

Mercmaster™ III Induction Luminaires

Enclosed and Gasketed. For Hazardous and Adverse Locations

55W, 85W, 165W
Class I, Division 2, Groups A, B, C, D
Class II, Division 1 and 2, Groups E, F, G
NEMA 4X

55W, 85W
Class I, Zone 2
AEx nA nR, IIC
Ex nA nR IIC

165W
Class I, Zone 2
AEx nR, IIC
Ex nR IIC

Applications

- Areas where access for relamping is difficult, reliability is essential and the environment is costly to maintain.
- Cold environment applications.
- Enclosed and gasketed fixtures suitable for use in marine and wet locations, and in a wide range of industrial, chemical processing and other areas where flammable gases and vapors or combustible dusts are present under conditions defined by NEC Class I, Division 2.
- Fixtures are also well suited for use in non-hazardous areas where severe weather conditions, excessive moisture, dirt, dust and corrosive atmospheres are a problem.
- Typical applications include pulp and paper mills, processing plants, chemical plants, oil refineries, foundries, manufacturing plants, storage areas and marine applications. Fixtures have NEMA 4X listing.

Features

- Instant start and restrike.
- High lumen output and efficacy (up to 73 lumens per Watt).
- Fixtures operate safely in a 104 °F/40 °C ambient.
- Good lumen maintenance provides less than 30% depreciation after 60K hours of operation.
- Virtually maintenance free.
- Ultra long 100,000 hours of life keeps maintenance costs to a minimum.
- Starts in temperatures as low as -40 °F/-40 °C.
- Low total harmonic distortion (less than 10%).
- No cycling at end of life.
- Modular design allows scores of fixture component combinations to meet installation and lighting needs.
- Mounting hoods include cone-shaped pendant, standard pendant, flexible pendant, ceiling and wall (tapped for 3/4" or 1" NPT), 25° angle stanchion and 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, and inhibit build-up that "insulates" fixture and slows heat transfer. Also provide 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 (4/10 of 1% max.) 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.
- 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.



165 Watt Ceiling Mount Fixture with Prismatic Glass Globe

Standard Materials

- Mounting hoods, ballast bodies and guards: cast copperfree (4/10 of 1% max.) aluminum
- 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

Standard Finishes

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

Options

- Fuses can be field-installed on Mercmaster III fixtures. Kits include fuse block, wire connectors and screws for attaching to mounting hood. Fixtures with fuses do not comply with Marine Type Electric Fixtures Outside Type (Salt Water) requirements for marine listing.
- Photocell optional for all fixtures except cone and ceiling mounts; provides automatic "on-off" control.

Certifications and Compliances

- UL Standard: UL 1598, UL 844, UL 1598A
- CSA Standard: C22.2 No. 250, C22.2 No. 137
- cCSAus Certified

Mercmaster™ III Induction Luminaires

Enclosed and Gasketed. For Hazardous and Adverse Locations

55W, 85W, 165W
 Class I, Division 2, Groups A, B, C, D
 Class II, Division 1 and 2, Groups E, F, G
 NEMA 4X

55W, 85W
 Class I, Zone 2
 AEx nA nR, IIC
 Ex nA nR IIC

165W
 Class I, Zone 2
 AEx nR, IIC
 Ex nR IIC

Illustrated Features



Aluminum Inner Reflector
 Solid aluminum inner reflector improves photometric efficiency.

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



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

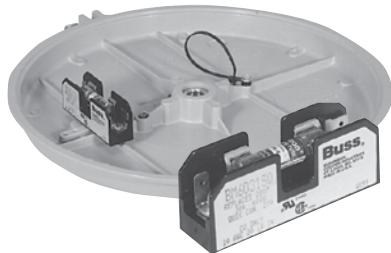
Threaded Stainless Steel Inserts for Screws
 Fixture bodies have stainless steel threaded inserts to receive stainless steel screws for reflector and guard. Prevents "freezing", allowing guards and reflectors to be easily removed and replaced at any time, without damage to the housing.



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.



