

## OVERVIEW

The nLight nPP16 ER EFP family of power packs is the workhorse of an nLight system, delivering robust system performance and design versatility for commercial and industrial lighting control applications. The nPP16 ER EFP switches loads via an internal latching relay designed with robust protection from the harsh switching requirements of T5 fluorescent and LED loads. Optional 0-10V dimming outputs (D or DS options) are designed with circuit isolation and provide up to 100mA of current sinking capability. The nLight nPP16 ER EFP Series relay pack is used to switch luminaires powered via an emergency circuit. The nLight nPP16 ER EFP relay pack is ideally suited for use in conjunction with a standard nPP16 EFP power/relay pack that controls a zone's normal powered lighting.

## FEATURES

- Automatically Overrides Emergency Lights On To Full Brightness Upon Normal Power Loss
- Communicates w/ nLight Network
- Self-Contained Relay Switches Line Voltage Load
- Optional out-of-box vacancy and partial-on modes
- Remotely Configurable/Upgradeable
- Test/programming button
- Configurable Relay Logic
- Extended Chase Nipple
- Plenum rated
- Includes fuse integrated to relay wirelead for protection from load faults
- Meets NEMA410 ratings for LED/electronic ballast inrush

## Buy American Act

Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations. Please refer to [www.acuitybrands.com/buy-american](http://www.acuitybrands.com/buy-american) for additional information.

## Warranty

Five-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: [www.acuitybrands.com/support/warranty/terms-and-conditions](http://www.acuitybrands.com/support/warranty/terms-and-conditions)

**Note:** Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.



## nPP16 ER EFP Emergency Relay Pack



Model #: nPP16 (D) ER EFP



Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit [www.acuitybrands.com/designselect](http://www.acuitybrands.com/designselect).

\*See ordering tree for details





Design Select options indicated  
by this color background.

## ORDERING INFORMATION

Series	Dimming	Emergency	Fault Protection	Default Mode
nPP16 Power/Relay Pack	<input type="checkbox"/> None <input checked="" type="checkbox"/> D 0-10VDC Dimming output (via chase nipple) <input type="checkbox"/> DS 0-10VDC Dimming output (via side slot)	<input type="checkbox"/> ER UL924 Emergency Operation	<input type="checkbox"/> EFP External Fault Protection	<input type="checkbox"/> [blank] Auto On (Switch Ch. 1) <input type="checkbox"/> SW2 Auto On (Switch Ch. 2) <input type="checkbox"/> SW3 Auto On (Switch Ch. 3) <input type="checkbox"/> SW4 Auto On (Switch Ch. 4) <input checked="" type="checkbox"/> SA Manual On (Switch Ch. 1) <input type="checkbox"/> SA2 Manual On (Switch Ch. 2) <input type="checkbox"/> PA70 Auto On to 70% (Partial On) <sup>1</sup> <input type="checkbox"/> PA Auto On to 50% (Partial On) <sup>1</sup>

Voltage	Temp/humidity	Buy America(n) <sup>2</sup>
<input type="checkbox"/> [blank] 120/277VAC <input type="checkbox"/> 230 220-240VAC <input type="checkbox"/> 347 120/347VAC	<input type="checkbox"/> [blank] Standard <input type="checkbox"/> LT Low temp	<input type="checkbox"/> [blank] Standard <input type="checkbox"/> BAA Buy America(n) Act Compliant

ACCESSORIES
NPP FUSE J10 Replacement Fuse (10 Pack)

