HAZARDOUS MERCMASTER™ LED GENERATION 3 SERIES LUMINAIRES

APPLICATIONS

- Enclosed and gasketed fixtures suitable for use in:
  - A wide range of industrial, chemical processing and other areas where flammable gases and vapors or combustible dusts are present
  - Marine and wet locations
  - Suitability includes use where there may be simultaneous exposure to flammable gases and vapors or combustible dusts
- Typical applications include:
  - Power plants
  - Processing plants
  - Chemical plants
  - Oil refineries
  - Waste and sewage treatment
  - Other areas where dust, water, dirt and rough usage are a problem

FEATURES

- Modular design provides thousands of combinations for maximum versatility.
- Design is suited for low mounting heights, from 7 ft., up to 30 ft.
- Seven light outputs provide up to 20,100 lumens.

Nominal Lumens ①	HID Equivalent	Model Number
3500	70-100W	MLGL3
5500	100-150W	MLGL5
7500	175-250W	MLGL7
9500	250-350W	MLGL9/MLGH9
11,500	350-400W	MLGH1
14,500	400W	MLGH3
17,500	400-600W	MLGH6

① Nominal lumen value for 5000K, clear glass globe. Type V wide. Detailed lumen information is provided in tables in catalog pages.

- Choice of optics for optimal light distribution in a variety of applications: Type I, Type III, Type V or Type V Wide.
- Choice of color temperature (CCT): 5000K cool white, 4000K neutral white or 3000K warm white.
- Customize to the application requirements with four different globe options: clear and diffused polycarbonate, clear glass, or prismatic glass refractor.
- Seven standard mounting hood designs allow for mounting in any location. Uses same mounting hoods as Mercmaster™ III.
- Retrofit adapters for Crouse-Hinds™✛, Mercmaster II, and Killark◇ hoods available.
- Hinge has high lip for added safety during installation and servicing. Hinge and bolt construction assures 360° compression at all points on fixture housing gasket for positive sealing. Swing away design of captive bolt and nut simplifies installation.
- Rugged housing with superior thermal design translates to long luminaire life.
- Luminaire housing has wiring compartment with terminal block separate for easy wiring access.
- Standard screw-type terminal block can accept UL/CSA 4 mm² to 6 mm² (26-10 AWG) wire.
- Standard 6 kV surge protection.
- Heavy duty, high temperature silicone gaskets.
- Photometric data and electronic drawings available upon request.
- Ambient Temperature: -40 ˚C to +65 ˚C (-40 ˚F to +149 ˚F)
- Standard NPT threads with M20 option.
- LED L70 reported at 60,000 hours.
- Field replaceable globes and LED driver.

STANDARD MATERIALS

- Mounting hoods and bodies: cast copperfree (4/10 of 1% max.) aluminum
- Gaskets: silicone
- All hardware and catch assemblies: stainless steel
- Globe: polycarbonate or glass
- Refractor: heat-resistant prismatic glass
- Glass globe guard and safety cable: stainless steel wire
- Glass refractor guard: die cast aluminum

STANDARD FINISHES

- Mounting hoods, bodies and glass refractor guard: gray epoxy powder coat finish, electrostatically applied for complete uniform protection

OPTIONS

- Globe and refractor guards available, purchase separately.
- Safety cable available, purchase separately.
- All Mercmaster™ luminaires have provision for fusing; add suffix –F at the end of the catalog number.
- Photocontrols are available and are configured to your operating voltage. Add suffix -1 for 120V, -2 for 208V, -3 for 240V,-4 for 277V.
- Drain is available to divert water existing in the conduit system, purchase separately.

DESIGN LIGHTS™ CONSORTIUM

- Check DLC QPL for current list of products.

◇ Killark is a registered trademark of Hubbell Incorporated.
✛ Crouse-Hinds is a registered trademarks of Cooper Crouse-Hinds.

