

# GLSV-320 series

320W Constant Voltage Power Supply

## 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	    	<b>RoHS IP67 SELV</b>	tc: 85°C ta: 50°C	
GLSV-320B024	    	<b>RoHS IP67 SELV</b>	tc: 85°C ta: 50°C	
GLSV-320B036	    	<b>RoHS IP67 SELV</b>	tc: 85°C ta: 50°C	
GLSV-320B048	    	<b>RoHS IP67 SELV</b>	tc: 85°C ta: 50°C	

## © MODEL ENCODING

GLSV	-	320	B	xxx
Series name		Rated Output Power [W]	Option name	<b>012</b> - rated output voltage is 12V <b>024</b> - rated output voltage is 24V <b>036</b> - rated output voltage is 36V <b>048</b> - rated output voltage is 48V

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## © ELECTRICAL SPECIFICATION

MODEL	GLSV-320B012	GLSV-320B024	GLSV-320B036	GLSV-320B048
<b>OUTPUT</b>				
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 <sub>OUT</sub>	< 5% V <sub>OUT</sub>	< 2% V <sub>OUT</sub>	
TURN-ON DELAY TIME	3s for 100% load			

<b>INPUT</b>				
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			
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)			

<b>PROTECTIONS</b>				
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			
	Type: hiccup mode, auto-recovery.			
OVER TEMPERATURE	Temperature T <sub>c</sub> > 90°C			
	Type: shut off output voltage, re-power on to recovery.			

<b>WORKING ENVIRONMENT</b>				
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

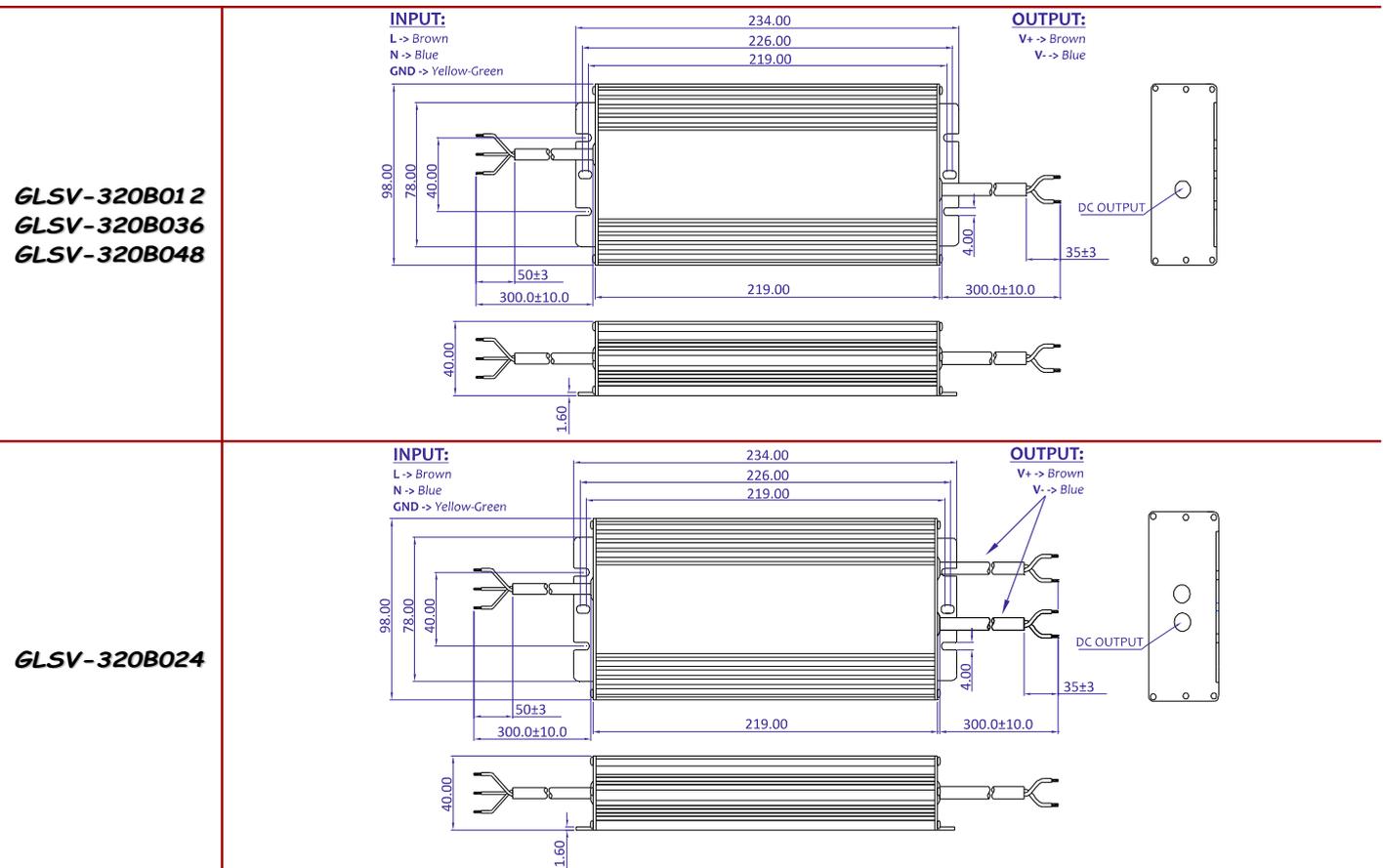
<b>SAFETY STANDARDS</b>	CE	EN61347-1; EN61347-2-13
<b>EMC STANDARDS</b>	CE	EN55015; IEC61000-3-2; IEC61000-3-3; IEC61547
<b>WITHSTAND VOLTAGE</b>	IN/OUT: 3.75kVAC; IN/GND: 1.6kVAC; OUT/GND: 1.6kVAC; 60s, current < 10mA	
<b>GROUNDING RESISTANCE</b>	< 0.1Ω (60S/25A)	
<b>INSULATION RESISTANCE</b>	IN/OUT, IN/GND, OUT/GND > 100MΩ (500VDC/60s)	