Cooler Operating Cone Hood
 Sloped surface sheds insulating dust, dirt, and combustible fibers. Provides cleaner, larger surface area for better heat dissipation.



Fuses Mount to Hood Bosses
 Two screws secure fuse kit to mounting boss in any Mercmaster mounting hood.

Electrical Protection
 Ground wire provided to bond mounting hood to ballast housing.



Prismatic Glass Globes, Refractors and Enclosed Reflector
 Heat-resistant globes, refractors and enclosed reflectors thread into ballast housing and seal against a high-temperature silicone rubber gasket.

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.



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

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

Lighting

LIGHTING: ENCLOSED AND GASKETED — AREA — LED/INDUCTION

Mercmaster™ III Induction Luminaires

Enclosed and Gasketed. For Hazardous and Adverse Locations

55W, 85W, 165W
Class I, Division 2, Groups A, B, C, D
Class II, Division 1 and 2, Groups E, F, G
NEMA 4X

55W, 85W
Class I, Zone 2
AEx nA nR, IIC
Ex nA nR IIC

165W
Class I, Zone 2
AEx nR, IIC
Ex nR IIC

“T” Numbers for Mercmaster III Induction Fixtures — Class I, Division 2 and Class II, Division 1 and 2

Lamp Watts	Lamp Type	Supply Wire Temp. (°F/°C)	Ambient Temp. (°F/°C)	Input Voltage	Class I, Division 2, Groups A, B, C, D NEC/CEC ¹ Temp. Indent. Number Nameplate Marking			Class II, Division 1 and 2, Groups E, F, G NEC/CEC ¹ Temp. Indent. Number Nameplate Marking		
					with Globe or Reflector	with Refractor	with Enclosed Reflector	with Globe or Reflector	with Refractor	with Enclosed Reflector
					55	Induction	194/90	104/40	100-120	T3A
55	Induction	194/90	104/40	200-277	T3B	—	—	T6	—	—
85	Induction	194/90	104/40	100-120	T3A	—	—	T6	—	—
85	Induction	194/90	104/40	200-277	T3A	—	—	T6	—	—
165	Induction	194/90	104/40	100-120	T3	T3	T3	T5	T5	T5
165	Induction	194/90	104/40	200-277	T3	T3	T3	T5	T5	T5

“T” Numbers for Mercmaster III Induction Fixtures — Class I, Zone 2

Lamp Watts	Lamp Type	Supply Wire Temp. (°F/°C)	Ambient Temp. (°F/°C)	Input Voltage	Class I, Zone 2 AEx nA nR IIC / Ex nA nR IIC		Class I, Zone 2 AEx nR IIC / Ex nR IIC			
					with Globe	with Globe and Reflector	with Globe	with Globe and Reflector	with Refractor	Reflector with Lens
					55	Induction	194/90	104/40	100-120	T4
55	Induction	194/90	104/40	200-277	T4	T4	—	—	—	—
85	Induction	194/90	104/40	100-120	T4	T4	—	—	—	—
85	Induction	194/90	104/40	200-277	T4	T4	—	—	—	—
165	Induction	194/90	104/40	100-120	—	—	T5	T5	—	T5
165	Induction	194/90	104/40	200-277	—	—	T5	T5	—	T5

“T” Numbers Represent the Maximum Lamp Temperature for Class I, Division 2 Locations and Maximum Surface Temperature Under Dust Blanket for Class II, Division 1 Locations.

“T” Number	T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
Temp. Range (°F)	664-842	619-662	574-617	538-572	502-536	448-500	421-446	394-419	358-392	331-356	322-329	277-320	250-275	214-248	187-212	185
Temp Range (°C)	351-450	326-350	301-325	281-300	261-280	231-260	216-230	201-215	181-200	166-180	161-165	136-160	121-135	101-120	86-100	85

¹ CSA Certification Only.




