

Mercmaster™ LED Low Profile Luminaires

Standard or with Emergency Battery Backup
Enclosed and Gasketed Fixtures — Hazardous Locations

NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC | Zone 21, AEx tb IIC | Class I, Zone 2 Ex ec II | Class II, Division 1, Groups E,F,G | Zone 20, Group IIIC | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⌘
ATEX: Zone 2 and 21-22 | II 2 D | II 3 GD | IP66 | IK08
IECEX: Zone 2 and 21-22 | Ex ec IIC | Ex op is tb IIC | Ex tc IIC | IP66 | IK08
Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)

Applications

- Enclosed and gasketed fixtures suitable for use in:
 - A wide range of industrial, chemical processing and other areas where flammable gases, vapors and combustible dusts are present including simultaneous exposure
 - Marine and wet locations
 - Areas of low clearance, low ceiling heights or where fixture weights must be minimized
- Typical applications include:
 - Walkways/catwalks
 - Stairwells
 - Grain elevators
 - Tunnels
 - Pipe racks
 - Offshore rigs
 - Vessel lighting
 - Cooling towers
 - Processing areas
 - Hydrogen and Biofuels plants
 - LNG (Liquid Natural Gas) plants

Features

- All Models:
 - Compact light weight low profile design is suited for low mounting heights.
 - Three light output levels provide up to 5500 lumens.
- | Standard Mode | HID Equivalent | Model |
|------------------|----------------|--------|
| Nominal Lumens ① | | |
| 3300 | 70-100W | MLLED2 |
| 4400 | 100-150W | MLLED3 |
| 5500 | 150-175W | MLLED4 |
- Choice of color temperature (CCT): 5000K cool white (70 CRI min), 4000K neutral white (80 CRI min), or 3000K warm white (80 CRI min).
 - Seven standard mounting hood designs allow for mounting in any location. Uses same mounting hoods as Mercmaster™ III HID, Mercmaster™ Premium LED and Mercmaster™ Generation 3.
 - Retrofit adapters for Crouse Hinds™ ⋄, Mercmaster™ II HID, and Killark™ ⋄ available. See Mercmaster™ Adapters.
 - Watertight Pendant Hood available to address water ingress into luminaire via conduit.
 - 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 servicing.
 - Rugged housing with superior thermal design translates to long luminaire life.
 - Standard 6 kV/3 kA surge protection.
 - Spring-loaded screw-type terminal block can accept 0.14 - 6 mm² (26 - 10 AWG) wire.
 - Heavy duty, high temperature silicone gaskets.
 - Standard NPT threads.
 - Reported L70 is >108,000 hours.
 - Photometric data and electronic drawings available upon request.
 - 5 year standard warranty.



MLLED with Clear Globe



MLLED with Prismatic Refractor

- Standard Model:
 - Customize to the application requirements with four different field replaceable globe options: clear and diffused polycarbonate, clear glass, or prismatic glass refractor.
 - BU and BH Ambient Temperature: -40 °C to +65 °C (-40 °F to +149 °F).
 - Field replaceable globes and LED driver.
- Emergency Battery Backup Model:
 - Provides up to 1450 lumens of illumination for 90 minutes or 800 lumens of illumination for 180 minutes of emergency lighting with clear lens.
 - Functional diagnostic test self-initiates every 14 days after initial start up.
 - Duration test is automatically performed once per year.
 - Green and Red LED lamps indicate charging status and provide fault warning.
 - Simple quick disconnect connector disconnects power between LEDs and battery management module to allow for easy maintenance in hazardous locations.
 - Customize to the application requirements with three different field replaceable globe options: clear and diffused polycarbonate, or clear glass.
 - Ambient Temperature: BU: -20 °C to +55 °C (-4 °F to +131 °F).
 - Field replaceable globes, battery management module (BMM), battery pack and LED driver.

Options

- All Models:
 - Globe guard available, *purchase separately*.
 - Safety cable available, *purchase separately*.
- Standard Model:
 - Refractor guard 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.
 - Colored Glass globes available, *purchase separately*: Amber (VPGLGLASSAM), Blue (VPGLGLASSBL), Red (VPGLGLASSRE), Green (VPGLGLASSGR).

