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inventronicsglobal.com

# inventronics



# Lighting Systems Sports



# Rebranding Our Products from OSRAM to Inventronics

Important Information for Our Customers

Valued Customer, we are pleased to inform you about an important update: following the acquisition of OSRAM Digital Systems by Inventronics in 2023, to ensure continuity of the quality and reliability of the products you trust, **all OSRAM Digital Systems products will transition to the Inventronics brand starting in 2025**, with OSRAM-branded deliveries ending in **March 2026**.




## Why this change?

**This transition protects the value of the technology, expertise and innovation that power your products and lighting solutions.** While the OSRAM name will continue to appear in the marketplace, the trusted knowledge, original teams and proven processes are now part of Inventronics – your dedicated partner in advanced lighting technology.


**Inventronics not only ensures you keep the access to the proven performance, innovation, and reliability** that have been integral to OSRAM Digital Systems in the past, **but expands its capabilities to provide system solutions in your target application at a global scale.**

## What is changing?




### New Branding

The OSRAM logo on labels, packaging, documents, and certificates will be replaced by the Inventronics logo




### Same Products

Features, names, and in most cases, certification numbers will remain unchanged.



### New EANs

Each existing product will receive a new EAN for the Inventronics version, ensuring traceability.



### Further Development by Inventronics

All future developments of these products will be handled by Inventronics, leveraging the proven expertise and high quality you have come to expect from OSRAM.

## Certifications and Documentation

**Consistency Ensured:** Since 2023, our products have been listed under “Inventronics” in CB and ENEC certifications. After the transition, rebranded products will retain their certifications, ensuring your existing luminaire certifications remain valid.

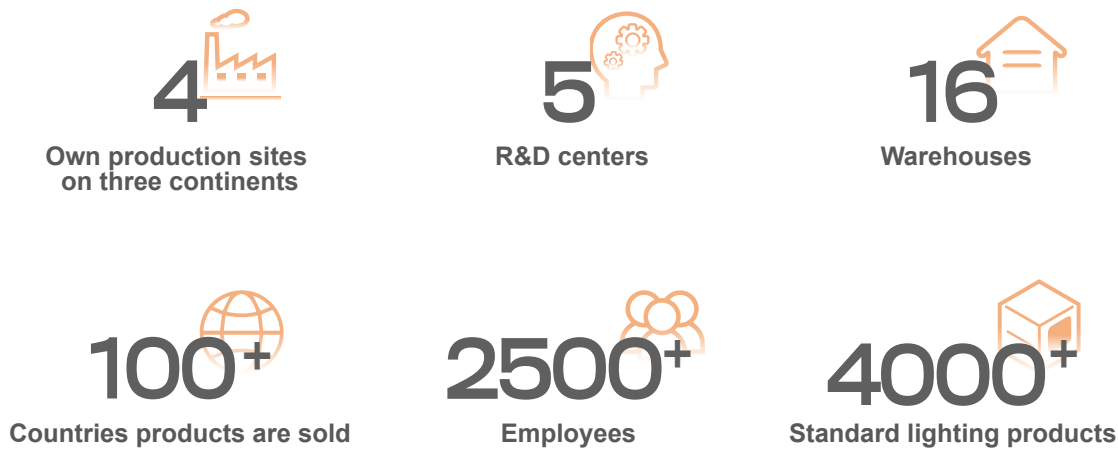
**Rebranding Without Compromise:** Thanks to close coordination with certification bodies, the rebranding will be transparent, with no changes to the technical core functionalities.



# About Inventronics

## Building a Brighter Future

Inventronics is a premier global producer of cutting-edge lighting solutions such as LED drivers, sensors, control systems, and LED modules. With a strong commitment to quality, reliability, and compliance with international standards, we deliver innovative and efficient solutions to our customers worldwide. The acquisition of OSRAM Digital Systems in Europe and Asia in 2023 has strengthened our portfolio, development, capabilities, and expanded our global reach.



# ALL FIELDS OF APPLICATION



## Why Choose Us?

### A Broad Portfolio Of Dependable Products

You benefit from industry-leading comprehensive portfolio of indoor and outdoor high-quality, energy-efficient products and systems as well technical expertise in all lighting applications from a single source.

### A Customer-Focused, Service-Driven Collaborator

We develop for and together with you best fitting components and solutions – from standard to customized.

### A Forward-Looking, Global Enterprise

We provide consulting, know-how, products, and services from a single source worldwide. Our customer proximity is our core – with on-site contacts and direct connections, you benefit from our global reach.

### An Innovative Technology Leader

Through continuous research and development, we improve and extend our range of highly reliable solutions with advanced technologies that ensure you are one step ahead.

### A Trusted Partner for Lighting Companies and beyond

We don't compete with our customers; we work with you to create value and make you more successful.

At Inventronics, we are committed to delivering superior lighting solutions and building lasting partnerships for a brighter future.





# Light is thrilling!

We craft 'Visual Referees' (IEEE 1789 flicker-free) with 1% super low ripple drivers, 'Endurance Guardians' (100,000h+ lifetime), and 'Scene Magicians' (44fps dynamic dimming) – so every stadium moment from a local training facility to an Olympic stadium, can enjoy their special moment worry free.



# Expertise

Bring every pivotal moment to life with precision lighting that elevates your event’s impact!  
For athletes, spectators, and broadcasters alike, unmatched performance demands certified illuminance levels, flawless uniformity, and real-time adaptability.



World-class



Dynamic control



Durability &  
Energy efficiency

# System Value

- Complete and harmonious lighting solutions with full - range LED drivers, modules and connectivity accessories, catering seamlessly to everything from training facilities to international sporting events.
- System compatibility relieve customers' worries.
- Reliable and long - lasting lighting design with 100,000+ hours lifetime and low maintenance requirements, ensuring stable operation in harsh environments.
- Flicker - free lighting design complies with IEEE 1789, providing a clear and comfortable visual experience for high – definition broadcasts.
- Precise and stable lighting control system supporting multiple protocols with as low as to 0.1% dimming and dynamic control up to 44fps, enabling personalized lighting adjustment for various sports scenarios.