Mercmaster™ III Induction Luminaires

Enclosed and Gasketed. For Hazardous and Adverse Locations

55W, 85W, 165W
Class I, Division 2, Groups A, B, C, D
Class II, Division 1 and 2, Groups E, F, G
NEMA 4X

55W, 85W ⑥⑥
Class I, Zone 2
AEx nA nR, IIC
Ex nA nR IIC

165W
Class I, Zone 2
AEx nR, IIC
Ex nR IIC

	Type Mounting	Lamp Watts	Hub Size (Inches)	Catalog Numbers ①②③ with Globe
Pendant				
 <p>Shown with 55 Watt Globe</p>	One Hub Rigid Mounting ④	55 ⑤⑥	3/4	MLAQ552G3N
			1	MLAQ553G3N
		85 ⑤⑥	3/4	MLAQ852G4N
			1	MLAQ853G4N
		165	3/4	KPAQ1652G4N
			1	KPAQ1653G4N
Pendant Cone Hood				
 <p>Shown with 55 Watt Globe</p>	One Hub Rigid Mounting	55 ⑤⑥	3/4	MLDQ552G3N
			1	MLDQ553G3N
		85 ⑤⑥	3/4	MLDQ852G4N
			1	MLDQ853G4N
		165	3/4	KPDQ1652G4N
			1	KPDQ1653G4N
Ceiling				
 <p>Shown with 55 Watt Refractor</p>	Five Hubs Four Close-Up Plugs	55 ⑤⑥	3/4	MLCQ552G3N
			1	MLCQ553G3N
		85 ⑤⑥	3/4	MLCQ852G4N
			1	MLCQ853G4N
		165	3/4	KPCQ1652G4N
			1	KPCQ1653G4N

- ① Add voltage suffix -A1 for 120 Vac; 90-140 Vac; -A6 for 277: 180-305 Vac.
- ② See following pages for accessory ordering information.
- ③ For fixtures with guard, substitute G for N before adding suffix.
- ④ For flexible pendant mount, change A to F in catalog number.
- ⑤ Add Z2 suffix for factory sealed non-sparking/restricted breathing protection (AEx nA nR).
- ⑥ Add Z suffix for factory sealed non-sparking/restricted breathing protection (Ex nA nR) ⑥.
- ⑥ CSA Certification Only.




Mercmaster™ III Induction Luminaires

Enclosed and Gasketed. For Hazardous and Adverse Locations

55W, 85W, 165W
Class I, Division 2, Groups A, B, C, D
Class II, Division 1 and 2, Groups E, F, G
NEMA 4X

55W, 85W ⑤⑥
Class I, Zone 2
AEx nA nR, IIC
Ex nA nR IIC

165W
Class I, Zone 2
AEx nR, IIC
Ex nR IIC

	Type Mounting	Lamp Watts	Hub Size (Inches)	Catalog Numbers ①②③ with Globe	
 Shown with 85 Watt Globe	Wall	55 ⑤⑥	3/4	MLWQ552G3N	
			1	MLWQ553G3N	
	Five Hubs Four Close-Up Plugs	85 ⑤⑥	3/4	MLWQ852G4N	
			1	MLWQ853G4N	
			3/4	KPWQ1652G4N	
			1	KPWQ1653G4N	
 Shown with 55 Watt Globe	25° Stanchion	55 ⑤⑥	1-1/4	MLSQ554G3N	
			1-1/2	MLSQ555G3N	
		One Hub	85 ⑤⑥	1-1/4	MLSQ854G4N
				1-1/2	MLSQ855G4N
				1-1/4	KPSQ1654G4N
				1-1/2	KPSQ1655G4N
 Shown with 55 Watt Globe	Straight Stanchion	55 ⑤⑥	1-1/4	MLRQ554G3N	
			1-1/2	MLRQ555G3N	
		One Hub	85 ⑤⑥	1-1/4	MLRQ854G4N
				1-1/2	MLRQ855G4N
				1-1/4	KPRQ1654G4N
				1-1/2	KPRQ1655G4N

- ① Add voltage suffix **-A1** for 120 Vac: 90-140 Vac; **-A6** for 277: 180-305 Vac.
- ② See following pages for accessory ordering information.
- ③ For fixtures with guard, substitute **G** for **N** before adding suffix.
- ④ Add **Z2** suffix for factory sealed non-sparking/restricted breathing protection (AEx nA nR).
- ⑤ Add **Z** suffix for factory sealed non-sparking/restricted breathing protection (Ex nA nR).
- ⑥ CSA Certification Only.