① Nominal lumen value for 5000K, clear glass globe Type V Wide. Detailed lumen information is provided in the "Lumen Output (Efficacy)" tables.

⋄ Killark is a registered trademark of Hubbell Incorporated.

⊕ Crouse-Hinds is a registered trademarks of Cooper Crouse-Hinds.

⌘ Use of fuse voids Marine Outside Type (Salt Water) rating.

Mercmaster™ LED Low Profile Luminaires

Standard or with Emergency Battery Backup
Enclosed and Gasketed Fixtures — Hazardous Locations

NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC | Zone 21, AEx tb IIIC | Class I, Zone 2 Ex ec II | Class II, Division 1, Groups E,F,G | Zone 20, Group IIIC | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⚡
ATEX: Zone 2 and 21-22 | II 2 D | II 3 GD | IP66 | IK08
IECEX: Zone 2 and 21-22 | Ex ec IIC | Ex op is tb IIIC | Ex tc IIIC | IP66 | IK08
Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)

Standard Materials

- Mounting hoods and housing: cast copperfree (4/10 of 1% max.) aluminum
- Gaskets: silicone rubber
- All hardware and catch assemblies: stainless steel
- Globe: polycarbonate or glass
- Refractor: heat-resistant prismatic glass
- Globe guard, short refractor guard and safety cable: stainless steel wire
- Reflector: fiberglass reinforced white polyester

Standard Finishes

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

NEC/CEC Certifications and Compliances

- All Models:
 - UL Standard: UL 50E; UL 844; UL 1598; UL 1598A; UL 8750
 - CSA Standard: C22.2 No 0-10; C22.2 No. 94.2-15; C22.2 No. E60598-1:16; C22.2 No. 250.0-08; C22.2 No. 250.13-14
 - ANSI/IEC Standard: 60529
- Standard Model:
 - CSA Standard: C22.2 No. 137-M1981;
 - cCSAus Listed: 164460, Certificate Number: 70134063
- Emergency Battery Backup Model:
 - UL Standard: UL 924
 - CSA Standard: C22.2 No. 137-18
 - cCSAus: 164460, Certificate Number: 70182641

ATEX/IECEX Certifications and Compliances

- Standard Model:
 - Certification Type: Mercmaster™ Low Profile
 - Gas: Zones 2
 - Conforming to ATEX 2014/34/EU: II 3 G
 - Type of Protection: Ex ec IIC T* Gc
 - Temperature Class: T5 to T4
 - 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: +66 °C to +88 °C (+151 °F to +190 °F)
 - Ambient Temperature: -40 °C up to +65 °C (-40 °F up to +149 °F)
 - ATEX Certificates:
 - Zone 21: Sira 17ATEX9365X
 - Zone 2, 22: Sira 17ATEX3366X
 - 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

ABS Certifications

- Standard Model: 18-HS1714308-PDA
- Emergency Battery Backup Model: 22-2207901-PDA

International Dark-Sky Association

- Standard Model:
 - IDA Dark-Sky Approved when ordering [I]MLLED[A/B/C/D/R/W] xxW[P/D/G]5Bxxx with MMVISOR accessory

DesignLights™ Consortium

- Check DLC QPL for current list of products.

Related Products

- Mercmaster LED Generation 3 Series Luminaires
- Industrial Mercmaster LED Low Profile Luminaires
- Industrial Mercmaster LED Generation 3 Series Luminaires