# Sub-applications



Professional



Semi-Professional

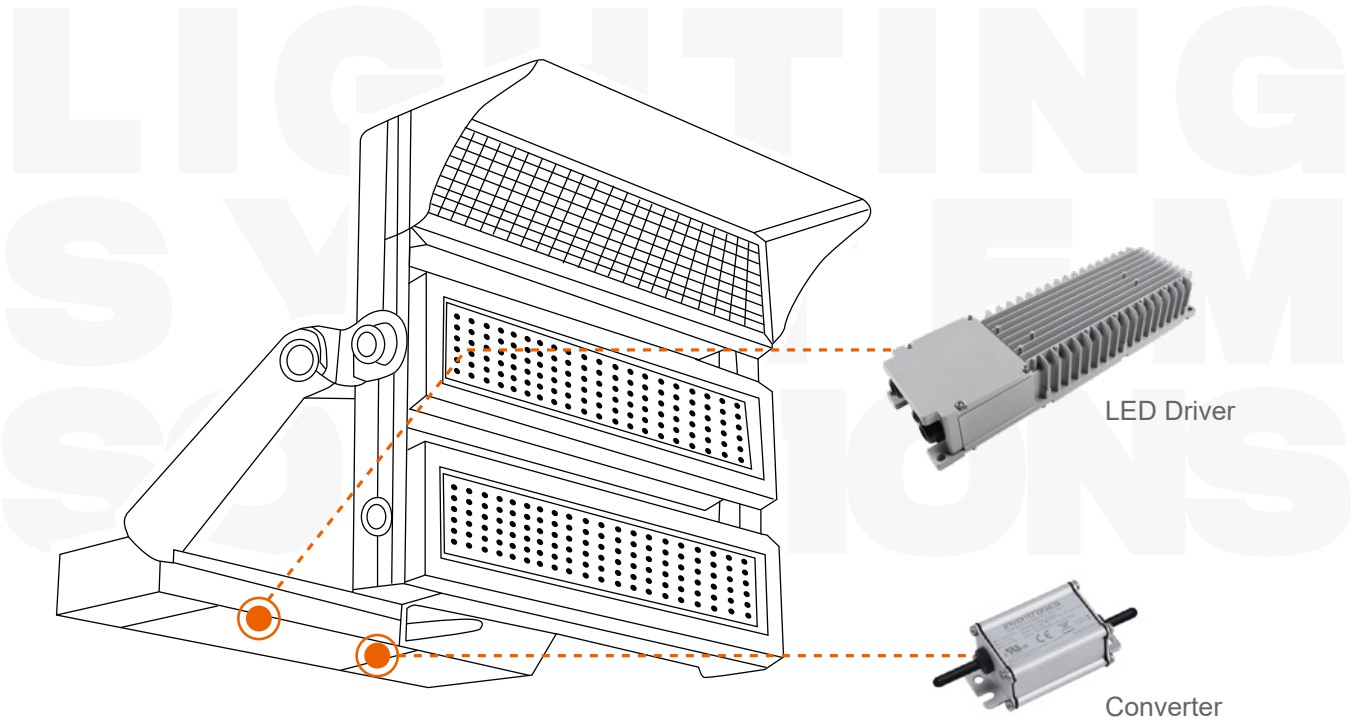


Training/Recreation



Ports/Airports

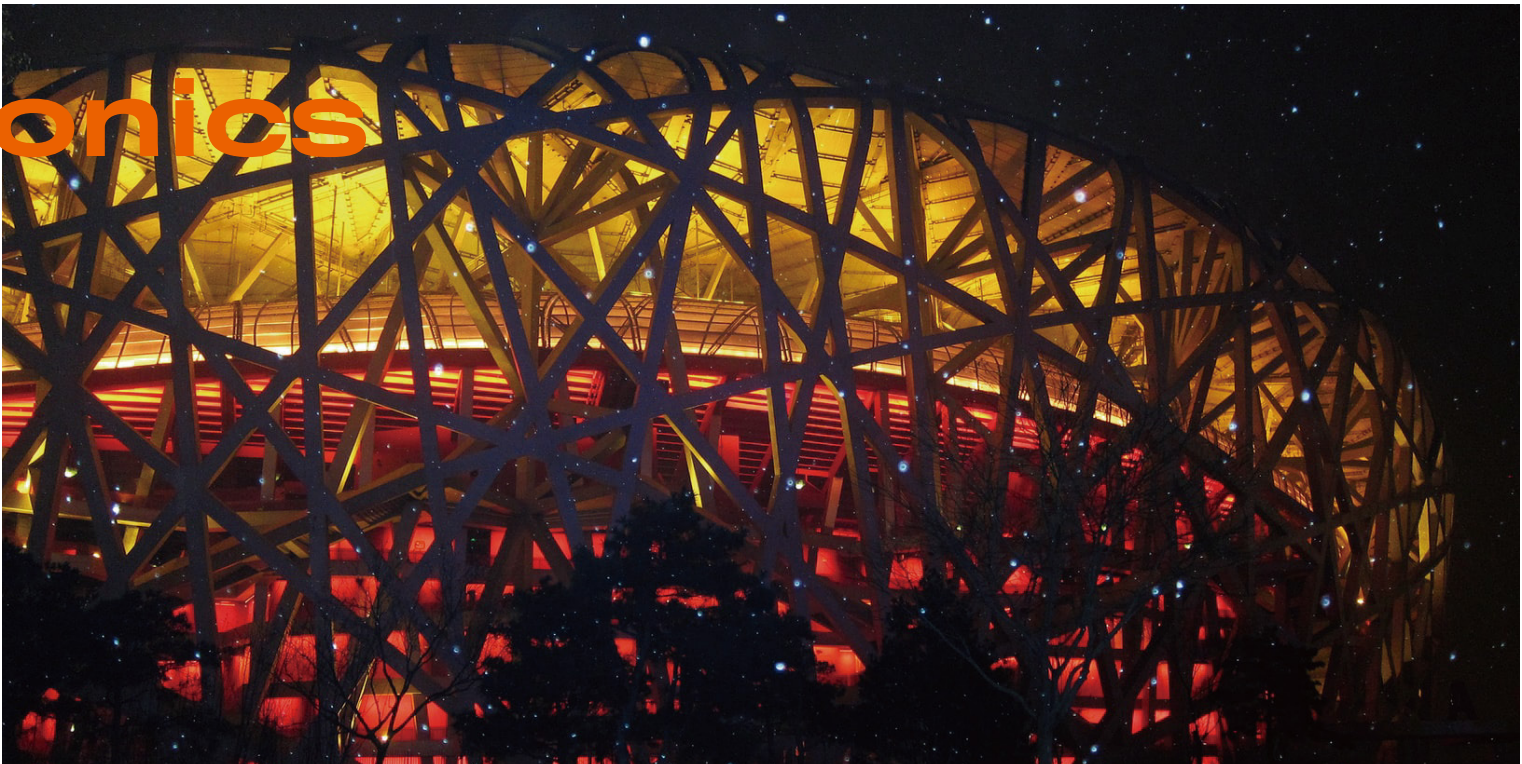
# Lighting System Solutions





# Inventronics Cases

The stadium where the 2008 Beijing Olympics were held, one of China's top ten contemporary buildings.  
*National Stadium, China*



The largest sports landmark in East Africa and a shining example of Sino-African friendship and cooperation.  
*National Stadium, Tanzania*



A tennis sanctuary bearing tournament passion and urban glory.  
*Olympic Park Tennis Courts, Korea*



The pearl of Qiandao lake, the only indoor venue for the cycling events of the Hangzhou Asian Games.  
*Asian Games Velodrome, China*



# Product Portfolio

Lighting Systems - Sports



## 01 Controls, Sensors, Programming Tools & Accessories

|                       |              |    |
|-----------------------|--------------|----|
| 1.1 Software          | Tuner4TRONIC | 01 |
|                       | DALI Wizard  | 01 |
| 1.2 Programming Tools | PRG-MUL2     | 01 |
|                       | PRG-NFC-H    | 01 |
|                       | PRG-NFC-D2   | 02 |
|                       | DALI magic   | 02 |
| 1.3 Converters        | CNV-DMXR2    | 02 |
|                       | CNV-DALI2    | 02 |

## 02 LED Driver & Accessories

|                                     |                      |    |
|-------------------------------------|----------------------|----|
| 2.1 Connected - Constant Current    | EUM-Mx, ESM-Mx       | 03 |
|                                     | EUM-Bx,ESM-Bx        | 06 |
|                                     | NFS-BC,NSS-BC        | 09 |
|                                     | NFM-Gx/Mx,NSM-Gx/Mx  | 11 |
|                                     | EFM-800Q/T           | 13 |
| 2.2 Simple DIM - Constant Current   | SUM-Mx/Hx, SSM-Mx/Hx | 15 |
| 2.3 Non Dimmable - Constant Current | EM P7 G2             | 17 |
| 2.4 Accessories                     | PU-10Kx05KBxA        | 19 |
|                                     | PU-20Kx10KTxx        | 19 |
|                                     | PU-20KS10KHT         | 19 |
|                                     | PS-20KS10KHT         | 19 |
|                                     | SPD G3               | 19 |
|                                     | ACC-LID-NFS          | 20 |



# SOFTWARE

## Software

### Overview

Inventronics offers a comprehensive range of professional software solutions to support and configure its components.



T4T



Apps



### Tuner4TRONIC

A software suite for OEMs that enables the configuration of all programmable OPTOTRONIC, ICUTRONIC, QUICKTRO NIC, and POWERTRONIC LED drivers during the luminaire manufacturing process.



### DALI Wizard

A GUI tool for setting up, analyzing, and diagnosing DALI ECG installations, used in combination with the DALI Wizard control device.

# PROGRAMMING TOOLS

## Programming Tools

### PRG-MUL2



FC CE

### Features

- Programmer for All Inventronics DALI and 0-10V Programmable Drivers
- Offline Programming Capability
- Automatic Programming Mode

### PRG-NFC-H



### Features

- For Use with Inventronics NFC Enabled Drivers
- Zhaga Book 24 Compliant
- USB Powered
- IP30
- Connects to Inventronics Multi-Programmer

### PRG-NFC-D2



### Features

- For Use with Inventronics NFC Enabled Drivers
- Zhaga Book 24 Compliant
- USB Powered
- IP42
- Connects to Inventronics Multi-Programmer Software

### DALI magic



### Features

- USB DALI converter for Tuner4TRONIC and DALI wizard software for Windows PC
- Pushbutton to test DALI dimming without need of connection to computer
- Powered by USB or by included universal power supply
- Integrated automatic DALI supply of up to 64 devices (up to 4 if powered by USB)

# CONVERTERS

## Converters

### DMX-RDM CNV-DMXR2 Stadium/Stage Lighting Management Solutions



UL US FC CB CE

### Features

- Converts DMX-RDM Signal to 0/1-10V Dimming Signal
- Compatible with RDM over DMX512 Networks with Bi-Directional Communication

### DALI-2 CNV-DALI2 Stadium/Stage Lighting Management Solutions



UL US FC CB CE

### Features

- Convert DALI-2 Signal to 0/1-10V Dimming Signal
- Comply with DALI-2 Protocol
- Powered By Auxiliary Power with 3-Wire Connection to Driver





Advantages

- High Efficiency (Up to 96.5%)
- Full Power at Wide Output Current Range (Constant Power)
- Adjustable Output Current (AOC) with Programmability
- Input Voltage Range: 90 ~ 305Vac(EUM-Mx) 249-528Vac(ESM-Mx)
- Always-on Auxiliary Power: 12Vdc, 250mA, 3W (Transient Peak Power up to 10W)
- Output Lumen Compensation
- End-of-Life Indicator
- Input Surge Protection: DM 6kV, CM 10kV
- All-Around Protection: IUVP, IOVP, OVP, SCP, OTP
- IP66 / IP67 and UL Dry / Damp / Wet Location
- TYPE HL, for Use in a Class I, Division 2 Hazardous (Classified) Location
- 5-Year Warranty

Dimming Functions

- Isolated 0-10V / PWM / 3-Timer-Modes Dimmable
- INV Digital Dimming, UART Based Communication Protocol
- Dim-to-Off with Standby Power

Safety Certifications



About EUM-Mx

The EUM-Mx series offers full power at a wide output current range and supply Controls-Ready features such as Dim-to-Off and an Always-On Auxiliary Power of 12Vdc, 250mA with a transient peak up to 10W to better power occupancy and day-light sensors. This provides a cost-optimized solution by removing the need for additional power packs and AC Relays. They offer a reliable performance with a high level of built-in surge protection and added Input Over Voltage (IOV) and Input Under Voltage (IUV) protection to help against poor power quality supplies to the LED driver. The MG series provides a global cable to reduce inventory SKUs, the MT Series are UL Class P recognized and the MB series are BIS certified to offer a solution for a wide range of applications and regions.