Mercmaster™ III Induction Luminaire Fixture Units

Enclosed and Gasketed. For Hazardous and Adverse Locations

55W, 85W, 165W
 Class I, Division 2, Groups A, B, C, D
 Class II, Division 1 and 2, Groups E, F, G
 NEMA 4X

55W, 85W
 Class I, Zone 2
 AEx nA nR, IIC
 Ex nA nR IIC

165W
 Class I, Zone 2
 AEx nR, IIC
 Ex nR IIC

Fixture Units – Less Mounting Hoods

	Type	Frequency	Lamp Watts	Fixture Unit Catalog Number	Add Voltage Suffixes	
					120 V	277 V
Globe 	Induction	50/60 Hz	55	MLBRG355Q	-A1	-A6
Globe 	Induction	50/60 Hz	85	MLBRG485Q	-A1	-A6
Globe 	Induction	50/60 Hz	165	KPB165QG4	-A1	-A6
Enclosed Reflector/Lens 	Induction	50/60 Hz	165	KPB165QRL	-A1	-A6
Type 2 Refractor 	Induction	50/60 Hz	165	KPB165QJ2	-A1	-A6
Type 5 Refractor 	Induction	50/60 Hz	165	KPB165QJ5	-A1	-A6

Lighting

LIGHTING: ENCLOSED AND GASKETED – AREA – LED/INDUCTION

Mercmaster™ III Induction Luminaire Technical Data

Enclosed and Gasketed. For Hazardous and Adverse Locations

55W, 85W, 165W
Class I, Division 2, Groups A, B, C, D
Class II, Division 1 and 2, Groups E, F, G
NEMA 4X

55W, 85W
Class I, Zone 2
AEx nA nR, IIC
Ex nA nR IIC

165W
Class I, Zone 2
AEx nR, IIC
Ex nR IIC

Fuse Kit includes fuse, fuse holder and necessary hardware for field installation. Mounts easily to hood with one screw. ①

Lamp Watts	Volts	Fuse Qty. Req.	Fuse Catalog Number
55, 85, 165	120/277	1	F2
	208-240	2	F2

Electromagnetic Compatibility

A.) Complies with European norms EN55015, EN6100-3-2 and EN61547

B.) RFI

a.) Meets standard EN55022 and is valid for frequencies up to 1000 MHz.

Electrical Characteristics

		55 W		85 W		165 W	
		100-120 V	200-277 V	100-120 V	200-277 V	100-120 V	200-277 V
System power ② nom.	W	55	55	85	85	165	165
System power ② min.	W	53.1	53.1	82	82	160	160
System power ② max.	W	56.9	56.9	88	88	190	190
AC supply voltage nom.	V	120	230	120	230	120	230
AC supply voltage min.	V	90	180	90	180	90	180
AC supply voltage max.	V	140	305	140	305	140	305
DC supply voltage nom.	V	120	230	120	230	120	230
DC supply voltage min.	V	90	180	90	180	90	180
DC supply voltage max.	V	180	350	180	350	180	350
Supply frequency nom.	Hz	60	50	60	50	60	50
Supply frequency min.	Hz	47	47	47	47	47	47
Supply frequency max.	Hz	63	63	63	63	63	63
Supply current nom.	mA	460	260	730	400	1420	740
Inrush current max.	A	16	12	16	12	28	24
Duration inrush current max.	usec	170	170	170	170	150	140
Power factor nom.		>0.92	>0.92	>0.92	>0.92	>0.92	>0.92
HF output frequency nom.	MHz	2.65	2.65	2.65	2.65	2.65	2.65
HF output frequency min.	MHz	2.3	2.3	2.3	2.3	2.3	2.3
HF output frequency max.	MHz	3	3	3	3	3.0	3.0
HF output voltage max.	kV	1.5	1.5	1.5	1.5	1.5	1.5
Leakage current	mA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Overvoltage		200Vac	400Vac	200Vac	400Vac	200Vac	400Vac

