

# HX 320w POWER SUPPLY

## Adjustable - 24/36/48v



The HX BLD-320 series power supply is a high efficiency power supply designed specifically for LED Rope Lighting. Simple touch adjustable output voltage ranging from 24v to 50v. All around protections including digital OTP, SCP and OCP with auto-recovery. Designed for 24hour non-stop operation for LED rope lights.



### Key Features

- Programmable Output Voltage 24v to 50v
- Constant Voltage mode LED power supply
- Supply Voltage: 90-305Vac, 380Vac for 2 Hours
- Surge Protected - Up to 10kV
- Customizable with Features (Energy Report, Input Voltage Monitoring)
- 100,000Hour Life @ Tc=75°C
- 5 Year Warranty @ Tc<=75°C
- Class II Model Available
- UL Class P, ENEC/CB/CCC SELV Output
- Safety according to EN 61347-1, 61347-2-3, 61347-2-13, 62384



HX-BLD-320-48V-NNS-ADJ1000		
INPUT	Input Voltage	90~305Vac, 380Vac for 2 hours
	Input Frequency	47~63Hz
	Power Factor	>0.9@60-100% load, refer to PF vs. Load curve
	THD	<15%@60-100%load, refer to THD vs. Load curve
	Input Current	2.9Amax@120Vac & Full-Load, 1.5Amax@220Vac & Full-Load
	Inrush Current	See Inrush Current Section in the datasheet
	Leakage Current	0.75MIU max @277Vac 60Hz, UL8750 0.7mA max @240Vac 50/60Hz, IEC60598-1
	Input Under Voltage	Shut down and auto-restart
	Surge Protection	Line to line 6kV, line to ground 4kV, IEC 61000-4-5

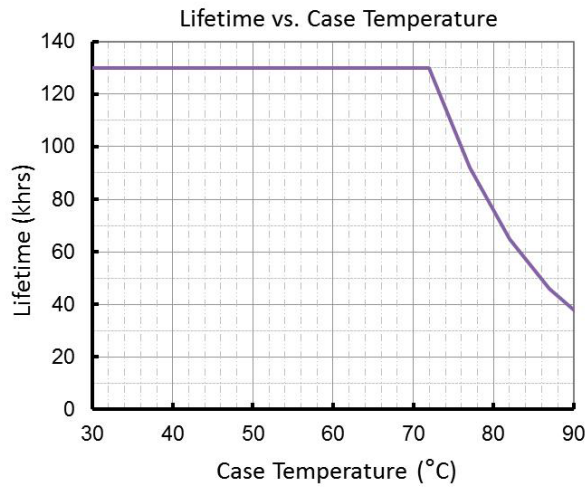
<b>OUTPUT</b>		
<b>Voltage</b>	<b>Current</b>	<b>Power</b>
<b>24 VDC</b>	10A	240W
<b>36 VDC</b>	8.9A	320W
<b>48 VDC</b>	6.7A	320W
	Voltage Ripple	Vp-p:5%Vo max
	Voltage Accuracy	±3%Vo
	Setup Time	1.2s max.
<b>PROTECTION</b>	Output Overshoot	10% Vo, max.
	Output Over Current	120% Io, typ
	Short Circuit	Auto recovery. The output recovers when short is removed.
	Over Temperature	Turn off the output when $T_c \geq 105 \pm 10^\circ\text{C}$ ; Auto Recovery When $T_c \leq 70 \pm 10^\circ\text{C}$
<b>ENVIRONMENT</b>	Operating Temperature	-40°C/40F ~ +90°C/194F ; 10%RH ~ 100%RH
	Storage Temperature	-40°C/40F ~ +85°C/185F ; 5%RH ~ 100%RH

<b>SIZE</b>	Dimensions	<ul style="list-style-type: none"> <li>• 8.85x2.66x1.52 inches (body)</li> <li>• 9.88x2.66x1.52 inches (endcaps included)</li> </ul>
		<ul style="list-style-type: none"> <li>• 225.0x68.0x38.5 by mm (body)</li> <li>• 251.0x68.0x38.5 by mm (endcaps included)</li> </ul>
	Net Weight	1120g

