Champ N2MV non-metallic HID luminaires

50-175W

Cl. I, Div. 2, Groups A, B, C, D
Cl. II, Groups F, G
Cl. III & Simultaneous Presence (100W max.)

Marine & Wet Locations
3, 3R, 4, 4X; IP56

Applications:

Champ® N2MV HID luminaires are used:

- In areas in which ignitable concentrations of flammable gases or vapors will be present due to abnormal, unusual or accidental conditions
- In installations where moisture, dirt, vibration, corrosion or rough usage are concerns
- Wherever the damaging effects of water, wind, snow, sleet, hot sun or any combination of these elements are found
- Ideal for marine use; resists the harmful effects of salt water
- Withstands the harshest of corrosive environments
- To provide low wattage spot and floodlighting
- For general area lighting
- In areas where the ambient temperature will get as low as 40°C (-40°F)
- In manufacturing plants, refineries, chemical, petrochemical and other industrial process facilities, wastewater and sewage treatment facilities, offshore, dockside and harbor installations as well as other heavy industrial applications

Features:

- Housing and mounting modules made of polyphenylene sulfide (PPS) for strength and maximum resistance to corrosion
- Pendant mounting module equipped with integral hub set screws for vibration resistance
- Hubs are provided with an integral bushing to help prevent damage to field wiring during installation and ground connection for positive bonding
- Guard, hub inserts, stanchion elbow and hardware made of stainless steel for maximum resistance to corrosion
- Grounding wire for safety
- Stainless steel open bottom guard permits direct access to the globe for easy relamping
- Hinged assembly allows the luminaire to hang free during installation to permit the use of both hands when wiring
- One external captive screw for ease of installation
- Handle – hinge assembly doubles as a handle for ease of installation, especially when carrying up a ladder

Certifications and compliances:

NEC/CEC:

- Class I, Division 2, Groups A, B, C, D
- 100W max. – Class II, Class III & Simultaneous Presence (Class I, Division 2 and Class II)

UL standards:

- UL844 – Hazardous (Classified) Locations
- UL1598 – Luminaires
- UL1598A – Marine Locations

CSA standard:

- C22.2 No. 137

Standard materials:

- Housing, mounting modules, component pallets – polyphenylene sulfide (PPS)
- Guard, hub inserts, stanchion elbow, hardware – stainless steel
- Globe – heat tempered
- Gaskets – silicone rubber

Electrical ratings:

- 120, multi-tap (120, 208, 240, 277), dual-tap (120, 277), tri-tap (120, 277, 347), 480, 600 and 220/240 volt, 50 Hz
- 50-150W HPS; 70-175W MH and pulse start MH

Options:

Description **Suffix**

- Wall mount arm – for converting ceiling mount luminaire to wall mount **N2MV-WM1**
- Ballast-Gard starter cut-out switch – prevents starter pulsing when lamp is cycling or inoperative; prolongs ballast and ignitor life ..... **BG**
  Available for use with 50-150W HPS only
- Factory assembled with HID lamps installed..... **FA**
- Instant restrike – enables a hot HPS lamp to immediately restrike after a momentary loss arc due to voltage fluctuation or power outage; has no effect on the warm-up period of cold lamps..... **IR**
  50-150W LX HPS only
- During a "failed lamp" condition, this feature discontinues the start-up operation after 1 minute..... **TIR**
  50-150W LX HPS only
- Quartz auxiliary lighting – comes to full brightness immediately and remains lit until the HID lamp attains 60-70% of full illumination..... **QTZ**
  For non-hazardous locations only
  QTZ lamp not included; use 100W single-ended lamp – Q100DC, Q100CL/DC or 100Q/CL/DC
  Consult factory for top hat limitations
- Fused – to protect ballast and capacitor against abnormal line conditions **S658**
  Not available with MT ballast
  Not for use in Canada
  Not suitable for marine applications
- Furnished with lamps **S714**
- Teflon coated globe for additional protection against breakage **S808**
  Available for use with 50-100W HPS and 70-175W MH and pulse start MH

Photometrics:

- Refer to www.eaton.com (under the Resources tab of each product family) for specific photometric IES files

 Copyright© 2022 Eaton

Champ N2MV non-metallic HID luminaires

50-150W high pressure sodium

Cl. I, Div. 2, Groups A, B, C, D
Cl. II, Groups F, G
Cl. III & Simultaneous Presence (100W max.)