## OTHERS

<b>Input Wire</b>	CCC+VDE 3 x 1.0mm <sup>2</sup> , length = 300 ± 10mm CCC+VDE 2 x 2.5mm <sup>2</sup> , length = 300 ± 10mm for GLSV-320B012
<b>Output Wire</b>	CCC+VDE 2 x 2 x 1.5mm <sup>2</sup> , length = 300 ± 10mm for GLSV-320B24 CCC+VDE 2 x 1.5mm <sup>2</sup> , length = 300 ± 10mm for GLSV-320B036 and GLSV-320B048
<b>MTBF (MIL-HDBK-217F)</b>	212 000h at 230VAC / 80% load and ta < 25°C
<b>Life Time (min.)</b>	50 000h at 230VAC / 100% load and tc < 70°C (Refer to Life Time vs. Tc Curve)
<b>Dimensions (Length * Width x Height)</b>	234 * 98 * 40mm
<b>Weight</b>	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



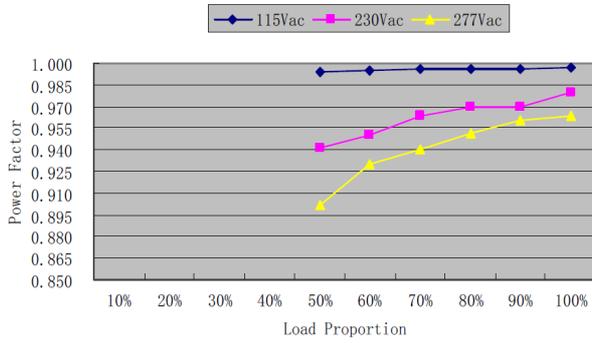
# GLSV-320 series

320W Constant Voltage Power Supply

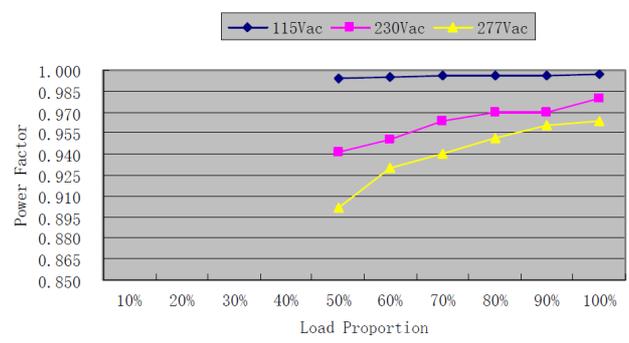


## © Power Factor vs. Load Curve

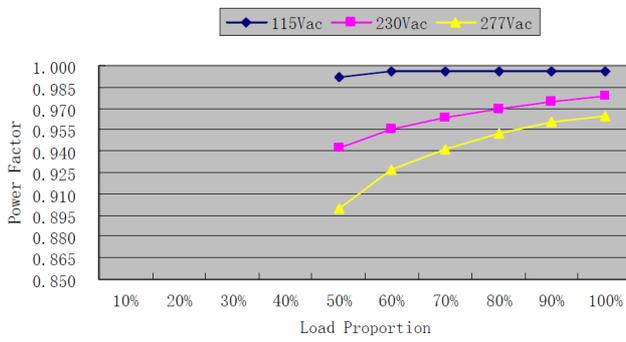
**GLSV-320B012**



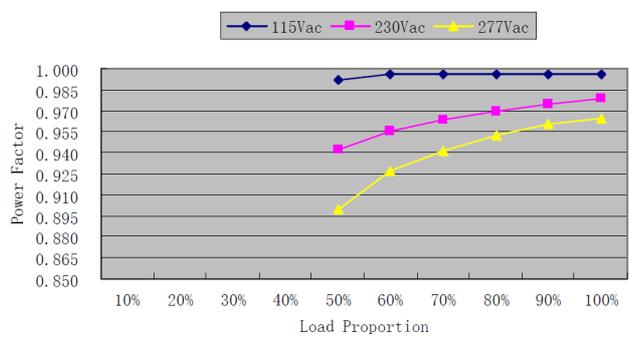
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**GLSV-320B036**

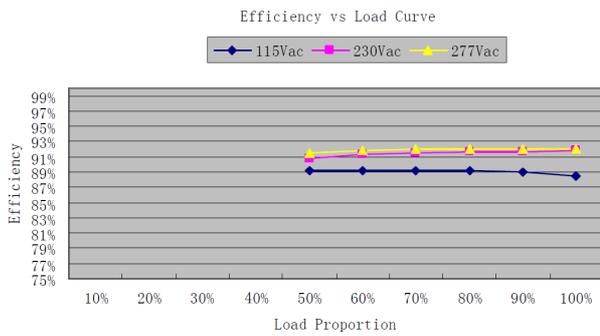


**GLSV-320B048**

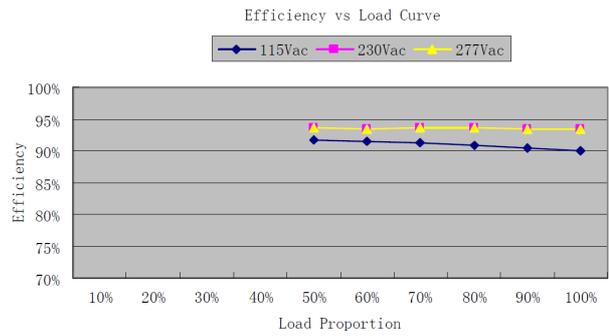


## © Efficiency vs. Load Curve

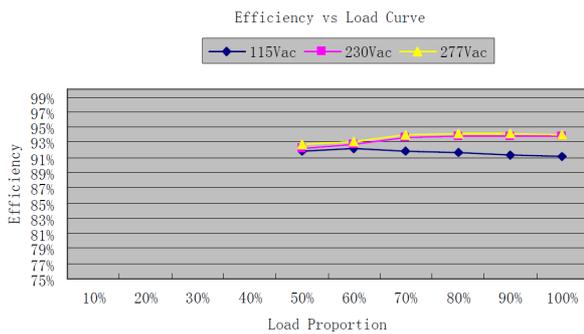
**GLSV-320B012**



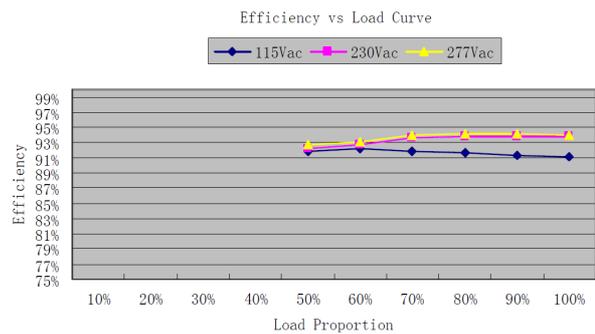
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**GLSV-320B036**