About ESM-Mx

The ESM-Mx family are high input voltage Controls-Ready drivers offering OEMs a cost-optimized solution. They provide design flexibility with full power at a wide output current range. Their Controls-Ready features such as Dim-to-Off and an Always-On Auxiliary Power of 12Vdc, 250mA with a transient peak up to 10W to better power occupancy and daylight sensors. The ESM-Mx operates on a vast array of lighting control networks via a 0-10V dimming input. These IP66/IP67 drivers have industry-leading built-in surge protection and longer lifetimes for harsh environmental applications. They provide the added convenience of UL Class P (MT series) and models with a global cable to reduce inventory SKUs (MG series).

EUM-Mx

| Output Power (W) | Product Name    | Full-power Current Range(mA) | Output Voltage Range (Vdc) | Eff.@ 220Vac | Lifetime (hours) | Dimensions (L×W×H)(mm) |
|------------------|-----------------|------------------------------|----------------------------|--------------|------------------|------------------------|
| 75               | EUM-075S105Mx①  | 700 ~ 1050                   | 36 ~ 107                   | 90.5%        | 101,000 Tc= 70°C | 142(125) × 67.5 × 36.5 |
|                  | EUM-075S150Mx   | 1050 ~ 1500                  | 25 ~ 72                    | 89.5%        |                  |                        |
|                  | EUM-075S210Mx ★ | 1400 ~ 2100                  | 18 ~ 54                    | 89.0%        |                  |                        |
| 100              | EUM-100S105Mx   | 700 ~ 1050                   | 48 ~ 143                   | 92.5%        | 112,000 Tc= 70°C | 148(131) × 67.5 × 36.5 |
|                  | EUM-100S150Mx   | 1050 ~ 1500                  | 34 ~ 95                    | 92.5%        |                  |                        |
|                  | EUM-100S280Mx ★ | 1750 ~ 2800                  | 17 ~ 54                    | 91.0%        |                  |                        |
| 150              | EUM-150S105Mx   | 700 ~ 1050                   | 72 ~ 214                   | 93.5%        | 104,000 Tc= 70°C | 178(161) × 67.5 × 36.5 |
|                  | EUM-150S150Mx   | 1050 ~ 1500                  | 50 ~ 143                   | 93.0%        |                  |                        |
|                  | EUM-150S210Mx   | 1400 ~ 2100                  | 36 ~ 107                   | 92.5%        |                  |                        |
|                  | EUM-150S420Mx   | 2800 ~ 4200                  | 18 ~ 54                    | 91.5%        |                  |                        |
| 200              | EUM-200S105Mx   | 700 ~ 1050                   | 95 ~ 286                   | 93.5%        | 102,000 Tc= 70°C | 188(171) × 67.5 × 36.5 |
|                  | EUM-200S150Mx   | 1050 ~ 1500                  | 67 ~ 190                   | 93.5%        |                  |                        |
|                  | EUM-200S280Mx   | 1800 ~ 2800                  | 36 ~ 111                   | 93.0%        |                  |                        |
|                  | EUM-200S560Mx   | 3500 ~ 5600                  | 18 ~ 57                    | 92.0%        |                  |                        |
| 240              | EUM-240S105Mx   | 700 ~1050                    | 115 ~ 343                  | 94.0%        | 101,000 Tc= 70°C | 218(201) × 67.5 × 38.5 |
|                  | EUM-240S150Mx   | 1050 ~ 1500                  | 80 ~ 229                   | 93.5%        |                  |                        |
|                  | EUM-240S350Mx   | 2150 ~ 3500                  | 35 ~ 111                   | 93.0%        |                  |                        |
|                  | EUM-240S670Mx   | 4200 ~ 6700                  | 18 ~ 57                    | 92.5%        |                  |                        |
| 320              | EUM-320S105Mx   | 700 ~1050                    | 153 ~ 457                  | 94.5%        | 112,000 Tc= 70°C | 243(224) × 80 × 44.5   |
|                  | EUM-320S150Mx   | 1050 ~ 1500                  | 107 ~ 305                  | 94.0%        |                  |                        |
|                  | EUM-320S250Mx   | 1750 ~ 2500                  | 64 ~183                    | 94.0%        |                  |                        |
|                  | EUM-320S500Mx   | 2850 ~ 5000                  | 32 ~ 112                   | 93.5%        |                  |                        |
| 400              | EUM-320S760Mx   | 5350 ~ 7600                  | 21 ~ 60                    | 92.5%        | 113,000 Tc=70°C  | 262(243) × 90 × 43.5   |
|                  | EUM-400S150Mx   | 1050 ~ 1500                  | 133 ~ 381                  | 94.5%        |                  |                        |
|                  | EUM-400S910Mx   | 7150 ~ 9100                  | 24 ~ 56                    | 94.0%        |                  |                        |
| 480              | EUM-480S140Mx   | 1050 ~ 1400                  | 171 ~ 457                  | 94.5%        | 102,000 Tc=70°C  | 262(243) × 90 × 43.5   |
|                  | EUM-480S280Mx   | 2100 ~ 2800                  | 86 ~ 228                   | 94.0%        |                  |                        |
|                  | EUM-480S420Mx   | 3150 ~ 4200                  | 57 ~ 152                   | 94.0%        |                  |                        |
|                  | EUM-480S560Mx   | 4350 ~ 5600                  | 43 ~ 110                   | 94.0%        |                  |                        |
|                  | EUM-480S10AMx   | 8600 ~ 10000                 | 24 ~ 56                    | 94.0%        |                  |                        |
| 680              | EUM-680S170Mx   | 1250 ~ 1700                  | 200 ~ 544                  | 95.5%        | 107,000 Tc=70°C  | 275(250)×135 x 46      |
|                  | EUM-680S240Mx   | 1800 ~ 2400                  | 141.5 ~ 378                | 94.5%        |                  |                        |
|                  | EUM-680S350Mx   | 2600 ~ 3500                  | 97.1 ~ 262                 | 95.0%        |                  |                        |
|                  | EUM-680S560Mx   | 4200 ~ 5600                  | 60.7 ~ 163                 | 94.5%        |                  |                        |
|                  | EUM-680S840Mx   | 6300 ~ 8400                  | 40.4 ~ 108                 | 95.0%        |                  |                        |
| 880              | EUM-680S15AMx   | 12600 ~ 15000                | 22.6 ~ 54                  | 95.5%        | 105,000 Tc= 70°C | 275(250)×144 x 48.5    |
|                  | EUM-880S280Mx   | 1950 ~ 2800                  | 157 ~ 452                  | 95.0%        |                  |                        |
|                  | EUM-880S420Mx   | 3000 ~ 4200                  | 104 ~ 294                  | 95.5%        |                  |                        |
|                  | EUM-880S700Mx   | 4900 ~ 7000                  | 63 ~ 180                   | 96.0%        |                  |                        |
|                  | EUM-880S11AMx   | 8000 ~ 11500                 | 38 ~ 110                   | 95.5%        |                  |                        |
|                  | EUM-880S20AMx   | 16300 ~ 20000                | 22 ~ 54                    | 95.5%        |                  |                        |

★ : Class 2 Model

① : x=G are UL Recognized, ENEC and CCC, etc. models; x=T are UL Class P models.