Marine & Wet Locations
3, 3R, 4, 4X; IP56

3L

To complete the catalog number, include information in Notes 1, 2 and 3 below. For guards and other optics, see N2MV – ordering by components page.

			BASIC CATALOG NUMBER	
Mounting style	**Hub size**	**Lamp watts**	**Cat. # With G303 globe and P33 guard**	**Cat. # With GR305 glass refractor[A]**
Pendant mount	3/4"	50	**N2MVS2A050GP**	**N2MVS2A050GR305**
	1"		**N2MVS3A050GP**	**N2MVS3A050GR305**
	3/4"	70	**N2MVS2A070GP**	**N2MVS2A070GR305**
	1"		**N2MVS3A070GP**	**N2MVS3A070GR305**
	3/4"	100	**N2MVS2A100GP**	**N2MVS2A100GR305**
	1"		**N2MVS3A100GP**	**N2MVS3A100GR305**
	3/4"	150	**N2MVS2A150GP**	**N2MVS2A150GR305**
	1"		**N2MVS3A150GP**	**N2MVS3A150GR305**
Ceiling mount through feed	3/4"	50	**N2MVS2C050GP**	**N2MVS2C050GR305**
	1"		**N2MVS3C050GP**	**N2MVS3C050GR305**
	3/4"	70	**N2MVS2C070GP**	**N2MVS2C070GR305**
	1"		**N2MVS3C070GP**	**N2MVS3C070GR305**
	3/4"	100	**N2MVS2C100GP**	**N2MVS2C100GR305**
	1"		**N2MVS3C100GP**	**N2MVS3C100GR305**
	3/4"	150	**N2MVS2C150GP**	**N2MVS2C150GR305**
	1"		**N2MVS3C150GP**	**N2MVS3C150GR305**
Stanchion mount 25° angle	1 1/2"	50	**N2MVSJ050GP**	**N2MVSJ050GR305**
	1 1/2"	70	**N2MVSJ070GP**	**N2MVSJ070GR305**
	1 1/2"	100	**N2MVSJ100GP**	**N2MVSJ100GR305**
	1 1/2"	150	**N2MVSJ150GP**	**N2MVSJ150GR305**

[A] For GR302 Type II refractor, change 'GR305' at end of catalog number to 'GR302.' Example: N2MVS2A050GR302.
For GR303 Type III refractor, change 'GR305' at end of catalog number to 'GR303.' Example: N2MVS2A050GR303.

1. Add voltage suffix to end of catalog number.

Standard voltage ballasts – 60 Hz

	NEC/UL				CEC/CSA (cUL)		
Voltage Suffix	Multi-tap /MT	Dual-tap /DT	120V /120	480V /480	Tri-tap /TT	Dual-tap /DT	120V /120

Optional voltage ballasts – 50 or 60 Hz

	CEC/CSA (cUL) – CWI isolated ballasts				Export			
Voltage Suffix	208V CWI /208 CWI	240V CWI /240 CWI	480V CWI /480 CWI	600V CWI /600 CWI	220V 60 Hz /220	220V 50 Hz /220 50	230V 50 Hz /230 50	240V 50 Hz /240 50

2. 150W HPS luminaires:

- **55V lamps standard – use suffix LX; for 100V lamps – use suffix CE**
- **50W HPS luminaire is dual-tap only**

3. Options: Add the required option suffixes in alphanumeric order.

www.eaton.com US: 1-866-764-5454 CAN: 1-800-265-0502 Copyright© 2022 Eaton

Champ N2MV non-metallic HID luminaires

150-175W pulse start metal halide

Cl. I, Div. 2, Groups A, B, C, D
Cl. II, Groups F, G
Cl. III & Simultaneous Presence (100W max.)

