

# Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

## High Pressure Sodium and Pulse Start Metal Halide

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

### 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 nR IIC (ZB)  
Class II, Division 1 and 2, Groups E, F, G  
Class III

### NEC/CEC:

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
  - In applications involving medium and high mounting heights
  - In applications where energy efficient, high lumen output is required
  - The AEx nA nR Mercmaster III fixture is factory sealed and prevents vapors and gases from entering the globe chamber. There are no seals or putty required.
  - The AEx nR Mercmaster III fixture requires all wiring entries to be sealed.
  - 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
  - Other areas where dust, water, dirt and rough usage are a problem

## Features

- Superior corrosion resistance.
- Choice of light sources: high pressure sodium, and pulse start metal halide.
- Six mounting arrangements to suit any lighting layout: pendant, ceiling, wall bracket, 25° (angle) stanchion, 90° (straight) stanchion and cone.
- 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.
- Choice of optical assemblies: prismatic globe; enclosed reflector with sealed lens; or Type V or Type II closed prismatic glass refractor, with or without guards.
- Wide choice of photometric distributions.
- All fixtures designed to perform in a 40 °C (104 °F) ambient temperature. Selected fixtures are suitable for ambient temperatures up to 65 °C (149 °F) .
- Mogul base porcelain lamp holder with nickel-plated contacts has 200 °C (392 °F) rated welded leads, pre-wired to the ballast. Assures trouble-free operation in installations where high ambient temperatures are encountered.
- For electrical protection, a ground wire is provided on each Mercmaster to bond hood and ballast housing.
- Terminal blocks are provided for Zone 2 fixtures to facilitate wiring.
- Standard dome of 30° angle reflectors made of fiberglass reinforced white polyester. Highly resistant to corrosive atmospheres.
- A wide range of voltages available (120 to 600 Volt) and ballast types (CWA and Super CWA).
- One-piece ballast housing for each component provides even



Enclosed Reflector

Prismatic Glass Globe

12" Glass Refractor

- heat dissipation for cooler operation and longer ballast life.
- All Mercmaster mounting hoods have provision for easy field installation of fuses in fixtures (see fuse kit listings).

## Standard Materials

- Mounting hoods and ballast bodies: cast copperfree (less than 4/10 of 1% copper) aluminum
- Reflectors: Fiberglass reinforced white polyester
- Guards, hardware and catch assemblies: stainless steel
- Globe: heat- and impact-resistant internally fluted glass
- Refractors: prismatic glass
- Enclosed reflector: etched Alzak aluminum with sealed, tempered heat- and impact-resistant lens
- Body and globe gaskets: high-temperature silicone rubber

## Standard Finishes

- Mounting hoods and guards: epoxy powder coat, electrostatically applied for complete and uniform protection

## Options

- AEx nA nR fixtures are available with a Class I, Zone 2 rating. Add suffix **-Z2**.
- AEx nR fixtures are available with a Class I, Zone 2 rating. Add suffix **-ZB**.
- 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). (Not suitable for hazardous locations.) Add suffix **-E**.
- Factory sealed photocontrol available. See PCD2 Series.
- 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**.

## NEC/CEC Certifications and Compliances

- cULus Listed: E10444
- UL Standard: ANSI/UL 844, 1598, 60079-0, 60079-15, Marine Type Electric Fixtures Outside Type (Salt Water)
- CSA Certified: 025428
- CSA Standard: CSA C22.2 No. 9, C22.2 No. 137; CAN/CSA E60079-0, E60079-15
- 250 W PSMH not available in MT ballast. See Mercmaster III, 50-250 Luminaires.