ESM-Mx

| Output Power (W) | Product Name               | Full-power Current Range(mA) | Output Voltage Range (Vdc) | Eff. @ 480Vac | Lifetime (hours) | Dimensions (L×W×H)(mm)  |
|------------------|----------------------------|------------------------------|----------------------------|---------------|------------------|---|
| 150              | ESM-150S105Mx <sup>①</sup> | 700 ~ 1050                   | 72 ~ 214                   | 93.5%         | 100,000 Tc=70°C  | 178(161)× 76.5× 38.5  |
|                  | ESM-150S150Mx              | 1050 ~ 1500                  | 50 ~ 143                   | 93.0%         |                  |   |
|                  | ESM-150S210Mx              | 1400 ~ 2100                  | 36 ~ 107                   | 92.5%         |                  |   |
|                  | ESM-150S420Mx              | 2800 ~ 4200                  | 18 ~ 54                    | 92.0%         |                  |   |
| 240              | ESM-240S105Mx              | 700 ~ 1050                   | 115 ~ 343                  | 94.0%         | 106,000 Tc= 70°C | 218(201) × 76.5 × 38.5  |
|                  | ESM-240S150Mx              | 1050 ~ 1500                  | 80 ~ 229                   | 93.5%         |                  |   |
|                  | ESM-240S350Mx              | 2150 ~ 3500                  | 35 ~ 111                   | 93.0%         |                  |   |
|                  | ESM-240S670Mx              | 4200 ~ 6700                  | 18 ~ 57                    | 92.5%         |                  |   |
| 320              | ESM-320S105Mx              | 700 ~ 1050                   | 153 ~ 457                  | 95.0%         | 105,000 Tc= 70°C | 243(224) × 85 × 44.5  |
|                  | ESM-320S150Mx              | 1050 ~ 1500                  | 107 ~ 305                  | 94.5%         |                  |   |
|                  | ESM-320S250Mx              | 1750 ~ 2500                  | 64 ~ 183                   | 94.5%         |                  |   |
|                  | ESM-320S500Mx              | 2850 ~ 5000                  | 32 ~ 112                   | 94.0%         |                  |   |
|                  | ESM-320S760Mx              | 5350 ~ 7600                  | 21 ~ 60                    | 94.0%         |                  |   |
| 480              | ESM-480S140Mx              | 1050 ~ 1400                  | 171 ~ 457                  | 95.5%         | 100,000 Tc=70°C  | 262(243) × 90 × 43.5  |
|                  | ESM-480S280Mx              | 2100 ~ 2800                  | 86 ~ 228                   | 95.5%         |                  |   |
|                  | ESM-480S420Mx              | 3150 ~ 4200                  | 57 ~ 152                   | 95.0%         |                  |   |
|                  | ESM-480S560Mx              | 4350 ~ 5600                  | 43 ~ 110                   | 95.0%         |                  |   |
|                  | ESM-480S10AMx              | 8600 ~ 10000                 | 24 ~ 56                    | 95.0%         |                  |   |
| 680              | ESM-680S170Mx/MGS          | 1250 ~ 1700                  | 200 ~ 544                  | 96.0%         | 102,000 Tc= 70°C | Mx:<br>275(250) ×135 x 46<br>MGS:<br>300(275) x 151 x 46        |
|                  | ESM-680S240Mx/MGS          | 1800 ~ 2400                  | 141.5 ~ 378                | 95.5%         |                  |   |
|                  | ESM-680S350Mx/MGS          | 2600 ~ 3500                  | 97.1 ~ 262                 | 95.5%         |                  |   |
|                  | ESM-680S560Mx/MGS          | 4200 ~ 5600                  | 60.7 ~ 163                 | 95.5%         |                  |   |
|                  | ESM-680S840Mx/MGS          | 6300 ~ 8400                  | 40.4 ~ 108                 | 95.5%         |                  |   |
|                  | ESM-680S15AMx/MGS          | 12600 ~ 15000                | 22.6 ~ 54                  | 94.5%         |                  |   |
| 880              | ESM-880S280Mx/MGS          | 1950 ~ 2800                  | 157 ~ 452                  | 96.0%         | 100,000 Tc= 70°C | Mx:<br>275(250)×x144 x 48.5<br>MGS:<br>300(275) x 160 x 48.5    |
|                  | ESM-880S420Mx/MGS          | 3000 ~ 4200                  | 104 ~ 294                  | 95.5%         |                  |   |
|                  | ESM-880S700Mx/MGS          | 4900 ~ 7000                  | 63 ~ 180                   | 96.0%         |                  |   |
|                  | ESM-880S11AMx/MGS          | 8000 ~ 11500                 | 38 ~ 110                   | 95.0%         |                  |   |
|                  | ESM-880S20AMx/MGS          | 16300 ~ 20000                | 22 ~ 54                    | 95.5%         |                  |   |
| 1200             | ESM-1K2S350Mx/MGS          | 2600 ~ 3500                  | 171 ~ 462                  | 96.5%         | 101,000 Tc= 70°C | Mx:<br>310(285) × 141 × 48.5<br>MGS:<br>330(305) x 166.5 x 49.5 |
|                  | ESM-1K2S525Mx/MGS          | 3950 ~ 5250                  | 114 ~ 304                  | 96.0%         |                  |   |
|                  | ESM-1K2S740Mx/MGS          | 5550 ~ 7400                  | 81 ~ 217                   | 96.5%         |                  |   |

① : x=G are UL Recognized, ENEC and CCC, etc. models; x=T are UL Class P models.



Advantages

- High Efficiency (Up to 96%)
- Full Power at Wide Output Current Range (Constant Power)
- Adjustable Output Current (AOC) with NFC
- Input Voltage Range: 90 ~ 305Vac(EUM-Bx) 249-528Vac(ESM-Bx)
- Integrated Power Metering with High Accuracy up to ±1%
- Output Lumen Compensation
- End-of-Life Indicator
- Thermal Sensing and Protection for LED Module
- Surge Protection: CM 6kV, DM10kV
- IP66 / IP67 and UL Dry / Damp / Wet Location
- TYPE HL, for Use in a Class I, Division 2 Hazardous (Classified) Location
- 7 Years Warranty

Dimming Functions

- DALI-2 and D4i Certified
- 3-Timer-Modes Dimmable
- Dim-to-Off with Low Standby Power

Safety Certifications



global-mark

About EUM-Bx

The EUM-Bx series is DALI-2 D4i certified, allowing for extensive health diagnostics tracking for the LED driver, seamless plug-and-play controls, and standardization of intra-luminaire designs. They are extremely flexible with wireless programmability via Near Field Communication (NFC) to help OEMs streamline production and simplify installation. The EUM-Bx series is Controls-Ready with Dim-to-Off and Always-On Auxiliary Power of 24Vdc, 125mA with a transient peak up to 10W. They also provide the added convenience of integrated power monitoring allowing users to measure energy consumption. The BG series provides a global cable to reduce inventory SKUs, the BT Series are UL Class P recognized, and the BB series are BIS certified to offer a solution for a wide range of applications and regions.Available also as DALI-2 in Class I and Class II (EUM-Ex and EUM-EE)

About ESM-Bx

The ESM-Bx series is DALI-2 D4i certified which allows the tracking and monitoring of health diagnostics for LED drivers, provides plug-and-play controls, and standardizes intra-luminaire designs. They are extremely flexible with wireless programmability via Near Field Communication (NFC) to help OEMs streamline production and simplify installation. The ESM-Bx series is Controls-Ready with Dim-to-Off and Always-On Auxiliary Power of 24Vdc, 125mA with a transient peak up to 10W. They also provide the added convenience of integrated power monitoring allowing users to measure energy consumption. The BG models utilize globally accepted cables that help reduce SKUs, the BT models provide UL Class P certification.