APPLETON™

For product information:
www.masteringled.com
1.800.621.1506

EMERSON™

NEC/CEC RATINGS

- Class I, Division 2, Groups A, B, C, D
- Class II, Division 1 & 2, Group E, F, G
- Class III
- Class I Zone 2 AEx ec IIC
- Zone 21 AEx tb IIIC
- Class I Zone 2 Ex ec IIC
- Zone 21 Ex tb IIIC
- Type 3R, 4, 4X
- IP66/67
- Simultaneous Exposure
- Suitable for Use in Wet Locations
- Marine Outside Type (Salt Water)
- American Bureau of Shipping (ABS)
- International Dark Sky (IDA) Approved

IECEX RATINGS

- Zone 2 and 21/22
- Ex ec IIC
- Ex tb IIIC
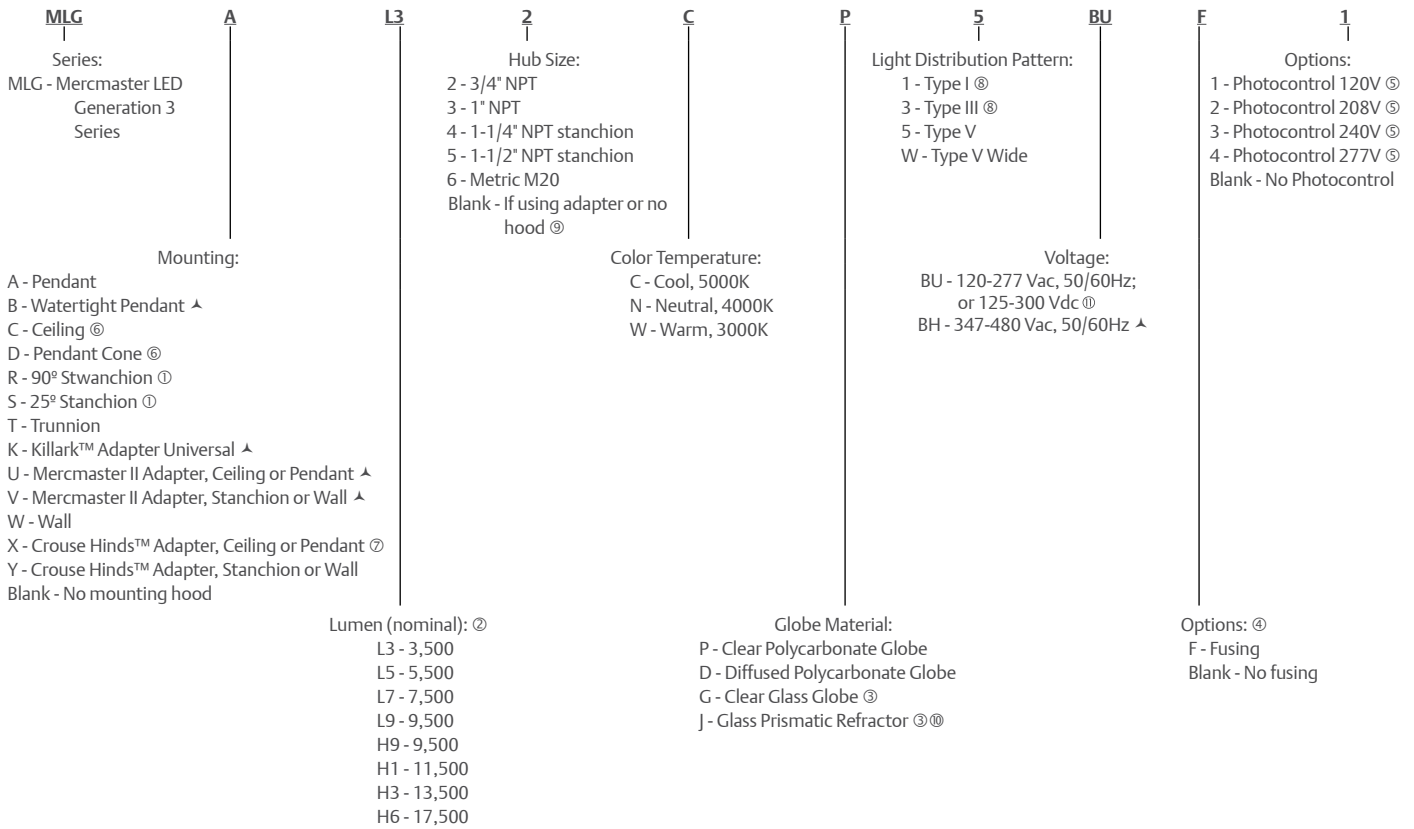- Ex op is IIIC
- IP66
- IK08

