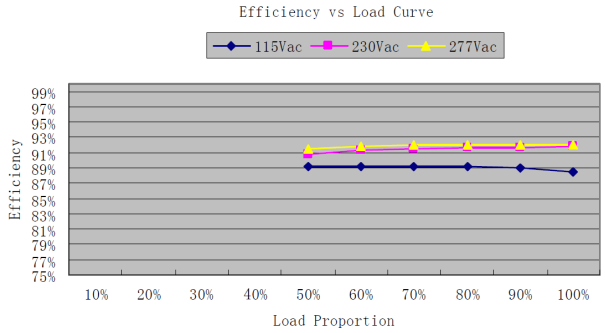


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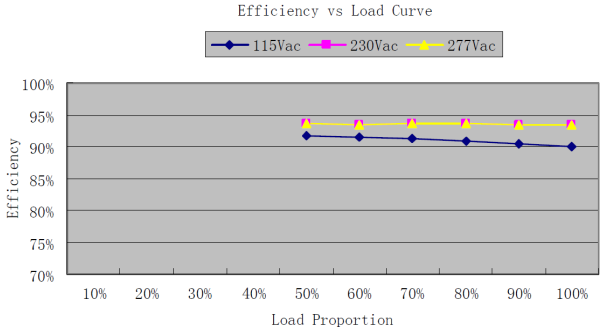


◎ Efficiency vs. Load Curve

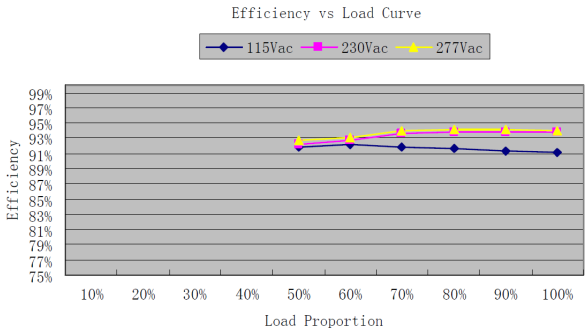
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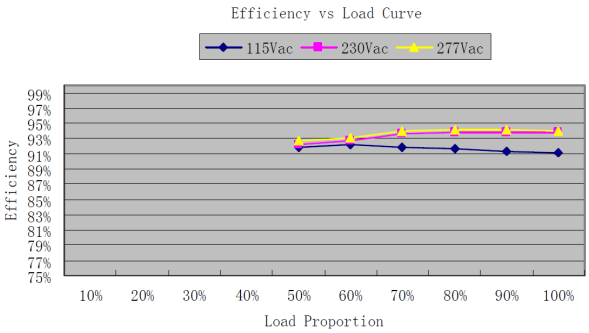
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GLSV-320B036

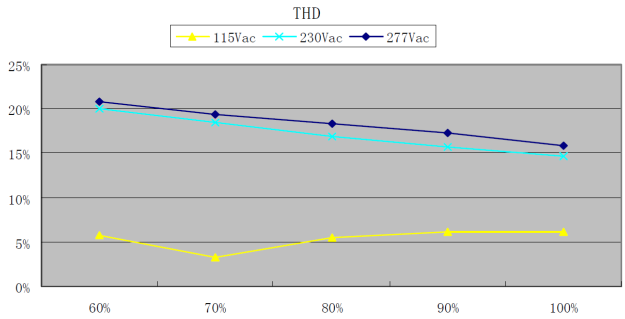


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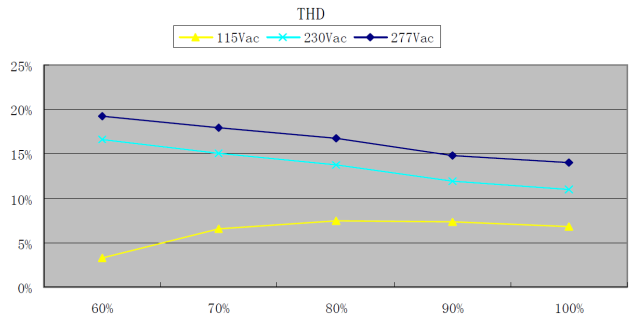