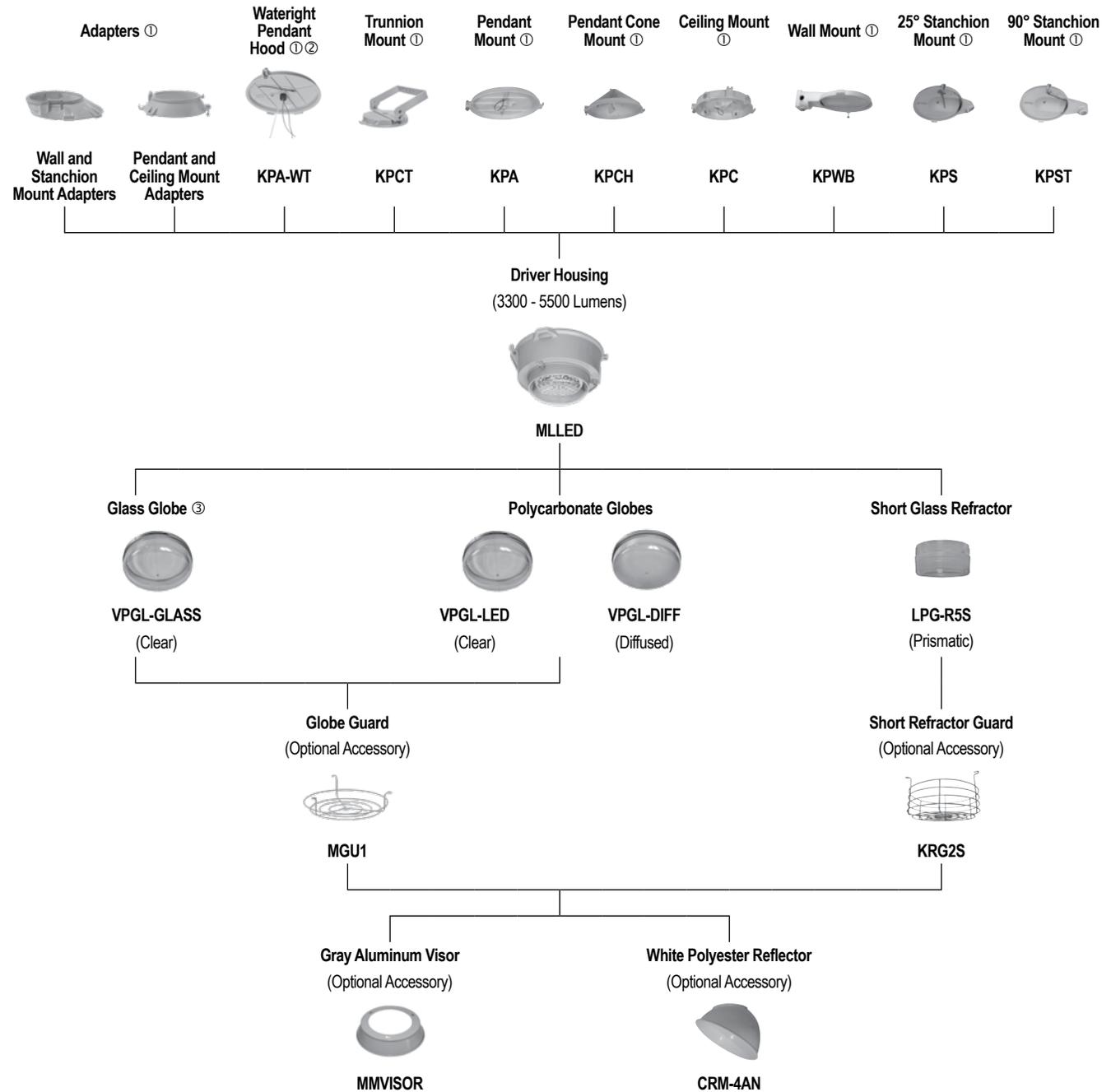
Mercmaster™ LED Low Profile Luminaires

Standard

Enclosed and Gasketed Fixtures — Hazardous Locations

NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC | Zone 21, AEx tb IIC | Class I, Zone 2 Ex ec II | Class II, Division 1, Groups E,F,G | Zone 20, Group IIIC | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⚠
 ATEX: Zone 2 and 21-22 | Ex ec IIC | Ex op is tb IIC | Ex tc IIC | IP66 | IK08
 IECEx: Zone 2 and 21-22 | Ex ec IIC | Ex op is tb IIC | Ex tc IIC | IP66 | IK08
 Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)

Family Tree — Mercmaster™ LED Low Profile Series Luminaires — Standard Model



① See Mounting Hood Adapters table for part numbers.