Marine & Wet Locations
3, 3R, 4, 4X; IP56

To complete the catalog number, include information in Notes 1 and 2 below. For guards and other optics, see N2MV – ordering by components page.

			BASIC CATALOG NUMBER	
Mounting style	**Hub size**	**Lamp watts**	**Cat. # With G303 globe and P33 guard**	**Cat. # With GR305 glass refractor[B]**
Pendant mount	3/4"	150	**N2MVM2A150GP S828**	**N2MVM2A150GR305 S828**
	1"		**N2MVM3A150GP S828**	**N2MVM3A150GR305 S828**
	3/4"	175	**N2MVM2A175GP S828**	**N2MVM2A175GR305 S828**
	1"		**N2MVM3A175GP S828**	**N2MVM3A175GR305 S828**
Ceiling mount through feed	3/4"	150	**N2MVM2C150GP S828**	**N2MVM2C150GR305 S828**
	1"		**N2MVM3C150GP S828**	**N2MVM3C150GR305 S828**
	3/4"	175	**N2MVM2C175GP S828**	**N2MVM2C175GR305 S828**
	1"		**N2MVM3C175GP S828**	**N2MVM3C175GR305 S828**
Stanchion mount 25° angle	1 1/2"	150	**N2MVMJ150GP S828**	**N2MVMJ150GR305 S828**
	1 1/2"	175	**N2MVMJ175GP S828**	**N2MVMJ175GR305 S828**

[B] For GR302 Type II refractor, change 'GR305' at end of catalog number to 'GR302.' Example: N2MVM2A150GR302 S828.
For GR303 Type III refractor, change 'GR305' at end of catalog number to 'GR303.' Example: N2MVM2A150GR303 S828.

1. Add voltage suffix to end of catalog number.

Standard voltage ballasts – 60 Hz

	NEC/UL			CEC/CSA (cUL)	
Voltage	Multi-tap	120V	480V	Tri-tap	120V
Suffix	/MT	/120	/480	/TT	/120

Optional voltage ballasts – 50 or 60 Hz

	Export			
Voltage	220V 60 Hz	220V 50 Hz	230V 50 Hz	240V 50 Hz
Suffix	/220	/220 50	/230 50	/240 50

2. Options: Add the required option suffixes in alphanumeric order.

Copyright© 2022 Eaton

Champ N2MV non-metallic HID luminaires

70-175W metal halide

Cl. I, Div. 2, Groups A, B, C, D
Cl. II, Groups F, G
Cl. III & Simultaneous Presence (100W max.)

Marine & Wet Locations
3, 3R, 4, 4X; IP56

To complete the catalog number, include information in Notes 1, 2 and 3 below. For guards and other optics, see N2MV – ordering by components page.

			BASIC CATALOG NUMBER	
Mounting style	**Hub size**	**Lamp watts**	**Cat. # With G303 globe and P33 guard**	**Cat. # With GR305 glass refractor©**
Pendant mount	3/4"	70	**N2MVM2A070GP**	**N2MVM2A070GR305**
	1"		**N2MVM3A070GP**	**N2MVM3A070GR305**
	3/4"	100	**N2MVM2A100GP**	**N2MVM2A100GR305**
	1"		**N2MVM3A100GP**	**N2MVM3A100GR305**
	3/4"	175	**N2MVM2A175GP**	**N2MVM2A175GR305**
	1"		**N2MVM3A175GP**	**N2MVM3A175GR305**
Ceiling mount through feed	3/4"	70	**N2MVM2C070GP**	**N2MVM2C070GR305**
	1"		**N2MVM3C070GP**	**N2MVM3C070GR305**
	3/4"	100	**N2MVM2C100GP**	**N2MVM2C100GR305**
	1"		**N2MVM3C100GP**	**N2MVM3C100GR305**
	3/4"	175	**N2MVM2C175GP**	**N2MVM2C175GR305**
	1"		**N2MVM3C175GP**	**N2MVM3C175GR305**
Stanchion mount 25° angle	1 1/2"	70	**N2MVMJ070GP**	**N2MVMJ070GR305**
	1 1/2"	100	**N2MVMJ100GP**	**N2MVMJ100GR305**
	1 1/2"	175	**N2MVMJ175GP**	**N2MVMJ175GR305**