ATEX RATINGS

- Zone 2 and 21/22
- ⟨Ex⟩ II 3 G
- ⟨Ex⟩ II 2 GD
- IP66
- IK08

NEC/CEC CERTIFICATIONS AND COMPLIANCES

- UL Standard: UL 844; UL 1598; UL 50E; UL 8750; UL 60079-0; UL 60079-7; UL 60079-31
- CSA Standard: C22.2 No. 0 - 10; C22.2 No. 94.2 - 15; C22.2 No. 137 -M1981; C22.2 No. 250.0 - 08; C22.2 No. 250.13 -14; C22.2 No. 60529; C22.2 No. 60079-0:15; C22.2 No. 60079-7:16; C22.2 No. 60079-31:15; CSA E60598-1:16
- NEMA ANSI/IEC Standards: 60529
- cCSAus: 164460, Certificate Number: 70112879

ATEX/IECEX CERTIFICATIONS AND COMPLIANCES

- Certification Type: Mercmaster Generation 3
  — Gas: Zones 2
    – Conforming to ATEX 2014/34/EU: II 3 G
    – Type of Protection: Ex ec IIC T* Gc
    – Temperature Class: T6 to T3
  — Dust: Zones 21 and 22
    – Conforming to ATEX 2014/34/EU: II 2 D
    – Type of Protection: Ex op is tb IIIC T***C Db Ex tc IIIC T***°C Dc
    – Surface Temperature: +61 °C to +95 °C (+142 °F to +203 °F)
- Ambient Temperature: -40 °C up to +65 °C (-40 °F up to 149 °F)
- ATEX Certificate: Sira 17ATEX9365X
- IECEx Certificate: IECEx SIR 17.0085X
- Index of Protection according EN/IEC 60529: IP66
- Impact Resistance (shock): IK08
- Photobiological Safety, IEC 62778 and IEC 62471: RG0 all models

MLG	A	L3	2	C	P	5	BU	F	1

Series:
MLG - Mercmaster LED Generation 3 Series

Mounting:
A - Pendant
B - Watertight Pendant ⚓
C - Ceiling ⑥
D - Pendant Cone ⑥
R - 90º Stwanchion ①
S - 25º Stanchion ①
T - Trunnion
K - Killark™ Adapter Universal ⚓
U - Mercmaster II Adapter, Ceiling or Pendant ⚓
V - Mercmaster II Adapter, Stanchion or Wall ⚓
W - Wall
X - Crouse Hinds™ Adapter, Ceiling or Pendant ⑦
Y - Crouse Hinds™ Adapter, Stanchion or Wall
Blank - No mounting hood

Lumen (nominal): ②
L3 - 3,500
L5 - 5,500
L7 - 7,500
L9 - 9,500
H9 - 9,500
H1 - 11,500
H3 - 13,500
H6 - 17,500

Hub Size:
2 - 3/4" NPT
3 - 1" NPT
4 - 1-1/4" NPT stanchion
5 - 1-1/2" NPT stanchion
6 - Metric M20
Blank - If using adapter or no hood ⑨

Color Temperature:
C - Cool, 5000K
N - Neutral, 4000K
W - Warm, 3000K

Globe Material:
P - Clear Polycarbonate Globe
D - Diffused Polycarbonate Globe
G - Clear Glass Globe ③
J - Glass Prismatic Refractor ③⑩

Light Distribution Pattern:
1 - Type I ⑧
3 - Type III ⑧
5 - Type V
W - Type V Wide

Voltage:
BU - 120-277 Vac, 50/60Hz; or 125-300 Vdc ⑪
BH - 347-480 Vac, 50/60Hz ⚓

Options:
1 - Photocontrol 120V ⑤
2 - Photocontrol 208V ⑤
3 - Photocontrol 240V ⑤
4 - Photocontrol 277V ⑤
Blank - No Photocontrol