Lamp Characteristics

Values at 100 Hrs.		QL 55 W	QL 85 W	QL 165 W
Luminous flux nom.	lm	3,500	6,000	12,000
Luminous flux min.	lm	3,200	5,500	11,000
Luminous flux max.	lm	3,800	6,500	12,500
System efficacy nom.	lm/W	63.5	70	72.5

Lamp Operation

A.) Ignition and Lifetime Performance

a.) Ignition time <0.5 seconds

Hot Restrike time <0.5 seconds

b.) Induction lighting offers a direct, flicker-free ignition after switch-on, in both cold and hot conditions

B.) Lumen Maintenance

a.) The lumens of an induction lamp are expected to have depreciated after 60,000 hours to no less than 75% of the initial lumens

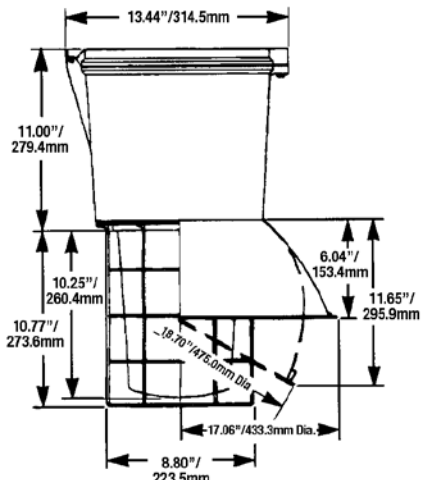
① Canadian Electrical Code does NOT allow fusing in hazardous locations ✖.

② At design voltage.

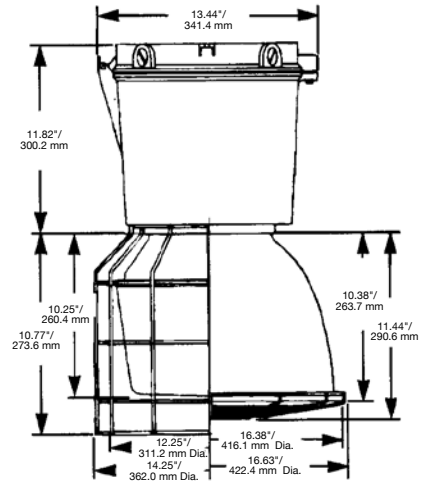
✖ CSA Certification Only.

Mercmaster™ III Induction Luminaire Dimensions

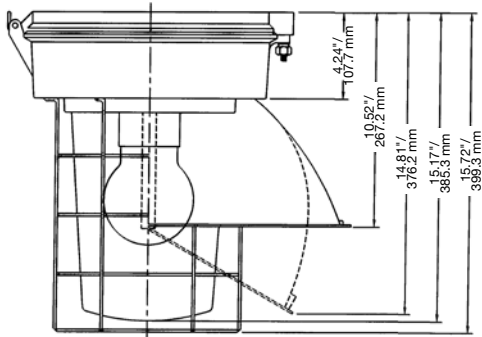
Enclosed and Gasketed. For Hazardous and Adverse Locations



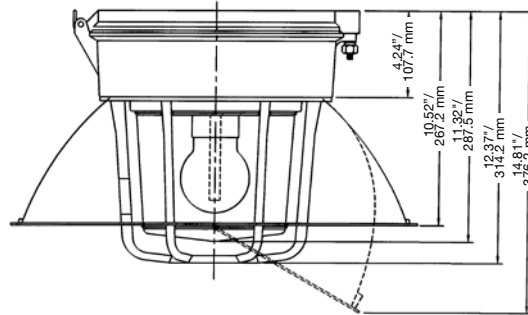
**165 Watt Pendant with Globe,
Guard and Reflectors**



**165 Watt Ceiling Mount
with Refractor, Enclosed Reflector and Guards**



85 Watt



55 Watt

Lighting

LIGHTING: ENCLOSED AND GASKETED -- AREA -- LED/INDUCTION