② Certified for cCSAus only.

③ Colored glass globes can be ordered separately, see Accessories and Replacement Parts table for more details.

⚠ Use of fuse voids Marine Outside Type (Salt Water) rating.

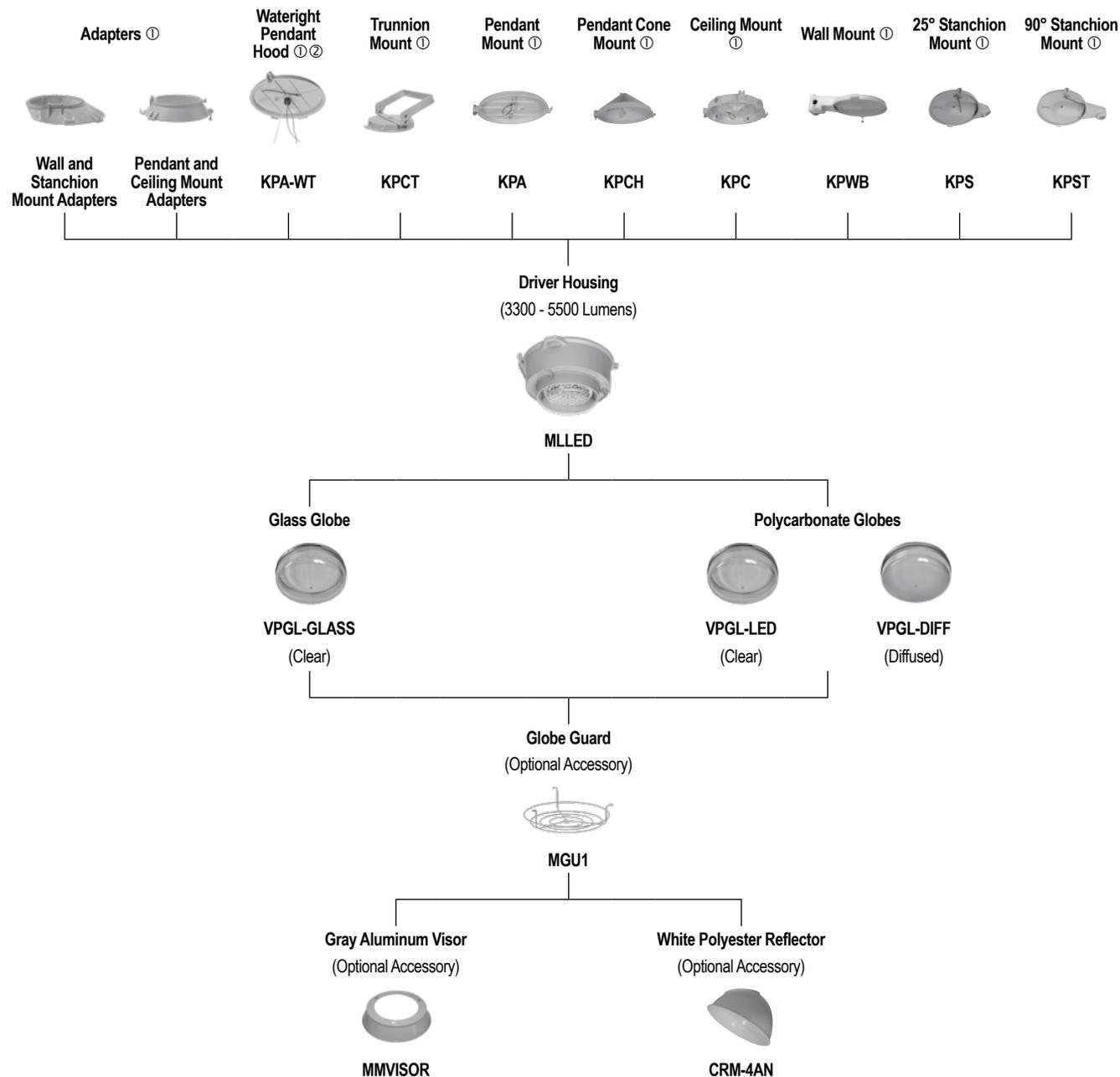
Mercmaster™ LED Low Profile Luminaires

With Emergency Battery Backup

Enclosed and Gasketed Fixtures — Hazardous Locations

NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC | Zone 21, AEx tb IIC | Class I, Zone 2 Ex ec II | Class II, Division 1, Groups E,F,G | Zone 20, Group IIIC | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⚠
 Notable: American Bureau of Shipping (ABS) Certified

