

NEMA BASE AC/DC POWER MANAGEMENT:

JUMP START STREET LIGHTING CONTROL PROJECTS

LUMAWISE Endurance N enhanced base is a lighting control base assembly which provides AC power switching and DC power supplies necessary for complex control node solutions, creating a platform to de-risk project schedules and cost of design changes of NEMA/ANSI street and outdoor lighting control solutions.



LUMAWISE ENDURANCE N ENHANCED BASE DE-RISKS PROJECT SCHEDULES AND COST OF DESIGN CHANGES OF NEMA/ANSI STREET AND OUTDOOR LIGHTING CONTROL SOLUTIONS. THE ENHANCED BASE TAKES OUR LIGHTING CONTROL BASE ASSEMBLY TO THE NEXT LEVEL OF PERFORMANCE BY PROVIDING AC POWER SWITCHING AND DC POWER SUPPLIES

FEATURES:

- Standard NEMA/ANSI Streetlight Interface
- Universal AC Input Range
- Isolated 24V DC Output for ballast control communications
- Isolated 5V and 3.3V DC outputs for customer circuits
- Low voltage signal interface to LED light fixture
- Integrated over current and surge protection
- Long life relay with zero-cross switching for AC load control
- Designed for compliance with UL 773, ANSI C136.41 and FCC Title 47 part 15

APPLICATIONS:

- Street and roadway lighting control
- Commercial & campus outdoor lighting management
- Smart cities control networks
- Smart grid to smart cities bridging

3

DC output voltages

ANSI

ANSI C136.41 compliance

UL

UL773 compliant

ENHANCED BASE

The enhanced base enables cost-effective design reuse through organized DC power and signaling interfaces. Using the enhanced base as a product platform de-risks project schedules and cost of design changes. This also lowers certifications and engineering at the same time as well as reducing supply chain expenses with new project opportunities, all to drive benefit of the bottom line.

SPECIFICATIONS:

- Application: **114-133085**
- Product: **108-133085**

MATERIALS:

- Housing: PBT
- Dimming contacts: Copper alloy gold plated
- Power contacts: Copper alloy tin plated
- Gasket: Vinyl-nitrile foam
- O-Ring: Silicone rubber
- RoHS compliant

ENVIRONMENTAL:

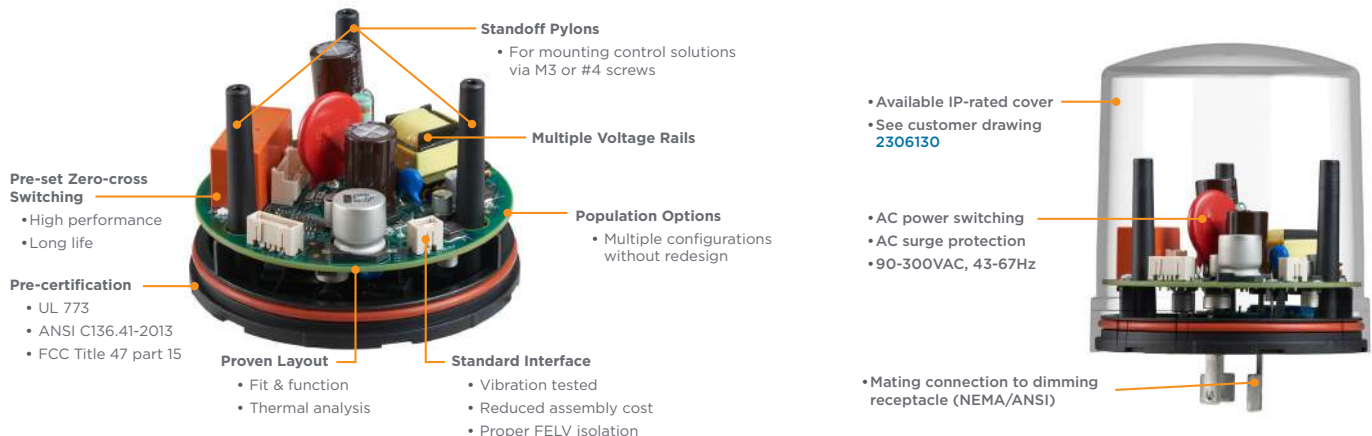
- Operating temperature: -40°C to +85°C
- Relative humidity:
 - Operating: 15% to 96%
 - Non-condensing environment
- Altitude
 - Operating: -15M to + 2,000M
 - Non-Operating: -15M to + 14,000M