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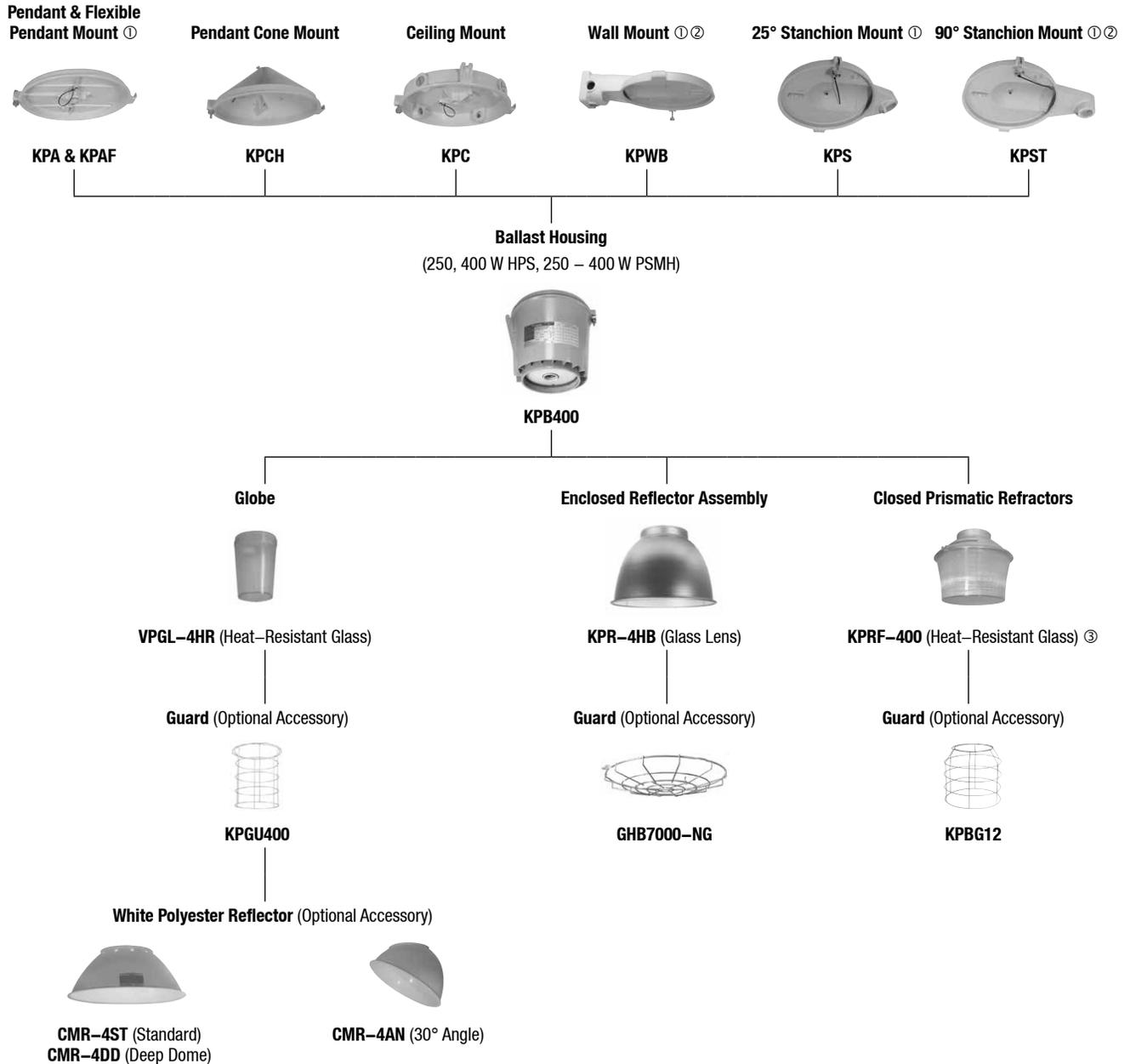
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 Class III

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### Mercmaster III 400 Family Tree



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 and V.

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

### Catalog Numbering Guide

<p><b>KP</b></p> <p>Series:                  KP -                  Mercmaster III                  400</p>	<p><b>A</b></p> <p>Mounting:                  A - Pendant (rigid                  mounting)                  C - Ceiling                  CH - Pendant Cone Hood                  F - Pendant (flexible                  mounting)                  ST - 90° Stanchion                  S - 25° Stanchion                  WB - Wall</p>	<p><b>L</b></p> <p>Lamp Type:                  L - High Pressure                  Sodium                  P - Pulse Start                  Metal Halide</p>	<p><b>40</b></p> <p>Wattage:                  25 - 250 W HPS, PSMH ⑤                  32 - 320 W PSMH                  35 - 350 W PSMH                  40 - 400 W PSMH &amp; HPS</p>	<p><b>10</b></p> <p>Hub Size:                  75 - 3/4" NPT                  10 - 1" NPT                  125 - 1-1/4" NPT                  stanchion                  150 - 1-1/2" NPT                  stanchion</p>	<p><b>J5</b></p> <p>Optical Assembly: ①                  Blank - Glass Globe                  J2 - NEMA II Glass                  Refractor ④                  J5 - NEMA V Glass                  Refractor ④                  R - Enclosed Refractor                  with Sealed Lens</p>	<p><b>G</b></p> <p>Guard Options: ②                  G - Globe Guard                  BG - Refractor                  Guard                  Blank - No Guard</p>	<p><b>MT</b></p> <p>Voltage: ③                  MT - 120/208/240/277, 60                  Hz                  5MT - 120/208/240/                  277/480, 60 Hz                  48 - 480, 60 Hz                  125 - 120, 50Hz                  226 - 220, 60 Hz                  235 - 230, 50Hz                  245 - 240, 50 Hz</p>	<p><b>S</b></p> <p>Options:                  E - Emergency Quartz                  F - Fuse Kit (Specify                  Voltage)                  S - Smart Starter                  H1 - Photocontrol 120 V                  H2 - Photocontrol 208 V                  H3 - Photocontrol 240 V                  H4 - Photocontrol 277 V                  E40 - Export Socket</p> <p>Optional Fusing ⑥                  FN - 120 V                  FP - 208 V                  FS - 240 V                  FT - 277 V                  FF - 480 V</p>	<p><b>Z2</b></p> <p>Suffix:                  Z2 - Zone 2 suffix                  (required for                  AEx nA nR                  rating)                  ZB - Zone 2 suffix                  (required for                  AEx nR rating)</p>
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Refer to "Mounting Hoods and Ballast" page for available Voltage Configuration.