Family Tree — Mercmaster™ LED Low Profile Series Luminaires — Emergency Battery Backup Model



① See Mounting Hood Adapters table for part numbers.

② Certified for cCSAus only.

⚠ Use of fuse voids Marine Outside Type (Salt Water) rating.

Mercmaster™ LED Low Profile Luminaires

Standard or with Emergency Battery Backup
Enclosed and Gasketed Fixtures — Hazardous Locations

NEC/CEC: Class I, Division 2, Groups A,B,C,D | Class I, Zone 2, AEx ec IIC | Zone 21, AEx tb IIIC | Class I, Zone 2 Ex ec II | Class II, Division 1, Groups E,F,G | Zone 20, Group IIIC | Class II, Division 2, Groups F,G | Class III | Type 3R, 4, 4X | IP66/IP67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water) ⚠
ATEX: Zone 2 and 21-22 | II 2 D | II 3 GD | IP66 | IK08
IECEX: Zone 2 and 21-22 | Ex ec IIC | Ex op is tb IIIC | Ex tc IIIC | IP66 | IK08
Notable: American Bureau of Shipping (ABS) Certified | International Dark Sky (IDA) Approved (Standard Model Only)

Accessories and Replacement Parts — All Models

	Description	Weight in kg (lbs)	Catalog Number
Globes			
	Clear Globe — Polycarbonate	0.2 (0.5)	VPGL-LED
	Diffused Globe — Polycarbonate	0.2 (0.5)	VPGL-DIFF
	Clear Globe — Glass	0.8 (1.7)	VPGL-GLASS
Guard			
	Globe Guard — Stainless Steel	0.2 (0.4)	MGU1
Safety Cable			
	Safety Cable — Stainless Steel	0.2 (0.4)	LEDSC
Visor			
	Electrostatically applied gray epoxy powder coat finish on Aluminum Visor	0.4 (0.9)	MMVISOR
Reflector			
	30° Angle White Polyester Reflectors	1.3 (2.7)	CMR-4AN

Mounting Hood Adapters — All Models ①

	Manufacturer	Installed Mounting Hood	Weight in kg (lbs)	Appleton Adapter Catalog Number
	Crouse-Hinds™ Champ® †	Pendant: APM2/3 Ceiling: CM2/3 Flexible Pendant: HPM2	0.9 (2.00)	MMADCHVS
	Appleton™ Mercmaster™ II	Pendant: LPA75/100 Ceiling: LPC75/100	0.9 (2.00)	MMADIIS
	Crouse-Hinds™ Champ® †	Wall: TWM2/3 25° Angle Stanchion: JM5 90° Angle Stanchion: PM5	0.9 (2.00)	MMADCHVA
	Appleton™ Mercmaster™ II	Wall: LPWB75, LPWB100 25° Angle Stanchion: LPS125, LPS150	0.9 (2.00)	MMADIIA
	Killark™ ‡	Ceiling: VMX2B, VMX3B, VMX6B, VMX7B, VMX9B Pendant: VMA2B, VMA3B Stanchion: VMD4B, VMD5B, VMS4B, VMS5B Wall: VMB2B, VMB3B Pendant Cone: VMC2B, VMC3B	1.0 (2.3)	MMADKVA

① Adapters are cCSAus rated only.

‡ Killark is a registered trademark of Hubbell Incorporated.

† Crouse-Hinds and Champ are a registered trademarks of Cooper Crouse-Hinds.

⚠ Use of fuse voids Marine Outside Type (Salt Water) rating.