

# Mercmaster™ LED Series Luminaires

## Enclosed and Gasketed Fixtures

**NEC/CEC:**  
Class I, Division 2, Groups A, B, C, D  
Class I, Zone 2, AEx nA IIC  
Class II, Division 1, Group E, F, G  
Class II, Division 2, Group F, G  
Class III

**NEC/CEC:**  
Type 3R, 4, 4X  
IP66/67  
Simultaneous Exposure  
Suitable for Use in Wet Locations  
Marine Outside Type (Salt Water)

**ATEX/IECEx:**  
Zone 2 and 22  
II 2 GD  
IP66/67

### Applications

- Enclosed and gasketed fixtures suitable for use in:
  - Marine and wet locations
  - A wide range of industrial, chemical processing and other areas where flammable gases and vapors are present
  - Areas of low clearance or low ceiling heights
  - Non-hazardous locations where severe weather conditions, excessive moisture, dirt, dust, corrosive atmosphere or high ambient temperatures are encountered
- Typical applications include:
  - Pulp and paper mills
  - Processing plants
  - Chemical plants
  - Oil refineries
  - Foundries
  - Manufacturing plants
  - Storage areas
  - Waste and sewage treatment
  - Parking garages
  - Other areas where dust, water, dirt and rough usage are a problem



### Features

- Compact light weight low profile design is suited for low mounting heights.
- Modular design allows scores of fixture component combinations to meet installation needs. Uses same mounting hoods as Mercmaster III.
- Fixture housing and mounting hoods are copperfree cast aluminum with baked epoxy finish. All exposed hardware is stainless steel.
- Accommodates a wide range of voltages.
- Ambient temperatures:
  - 70 W to 100 W equivalent: -40 °C to +65 °C (-40 °F to +149 °F)
  - 150 W to 175 W equivalent: -40 °C to +55 °C (-40 °F to +131 °F)
  - 250 W equivalent: -40 °C to +50 °C (-40 °F to +122 °F)
  - 350 W equivalent: -40 °C to +50 °C (-40 °F to +122 °F)
  - 400 W equivalent: -40 °C to +55 °C (-40 °F to +131 °F)
- Electrical: 120-277 Vac, 50/60 Hz; 347-480 Vac, 50/60 Hz, Volts +/- 10%.
- Pole terminal block: 1 x 8-24 AWG; 1 x 0.75 to 6 mm<sup>2</sup> (0.0012 to 0.0093 in<sup>2</sup>).
- Hinge has high lip for added safety during installation and servicing. Hinge and bolt construction assures 360° compression at all points on ballast housing gasket for positive sealing. Swing away design of captive bolt and nut simplifies servicing.
- All Mercmaster mounting hoods have provision for easy field installation of fuses in fixtures (see Fixture Unit — Electrical Specification).
- NPT and metric threads standard.
- NEMA Type V light distribution is standard.
  - Type V distribution is required in areas where sufficient, evenly distributed light is necessary. It produces a circular distribution that has the same intensity at all angles.

- NEMA Type I light distribution is available as an option for select NEC/CEC certified fixtures.
  - Type I distribution is the perfect lighting for walkways, Type I distribution is perfect for lighting walkways, catwalks or anyplace where a narrow beam of light is required.
- For ATEX/IECEx rated fixtures, ballast bodies and mounting hoods must be purchased separately.

### Standard Materials

- Mounting hoods and bodies: cast copperfree (4/10 of 1% max.) aluminum
- All hardware and catch assemblies: stainless steel
- Globe: polycarbonate

### Standard Finishes

- Mounting hoods, bodies and guards: baked gray epoxy-clad finish, electrostatically applied for complete uniform protection

### NEC/CEC Certifications and Compliances

- UL Standard: UL 50; UL 844; UL 1598; UL 1598A; UL 8750
- CSA Standard: C22.2 No 0; C22.2 No. 0.4; C22.2 No. 0.5; C22.2 No. 94; C22.2 No. 60529; C22.2 No. 137; C22.2 No. 250.0; C22.2 No. 60079; E60079-15
- ANSI/UL Standards: 60079-0; 60079-15
- ANSI/IEC Standards: 60529
- cCSAus Certified: 65182