EUM-Bx

| Output Power<br>(W) | Product Name    | Full-power<br>Current<br>Range(mA) | Output<br>Voltage Range<br>(Vdc) | Eff.@ 220Vac | Lifetime (hours) | Dimensions<br>(L×W×H)(mm) |
|---------------------|-----------------|------------------------------------|----------------------------------|--------------|------------------|---------------------------|
| 75                  | EUM-075S105Bx①  | 700 ~ 1050                         | 36 ~ 107                         | 90.5%        | 101,000 Tc= 70°C | 142(125) × 67.5 × 36.5    |
|                     | EUM-075S150Bx   | 1050 ~ 1500                        | 25 ~ 72                          | 89.5%        |                  |                           |
|                     | EUM-075S210Bx ★ | 1400 ~ 2100                        | 18 ~ 54                          | 89.0%        |                  |                           |
| 100                 | EUM-100S105Bx   | 700 ~ 1050                         | 48 ~ 143                         | 92.5%        | 112,000 Tc= 70°C | 148(131) × 67.5 × 36.5    |
|                     | EUM-100S150Bx   | 1050 ~ 1500                        | 34 ~ 95                          | 92.5%        |                  |                           |
|                     | EUM-100S280Bx ★ | 1750 ~ 2800                        | 17 ~ 54                          | 91.0%        |                  |                           |
| 150                 | EUM-150S105Bx   | 700 ~ 1050                         | 72 ~ 214                         | 93.5%        | 104,000 Tc= 70°C | 178(161) × 67.5 × 36.5    |
|                     | EUM-150S150Bx   | 1050 ~ 1500                        | 50 ~ 143                         | 93.0%        |                  |                           |
|                     | EUM-150S210Bx   | 1400 ~ 2100                        | 36 ~ 107                         | 92.5%        |                  |                           |
|                     | EUM-150S420Bx   | 2800 ~ 4200                        | 18 ~ 54                          | 91.5%        |                  |                           |
| 200                 | EUM-200S105Bx   | 700 ~ 1050                         | 95 ~ 286                         | 93.5%        | 102,000 Tc= 70°C | 188(171) × 67.5 × 36.5    |
|                     | EUM-200S150Bx   | 1050 ~ 1500                        | 67 ~ 190                         | 93.5%        |                  |                           |
|                     | EUM-200S280Bx   | 1800 ~ 2800                        | 36 ~ 111                         | 93.0%        |                  |                           |
|                     | EUM-200S560Bx   | 3500 ~ 5600                        | 18 ~ 57                          | 92.0%        |                  |                           |
| 240                 | EUM-240S105Bx   | 700 ~ 1050                         | 115 ~ 343                        | 94.0%        | 101,000 Tc= 70°C | 218(201) × 67.5 × 38.5    |
|                     | EUM-240S150Bx   | 1050 ~ 1500                        | 80 ~ 229                         | 93.5%        |                  |                           |
|                     | EUM-240S350Bx   | 2150 ~ 3500                        | 35 ~ 111                         | 93.0%        |                  |                           |
|                     | EUM-240S670Bx   | 4200 ~ 6700                        | 18 ~ 57                          | 92.5%        |                  |                           |
| 320                 | EUM-320S105Bx   | 700 ~ 1050                         | 153 ~ 457                        | 94.5%        | 112,000 Tc=70°C  | 243(224) × 80 × 44.5      |
|                     | EUM-320S150Bx   | 1050 ~ 1500                        | 107 ~ 305                        | 94.0%        |                  |                           |
|                     | EUM-320S250Bx   | 1750 ~ 2500                        | 64 ~ 183                         | 94.0%        |                  |                           |
|                     | EUM-320S500Bx   | 2850 ~ 5000                        | 32 ~ 112                         | 93.5%        |                  |                           |
|                     | EUM-320S760Bx   | 5350 ~ 7600                        | 21 ~ 60                          | 92.5%        |                  |                           |
| 480                 | EUM-480S140BG   | 1050 ~ 1400                        | 171 ~ 457                        | 95.0%        | 110,000 Tc=70°C  | 262(243) × 90 × 43.5      |
|                     | EUM-480S280BG   | 2100 ~ 2800                        | 86 ~ 228                         | 95.0%        |                  |                           |
|                     | EUM-480S420BG   | 3150 ~ 4200                        | 57 ~ 152                         | 94.0%        |                  |                           |
|                     | EUM-480S560BG   | 4350 ~ 5600                        | 43 ~ 110                         | 94.0%        |                  |                           |
|                     | EUM-480S10ABG   | 8600 ~ 10000                       | 24 ~ 56                          | 94.0%        |                  |                           |
| 680                 | EUM-680S170BG   | 1250 ~ 1700                        | 200 ~ 544                        | 95.5%        | 107,000 Tc=70°C  | 275(250) × 135 × 46       |
|                     | EUM-680S240BG   | 1800 ~ 2400                        | 141.5 ~ 378                      | 94.5%        |                  |                           |
|                     | EUM-680S350BG   | 2600 ~ 3500                        | 97.1 ~ 262                       | 95.0%        |                  |                           |
|                     | EUM-680S560BG   | 4200 ~ 5600                        | 60.7 ~ 163                       | 94.5%        |                  |                           |
|                     | EUM-680S840BG   | 6300 ~ 8400                        | 40.4 ~ 108                       | 95.0%        |                  |                           |
|                     | EUM-680S15ABG   | 12600 ~ 15000                      | 22.6 ~ 54                        | 95.5%        |                  |                           |

★ : Class 2 Model

① : x=G are UL Recognized, ENEC and CCC, etc. models; x=T are UL Class P models; x=B are BIS models.

ESM-Bx

| Output Power<br>(W) | Product Name   | Full-power<br>Current<br>Range(mA) | Output<br>Voltage Range<br>(Vdc) | Eff.@ 480Vac | Lifetime (hours) | Dimensions<br>(L×W×H)(mm) |
|---------------------|----------------|------------------------------------|----------------------------------|--------------|------------------|---------------------------|
| 100                 | ESM-100S105Bx① | 700 ~ 1050                         | 48 ~ 143                         | 92.0%        | 100,000 Tc=70°C  | 148(131) × 76.5 × 38.5    |
|                     | ESM-100S150Bx  | 1050 ~ 1500                        | 34 ~ 95                          | 91.5%        |                  |                           |
|                     | ESM-100S280Bx  | 1750 ~ 2800                        | 17 ~ 54                          | 90.5%        |                  |                           |
| 150                 | ESM-150S105Bx  | 700 ~ 1050                         | 72 ~ 214                         | 93.0%        | 100,000 Tc=70°C  | 178(161) × 76.5 × 38.5    |
|                     | ESM-150S150Bx  | 1050 ~ 1500                        | 50 ~ 143                         | 93.0%        |                  |                           |
|                     | ESM-150S210Bx  | 1400 ~ 2100                        | 36 ~ 107                         | 92.5%        |                  |                           |
|                     | ESM-150S420Bx  | 2800 ~ 4200                        | 18 ~ 54                          | 92.0%        |                  |                           |
| 240                 | ESM-240S105Bx  | 700 ~ 1050                         | 115 ~ 343                        | 94.0%        | 106,000 Tc=70°C  | 218(201) × 76.5 × 38.5    |
|                     | ESM-240S150Bx  | 1050 ~ 1500                        | 80 ~ 229                         | 93.5%        |                  |                           |
|                     | ESM-240S350Bx  | 2150 ~ 3500                        | 35 ~ 111                         | 93.0%        |                  |                           |
|                     | ESM-240S670Bx  | 4200 ~ 6700                        | 18 ~ 57                          | 92.5%        |                  |                           |
| 320                 | ESM-320S105Bx  | 700 ~ 1050                         | 153 ~ 457                        | 95.0%        | 105,000 Tc=70°C  | 243(224) × 85 × 44.5      |
|                     | ESM-320S150Bx  | 1050 ~ 1500                        | 107 ~ 305                        | 94.5%        |                  |                           |
|                     | ESM-320S250Bx  | 1750 ~ 2500                        | 64 ~ 183                         | 94.5%        |                  |                           |
|                     | ESM-320S500Bx  | 2850 ~ 5000                        | 32 ~ 112                         | 94.0%        |                  |                           |
|                     | ESM-320S760Bx  | 5350 ~ 7600                        | 21 ~ 60                          | 94.0%        |                  |                           |
| 480                 | ESM-480S140BG  | 1050 ~ 1400                        | 171 ~ 457                        | 95.0%        | 100,000 Tc=70°C  | 262(243) × 90 × 43.5      |
|                     | ESM-480S280BG  | 2100 ~ 2800                        | 86 ~ 228                         | 94.0%        |                  |                           |
|                     | ESM-480S420BG  | 3150 ~ 4200                        | 57 ~ 152                         | 95.0%        |                  |                           |
|                     | ESM-480S560BG  | 4350 ~ 5600                        | 43 ~ 110                         | 94.5%        |                  |                           |
|                     | ESM-480S10ABG  | 8600 ~ 10000                       | 24 ~ 56                          | 94.5%        |                  |                           |
| 680                 | ESM-680S170BG  | 1250 ~ 1700                        | 200 ~ 544                        | 96.0%        | 102,000 Tc=70°C  | 275(250) × 135× 46        |
|                     | ESM-680S240BG  | 1800 ~ 2400                        | 141.5 ~ 378                      | 95.5%        |                  |                           |
|                     | ESM-680S350BG  | 2600 ~ 3500                        | 97.1 ~ 262                       | 95.5%        |                  |                           |
|                     | ESM-680S560BG  | 4200 ~ 5600                        | 60.7 ~ 163                       | 95.5%        |                  |                           |
|                     | ESM-680S840BG  | 6300 ~ 8400                        | 40.4 ~ 108                       | 95.5%        |                  |                           |
|                     | ESM-680S15ABG  | 12600 ~ 15000                      | 22.6 ~ 54                        | 94.5%        |                  |                           |

① : x=G are UL Recognized, ENEC and CCC, etc. models; x=T are UL Class P models; x=B are BIS models.





Advantages

- Input Voltage Range: 180 ~ 528Vac (NFS-BC), 249-528Vac (NSS-BC)
- Non-Isolated Class I Driver
- No Afterglow
- Dim-to-Off with Standby Power ≤ 0.5W @ 230Vac(NFS)
- Dimming Range: 0.1%-100%
- Adjustable Output Current (AOC) with NFC
- Anode Output Connection (NFS-1K2D210BC)  
2\*600W Independent Programmable Channels & Support Common
- Anode Output Connection (NFS-1K8T210BC)  
3\*600W Independent Programmable Channels & Support Common
- Max Remote Distance Up to 300 Meter
- Ultra High Efficiency (Up to 97.5%)
- Full Power at Wide Output Current Range (Constant Power)
- Single-Channel (1\*DT6 or 1\*DMX) Operating Mode (NFS-600S210BC)
- Multi-Channel (2\*DT6 or 2\*DMX) Operating Mode (NFS-1K2D210BC)
- Multi-Channel (up to 3\*DT6 or 3\*DMX) Operating Mode (NFS-1K8T210BC)
- DALI-2/DMX-RDM Controls Up to 44 fps
- Integrated Power Metering with High Accuracy up to ±1%
- Thermal Sensing and Protection for LED Module
- Low Inrush Current
- Output Lumen Compensation
- End-of-Life Indicator
- Input Surge Protection: DM 10kV, CM 10kV
- All-Around Protection: IOVP, IUVP, OVP, SCP, OTP, OPP
- IP66
- IK08 Enclosure
- 5-Year Warranty