Options: ④
F - Fusing
Blank - No fusing

① 3/4" NPT, 1" NPT and Metric M20 hub entries are not offered in this mounting option
② For lumen output information, see Lumen Values Table.
③ Guards for the glass refractors and globes are ordered separately. See the Accessories for more information.
④ Fusing only permitted for cCSAus rating. Factory installed. Use of fuse voids Marine Outside Type (Salt Water) rating. Fusing is mounted in the driver housing. For retrofit applications, fusing must be removed from the mounting hood and ordered in the luminaire.
⑤ Luminaires with photocontrol are not rated IP66/67, Class II, 3R, 4, 4X, or Marine Outside Type (Salt Water). Photocontrol available for 120-277 Vac only. Factory installed in the mounting hood. Photocontrols only certified for cCSAus.
⑥ Ceiling-mount and pendant cone mounting hoods and adapters are not designed to use the in hood photocontrol. Ceiling and pendant cone mounts must use an FS/FD box with photocontrol. Contact your local sales rep for more information.
⑦ Only allowed for Type V and Type V wide light distribution.
⑧ Type I and Type III use a multiple hinge housing.
⑨ Hub size does not apply to luminaires ordered with adapters.
⑩ J-Glass prismatic refractor is only available in light distribution pattern, Type V. Refractor is not rated for ATEX/IECEx.
⑪ For 125-170 Vdc, operating Temp. range is -40°C to +55°C (For IECEx/ATEX only)
⚓ Adapters, watertight pendant hood and BH Voltage only certified for cCSAus.
Note: IDA Dark Sky Approved when ordering [I]MLG[A/B/C/D/R/W]xxW[P/D/G]5Bxxx with MMVISOR accessory

APPLETON

EMERSON

HAZARDOUS MERCMASTER™ LED GENERATION 3 EMERGENCY BATTERY BACKUP SERIES LUMINAIRES

APPLICATIONS

- Enclosed and gasketed fixtures suitable for use in:
  — A wide range of industrial, chemical processing and other areas where flammable gases and vapors or combustible dusts are present
  — Marine and wet locations
  — Suitability includes use where there may be simultaneous exposure to flammable gases and vapors or combustible dusts
- Typical applications include:
  — Power plants
  — Processing plants
  — Chemical plants
  — Oil refineries
  — Waste and sewage treatment
  — Other areas where dust, water, dirt and rough usage are a problem

FEATURES

- Provides up to 1400 lumens illumination for 90 minutes of emergency lighting or 800 lumens illumination for 180 minutes of emergency lighting.
- Functional diagnostic test self-initiates every 14 days after initial start up.

Standard Mode Nominal Lumens ①	HID Equivalent	Emergency Mode Nominal Lumens ①	Model Number
3500	70-100W	1450	MLGL3H
		800	MLGL3E
5500	100-150W	1450	MLGL5H
		800	MLGL5E

① Nominal lumen value for 5000K, clear glass globe Type V Wide. Detailed lumen information is provided in tables.

- Duration test is automatically performed once per year.
- Green and Red LED lights indicate charging status and provide fault warning.

- Simple quick disconnect connector disconnects power between LEDs and battery management module to allow maintenance in hazardous locations.
- Easy field changeable duration setting from 90 minute to 180 minutes.
- Choice of optics for optimal light distribution in a variety of applications: Type I, Type III, Type V or Type V Wide.
- Choice of color temperature (CCT): 5000K cool white, 4000K neutral white or 3000K warm white.
- Customize to the application requirements with three different globe options: clear and diffused polycarbonate, or clear glass.
- Seven standard mounting hood designs allow for mounting in any location. Uses same mounting hoods as Mercmaster™ III.
- Retrofit adapters for Crouse-Hinds™✛, Mercmaster II, and Killark✧ hoods available. *See Mercmaster LED Adapters.*
- Hinge has high lip for added safety during installation and servicing. Hinge and bolt construction assures 360° compression at all points on fixture housing gasket for positive sealing. Swing away design of captive bolt and nut simplifies installation.
- Rugged housing with superior thermal design translates to long luminaire life.
- Luminaire housing has wiring compartment with terminal block separate for easy wiring access.
- Standard screw-type terminal block can accept UL/CSA 4 mm² to 6 mm² (26-10 AWG) wire.
- Standard 6 kV surge protection.
- Heavy duty, high temperature silicone gaskets.
- Photometric data and electronic drawings available upon request.
- Ambient Temperature: -20 °C to +55 °C (-4 °F to +131 °F)
- Standard NPT threads with M20 option.
- LED L70 reported at 60,000 hours.
- Field replaceable globes, battery management module (BMM), battery pack and LED driver.

