

Mercmaster™ III Low Profile Luminaires

High Pressure Sodium and Pulse Start Metal Halide

Enclosed and Gasketed Fixtures — Hazardous Locations

NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, AEx nA nR IIC (Z2) | Class I, Zone 2, AEx/Ex nR IIC (ZB) | Class II, Division 1 and 2, Groups E, F, G | Class III | Simultaneous Exposure (Class I, Division 2/Class II, Division 1) | Fixtures Outside Type (Salt Water) | Type 4X | IP66

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 or combustible dusts are present under conditions defined by the National Electrical Code as Class I, Division 2; Class II, Division 1 and 2; and Class III
 - Areas of low clearance, low ceiling heights or where fixture weights must be minimized
 - For Zone 2, the method of protection is AEx nA nR – Restricted Breathing/Nonsparking or AEx nR – Restricted Breathing
 - Non-hazardous locations where severe weather conditions, excessive moisture, dirt, dust, corrosive atmosphere or high ambient temperatures are encountered
 - Ambient temperature range:
 - Incandescent: -40°C to +65°C (-40°F to +149°F)
 - HPS: -40°C to +65°C (-40°F to +149°F)
 - PSHM: -30°C to +65°C (-22°F to +149°F)
- 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 in conjunction with lower wattage fixtures.
- Modular design allows scores of fixture component combinations to meet installation and lighting needs. Uses same mounting hoods and optical accessories as Mercmaster III.
- A choice of heat-resistant prismatic glass refractors (NEMA I, III or V) or heat-resistant globes which thread directly into ballast housing. Photometrics available upon request – contact your local sales representative.
- Standard dome or 30° angle reflectors made of fiberglass reinforced white polyester. Highly resistant to corrosive atmospheres.
- Accommodates medium base lamps.
- A wide range of voltages available (120 to 600 Volt) and ballast types (Reactor, CWA and Super CWA).
- Medium base lamp type and watts: ③
 - HPS 50 W-150 W
 - PSMH 175 W
- 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 III mounting hoods have provision for easy field installation of fuses in fixtures (see fuse kits).
- Fixtures are for use in Class I, Zone 2 hazardous locations.
- The AEx nA nR factory sealed Mercmaster III prevents vapors and gases from entering the globe chamber. There are no seals or putty required which will reduce installation time and installation errors.

Standard Materials

- Mounting hoods, bodies and guard: cast copperfree (4/10 of 1% max.) aluminum
- All hardware and catch assemblies: stainless steel
- Reflectors: Fiberglass reinforced white polyester
- Globes and Refractors: heat-resistant prismatic glass

Standard Finishes

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

Options

- Quartz Auxiliary comes to full brightness immediately and remains lit until the HID lamp attains 60-70% of full illumination. Quartz Auxiliary supplied with relay switch and socket to accept 120 V quartz double-contact bayonet base lamp (not included). Add suffix -E ①.
- Guards with gray epoxy painted to match fixtures, supplied with stainless steel screws. Add suffix -G before voltage suffix.
- AEx nA nR fixtures, add suffix -Z2. Only available for certain ballast types.
- AEx/Ex nR fixtures, add suffix -ZB.
- Reflectors are available as standard dome and 30° angle polyester. Order separately.

NEC/CEC Certifications and Compliances ②

- cULus Listed: E10444
- UL Standard: ANSI/UL 844, 1598, 60079-0, 60079-15, 1598A
- CSA Certified: 025428
- CSA Standard: CSA C22.2 No. 250.0, C22.2 No. 137; CAN/CSA E60079-0, E60079-15

① Fixtures equipped with quartz auxiliary lamp do not comply with NEC/CEC requirements and are not suitable for use in classified locations.

② Compliance data varies for specific fixtures. Consult Appleton regarding suitability of specific fixtures for a particular application.

③ Please note, there is a max lamp height of 141 mm (14.1 cm) when using the VPGL-1HR globe.

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Illustrated Features



High Temperature Sockets

Medium base high-temperature porcelain sockets.

Aluminum Inner Reflector

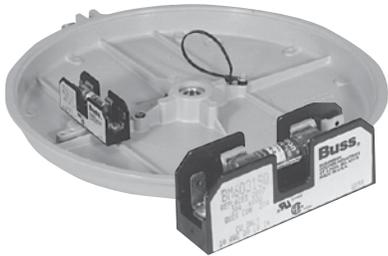
Solid aluminum inner reflector (for refractor ballast housings only) improves photometric efficiency.

