

Mercmaster™ III HID 50–250 Watt Luminaires

High Pressure Sodium, Pulse Start Metal Halide and Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2 Ex nR IIC (Z)
Class II, Division 1 and 2, Groups E, F, G
Class III

CEC:

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
 - For Zone 2, the method of protection is Ex nR – Restricted Breathing/Nonsparking.
 - Non-hazardous locations where severe weather conditions, excessive moisture, dirt, dust, corrosive atmosphere or high ambient temperatures are encountered. 18% cooler operation allows use in ambient temperatures up to 65 °C (149 °F) depending on fixture component combinations
- Typical applications include:
 - Pulp and paper mills
 - Processing plants
 - Chemical plants
 - Oil refineries
 - Foundries
 - Manufacturing plants
 - Storage areas
 - Marine applications
- Fixtures have NEMA 4X listing.
- Suitability includes listing for use where there may be simultaneous exposure to combustible dusts and flammable gases and vapors. See listing pages for compliance data on specific fixture component combinations.

Features

- Modular design allows scores of fixture component combinations to meet installation and lighting needs. Many most-used combinations are offered prewired and assembled, complete with lamp, packaged in a single carton and ready to install.
- Mogul lamp types and wattages:
 - HPS 50W-150W
 - PSMH 70W-250W ②
- Choice of heat-resistant prismatic glass refractors (NEMA distributions I, III and V), or heat-resistant prismatic glass globes for hazardous area fixtures. Colored and clear polycarbonate globes and Tuff-skin® ① coated glass globes are available but are NOT approved for use in classified areas. Fixtures with these globes do NOT comply with code requirements, and should be used in non-classified areas only. Globes and refractors thread directly into ballast housing.
- Mounting hoods include cone-shaped pendant hood, standard pendant, flexible pendant, ceiling and wall pendants (tapped for 3/4" or 1" NPT), 25° angle stanchion, and 90° (straight) stanchion (both tapped for 1-1/4" or 1-1/2" NPT).
- Cone hood fixtures for pendant mounting shed dust, dirt and combustible fibers. Cone hood inhibits build-up that "insulates" fixture and slows heat transfer, and provides increased surface area for more effective heat dissipation.



- Reflector choice includes standard dome and 30° angle types, both made of Fiberglass reinforced white polyester. Highly resistant to unusually corrosive applications. Reflectors are vented for cooler, dirt-free operation and maintained lumen output. They secure to ballast housing with stainless steel screws threading into stainless steel inserts.
- For high corrosion resistance, fixture housing, mounting hoods and guards are copperfree cast aluminum with baked epoxy finish, electrostatically applied for uniformity. All exposed hardware is stainless steel.
- 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.
- Body gaskets and globe gaskets are high-temperature silicone rubber.
- Capacitors are non-PCB type, thermally isolated from ballast.
- Mogul base porcelain socket with nickel-plated contacts has 200 °C (392 °F) welded leads, prewired to the ballast. Assures trouble-free operation in installations where high ambient temperatures are encountered.
- HPS ballasts are High Power Factor (min. P.F. 90%).
- A wide range of voltages available (120 to 600 Volt) and ballast types (Reactor, CWA, CWI and Super CWA).
- All Mercmaster III mounting hoods have provision for easy field installation of fuses in fixtures (see fuse kit listings in this catalog section).
- For electrical protection, a ground wire is provided on each Mercmaster to bond hood and ballast housing.

① Tuff-skin is a registered trademark of Thomas Manufacturing Corp., Parkton, Maryland.

② Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

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**Pendant Mount Fixture
with Prismatic Glass Refractor**



**Straight Stanchion-Mount Fixture
with Prismatic Glass Refractor and
Guard**



**Pendant Cone Fixture with
Prismatic Glass Globe and Guard**



**Ceiling Mount Fixture
with Prismatic Glass Globe, Guard
and Polyester 30° Angle Reflector**

- The Ex 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, ballast bodies and guards: copperfree cast aluminum (less than 4/10 of 1%)
- Exposed hardware: stainless steel; latch assemblies have stainless steel bolt and captive nut; reflectors and guards attach with stainless steel screws threading into stainless steel inserts.
- Reflectors: Fiberglass reinforced white polyester
- Globes: heat-resistant prismatic glass
- Refractors: heat-resistant prismatic glass

Standard Finishes

- Mounting hoods, ballast bodies, guards: epoxy powder coat finish, electrostatically applied for complete, uniform surface protection
- Reflectors: white polyester finish

Options

- Ex nR fixtures, add suffix **-Z**.
- Fuses can be field-installed on Mercmaster III fixtures. Kits include fuse block, wire connectors and screws for attaching to mounting hood. For fuse kits, see *Fuse Kits* page.
- Hot Restrike will restrike HPS lamp immediately when power is restored after a momentary power interruption. Add suffix **-R**.
- Smart Starter incorporates a 1-1/2-minute timer and performs as a conventional starter to normally start lamp. Removes itself from circuit if lamp burns out or is removed from socket. Eliminates starter failures caused by prolonged operation with cycling or failing lamps and simplifies finding their location, reducing maintenance and repair costs. Available for all HPS and PSMH fixtures. Add suffix **-S**.
- Optional photocell for all fixtures except cone and ceiling mount provides automatic "on-off" control.
- 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** to fixture catalog number. ①

CEC Certifications and Compliances

- CSA Certified: 025428
- CSA Standard: CSA C22.2 No. 9, C22.2 No. 137; CAN/CSA E60079-0, E60079-15
- PSMH 250W MT (120/208/240/277, 60 Hz) Fixtures are not UL Listed

Related Products

- Classified area photo controls are also available.