About NFS-BC & NSS-BC

The NFS family features a non-isolated design, enhancing its ultrahigh efficiency performance. It incorporates a remarkably wide input range spanning from 180-528Vac and supports various dimming methods like DALI-2/D4i, DMX/RDM, etc. Additionally, the NFS family offers a junction box to streamline the luminaire design and provides 1-CH, 2-CH, and 3-CH output designs.Available also for Input Voltage 249-528Vac(NSS-BC)

Dimming Functions

DALI-2 and D4i Certified & DMX-RDM & 3-Timer-Modes Dimmable

Safety Certifications



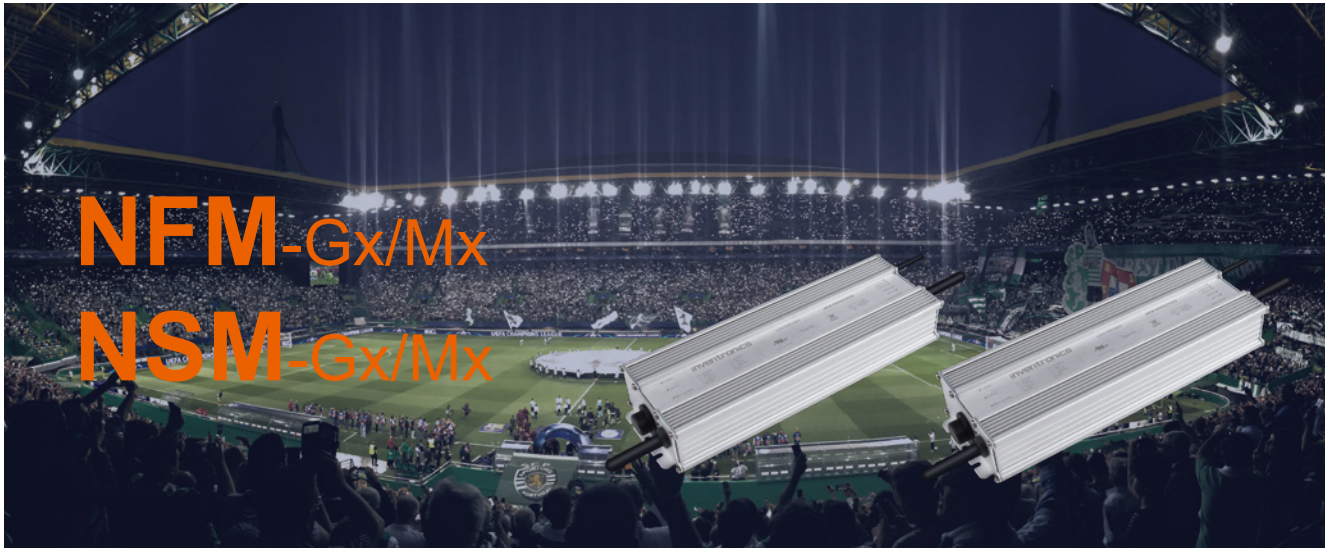
NFS-BC

| Output Power (W) | Product Name  | Full-power Current Range(mA) | Output Voltage Range (Vdc) | Eff.@480Vac | Lifetime (hours) | Dimensions (L×W×H)(mm) |
|------------------|---------------|------------------------------|----------------------------|-------------|------------------|------------------------|
| 600              | NFS-600S210BC | 1200 ~ 2100                  | 176 ~ 500                  | 97.0%       | 100,000 Tc=70°C  | 310 × 145 × 70         |
| 900              | NFS-900S360BC | 1800 ~ 3600                  | 150 ~ 500                  | 97.5%       | 100,000 Tc=70°C  | 310 × 145 × 70         |
| 1200             | NFS-1K2D210BC | 1200 ~ 2100                  | 176 ~ 500                  | 97.0%       | 100,000 Tc=70°C  | 500 × 152 × 80         |
| 1800             | NFS-1K8T210BC | 1200 ~ 2100                  | 176 ~ 500                  | 97.5%       | 115,000 Tc=70°C  | 500 × 152 × 80         |

NSS-BC

| Output Power (W) | Product Name  | Full-power Current Range(mA) | Output Voltage Range (Vdc) | Eff.@480Vac | Lifetime (hours) | Dimensions (L×W×H)(mm) |
|------------------|---------------|------------------------------|----------------------------|-------------|------------------|------------------------|
| 700              | NSS-700S210BC | 1400 ~ 2100                  | 176 ~ 500                  | 97.0%       | 100,000 Tc=70°C  | 310 × 145 × 70         |
| 1200             | NSS-1K2S360BC | 2400 ~ 3600                  | 176 ~ 500                  | 97.5%       | 102,000 Tc=70°C  | 310 × 145 × 70         |
| 1500             | NSS-1K5D210BC | 1500 ~ 2100                  | 176 ~ 500                  | 97.0%       | 100,000 Tc=70°C  | 500 × 152 × 80         |
| 2100             | NSS-2K1T210BC | 1400 ~ 2100                  | 176 ~ 500                  | 97.5%       | 110,000 Tc=70°C  | 500 × 152 × 80         |





Advantages

- Input Voltage Range: 180 ~ 528Vac (NFM-Gx/Mx), 249 ~ 528Vac (NSM-Gx/Mx)
- Non-Isolated Class I Driver
- No Afterglow
- Ultra High Efficiency (Up to 97.5%)
- Full Power at Wide Output Current Range (Constant Power)
- Adjustable Output Current (AOC) with NFC
- Adjustable Dimming Curve
- Hold Time Adjustable
- Fade Time Adjustable
- Always-on Auxiliary Power: 12Vdc, 250mA (Except DMX-RDM Mode)
- Minimum Dimming Level Supports 0.1% for DALI-2 and DMX-RDM (Gx Models)
- Minimum Dimming Level Supports 1% for 0-10V, PWM, Resistor, and Digital Dimming
- Controls Up to 44 fps
- Integrated Power Metering with High Accuracy Up to ±1%
- Low Inrush Current
- Output Lumen Compensation
- End-of-Life Indicator
- Input Surge Protection: DM 10kV, CM 10kV
- All-Around Protection: OPP, IOVP, IUVP, OVP, SCP, OTP
- IP66 / IP67 and UL Dry / Damp / Wet Location
- TYPE HL, for Use in a Class I, Division 2 Hazardous (Classified) Location
- 5-Year Warranty

About NFM-Gx/Mx & NSM-Gx/Mx

The NFM family features a non-isolated design that delivers highly efficient performance. It incorporates an exceptionally wide input range from 180-528Vac and supports multiple dimming methods including DALI-2/D4i, DMX/RDM, 0-10V, and more. Available also for Input Voltage 249-528Vac (NSM-Gx/Mx).

Dimming Functions

- DALI-2 and D4i Certified (Gx Model)
- DALI-2 & DMX-RDM Dimmable & 0-10V & PWM & 3-Timer-Modes Dimmable & Resistor (Gx Model)
- Adjustable 0-10V & PWM & 3-Timer-Modes Dimmable & Resistor (Mx Model)
- INV Digital Dimming, UART Based Communication Protocol

Safety Certifications



NFM-Gx/Mx

| Output Power (W) | Product Name      | Full-power Current Range(mA) | Output Voltage Range (Vdc) | Eff.@ 480Vac | Lifetime (hours) | Dimensions (L×W×H)(mm) |
|------------------|-------------------|------------------------------|----------------------------|--------------|------------------|------------------------|
| 500              | NFM-500S200Gx/Mx① | 1000 ~ 2000                  | 150 ~ 500                  | 96.0%        | 120,000 Tc=70°C  | 262(245) × 76.5 × 38.5 |
| 680              | NFM-680S270Gx/Mx  | 1360 ~ 2700                  | 150 ~ 500                  | 97.0%        | 120,000 Tc=70°C  | 275(256) × 90 × 43.5   |
| 880              | NFM-880S350Gx/Mx  | 1760 ~ 3500                  | 150 ~ 500                  | 97.0%        | 120,000 Tc=70°C  | 275(253) × 108 × 44.5  |
| 1200             | NFM-1K2S480Gx/Mx  | 2400 ~ 4800                  | 150 ~ 500                  | 97.5%        | 108,000 Tc=70°C  | 310(288) × 108 × 48.5  |

NSM-Gx/Mx

| Output Power (W) | Product Name     | Full-power Current Range(mA) | Output Voltage Range (Vdc) | Eff.@ 480Vac        | Lifetime (hours) | Dimensions (L×W×H)(mm) |
|------------------|------------------|------------------------------|----------------------------|---------------------|------------------|------------------------|
| 680              | NSM-680S200Gx/Mx | 1360 ~ 2000                  | 150 ~ 500                  | 97.0%               | 120,000 Tc=70°C  | 262(245) × 76.5 × 38.5 |
| 880              | NSM-880S270Gx/Mx | 1760 ~ 2700                  | 150 ~ 500                  | 97.5%               | 120,000 Tc=70°C  | 275(256) × 90 × 43.5   |
| 1200             | NSM-1K2S350Gx/Mx | 2400 ~ 3500                  | 150 ~ 500                  | Gx: 97.0% Mx: 97.5% | 120,000 Tc=70°C  | 275(253) × 108 × 44.5  |
| 1500             | NSM-1K5S480Gx/Mx | 3000 ~ 4800                  | 150 ~ 500                  | 97.5%               | 120,000 Tc=70°C  | 310(288) × 108 × 48.5  |