STANDARD MATERIALS

- Mounting hoods and bodies: cast copperfree (4/10 of 1% max.) aluminum
- Gaskets: silicone
- All hardware and catch assemblies: stainless steel
- Globe: polycarbonate or glass
- Glass globe guard and safety cable: stainless steel wire

STANDARD FINISHES

- Mounting hoods, bodies and glass refractor guard: gray epoxy powder coat finish, electrostatically applied for complete uniform protection

OPTIONS

- Globe guards available, purchase separately.
- Safety cable available, purchase separately.
- Three-sided emergency sign available - EXR400.
- Drain is available to divert water existing in the conduit system, purchase separately.

DESIGN LIGHTS™ CONSORTIUM

- Check DLC QPL for current list of products.

✧ Killark is a registered trademark of Hubbell Incorporated.
✛ Crouse-Hinds is a registered trademarks of Cooper Crouse-Hinds.

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NEC/CEC RATINGS
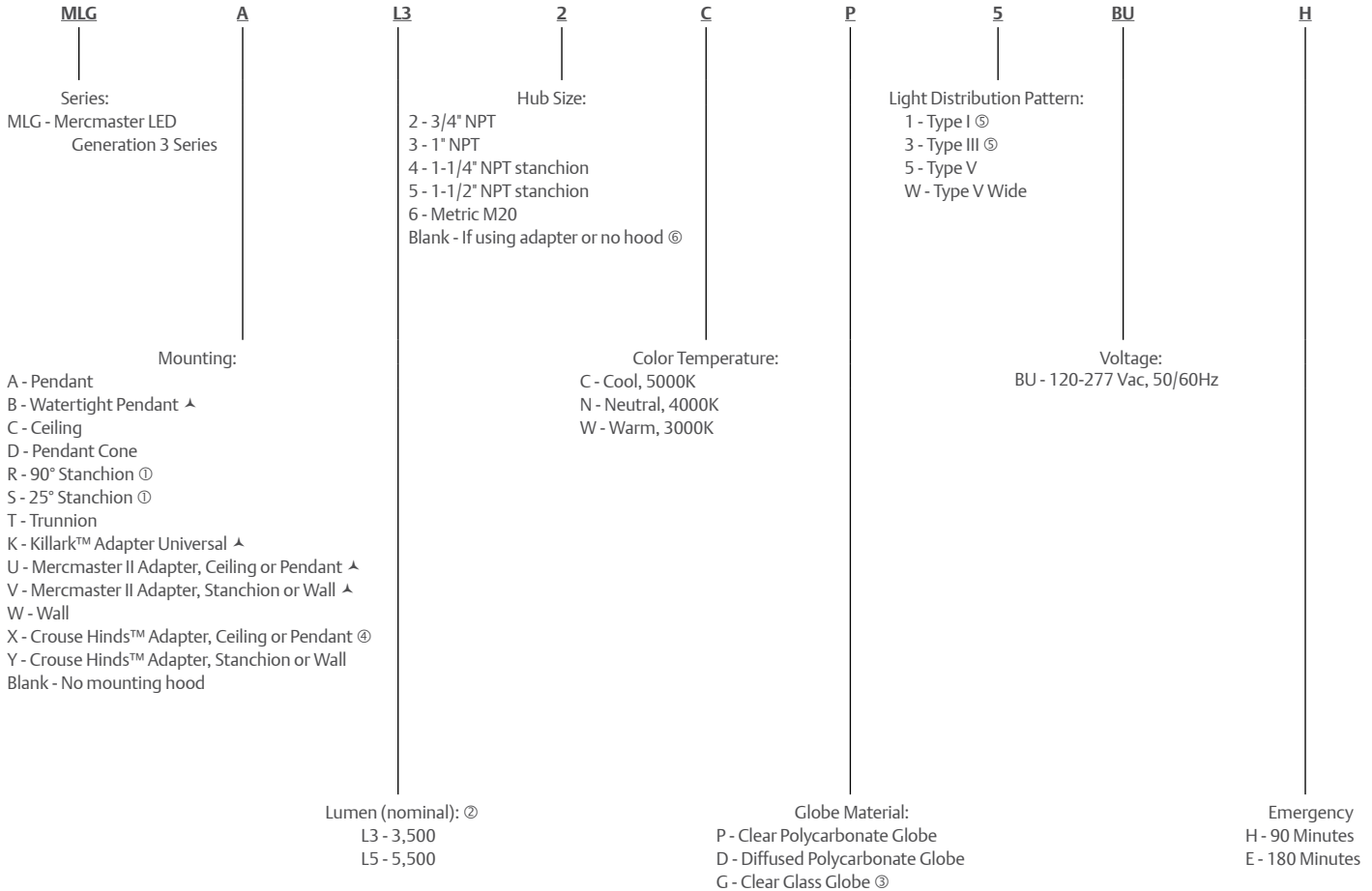
- Class I, Division 2, Groups A, B, C, D
- Class II, Division 1 and 2, Groups E, F, G
- Class III
- Class I, Zone 2 IIC
- Zone 20 IIIC
- Type 3R, 4, 4X
- IP66/67
- Simultaneous Exposure
- Suitable for Use in Wet Locations
- Marine Outside Type (Salt Water)