### Notes:

1. Requires D or DS option
2. Not available with 230, 347, or LT options

## SPECIFICATIONS

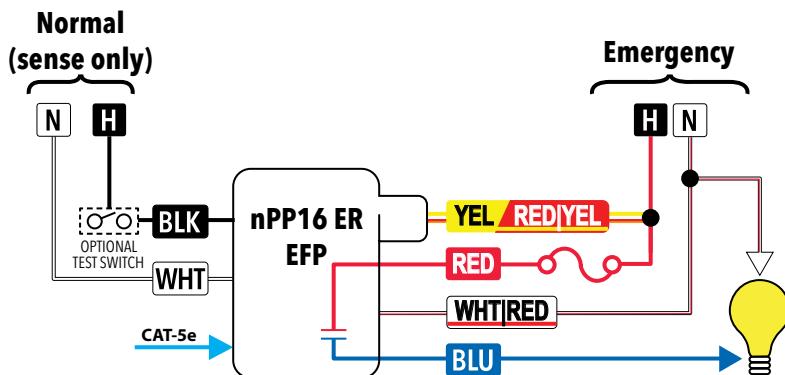
<b>Electrical</b>	<b>Input Ratings</b>	120/277VAC, 50/60 Hz, 220-240VAC, 50/60Hz (with 230 option), 120/347VAC, 50/60 Hz (with 347 option), 120-277VAC, 50/60 Hz Normal Power Sense, 120-347VAC, 50/60 Hz Normal Power Sense (with 347 option)
	<b>Output Ratings</b>	120-347VAC, 50/60 Hz, 16A - Tungsten, Standard Ballast, Electronic Ballast, General Purpose, 120VAC, 50/60 Hz, 1/2 HP - Motor, SCCR: 5KA, 100mA, 0-10VDC Dimming Sink Current
	<b>Relay Type</b>	Latching
	<b>Low Voltage Output Ratings</b>	Self-powering, does not supply nLight bus voltage
	<b>Class Rating</b>	0-10V Dimming can be wired Class 1 or 2
	<b>Standards/ Ratings</b>	Energy Management Equipment, UL916 (E167435), Emergency Power Equipment, UL924 (E342232)
<b>Mechanical</b>	<b>Dimensions</b>	3.38"H x 2.53"W x 1.83"D (86mm x 64mm x 47mm)-does not include 1/2" chase nipple
	<b>Mounting</b>	1/2" Knockout (7/8" hole)
	<b>Color</b>	Red
	<b>Connection Type</b>	RJ-45 nLight Network Ports (2) Non-Dimming Model: Line Voltage Leads Dimming Model: Line and Low Voltage Leads
<b>Environmental</b>	<b>Warrantied Operating Temperature</b>	Standard: 14°F to 122°F (-10°C to 50°C), Standard: 14°F to 113°F (-10°C to 45°C) if enclosed within a junction box LT option: 4°F to 122°F (-20°C to 50°C)
	<b>Relative Humidity</b>	Up to 90%, Non-Condensing
	<b>Standards/ Ratings</b>	RoHS, Plenum UL2043
<b>General</b>	<b>Standards/ Ratings</b>	System Component to aid in compliance with Title 24, ASHRAE 90.1, IECC

## WIRING

T568B pin/pair assignment is recommended for all CAT-5e cables. Unit powers itself but does not provide any bus power to other connected nLight devices.

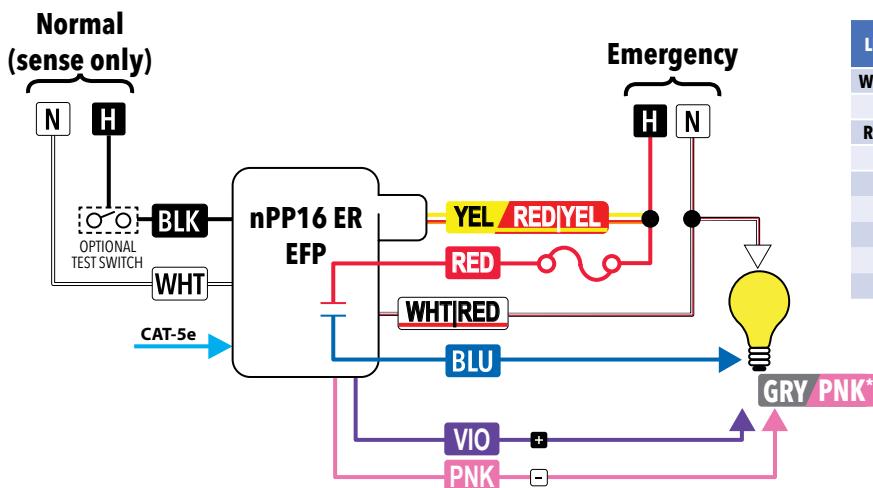
For Supply Connections, use 14 AWG or larger wires rated for at least 90° C.

Diagram for non-dimming units



LEGEND	Base (120/277VAC)	230 (220/240VAC)	347 (120/347VAC)
WHT/RED		Emer. Neutral	
YEL	120VAC Emer. Hot	N/A	N/A
RED/YEL	277VAC Emer. Hot	220-240VAC Emer. Hot	347VAC Emer. Hot
RED	277VAC Emer. Hot	220-240VAC Emer. Hot	347VAC Emer. Hot
BLU		Emer. Load (Switched Out)	
BLK		120-277VAC Norm. Hot	120-347VAC Norm. Hot
WHT		Norm. Neutral	

Diagram for units with a dimming option (-D or -DS suffix)



LEGEND	Base (120/277VAC)	230 (220/240VAC)	347 (120/347VAC)
WHT/RED		Emer. Neutral	
YEL	120VAC Emer. Hot	N/A	N/A
RED/YEL	277VAC Emer. Hot	220-240VAC Emer. Hot	347VAC Emer. Hot
RED	277VAC Emer. Hot	220-240VAC Emer. Hot	347VAC Emer. Hot
BLU		Emer. Load (Switched Out)	
BLK		120-277VAC Norm. Hot	120-347VAC Norm. Hot
WHT		Norm. Neutral	
VIO		0-10V Dim (+)	
PNK*		0-10V Com (-)	

NOTE: If there is a GREEN wire present, connect to earth ground.