©For GR302 Type II refractor, change 'GR305' at end of catalog number to 'GR302.' Example: N2MVM2A070GR302.
For GR303 Type III refractor, change 'GR305' at end of catalog number to 'GR303.' Example: N2MVM2A070GR303.

1. Add voltage suffix to end of catalog number.

Standard voltage ballasts – 60 Hz

	NEC/UL			CEC/CSA (cUL)	
Voltage	Multi-tap	120V	480V	Tri-tap	120V
Suffix	/MT	/120	/480	/TT	/120

Optional voltage ballasts – 50 or 60 Hz

	CEC/CSA (cUL) – CWI isolated ballasts			Export			
Voltage	208V CWI	240V CWI	600V CWI	220V 60 Hz	220V 50 Hz	230V 50 Hz	240V 50 Hz
Suffix	/208 CWI	/240 CWI	/600 CWI	/220	/220 50	/230 50	/240 50

2. 70W ballast not available in 480V.

3. Options: Add the required option suffixes in alphanumeric order.

www.eaton.com US: 1-866-764-5454 CAN: 1-800-265-0502 Copyright© 2022 Eaton

N2MV luminaires are available in components.

A complete luminaire consists of:

I. N2MV cover (mounting module)
II. N2MV ballast housing – include voltage and required option(s)
III. Globe, guard, reflector, refractor

I. N2MV cover (mounting module):

Type	Conduit size	Cat. #
Pendant mount	3/4"	**N2APM2**
	1"	**N2APM3**
Ceiling mount	3/4"	**N2CM2**
	1"	**N2CM3**
Wall mount (use wall bracket accessory with ceiling cover)	3/4"	**N2MV WM1 and N2CM2**
	1"	**N2MV WM1 and N2CM3**
Stanchion mount – 25° angle	1 1/2"	**N2JM5**

II. Ballast housings:

Complete catalog number must have the **voltage suffix** (MT shown) and any **options suffixes**.

Lamp type	Lamp watts	Cat. #
High pressure sodium	50	**N2MVS050/MT**
	70	**N2MVS070/MT**
	100	**N2MVS100/MT**
	150	**N2MVS150/MT LX**
Metal halide	70	**N2MVM070/MT**
	100	**N2MVM100/MT**
	175	**N2MVM175/MT**