**GLSV-320B048**



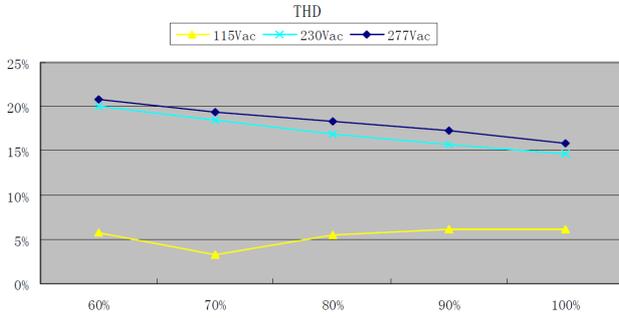
# GLSV-320 series

320W Constant Voltage Power Supply

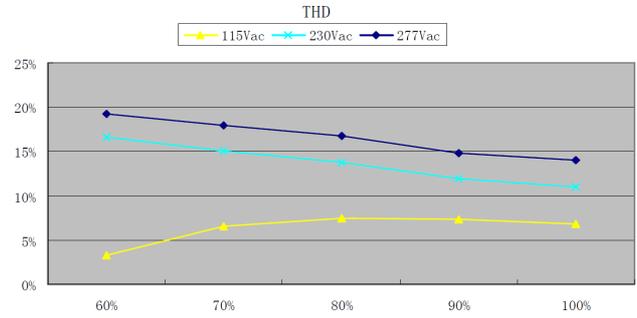


## © THD vs. Load Curve

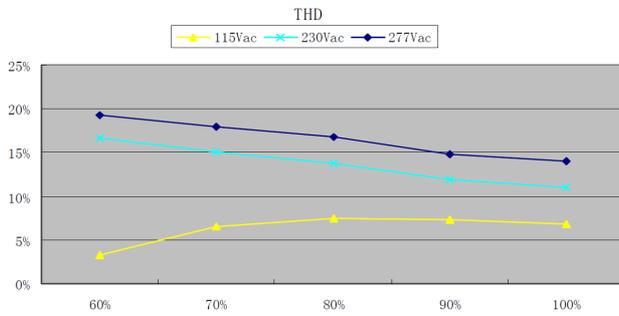
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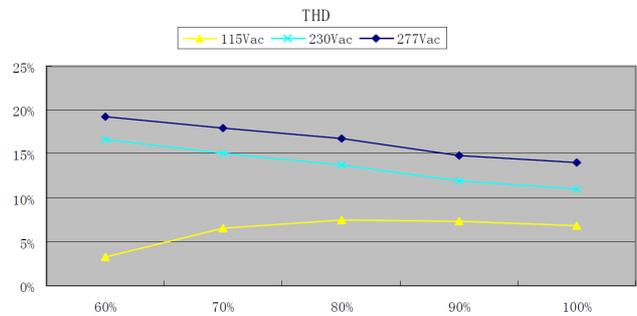
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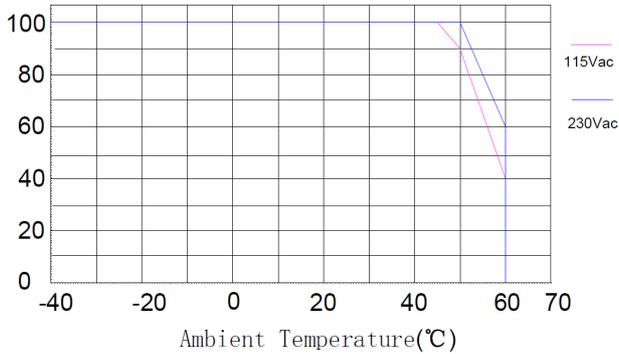
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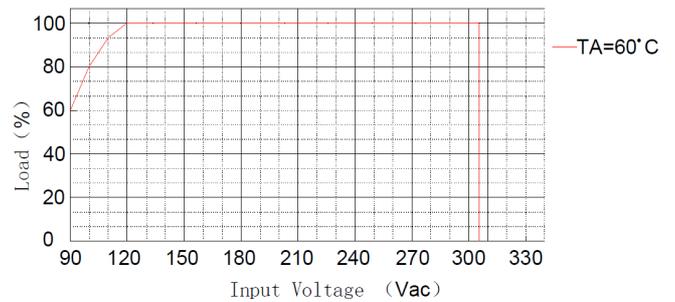
**GLSV-320B048**



## © Derating Curve



## © Input Voltage vs. Load Curve



## © Life time vs. T<sub>c</sub> curve