\*0-10V Dimming Common from luminaire may be pink or as otherwise indicated per section 410.69 of the 2020 NEC.

### Notes

1. Connect to either YEL, or RED|YEL, feed ONLY and cap off unused wire.

## ADDITIONAL EMERGENCY (-ER) SPECIFICATION INSTRUCTIONS

When normal power sense leads have absence of voltage, the relay closes and 0-10V dimming is set to high end trim level.

### PUSH-BUTTON TESTING:

As long as the relay is in the open (lights off) position and normal power is present, you are able to simulate normal power being lost by pressing and releasing the unit's push-button one time. After a few seconds the relay will close for 4 seconds, then open back up and return to normal operation. A separate push-button test switch (not included) can also be wired in as shown in above diagrams.

### INTERFACING WITH A FIRE ALARM PANEL:

To interface unit to a fire alarm system such that the relay is overridden closed (lights on) upon activation of the fire alarm system, the fire alarm system must provide a normally closed line-voltage rated relay which opens when the fire alarm system is activated. This relay must be put in series with the Black power sense line on the nPP16 ER EFP. When the normally closed relay opens, the nPP16 ER EFP will close its load relay to provide egress lighting when the fire alarm system is activated.

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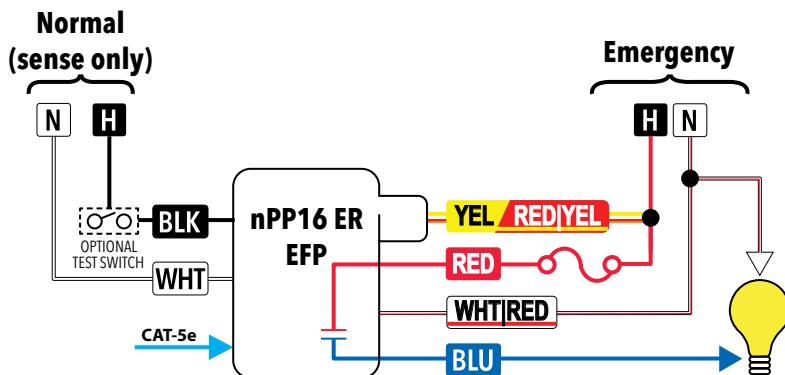
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	<b>Output Ratings</b>	120-347VAC, 50/60 Hz, 16A - Tungsten, Standard Ballast, Electronic Ballast, General Purpose, 120VAC, 50/60 Hz, 1/2 HP - Motor, SCCR: 5KA, 100mA, 0-10VDC Dimming Sink Current
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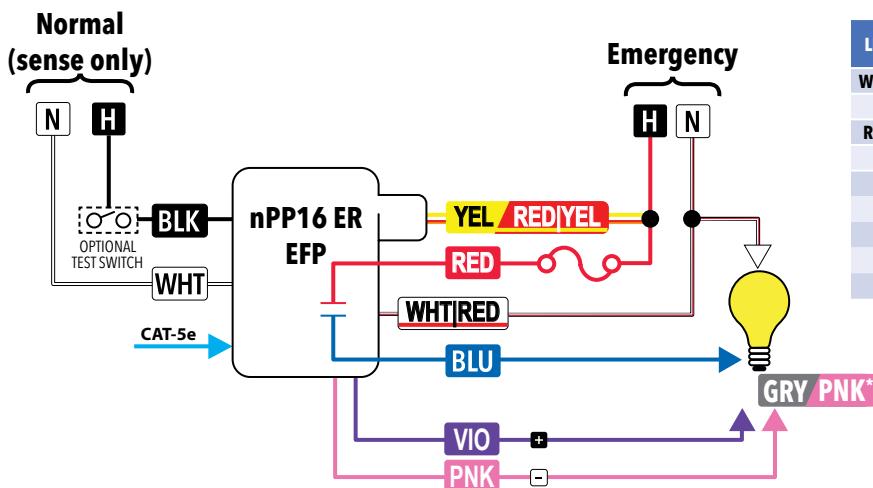
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BLU		Emer. Load (Switched Out)	
BLK		120-277VAC Norm. Hot	120-347VAC Norm. Hot
WHT		Norm. Neutral	
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