

**OVERVIEW**

The nLight nPP16 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 EFP family is capable of switching loads via an internal latching relay designed with robust protection from the harsh switching requirements of T5 fluorescent and LED loads. These power packs also provide nLight system bus power - up to 40mA from each of its two RJ-45 ports - by transforming Class 1 line voltage (120/277 VAC or 347 VAC) to Class 2 low voltage (15 VDC). This power is typically utilized by other nLight devices within the power pack's local control zone; however, remaining power is also made available over the network for Bridges and devices in other zones to utilize.

**FEATURES**

- Communicates w/ nLight Network
- Self-Contained Relay Switches Line Voltage Load
- Supplies 40mA of Bus Power / RJ-45 port
- Optional out-of-box vacancy and partial-on modes
- Remotely Configurable/Upgradeable
- Push-Button Programmable
- 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
- Programmable return to last state capability

**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.

**Build America Buy America**

Product with the BAA option also qualifies as produced in the United States under the definitions of the Build America, Buy America Act.

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.



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



*nPP16 EFP  
Power/Relay Pack*



Model #: nPP16 (D) EFP



ds Design Select options indicated by this color background.

**ORDERING INFORMATION**

Series	Dimming	Fault Protection	Default Mode	Voltage	Temp/humidity	Buy America(n) <sup>2</sup>
nPP16 Power/Relay Pack	[blank] None D 0-10VDC Dimming output (via chase nipple) DS 0-10VDC Dimming output (via side slot)	EFP External Fault Protection	[blank] Auto On (Switch Ch. 1) SW2 Auto On (Switch Ch. 2) SW3 Auto On (Switch Ch. 3) SW4 Auto On (Switch Ch. 4) SA Manual On (Switch Ch. 1) SA2 Manual On (Switch Ch. 2) PA70 Auto On to 70% (Partial On) <sup>1</sup> PA Auto On to 50% (Partial On) <sup>1</sup>	[blank] 120/277VAC 230 220-240VAC 347 120/347VAC	[blank] Standard LT Low temp	[blank] Standard BAA Buy America(n) Act and/or Build America Buy America Qualified

ACCESSORIES
NPP FUSE J10 Replacement Fuse

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

## SPECIFICATIONS

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### Electrical

**Input Ratings** 120/277VAC, 50/60 Hz  
220-240VAC, 50/60Hz (with 230 option)  
120/347VAC, 50/60 Hz (with 347 option)

**Output Ratings** 120/277VAC, 50/60 Hz  
220-240VAC, 50/60Hz (with 230 version)  
120/347VAC, 50/60 Hz (with 347 version)  
16A - Tungsten, Standard Ballast, Electronic Ballast, General Purpose  
120VAC, 50/60 Hz, 1/2 HP -Motor SCCR: 5KA  
100mA, 0-10VDC Dimming Sink Current

**Relay Type** Latching

**Low Voltage Output Ratings** 15VDC, 40mA per RJ-45 Port (80mA total)

**Class Rating** 0-10V Dimming can be wired Class 1 or 2

**Standards/ Ratings** Energy Management Equipment, UL916 (E167435)

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### Mechanical

**Dimensions** 3.38"H x 2.53"W x 1.83"D (86mm x 64mm x 47mm) - does not include 1/2" chase nipple

**Mounting** 1/2" Knockout (7/8" hole)

**Color** White

**Connection Type** RJ-45 nLight Network Ports (2)  
Non-Dimming Model: Line Voltage Leads  
Dimming Model: Line and Low Voltage Leads

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### Environmental

**Warrantied Operating Temperature** 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)

**Relative Humidity** Up to 90%, Non-Condensing

**Standards/ Ratings** RoHS, Plenum UL2043

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### General

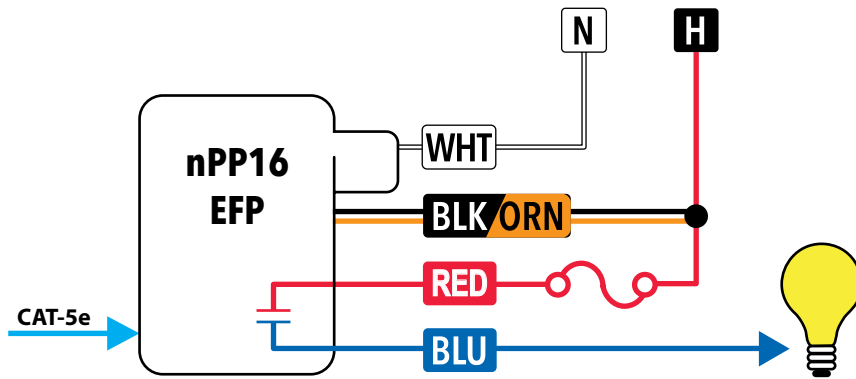
**Standards/ Ratings** System Component to aid in compliance with Title 24, ASHRAE 90.1, IECC

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# WIRING

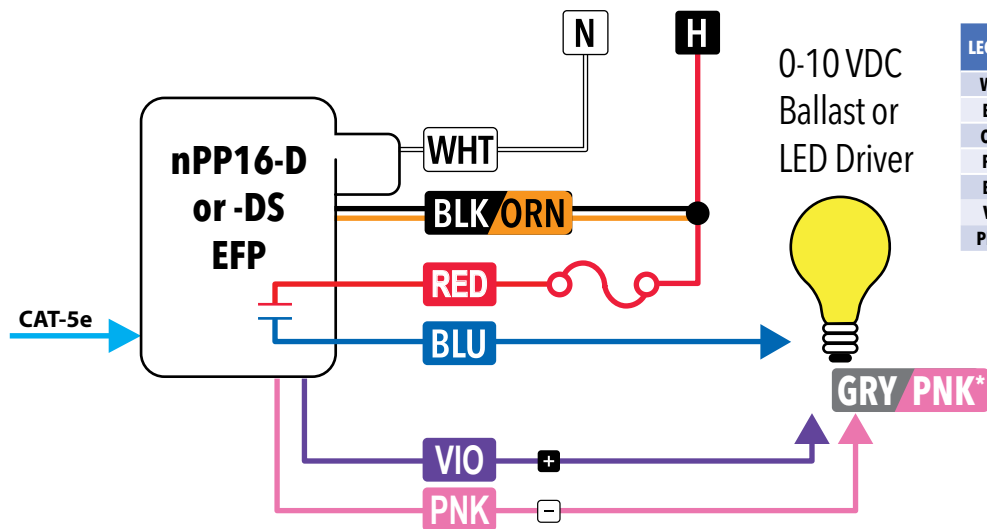
T568B pin/pair assignment is recommended for all CAT-5e cables. For Supply Connections, use 14 AWG or larger wires rated for at least 90° C.

Diagram for non-dimming units



LEGEND	Base (120/277VAC)	230 (220/240VAC)	347 (120/347VAC)
WHT	Neutral		
BLK	120VAC	N/A	120VAC
ORN	277VAC	220-240VAC	347VAC
RED	120/277VAC	220-240VAC	120/347VAC
BLU	Load (Switched Out)		

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



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