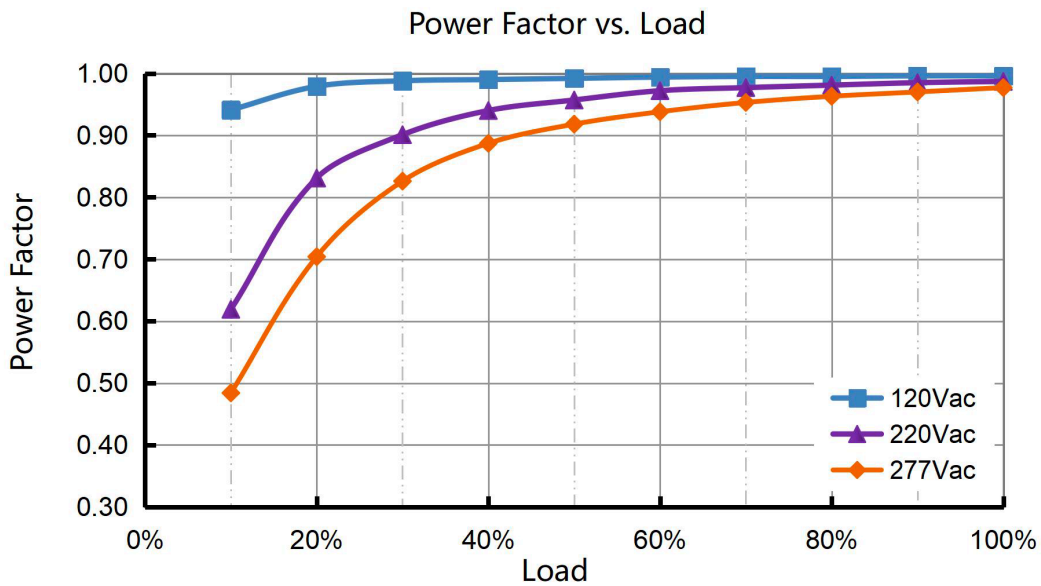
<b>SAFETY</b>	IP67	
	UL8750	Light emitting diode(LED) equipment for use in lighting products
	UL1012	Power units other than class 2
	IEC 61347-1	Lamp control gear Part 1: general and safety requirements
	IEC 61347-2-13	Lamp control gear Part 2-13: particular requirement for d.c. or a.c. supplied electronic control gear for LED modules
	IEC 62384	DC or AC supplied electronic control gear for LED modules - Performance requirements
<b>EMC</b>	IEC 55015	Conducted emission test & radiated emission test
	IEC 61000-3-2	Harmonic current emissions; Class C
	IEC 61000-3-3	Voltage fluctuations & flicker
	FCC Part 15	ANSI C63.4:2009 Class B
	IEC 61000-4-2	Electrostatic discharge (ESD): 8 kV air discharge, 4 kV contact discharge

	IEC 61000-4-3	Radio frequency electromagnetic field susceptibility test (RS)
	IEC 61000-4-4	Electrical fast transient (EFT)
	IEC 61000-4-5	Surge immunity test
	IEC 61000-4-6	Conducted radio frequency disturbances test (CS)
	IEC 61000-4-8	Power frequency magnetic field test
	IEC 61000-4-11	Voltage dips
	IEC 61547	Electromagnetic immunity requirements applies to lighting equipment