◎ THD vs. Load Curve

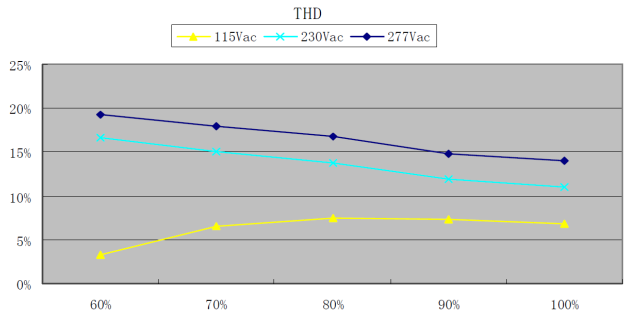
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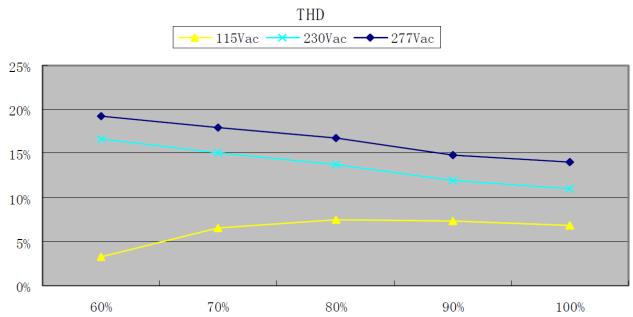
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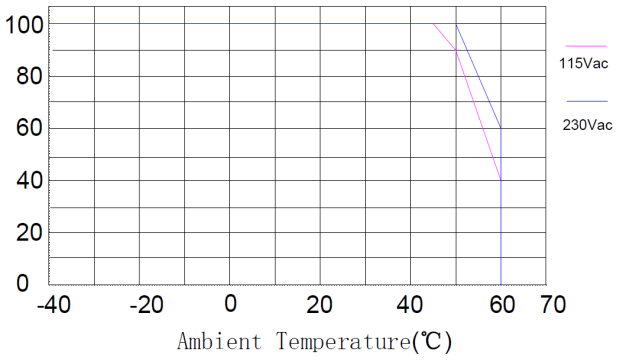
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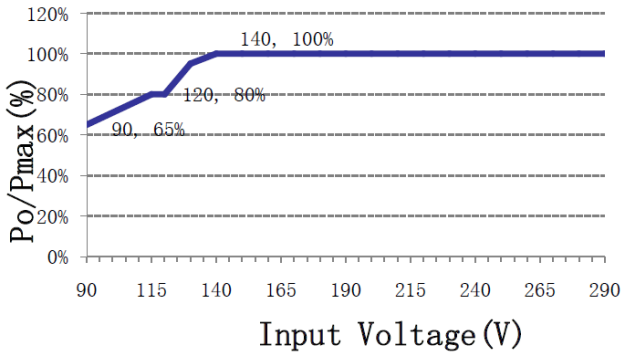
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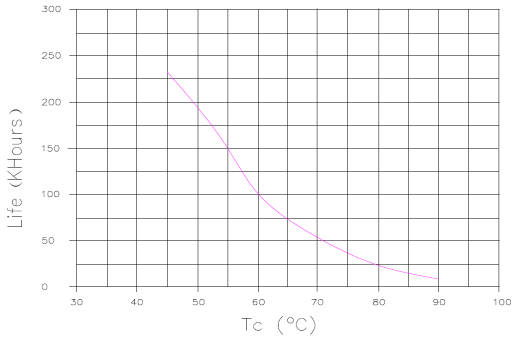
◎ Derating Curve



◎ Input Voltage vs. Load Curve



◎ Life time vs. T_C curve



◎ Inrush Current Waveform