ELECTRICAL:

| Parameter | Value/Note |
|---------------------|---|
| Input Voltage Range | 90-300 VAC for 110/120, 230/240 and 277 VAC nominal sources |
| Input Frequency | 47-63 Hz for 50/60 Hz nominal sources |
| Maximum AC current | 5A based upon the relay ratings |
| DC Power Supplies | |
| Dimming | 24 VDC at 50 mA maximum |
| Communications | 5 VDC at 1000 mA maximum |
| Auxiliary | 3.3 VDC at 500 mA maximum |
| Surge Protection | ANSI C62.41 6 kV, 3 kA combination wave surge protection |
| Power Consumption | <1W @ 120VAC, < 2W @ 277 VAC |
| Fail Mode* | On or Off |

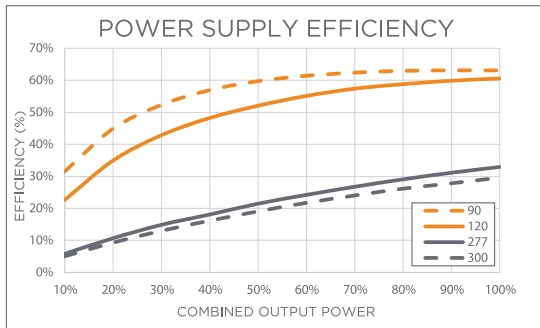
*value depends on part number

Product Features

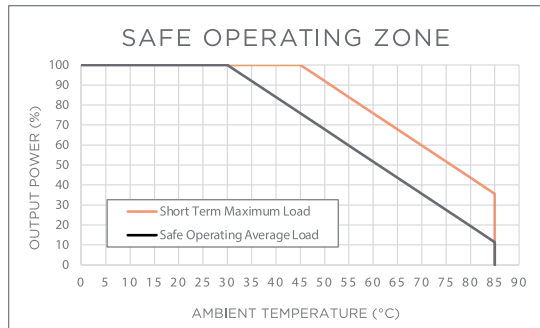


ENHANCED BASE

Efficiency



Temperature Derating



| Output Specs | Typical | | |
|--|---------|--------|--------|
| | 24V | 5V | 3.3V |
| Output Power | 1.2 W | 5 W | 1.65 W |
| Line Regulation | <10% | | <5% |
| Load Regulation - 120V, 30C, 10% to 100% | 2.5% | 5% | |
| Load Regulation - 277V, 30C, 10% to 100% | 2.5% | 5% | |
| Temp Regulation - 120V | 1.5% | | |
| Temp Regulation - 277V | 1.5% | | |
| Transient Response - 120V, 30C | <1.5 V | <0.5 V | |
| Transient Response - 277V, 30C | <1.5 V | <0.5 V | |
| Ripple - 120V, 30C | 300 mv | | |
| Ripple - 277V, 30C | 300 mv | | |
| Hold Up Time - 120V | 20 ms | | |
| Hold Up Time - 277V | 250 ms | | |
| Start Up Time | 20 ms | | |

| EMC and Immunity | |
|-------------------------------|--------------------------------|
| Conducted Emissions | FCC Title 47, Part 15, Class B |
| Radiated Emissions | FCC Title 47, Part 15, Class B |
| Harmonic Current | EN61000-3-2 Class A |
| Electrostatic Discharge (ESD) | JS-001, IEC 61000-4-2 |

| Environmental | |
|-----------------------|---------------------------------|
| Storage Temperature | -40°C to +105°C |
| Operating Temperature | -40°C to +85°C (See 114-133085) |
| Relative Humidity | 15% - 96%, Non-condensing |
| Altitude | -15M to 2000M |

| Switched Load | |
|----------------------|--|
| Max AC Current | 8A Resistive 5A Electronic Ballast @ 120V 3A Electronic Ballast @ 277V |
| Endurance | C136.10 Long Life |
| Zero-Cross Switching | Yes (See 114-133085) |