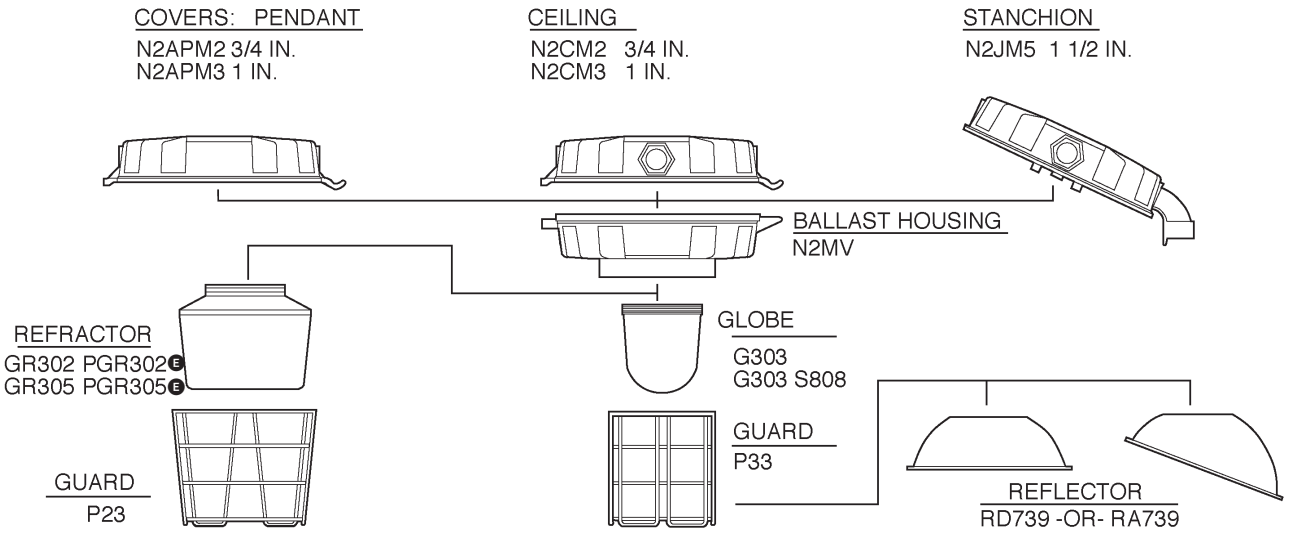
III. Globes, guards, reflectors, refractors:

Type	Cat. #
Globe	**G303**
Globe – Teflon coated	**G303S808**
Globe guard	**P33**
Reflector – dome	**RD739**
Reflector – angle	**RA739**
Refractor – Type II	**GR302**
Refractor – Type III	**GR303**
Refractor – Type V	**GR305**
Refractor guard	**P23**
Large plastic refractor – Type II	**PGR302**[D]
Large plastic refractor – Type III	**PGR303**[D]
Large plastic refractor – Type V	**PGR305**[D]

[D] Plastic refractors are for non-hazardous areas only (50-100W max.).

 Copyright© 2022 Eaton

Family tree:



EPlastic refractors are for non-hazardous areas only (50-100W max.).

www.eaton.com US: 1-866-764-5454 CAN: 1-800-265-0502 Copyright© 2022 Eaton

Temperature performance data:

Lamp Watts	Ambient Temp C	Optics	Class I (Gas/Vapors)	Class II (Dust) and Class III	Simultaneous Presence Gas and Dust Present in the Same Area	Supply Wire Temp C
			Non Restricted Breathing		Non Restricted Breathing	
			Standard Product	Standard Product	Standard Product	
			Division 2		Class I, Division 2 and Class II	
		G303	**X**	**X**	**X**	
		GR305	**X**	**X**	**X**	

High pressure sodium

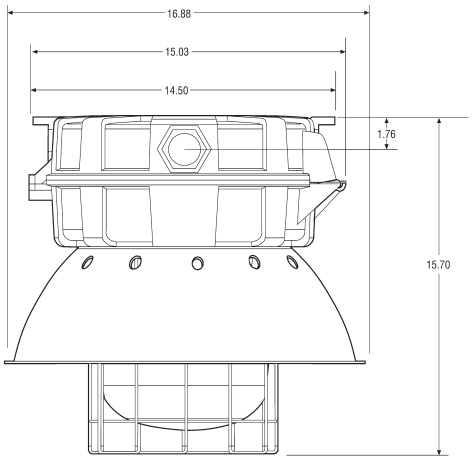
50	40		T3A	T4A	T2C / T4A	75
	55		T3A	–	–	85
	65		–	–	–	–
70	40		T3A	T4A	T2C / T4A	75
	55		T3A	–	–	85
	65		–	–	–	–
100	40		T2D	T4A	T2C / T4A	85
	55		T2C	–	–	100
	65		–	–	–	–
150	40		T2C	–	–	85
	55		–	–	–	–
	65		–	–	–	–