Globe Chamber

Completely sealed from the ballast housing and outside vapors/air (nR).

Electrical Protection

Ground wire provided to bond mounting hood to ballast housing.



Fuses

Two screws secure fuse kit to mounting boss in any Mercmaster mounting hood. Fuse included.

Photocell

Available for all fixtures except cone and ceiling mount. Installs through knock-out in mounting hood. Provides continuous ON-OFF dusk-to-dawn control.



Vented Reflectors

Reflectors are thick, tough fiberglass-reinforced white polyester, vented for cooler operation. Quickly attach with furnished stainless steel screws.

Stainless Steel Inserts

Ballast bodies have stainless steel threaded inserts to receive stainless steel screws for reflectors and guard. Prevents "freezing", allowing guards and reflectors to be easily removed and replaced at any time, without damage to the housing.

Epoxy Finish

Ballast housing, hoods and guards are copperfree aluminum with epoxy powder coat finish.

Prismatic Glass Globes and Refractors

Heat-resistant globes and refractors thread directly into ballast housing and seal against a high-temperature silicone rubber gasket.



"Safety" High Hinge

Extra-high hinge provides additional protection against accidental ballast housing disengagement during installation or maintenance.



Ballast Assembly

Utilizing non-sparking components avoiding the ignition of gases or vapors that may be present (nA).

Mounting Hood and Globe Gaskets

Silicone rubber gaskets seals out moisture, dirt and dust. Stays flexible, withstands high temperatures. Closure design assures uniform gasket compression.

Terminal Blocks (Zone 2)

A seven-point terminal block is provided to facilitate wiring. Terminal block accommodates wire size ranging from #8 to #24 AWG.



Cooler Operating Cone Hood

Larger sloped surface sheds dusts, dirt and combustible fibers providing better heat dissipation.



Stainless Steel Latch Assembly

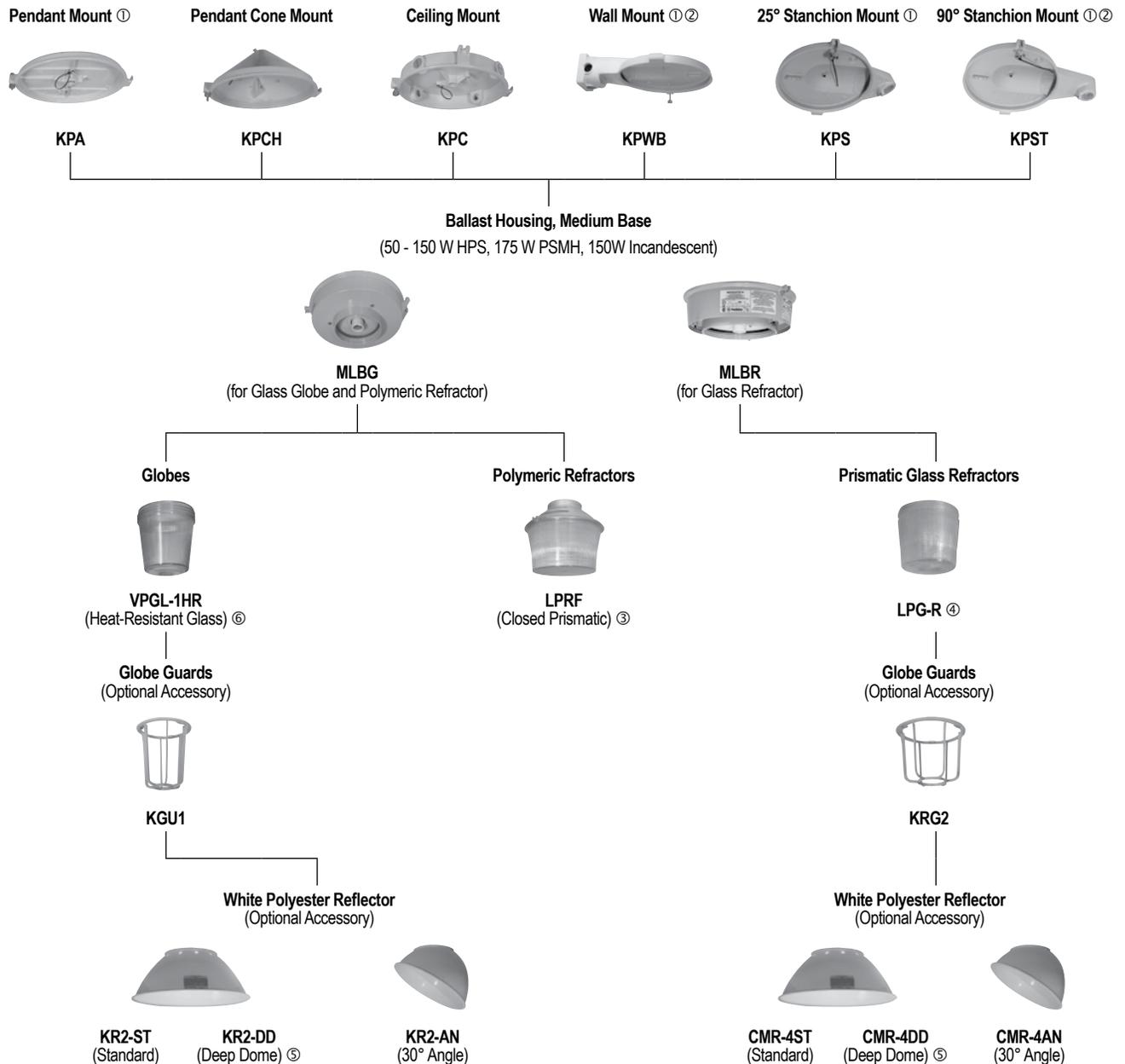
Captive, stainless steel latch assembly bolt and nut closes securely, resists attack of corrosive atmospheres. Swing-away design simplifies servicing.