① : x = G are UL Recognized, ENEC and CCC, etc. models; x = T are UL Class P models





Advantages

- Ultra High Efficiency (Up to 95%)
- Input Voltage Range: 180 ~ 528Vac
- Full Power at Wide Output Current Range (Constant Power)
- Adjustable Output Current (AOC) with NFC
- DALI-2 and D4i Certified
- DALI-2&DMX-RDM Dimmable
- Multi-channel (up to 4\*DT6 or 4\*DMX) Operating Mode
- Controls Up to 44 fps
- Dim-to-Off
- Dimming Range: 0.1%-100%
- Always-on Auxiliary Power: 24Vdc, 125mA (Except DMX-RDM mode)
- Low Inrush Current
- Output Lumen Compensation
- End-of-Life Indicator
- Input Surge Protection: DM 6kV, CM 10kV
- All-Around Protection: IUVP, IOVP, OVP, SCP, OTP
- IP66 / IP67 and UL Dry / Damp / Wet Location
- TYPE HL, for Use in a Class I, Division 2 Hazardous (Classified) Location
- 5 Years Warranty

Dimming Functions

- DALI-2 & D4i & DMX-RDM
- DIM-to-off

Safety Certifications

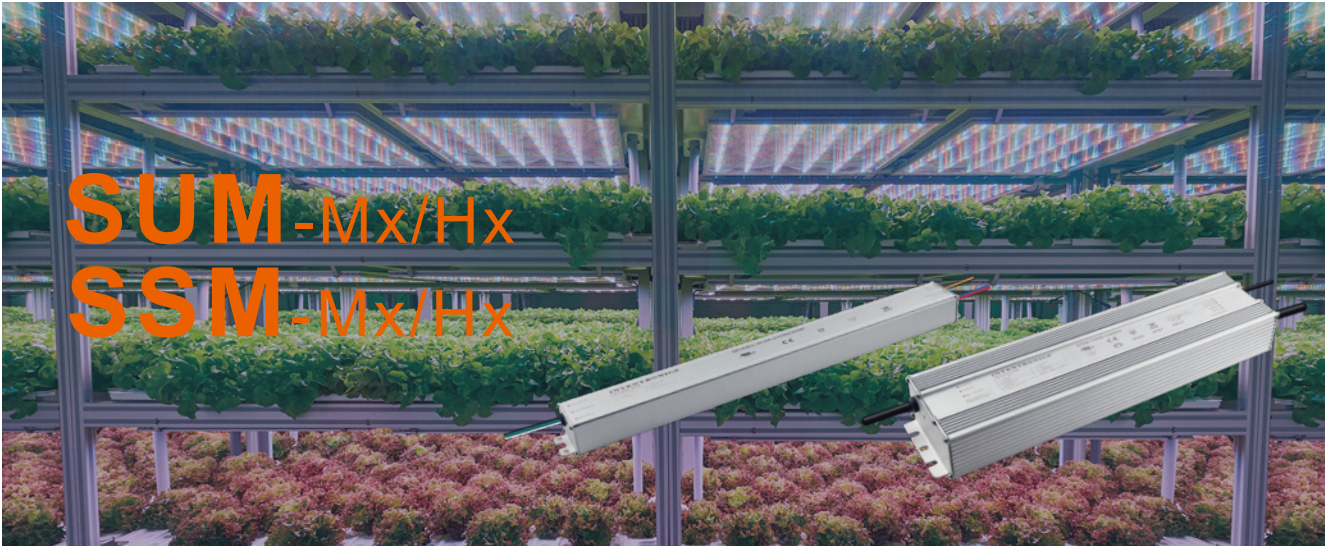


About EFM-800Q/T

The EFM series is 800W, 3 or 4 channels, constant-current, programmable LED driver that operates from 180-528Vac input with excellent power factor.The dimming control supports DALI-2 & D4i & DMX-RDM with multiple channel output to enable dynamic color control in sports or outdoor lighting. It provides an auxiliary 24V output and dim-to-off functionality for powering low voltage, wireless controls.

| Output Power (W) | Product Name  | Full-power Current Range(mA) | Output Voltage Range (Vdc) | Eff.@480Vac | Lifetime (hours) | Dimensions (L×W×H)(mm) |
|------------------|---------------|------------------------------|----------------------------|-------------|------------------|------------------------|
| 200              | EFM-800Q105BT | 700 ~ 1050                   | 150 ~ 286                  | 95.0%       | 52,000 Tc=80°C   | 310(285) × 141 × 48.5  |
| 200              |               | 700 ~ 1050                   | 150 ~ 286                  |             |                  |                        |
| 200              |               | 700 ~ 1050                   | 150 ~ 286                  |             |                  |                        |
| 200              |               | 700 ~ 1050                   | 150 ~ 286                  |             |                  |                        |
| 267              | EFM-800T140BT | 950 ~ 1400                   | 150 ~ 286                  | 95.0%       | 52,000 Tc=80°C   | 310(285) × 141 × 48.5  |
| 267              |               | 950 ~ 1400                   | 150 ~ 286                  |             |                  |                        |
| 267              |               | 950 ~ 1400                   | 150 ~ 286                  |             |                  |                        |





Advantages

- High Efficiency (Up to 96.0%)
- Full Power at Wide Output Current Range (Constant Power)
- Adjustable Output Current (AOC) with Programmability
- Input Voltage Range: 90 ~ 305Vac(SUM-Mx/Hx), 249 ~ 528Vac(SSM-Mx/Hx)
- Fade Time Adjustable
- Output Lumen Compensation
- End-of-Life Indicator
- TYPE HL, for Use in a Class I, Division 2 Hazardous (Classified) Location
- Input Surge Protection Up to: DM 6kV, CM 10kV
- 5-Year Warranty

Safety Certifications



110W, 220W, 330W, 440W Features

- 43.5mm Width
- Maximum Dimming Level with 9V or 10V Selectable
- Dim-to-Off with Standby Power ≤ 0.5 W (MF Models)
- Dim-to-Low-Voltage(DTLV) with Standby Power ≤0.5W (HF Models)
- Isolated 0-10V / 10V PWM / Resistor / 3-Timer-Modes
- Always-on Auxiliary Power: 12Vdc, 250mA (MF Models)
- Low Inrush Current (Above 220W)
- IP65 and UL Dry / Damp Location
- All-Around Protection: OVP, SCP, OTP

760W, 1000W, 1500W Features

- 90mm Width
- Maximum Dimming Level with 9V or 10V Selectable
- Minimum Dimming Level with 5% or 10% Selectable
- INV Digital Dimming, UART Based Communication Protocol
- Isolated 0-10V / PWM / Resistor / 3-Timer-Modes
- Always-on Auxiliary Power: 12Vdc, 250mA
- Dim-to-Off with Standby Power ≤ 0.5 W
- Hot-Plugging Protection
- Parallel LED Protection
- IP66 / IP67 and UL Dry / Damp / Wet Location
- All-Around Protection: IOVP, IUVP, OVP, SCP, OTP

About SUM-Mx/Hx

The SUM family encompasses slim products tailored for the horticulture industry and other applications that require a linear form factor and can operate within an input voltage range of 90-305Vac. They provide high efficiency to reduce electricity consumption.

About SSM-Mx/Hx

The SSM family are slim products for the horticulture industry and other applications requiring a linear form factor with an input voltage range of 249-528Vac. They provide high efficiency to reduce electricity consumption.