① NO DESIGNATION is required for fixtures with standard type globe.

② NO DESIGNATION is required for fixtures without guards.

③ Other voltages available. Contact your local sales representative.

④ J2 and J5 refractors are not available with Z2 or ZB suffix.

⑤ Available for 480 V, 50 Hz and 5MT ballast options. For MT and TT voltage suffix, see Mercmaster III 50-250 Luminaires.

⑥ Optional fusing is available for use with MT, 5MT and 48 voltage suffixes ONLY.

# Mercmaster™ III 400 Luminaire for Hazardous and Wet Locations

## 250 W, 320 W, 350 W, 400 W PSMH

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Type Mounting	Lamp Type	Lamp Watts	Hub Size (Inches)	Catalog Numbers ③④⑤		
				With Globe	With Type V 12" Refractor ②	With Enclosed Reflector
<b>Pendant One Hub, Rigid Mounting ①</b>						
	PSMH	250 ⑥	3/4	KPAP2575	KPAP2575J5	KPAP2575R
			1	KPAP2510	KPAP2510J5	KPAP2510R
	PSMH	320	3/4	KPAP3275	KPAP3275J5	KPAP3275R
			1	KPAP3210	KPAP3210J5	KPAP3210R
	PSMH	350	3/4	KPAP3575	KPAP3575J5	KPAP3575R
			1	KPAP3510	KPAP3510J5	KPAP3510R
	PSMH	400	3/4	KPAP4075	KPAP4075J5	KPAP4075R
			1	KPAP4010	KPAP4010J5	KPAP4010R
<b>Pendant Cone One Hub, Rigid Mounting</b>						
	PSMH	250 ⑥	3/4	KPCHP2575	KPCHP2575J5	KPCHP2575R
			1	KPCHP2510	KPCHP2510J5	KPCHP2510R
	PSMH	320	3/4	KPCHP3275	KPCHP3275J5	KPCHP3275R
			1	KPCHP3210	KPCHP3210J5	KPCHP3210R
	PSMH	350	3/4	KPCHP3575	KPCHP3575J5	KPCHP3575R
			1	KPCHP3510	KPCHP3510J5	KPCHP3510R
	PSMH	400	3/4	KPCHP4075	KPCHP4075J5	KPCHP4075R
			1	KPCHP4010	KPCHP4010J5	KPCHP4010R
<b>Ceiling Five Hubs, Four Close-Up Plugs</b>						
	PSMH	250 ⑥	3/4	KPCP2575	KPCP2575J5	KPCP2575R
			1	KPCP2510	KPCP2510J5	KPCP2510R
	PSMH	320	3/4	KPCP3275	KPCP3275J5	KPCP3275R
			1	KPCP3210	KPCP3210J5	KPCP3210R
	PSMH	350	3/4	KPCP3575	KPCP3575J5	KPCP3575R
			1	KPCP3510	KPCP3510J5	KPCP3510R
	PSMH	400	3/4	KPCP4075	KPCP4075J5	KPCP4075R
			1	KPCP4010	KPCP4010J5	KPCP4010R

① For Flexible Pendant Mount, change **A** to **F** in catalog number.

② To order fixture with NEMA Type II refractor, change digits **J5** in catalog number to **J2**. Refractor not available for Z, Z2 or ZB suffix.

③ For fixtures with guards, add suffix **G** before adding voltage suffix. **BG** for refractor. **NG** for enclosed reflector.

④ Add the following voltage and frequency designations before Z2 or ZB suffix:

Lamp Type	Lamp Watts	Voltage Suffixes							
		MT	5MT	48	125	225	226	235	245
HPS	250	X	X	X	X	—	X	X	—
HPS	400	X	X	X	X	—	—	X	—
PSMH	250	—	X	X	X	—	—	X	—
PSMH	320	X	X	X	X	—	—	X	—
PSMH	350	X	X	X	X	—	—	X	—
PSMH	400	X	X	X	—	—	—	X	—

**Voltages:**

**MT** - 120/208/240/277 V 60 Hz

**5MT** - 120/208/240/277/480 V 60 Hz

**48** - 480 V 60 Hz

**125** - 120 V 50 Hz

**225** - 225 V 50 Hz

**226** - 220 V 60 Hz

**235** - 230 V 50 Hz

**245** - 240 V 50 Hz

⑤ Add **Z2** suffix for factory sealed non-sparking/restricted breathing protection (AEx nA nR). Add **ZB** suffix for restricted breathing protection (AEx nR).

⑥ Available for 480 V, 50 Hz and 5MT ballast options. For MT and TT voltage suffix, see Mercmaster III 50-250 Luminaires.