Metal halide

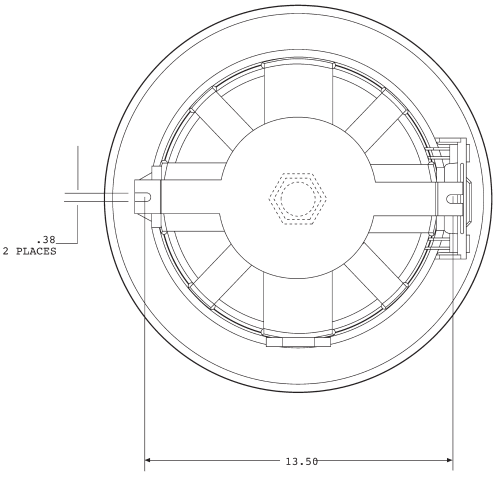
70	40		T3C	T4	T2B / T4	75
	55		T3B	–	–	85
	65		–	–	–	–
100	40		T2B	T4	T2B / T4	85
	55		T2B	–	–	–
	65		–	–	–	–
150 (S828)	40		T2	–	–	–
	55		–	–	–	–
	65		–	–	–	–
175 (includes S828)	40		T2	–	–	–
	55		–	–	–	–
	65		–	–	–	–

www.eaton.com US: 1-866-764-5454 CAN: 1-800-265-0502 Copyright© 2022 Eaton

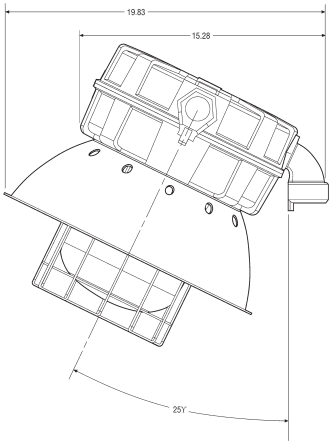
Dimensions (in inches):



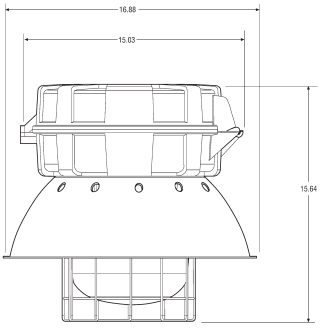
Ceiling mount



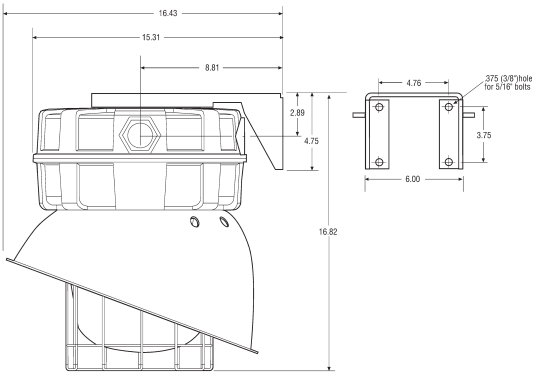
Ceiling mount – top view



Stanchion mount 25° angle



Pendant mount



Wall arm mount

Net luminaire weights:

Luminaire series	Lamp watts	Luminaire with globe, guard (lbs.)
N2MVS	50	23.00
	70	23.06
	100	24.06
	150	26.13
N2MVM	70	21.00
	100	21.06
	175	22.25
	250	24.00

Type	Weight (lbs.)
Add mounting modules:	
Pendant	1.25
Ceiling	2.75
Stanchion 25° angle	3.50
Add reflectors:	
Dome	1.25
30° angle	1.75

Deduct: 1.00 lb. for fixture without P33 guard
Add: 5.50 lbs. for fixture with GR305 refractor

Copyright© 2022 Eaton