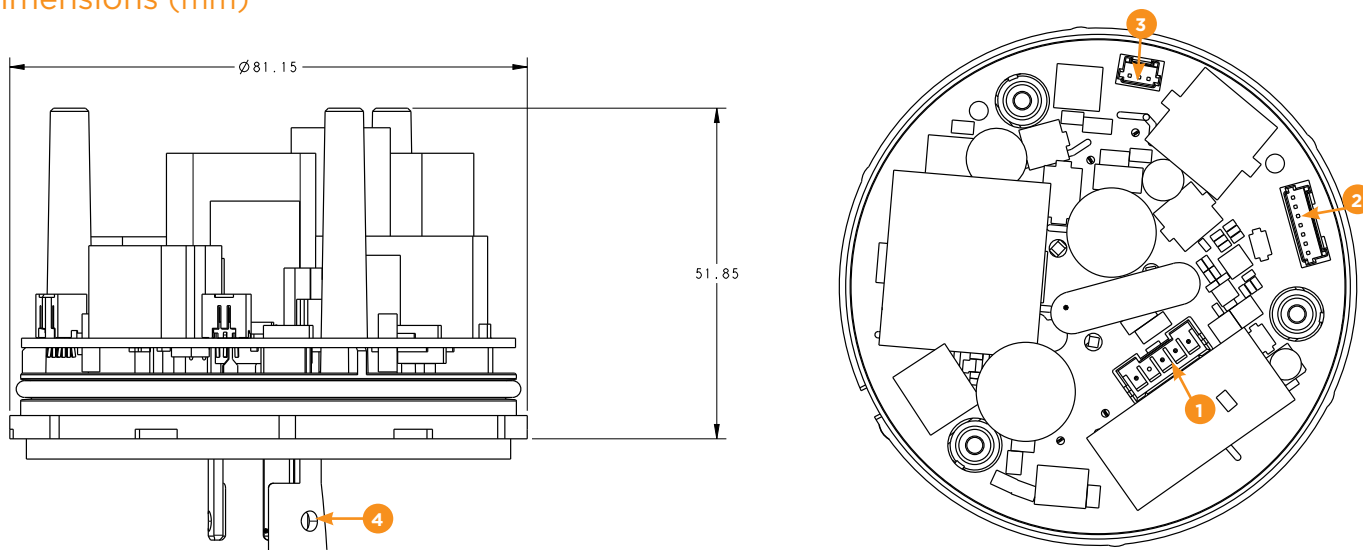
| Input Specs | Typical |
|----------------------------------|--|
| Source Voltage | 90 to 300 VAC |
| Source Frequency | 50hz for x-2314786-x 60hz for 2314786-x |
| Inrush Current - 120V | 6 A |
| Inrush Current - 277V | 13 A |
| Leakage Current | < 2 mA |
| Surge Protection | ANSI C62.41 6kV, 3 kA Combination Wave |
| Standby Power Consumption - 120V | 0.7 W |
| Standby Power Consumption - 277V | 1.0 W |
| Efficiency | 60% (120V, 100% load) |

ENHANCED BASE

Product Selection Information

| Part Number | Description | Frequency (Hz) | Fail Mode |
|-----------------------------|------------------------------------|----------------|-----------|
| 2314786-1 | LUMAWISE Endurance N Enhanced Base | 60 | ON |
| 2314786-2 | LUMAWISE Endurance N Enhanced Base | 60 | OFF |
| 1-2314786-1 | LUMAWISE Endurance N Enhanced Base | 50 | ON |
| 1-2314786-2 | LUMAWISE Endurance N Enhanced Base | 50 | OFF |

Dimensions (mm)



Compatible Products

| Item | Enhanced Base Interface | Description | Part Number |
|------|------------------------------|--------------------------------|---------------------------|
| 1 | Energy Metering Connection | EMC Cable Assembly | 2318044-1 |
| 2 | Luminaire Control Connection | LCC Cable Assembly, 7 position | 2318043-1 |
| 3 | Management Power Connection | MPC Cable Assembly, 3 position | 2318043-2 |
| 4 | ANSI C136.41-2013 Interface | LUMAWISE Dimming Receptacle | 2213362 |
| | | | 2213627 |

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