HanleyLED



Want to make your shop Highly Efficient, too?

Reduce install mistakes and improve efficiency by transforming your shop with our 24volt System. With our 24volt PhxNRG MODULES, our 24volt PhxNRG BARS & 24volt Wing Span products, you only need 24volt Hanley Premium Power Supplies stocked in your shop.

- Made with High Efficiency Everything!
- 1.44 watt module, 244 lumens/module
- 104 Modules Max per 150W Hanley Premium Power Supply
- Exceptionally Bright: 69% Brighter Output
- Ideal for making your own Cabinet NRG Bars,
 Single Face Cabinets, Deep Letters or simply
 when "bright" is what you need
- PhxNRG IV is available in 12-volt & 24-volt options
- Guaranteed Life over 50,000 hours
- DIY Layout Creator at <u>hanleyledsolutions.com</u> (Available in English, Spanish and French)
- See our PhxNRG I, II, & IV modules for even more savings & versatility

LM79 LM80

L70:5+ YEARS











170

Im/W







HanleyLED PE-4 & PN4-24 Spec Sheet

PhoenixNRG Series

PE-4 & PN4-24





Specifications

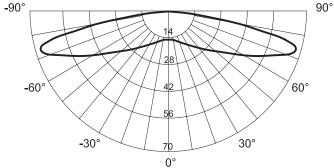
Viewing Angle	170° High Efficiency Optics			
Input Voltage	12vDC (PE-4) 24v DC (PN4-24)			
Watts	1.44w/mod (1.83w/ft.)			
Luminous Efficacy	170 (lm/W)			
Modules/Foot	1.27/ft. fully stretched			
Protection Grade	IP65 water proof			
Packaging	Anti-static bag, 40 modules (31 ft)/bag			
	9 bags/inner carton 18 bags/outer carton			
Warranty	5 Year (Product) / 5 Year (Labor)			
Operating Temp.	Temp. -40°∼ +60 °C / -40° ∼ +140 °F			
Storage Temp.	-40°~ -70°C / -40° ~ +158°F			
PE-4 Cascade	20mods single-ended power feed			
	40mods double-ended power feed			
PN4-24 Cascade	40mods single-ended power feed			
	80mods double-ended power feed			

Color	Part#	Color Temp	Lumens				
Pure White	HLED-PE4W7K	7000K	244 lm/mod (309lm/ft.)				
Pure White	HLED-PN4-7K24	7000K	244 lm/mod (309lm/ft.)				
Additional color temps available upon special order (MOOs Apply)							

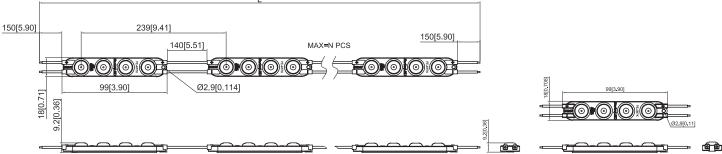
C S US C Warranty C Constant S'-15" (constant current) (deal depth)

	MAX POWER SUPPLY LOAD							
MODEL	35W 12V	60W 12V	100W 12V	150W 12V	240W 12V			
PE-4	24mods	41mods	68mods	102mods	164mods			
	MAX POWER SUPPLY LOAD							
MODEL	35W 24V	60W 24V	100W 24V	150W 24V	240W 24V			
PN4-24	24mods	41mods	69mods	104mods	164mods			

Light Distribution



Profile Drawings





PhoenixNRG Series

PE-4 & PN4-24

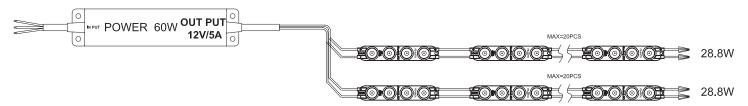
12v vs. 24v Comparison

The number of mods per power supply of our 12v PhxNRG mods is the SAME as our 24v modules.

- A) The only key functional advantage of 24v vs. 12v is the # of modules you can wire in a series together to avoid too much voltage-drop. Too much voltage drop could result in damage to the modules.
- B) "Constant Current" modules produce a much longer wire in a series or daisy-chain than "Constant Voltage". However, even Constant Current modules eventually have a daisy chain limit.

PE-4 12volt (single-ended wire in a series) 40 Modules

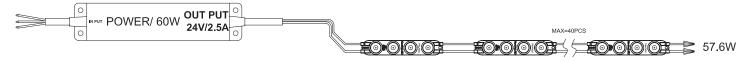
MAX 20 in a series



Total:57.6W

PN4-24 24volt (single-ended wire in a series) 40 Modules

MAX 40 in a series



Total:57.6W

Why is a longer "daisy chain" limit preferred?

- A) Less labor for wiring and less extra "rip strip" needed to complete the wiring for your sign
- B) Reduces "shop mistakes" / "install error". When a sign fabricator is busy, it's easy for an installer to wire in a series too many LEDs together.

This causes the sign to be dimmer in one spot vs another (resulting in uneven lighting).

At that point, it can cost a sign fabricator hundreds, if not thousands of dollars to re-wire the sign. So using modules that offer longer "daisy-chain limits" is a time & money saver.

When you reach the "daisy chain" limit of a module, but still have more modules to attach to the power supply, you have a couple options:

- A) Cap the last module in the LED chain, and connect another strip of LED wire (ex: Paige Rip Strip) to the power supply and run it to your next chain of LEDs
- B) Attach more LEDs to your original LED chain, but run a strip of LED wire from the last module of the series back to the power supply (This is called a "Home Run" or a "Double Ended Power Feed")