SUM-Mx/Hx

| Output Power (W) | Product Name     | Full-power Current Range(mA) | Output Voltage Range (Vdc) | Eff.@ 220Vac      | Lifetime (hours) | Dimensions (L×W×H)(mm)   |
|------------------|------------------|------------------------------|----------------------------|-------------------|------------------|--|
| 110              | SUM-110S105Mx①HF | 700 ~ 1050                   | 80 ~ 157                   | Mx:91.5% HF:91.0% | 120,000 Tc=70°C  | MF/HF: 210(186) × 43.5 × 31.5<br>MG/MT: 220(196) × 43.5 × 31.5 |
|                  | SUM-110S260Mx/HF | 1950 ~ 2600                  | 30 ~ 56                    | Mx:91.0% HF:90.5% | 120,000 Tc=70°C  |  |
| 220              | SUM-220S530Mx/HF | 4100 ~ 5300                  | 30 ~ 54                    | 94.0%             | 120,000 TC=70°C  | MF/HF: 296(272) × 43.5 × 31.5<br>MG/MT: 306(282) × 43.5 × 31.5 |
| 330              | SUM-330S690Mx/HF | 6100 ~ 6900                  | 34 ~ 54                    | Mx:95.5% HF:95.0% | 103,000 TC=70°C  | MF/HF: 396(372) × 43.5 × 31.5<br>MG/MT: 406(382) × 43.5 × 31.5 |
| 440              | SUM-440S920Mx/HF | 8200 ~ 9200                  | 34 ~ 54                    | 94.0%             | 117,000 TC=70°C  | MF/HF: 426(402) × 43.5 × 31.5<br>MG/MT: 436(412) × 43.5 × 31.5 |
| 760              | SUM-760S15AMx    | 14000 ~ 15800                | 34 ~ 54                    | 95.5%             | 102,000 Tc=70°C  | 379(354) × 90 × 48.5   |
| 1000             | SUM-1K0S400Mx    | 3200 ~ 4000                  | 175 ~ 312                  | 95.0%             | 110,000 Tc=70°C  | 414(389) × 90 × 48.5   |
|                  | SUM-1K0S840Mx    | 6720 ~ 8400                  | 84 ~ 149                   | 95.0%             | 110,000 Tc=70°C  | 414(389) × 90 × 48.5   |
|                  | SUM-1K0S21AMx    | 18500 ~ 21000                | 34 ~ 54                    | 95.5%             | 110,000 Tc=70°C  | 414(389) × 90 × 48.5   |
| 1500             | SUM-1K5S600Mx    | 4000 ~ 6000                  | 175 ~ 375                  | 96.0%             | 104,000 Tc=70°C  | 489(464) × 90 × 48.5   |
|                  | SUM-1K5S12AMx    | 10000 ~ 12500                | 84 ~ 150                   | 96.0%             | 104,000 Tc=70°C  | 489(464) × 90 × 48.5   |
|                  | SUM-1K5S31AMx    | 28000 ~ 31500                | 34 ~ 54                    | 96.0%             | 104,000 Tc=70°C  | 489(464) × 90 × 48.5   |

SSM-Mx/Hx

| Output Power (W) | Product Name      | Full-power Current Range(mA) | Output Voltage Range (Vdc) | Eff.@ 480Vac        | Lifetime (hours) | Dimensions (L×W×H)(mm)   |
|------------------|-------------------|------------------------------|----------------------------|---------------------|------------------|--|
| 220              | SSM-220S530Mx①/HF | 4100 ~ 5300                  | 34 ~ 54                    | 94.5%               | 116,000 TC=70°C  | MF/HF: 336(312) × 43.5 × 31.5<br>MG/MT: 346(322) × 43.5 × 31.5 |
| 330              | SSM-330S690Mx/HF  | 6100 ~ 6900                  | 34 ~ 54                    | Mx: 95.0% HF: 94.5% | 108,000 TC=70°C  | MF/HF: 416(392) × 43.5 × 31.5<br>MG/MT: 426(402) × 43.5 × 31.5 |
| 440              | SSM-440S920Mx/HF  | 8200 ~ 9200                  | 34 ~ 54                    | 95.0%               | 108,000 TC=70°C  | MF/HF: 426(402) × 43.5 × 31.5<br>MG/MT: 436(412) × 43.5 × 31.5 |
| 760              | SSM-760S15AMx     | 14000 ~ 15800                | 34 ~ 54                    | 95.0%               | 111,000 Tc=70°C  | 379(354) × 90 × 48.5   |
| 1000             | SSM-1K0S400Mx     | 3200 ~ 4000                  | 175 ~ 312                  | 96.0%               | 100,000 Tc=70°C  | 414(389) × 90 × 48.5   |
|                  | SSM-1K0S840Mx     | 6720 ~ 8400                  | 84 ~ 149                   | 95.5%               | 100,000 Tc=70°C  | 414(389) × 90 × 48.5   |
|                  | SSM-1K0S21AMx     | 18500 ~ 21000                | 34 ~ 54                    | 96.0%               | 100,000 Tc=70°C  | 414(389) × 90 × 48.5   |
| 1500             | SSM-1K5S600Mx     | 4000 ~ 6000                  | 175 ~ 375                  | 96.0%               | 100,000 Tc=70°C  | 489(464) × 90 × 48.5   |
|                  | SSM-1K5S12AMx     | 10000 ~ 12500                | 84 ~ 180                   | 95.5%               | 100,000 Tc=70°C  | 489(464) × 90 × 48.5   |
|                  | SSM-1K5S31AMx     | 28000 ~ 31500                | 34 ~ 54                    | 96.0%               | 100,000 Tc=70°C  | 489(464) × 90 × 48.5   |

① : x = G are UL Recognized, CE, etc. models; x = T are UL Recognized, CE(built-in-use), etc. models; x = F are UL Recognized, CE(built-in-use) etc. models with flying leads.





Advantages

- High efficiency up to 96%
- Input Voltage Range: 108 ~ 305Vac
- Fix output of 700mA
- Long life time
- Input Surge Protection: DM 6kV, CM 6kV
- Suitable for Luminaires with Protection Class I
- IP67

Dimming Functions

N/A

Safety Certifications



About EM P7 G2

The EM P7 G2 series is constant-current LED driver that operates from 108-305Vac and providing a stable, efficient solution for outdoor area lighting.

| Output Power (W) | Product Name             | Adjustable Current Range(mA) | Output Voltage Range (Vdc) | Eff. @ 220Vac | Lifetime (hours) | Dimensions (L×W×H)(mm) |
|------------------|--------------------------|------------------------------|----------------------------|---------------|------------------|------------------------|
| 100W             | EM 100/120-277/700 P7 G2 | 700                          | 100 ~ 143                  | 93.5%         | 50,000 Tc=75°C   | 143.5 x 56 x 33        |
| 150W             | EM 150/120-277/700 P7 G2 | 700                          | 150 ~ 215                  | 94.5%         | 50,000 Tc=75°C   | 143.5 x 56 x 33        |
| 200W             | EM 200/120-277/700 P7 G2 | 700                          | 200 ~ 285                  | 95.5%         | 50,000 Tc=75°C   | 150.5 x 56 x 33        |
| 240W             | EM 250/120-277/700 P7 G2 | 700                          | 240 ~ 343                  | 96.0%         | 50,000 Tc=75°C   | 150.5 x 56 x 33        |



PU-10Kx05KBxA



■ Features

- 90-305Vac Working Input Voltage
- Uoc=10kV & In=5kA
- Certified for both EN 61643-11 - T2 & T3
- Protection Mode for TN, TT and IT-Systems
- Available for Series & Parallel Installation
- Available for Class I & Class II luminaires
- Double Thermally Protected
- End-of-life LED Indicator
- High Temperature, 85°C Maximum Surface Temp
- Input Over Voltage Protection at 440Vac with 48 Hours
- IP66 / IP67

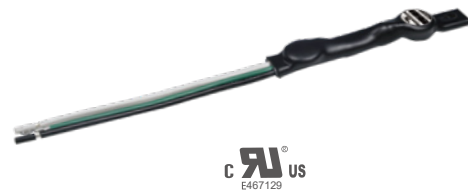
PU-20Kx10KTxx



■ Features

- Compatible with Inventronics LED Drivers
- 90-305Vac Working Input Voltage
- 15 kA Maximum, 10 kA Nominal (15 strikes) Surge Current Rating Using Industry Standard 8/20µs Wave
- UL1449 Type 4, EN 61643-11 – Surge Protective Devices T2 & T3
- IEEE C62.41.2 Location Category C High
- High Temperature, 85°C Maximum Ambient
- Flameproof Plastic Enclosure
- IP66

PU-20KS10KHT



■ Features

- Compatible with Inventronics LED Drivers
- 90-305Vac Working Input Voltage
- DM, CM Surge Protection Mode
- Maximum Discharge Current (Imax) 20kA, 8/20µs
- Nominal Discharge Current (In) 10kA, 8/20µs
- UL1449 Type 5 Recognized Component
- IEEE C62.41.2 Location Category C High Exposure
- High Temperature, 85°C Maximum Surface Temp Rating

PS-20KS10KHT



■ Features

- Compatible with Inventronics LED Drivers
- 249-528Vac Working Input Voltage
- DM, CM Surge Protection Mode
- Maximum Discharge Current (Imax) 20kA, 8/20µs
- Nominal Discharge Current (In) 10kA, 8/20µs
- UL1449 Type 5 Recognized Component
- IEEE C62.41.2 Location Category C High Exposure
- High Temperature, 85°C Maximum Surface Temp Rating

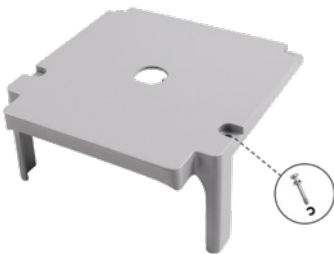
SPD G3



■ Features

- Mains Voltage to 320Vac
- Suitable for Luminaires of Protection Class I/II
- Fully LED Driver Protection by Up <2kV
- High Surge Protection of Up to 20 kV / 10 kA (L-N); Comply with IEC 61643-11 - T3
- Maximum Surge Protection of Up to 20 kA; Comply with IEC 61643-11 - T2
- TÜV Approved Acc. to IEC 61643-11 – T2 & T3
- IP20 (SPD G3)
- IP65 (SPD P5 G3)

ACC-LID-NFS



■ Features

- Lid with Standard Mounting Hole for ZHAGA BOOK18 Socket
- Easy assembly And Spare Accessories are Included
- Suitable for Inventronics NFS & NSS Series Drivers



# NOTES

Notes

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