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

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Illustrated Features



High Temperature Sockets

Mogul base high-temperature porcelain sockets.

Aluminum Inner Reflector

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

Globe Chamber (Zone 2)

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



Vented Reflectors

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

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.

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.



Ballast Assembly (Zone 2)

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

Mounting Hood and Globe Gaskets

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

Electrical Protection

Ground wire provided to bond mounting hood to ballast housing.



"Safety" High Hinge

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



Stainless Steel Latch Assembly

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

Epoxy Finish

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

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.

Heat-Resistant Globes and Refractors

Prismatic glass globes and refractors are heat-resistant. They thread directly into the ballast housing and seal against a high-temperature silicone rubber gasket.



Cooler Operating Cone Hood

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



Fuses

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

Mercmaster™ III HID 50–250 Watt PRE-PAK Luminaires

Factory-Assembled Fixtures

For 70 W, 100 W or 150 W High Pressure Sodium Lamps, or 100 W or 175 W Pulse Start Metal Halide Lamps. Mogul Base Lamps.

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These pre-packaged fixture component combinations are delivered fully assembled and packed in a single carton. They are available with or without lamp, and with choice of globe or NEMA Type I, III or V refractors – all with or without guards. PRE-PAK units simplify ordering, stocking and shipping, and result in savings on job-site assembly and installation time and costs.

Catalog numbers do not include mounting hood or reflector, must be ordered separately. Hood and Reflector will be packaged separately.



PRE-PAK Fixtures ①

Lamp Type and Watts	Ballast Assembly with Globe Only	Ballast Assembly with Globe and Guard	Ballast Assembly with G3 Globe Only	Ballast Assembly with Refractor Only ③	Ballast Assembly with Refractor and Guard
175 W PSMH	KPBU17P-G2N-TT-L	KPBU17P-G2G-TT-L	—	KPBU17P-J5N-TT-L	KPBU17P-J5G-TT-L
70 W HPS	KPBU70L-G2N-TT-L	KPBU70L-G2G-TT-L	—	KPBU70L-J5N-TT-L	KPBU70L-J5G-TT-L
100 W HPS	KPBU10L-G2N-TT-L	KPBU10L-G2G-TT-L	KPBU10L-G3N-TT-L	KPBU10L-J5N-TT-L	KPBU10L-J5G-TT-L
150 W HPS	KPBU15L-G2N-TT-L	KPBU15L-G2G-TT-L	—	KPBU15L-J5N-TT-L	KPBU15L-J5G-TT-L
100 W MH ②	KPBU10H-G2N-TT-L	KPBU10H-G2G-TT-L	—	KPBU10H-J5N-TT-L	KPBU10H-J5G-TT-L
175 W MH ④	KPBU17H-G2N-TT-L	KPBU17H-G2G-TT-L	—	KPBU17H-J5N-TT-L	KPBU17H-J5G-TT-L
250 W MH ④	KPBU25H-G2N-TT-L	KPBU25H-G2G-TT-L	—	KPBU25H-J5N-TT-L	KPBU25H-J5G-TT-L

① All catalog numbers above are fixtures with lamp. To order fixture without lamp, remove suffix **L** from catalog number. All PRE-PAK fixtures include multi-tap ballast for operation on 120 V, 277 V OR 347 V lines. Fixture component combinations listed are furnished completely assembled in a single carton.

② 100 W fixtures use ED-28 mogul base lamps.

③ Refractor catalog numbers listed are for NEMA Type V. To order fixture with Type III refractor, change **J5** in catalog number to **J3**; for Type I refractor, change **J5** to **J1**.

④ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

Ballast Bodies



Ballast Body for Glass Globe (shown)



Ballast Body for Glass Refractor or G3 Globe (shown)

Lamp Type	Lamp Watts	Catalog Number ⑥⑦⑧⑨		Voltage Suffixes				
		For Globe	For G3 Globe ⑤/Refractor	C7	LB	MT	TT	XP
HPS	50 ⑦	KPB50L	KPBR50L	—	—	X	X	X
HPS	70 ⑦	KPB70L	KPBR70L	—	—	X	X	X
HPS	100 ⑦	KPB100L	KPBR100L	X	—	X	X	X
HPS	150 ⑦	KPB150L	KPBR150L	X	—	X	X	X
PSMH	175	KPB175P	KPBR175P	—	—	X	X	—
PSMH	200	KPB200P	KPBR200P	—	—	X	X	—
PSMH	250	KPBG250P	KPBR250P	—	—	X	X	—
MH	70	KPB70H	KPBR70H	—	—	X	X	—
MH	100	KPB100H	KPBR100H	—	—	X	X	—
MH	150	KPB150H	KPBR150H	—	—	X	X	—
MH	175	KPB175H	KPBR175H	X	—	—	X	—
MH	250	KPB250H	KPBR250H	X	—	—	X	—

Voltages:
C7 - 600 V 60 Hz, CWI

LB - Incandescent, 120 V 60 Hz
MT - 120/208/240/277 V 60 Hz

TT - 120/277/347 V 60 Hz, CWA
XP - 220-240 V, 50Hz, CWA

⑤ For HPS version fixtures only.

⑥ After voltage suffix add: **-S** for Smart Starter.

⑦ After voltage suffix add: **-R** for ballast body with Hot Restrike Ignitor.

⑧ Add **-E** after voltage suffix for ballast body with provision for Quartz Emergency Light. Not suitable for hazardous locations.

⑨ Add **Z** for factory sealed restricted breathing protection (Ex nR)

⑩ Add **X** for Crouse-Hinds Champ® Series adapted fixture.