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II 2 GD  
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### ATEX/IECEx Certification and Compliances

- ATEX
  - Gas: Zone 2
    - Conforming to ATEX 94/9/CE: Ⓜ II 3 G
    - Type of Protection: Ex nA IIC Gc
    - Temperature class:
      - 70 W and 100 W equivalent: T4 [+40 °C (+104 °F)], T4 [+55 °C (+131 °F)], T3 [+65 °C (+149 °F)]
      - 150 W to 175 W equivalent: T4 [+40 °C (+104 °F)], T4 [+55 °C (+131 °F)]
      - 250 W equivalent: T4 [+40 °C (+104 °F)], T4 [+50 °C (+122 °F)]
  - Dust: Zone 22
    - Conforming to ATEX 94/9/CE: Ⓜ II 3 D
    - Type of Protection: Ex tc IIIc Dc
    - Surface Temperature:
      - 70 W and 175 W equivalent: T92 °C (T197.6 °F)
      - 250 W equivalent: T79 °C (T174.2 °F)
    - Ambient Temperature:
      - 70 W and 100 W equivalent: -40 °C to +65 °C (-40 °F to +149 °F)
      - 150 W to 175 W equivalent: -40 °C to +55 °C (-40 °F to +131 °F)
      - 250 W equivalent: -40 °C to +50 °C (-40 °F to 122 °F)
    - ATEX Certificate: LCIE 11 ATEX 1008, LCIE 14 ATEX 3063
    - IECEx Certificate: IECEx LCI 11.0058
    - Index of Protection according EN/IEC 60529: IP66
- IECEx
  - Gas: Zone 2
    - Type of Protection: Ex nA IIC Gc
    - Temperature class:
      - 70 W to 175 W equivalent: T4 [+40 °C (+104 °F)], T4 [+55 °C (+131 °F)]
      - 250 W equivalent: T4 [+40 °C (+104 °F)], T4 [+50 °C (+122 °F)]
  - Dust: Zone 22
    - Type of Protection: Ex tc IIIc Dc
    - Surface Temperature:
      - 70 W and 175 W equivalent: T92 °C (198 °F)
      - 250 W equivalent: T79 °C (198 °F)
    - Ambient Temperature:
      - 70 W and 175 W equivalent: -40 °C to +55 °C (-40 °F to +131 °F)
      - 250 W equivalent: -40 °C to +50 °C (-40 °F to +122 °F)
    - IECEx Certificate: IECEx LCI 11.0058
    - Index of Protection according EN/IEC 60529: IP66

### EURASEC Certification

- EURASEC N° TC RU C-FR.Г505.B.00912

### Other Certification

- INMETRO Certificate: BVC12.1522 ①

### NEC/CEC Related Products

- NEC, Class I, Division 2 photocells for classified use are available, see *PCD2 Series*.
- Mounting hoods with photocontrols are not rated IP66/67, Type 4X or Marine Outside Type (Salt Water).

### DesignLights™ Consortium (for the following models)

- MLEDN15
- MLEDN17
- MLEDN25
- MLEDN35
- MLEDN40

① Inmetro certification available on special request only. Contact your local sales representative for more information.

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### ATEX/IECEX:

Zone 2 and 22  
 Ⓢ II 2 GD  
 IP66/67

Order using catalog numbering guides below or select catalog number from tables on following pages.

### Catalog Numbering Guide — NEC/CEC Certified Mercmaster LED

<b>MLEDN</b>	<b>A</b>	<b>17</b>	<b>2</b>	<b>P</b>	<b>5</b>	<b>BU</b>	<b>H1</b>
MLEDN - NEC/CEC Certified Mercmaster LED Series		Light Level Equivalent: 70 - 70 W HPS/PSMH 10 - 100 W HPS/PSMH 15 - 150 W HPS/PSMH 17 - 175 W PSMH ② 25 - 250 W HPS/PSMH 35 - 350 W PSMH ⑥ 40 - 400 W HPS/PSMH ⑦		Optical Assembly: P - Polycarbonate Globe		Voltage: BU - Universal Voltages 120-277 Vac, 50/60 Hz BH - 347-480 Vac, 50/60 Hz	
	Mounting: A - Pendant C - Ceiling ① D - Pendant Cone R - 90° Stanchion S - 25° Stanchion W - Wall		Hub Size: 2 - 3/4" NPT 3 - 1" NPT 4 - 1-1/4" NPT stanchion 5 - 1-1/2" NPT stanchion 6 - Metric M20		Light Distribution: 1 - NEMA Type I Elliptical (100 W HPS and 175 W PSMH Only) 5 - NEMA Type V Symmetrical		Options: D - Diffused Globe F - Fusing ③ H1 - Photocontrol 120 V ④ H2 - Photocontrol 208 V ④ H3 - Photocontrol 240 V ④ H4 - Photocontrol 277 V ④