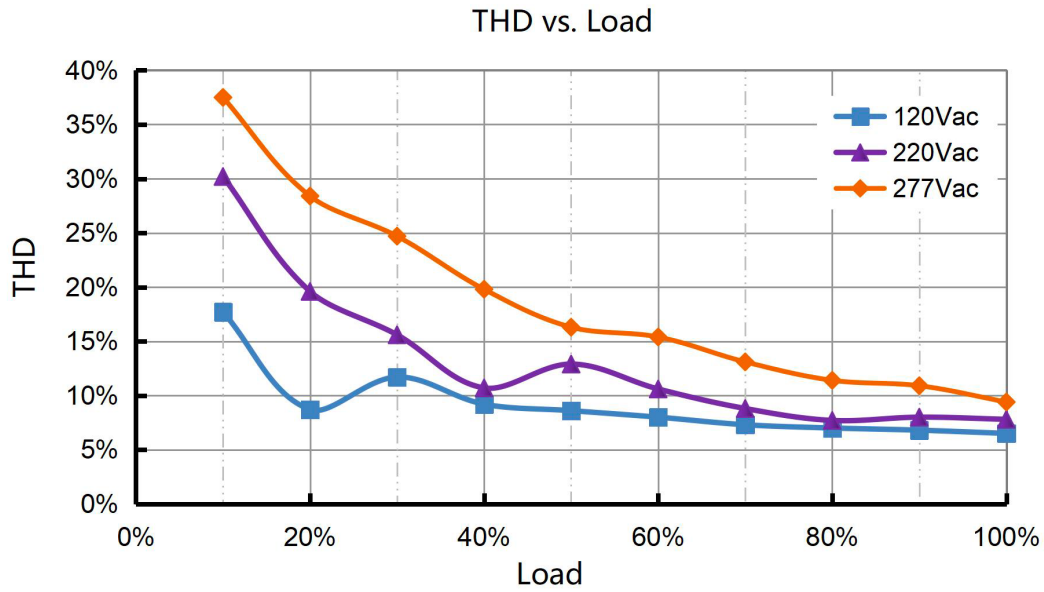
### Lifetime vs. Case Temperature



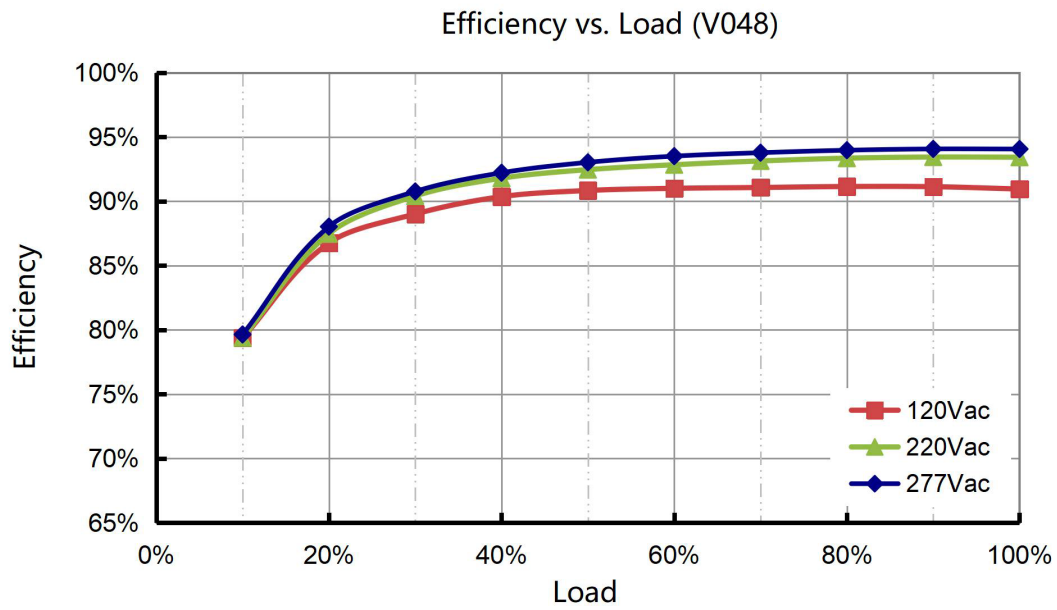
### Power Factor vs. Load



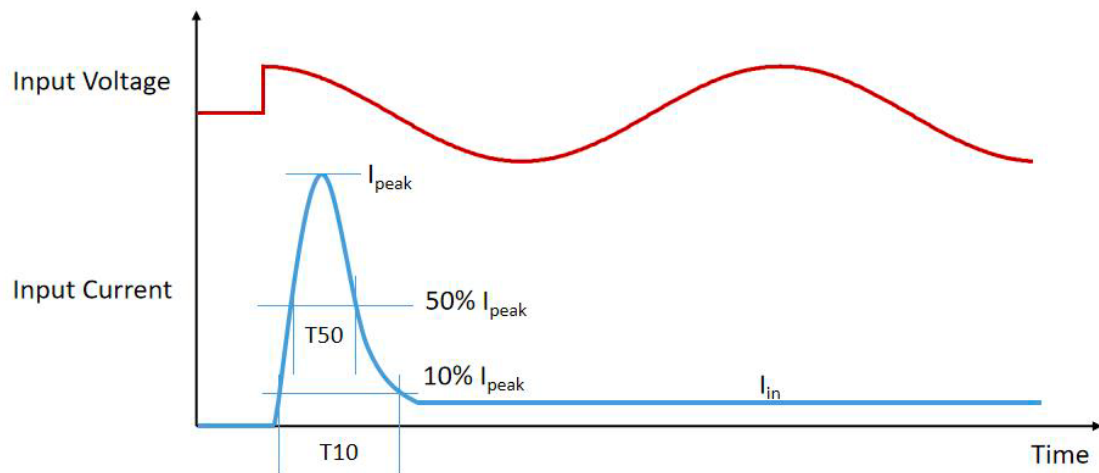
### THD vs. Load



### Efficiency vs. Load



## Inrush Current



Input Voltage	I <sub>peak</sub>	10% -10% T10 Duration	50% -50% T50 Duration
120Vac	16.6A	4.28mS	1.4ms
220Vac	31.2A	3.88mS	1.3ms
277Vac	39.8A	3.80mS	1.3ms

## MCB Suggestion

Type	B10	B16	B25	B32	C10	C16	C25	C32	D10	D16	D25	D32
Driver Quantity	1	2	4	5	2	4	7	9	5	8	12	16

## TC Point

*Described on each unit.*