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Family Tree — Mercmaster™ III Low Profile Luminaires



① Mounting hood with a 120 V or 208-277 V factory installed photocell is available.

② Standard and deep dome reflectors may interfere with bottom conduit entry if used with KPST and KPWB mounting hoods.

③ Available in NEMA Type II, III, IV and V. Polymeric Refractor suitable for Class II, Groups F and G, NEMA 4X and Marine Type Electric Fixtures Outside Type (Salt Water) only (100 W HPS Max.).

④ Available in NEMA Type I, III and V.

⑤ Fixtures when used with Deep Dome Reflectors are NOT UL Listed.

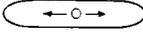
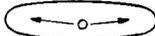
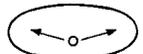
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Accessories and Replacement Parts

	Light Distribution	IES/NEMA Distribution Curves	Catalog Number
Clear Prismatic Glass Globes — Heat-Resistant			
	—	—	VPGL-1HR ⑤
Closed Prismatic Glass Refractors — All Heat-Resistant			
	NEMA Type I		LPG-R1
	NEMA Type III		LPG-R3
	NEMA Type V		LPG-R5
Closed Prismatic Polymeric Refractors — For Use with PSMH Lamps Only <i>100 W max. +40 °C (+104 °F) max. ambient temperature. Suitable for Class II, Division 1 and 2, Groups F, G; NEMA 4X, UL 1598A Marine Type Electric Fixtures Outside Type (Salt Water)</i>			
	NEMA Type II		LPRF-2CP
	NEMA Type III		LPRF-3CP
	NEMA Type IV		LPRF-4CP
	NEMA Type V		LPRF-5CP
			Description
White Polyester Reflectors			
	For Globe Fixtures	Standard Dome	KR2-ST
		Deep Dome	KR2-DD ①④
	For Glass Refractor Fixtures	30° Angle	KR2-AN
		Standard Dome	CMR-4ST ②
		Deep Dome	CMR-4DD ①④
		30° Angle	CMR-4AN
Guards			
	For Globe Fixtures	Globe Guard	KGU1
		For Glass Refractor Fixtures	KRG2 ③
	For Glass Refractor Fixtures	30° Angle Refractor Guard	
Replacement Globe Gaskets — Silicone Rubber			
		Globe Gasket	VPGL-GK
		Refractor Gasket	KRF-GK

① Dark Skies Compliant.

② Standard and deep dome reflectors may interfere with bottom conduit entry if used with KPST and KPWB mounting hoods.

③ Not for use with CMR-4ST or CMR-400, only CMR-4AN refractor.

④ Fixtures when used with Deep Dome Reflectors are NOT UL Listed.

⑤ Please note, there is a max lamp height of 141 mm (14.1 cm) when using the VPGL-1HR globe.