NEC/CEC CERTIFICATIONS AND COMPLIANCES

- UL Standard: UL 844; UL 1598; UL 50E; UL 8750; UL 60079-0; UL 924
- CSA Standard: C22.2 No. 0 -10; C22.2 No. 94.2 - 15; C22.2 No. 137 -18; C22.2 No. 250.0 - 08; C22.2 No. 250.13 -14; CSA E60598-1:16
- NEMA ANSI/IEC Standards: 60529
- cCSAus: 164460, Certificate Number: 70182640

| MLG | A | L3 | 2 | C | P | 5 | BU | H |

Series:
MLG - Mercmaster LED Generation 3 Series

Hub Size:
2 - 3/4" NPT
3 - 1" NPT
4 - 1-1/4" NPT stanchion
5 - 1-1/2" NPT stanchion
6 - Metric M20
Blank - If using adapter or no hood ⑥

Light Distribution Pattern:
1 - Type I ⑤
3 - Type III ⑤
5 - Type V
W - Type V Wide

Mounting:
A - Pendant
B - Watertight Pendant ⏜
C - Ceiling
D - Pendant Cone
R - 90° Stanchion ①
S - 25° Stanchion ①
T - Trunnion
K - Killark™ Adapter Universal ⏜
U - Mercmaster II Adapter, Ceiling or Pendant ⏜
V - Mercmaster II Adapter, Stanchion or Wall ⏜
W - Wall
X - Crouse Hinds™ Adapter, Ceiling or Pendant ④
Y - Crouse Hinds™ Adapter, Stanchion or Wall
Blank - No mounting hood

Color Temperature:
C - Cool, 5000K
N - Neutral, 4000K
W - Warm, 3000K

Voltage:
BU - 120-277 Vac, 50/60Hz

Lumen (nominal): ②
L3 - 3,500
L5 - 5,500

Globe Material:
P - Clear Polycarbonate Globe
D - Diffused Polycarbonate Globe
G - Clear Glass Globe ③

Emergency
H - 90 Minutes
E - 180 Minutes

① 3/4" NPT, 1" NPT and Metric M20 hub entries are not offered in this mounting option
② For lumen output information, see Lumen Values Table.
③ Guards for the globes are ordered separately. See the Accessories for more information.
④ Only allowed for Type V and Type V wide light distribution.
⑤ Type I and Type III use a multiple hinge housing.
⑥ Hub size does not apply to luminaires ordered with adapters.
⏜ Adapters only certified for cCSAus.

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