### Catalog Numbering Guide — ATEX/IECEX Certified Mercmaster LED ⑤

<b>MLEDNA</b>	—	<b>17</b>	—	<b>P</b>	<b>5</b>	<b>BU</b>	<b>D</b>
MLEDNA - ATEX/IECEX Certified Mercmaster LED Series		Light Level Equivalent: 70 - 70 W HPS/PSMH 10 - 100 W HPS/PSMH 15 - 150 W HPS/PSMH 17 - 175 W PSMH ② 25 - 250 W HPS/PSMH		Optical Assembly: P - Polycarbonate Globe		Voltage: BU - Universal Voltages 120-277 Vac, 50/60 Hz	
	Mounting: ATEX/IECEX version is not available as a complete fixture (not sold with mounting hood)		Hub Size: ATEX/IECEX version is not available as a complete fixture (hub size does not apply)		Light Distribution: 5 - NEMA Type V Symmetrical		Options: D - Diffused Globe

① Ceiling mount luminaires are not designed to use the PCD2 photocontrol. Ceiling mounts must use an FS/FD box with a photocontrol. Contact your local sales representative for more information.

② 175 W Pulse Start Metal Halide only. Does not have a High Pressure Sodium equivalent.

③ Canadian Electrical Code does NOT allow fusing in hazardous locations. Fuse not CEC rated.

④ Luminaires with photocontrol are not rated IP66/67 or marine outside type (salt water).

⑤ For ATEX/IECEX rated fixtures, ballast bodies and mounting hoods must be purchased separately.

⑥ Available for use with the BH voltage only (347-480 Vac, 50/60 Hz).

⑦ Available for use with the BU voltage only (120-277 Vac, 50/60 Hz).

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### Accessories and Replacement Parts

	Description	Catalog Number	
		NEC/CEC	ATEX/IECEX
<b>Globes and Gaskets</b>			
	Clear Globe	VPGL-LED	
	Diffused Globe	VPGL-DIFF	
	Globe Gasket — Silicone Rubber	KRF-GK	
<b>Closed Prismatic Glass Refractors — All Heat-Resistant</b>			
	NEMA Type V Light Distribution	LPG-R5	
<b>Glass Refractor</b>			

	Description	Catalog Number	
		NEC/CEC	ATEX/IECEX
<b>LED Array</b>			
	100 Watt LED Array Assembly, Type I, White LED's	MLEDN10A1W	MLEDN10A1W
	175 Watt LED Array Assembly, Type I, White LED's	MLEDN17A1W	MLEDN17A1W
	70 Watt LED Array Assembly, Type V, White LED's	MLEDN70A5W	MLEDN70A5W
	100 Watt LED Array Assembly, Type V, White LED's	MLEDN10A5W	MLEDN10A5W
	150 Watt LED Array Assembly, Type V, White LED's	MLEDN15A5W	MLEDN15A5W
	175 Watt LED Array Assembly, Type V, White LED's	MLEDN17A5W	MLEDN17A5W
	250 Watt LED Array Assembly, Type V, White LED's	MLEDN25A5W	MLEDN25A5W
	350 Watt LED Array Assembly, Type V, White LED's	MLEDN35A5W	—
	400 Watt LED Array Assembly, Type V, White LED's	MLEDN40A5W	—
<b>Drivers</b>			
	120-277 V Driver (70 W thru 250 W only)	MLEDNDBU	MLEDNDBU
	347-480 V Driver (70 W thru 350 W only)	MLEDNDBH	MLEDNDBH
	120-277 V Driver (400 W only)	MLEDNDBU40	—