



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX UL 13.0052X** Page 1 of 4 Certificate history:
Status: **Current** Issue No: 13 Issue 12 (2019-06-18)
Date of Issue: 2019-07-16 Issue 11 (2019-01-25)
Applicant: **Eaton's Crouse-Hinds Business** Issue 10 (2018-09-28)
1201 Wolf Street Issue 9 (2016-07-19)
Syracuse, NY 13208 Issue 8 (2016-03-07)
United States of America Issue 7 (2016-02-10)
Issue 6 (2015-07-29)
Issue 5 (2015-07-01)
Issue 4 (2015-04-10)
Issue 3 (2015-02-12)

Equipment: **LED Luminaires, VMV, VMVL, VMVHE and VMVHEL Series**

Optional accessory:

Type of Protection: **Increased Safety "ec", Non-Sparking "nA", Restricted Breathing "nR" and Dust Ignition Protection by Enclosure "tb"**

Marking: VMV3L-VMV11L, RL, GL, BL and AL:

Ex nA nR IIC T* Gc

Ex nA IIC T* Gc

Ex tb IIIC T*°C Db

VMVL-3, VMVL-5, VMVL-7, VMVL-9, VMVL-11:

Ex ec mb IIC T* Gc

Ex tb IIIC T*°C Db

(Please see Annex for Temperature Class information)

Approved for issue on behalf of the IECEx Certification Body:

Lucy Frieders

Position:

Staff Engineer

Signature:
(for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

UL LLC
333 Pfingsten Road
Northbrook IL 60062-2096
United States of America





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Date of issue: 2019-07-16 Issue No: 13

Manufacturer: **Eaton's Crouse-Hinds Business**
1201 Wolf Street
Syracuse, NY 13208
United States of America

Additional manufacturing locations:

Cooper Crouse-Hinds S. de R.L. de C.V Av. Javier Rojo Gómez No. 1170 Col. Guadalupe del Moral CP 09300 Mexico	Cooper Electric (Changzhou) Co. Ltd. No. 189 Liuyanghe Rd Xinbei District Changzhou, Jiangsu, 213031 China
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Eaton Electrical (Australia) Pty. Ltd. 10 Kent Road Mascot, NSW 2020 Australia	Eaton's Crouse-Hinds Business 1700 Blue Hills Drive NE Roanoke, VA 24012 United States of America
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This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

- | | |
|---|--|
| IEC 60079-0:2011
Edition:6.0 | Explosive atmospheres - Part 0: General requirements |
| IEC 60079-15:2010
Edition:4 | Explosive atmospheres - Part 15: Equipment protection by type of protection "n" |
| IEC 60079-18:2017
Edition:4.1 | Explosive atmospheres - Part 18: Protection by encapsulation "m" |
| IEC 60079-31:2013
Edition:2 | Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t" |
| IEC 60079-7:2017
Edition:5.1 | Explosive atmospheres - Part 7: Equipment protection by increased safety "e" |

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

[US/UL/EXTR15.0136/05](#)

Quality Assessment Reports:

[AU/TSA/QAR06.0020/11](#)
[US/UL/QAR17.0024/01](#)

[GB/BAS/QAR07.0041/09](#)

[US/UL/QAR17.0013/01](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

LED VMV and VMVHE series of luminaires are composed of an LED housing, driver housing, and various covers. The LED housing is evaluated for 'nR' protection and the driver housing is evaluated for 'nA' protection for certain luminaire constructions as shown on the marking label. There is a seal located between the driver housing and the LED housing. For the rest of the models, the LED housing and driver housing are evaluated for 'nA' protection. There are six types of covers that are available. The entire enclosure is cast aluminum; the lens is either glass or plastic and there are four gasketed joints. The gasketed joints are between the cover and the driver housing, between the driver housing and heatsink, between the heatsink and LED housing, and between the LED housing and lens.

LED VMVL and VMVHEL series of luminaires utilize enclosure construction, including the LED housing, driver housing and various covers identical to those used in models VMV and VMVHE, with the internal LED drivers and LEDs being the only difference between the VMV and VMVL series. VMVL and VMVHEL are evaluated for protection technique 'ec mb'.

All luminaire series VMV, VMVHE, VMVL, and VMVHEL are evaluated for protection technique 'tb'.

Please see Annex for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

Instructions shall include the following:

"To reduce the risk of ignition due to electrostatic discharge, avoid contact with the luminaire while an explosive atmosphere is present. Clean only with a damp cloth."



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 1: Nomenclature for Wire Guard changed from P to G.

Issue 2: Addition of optional internal spacer plate and optic rotated 180° (R3AP-Type 3 Optic).

Issue 3: Addition of an alternate driver PS2565-Y-XXX for VMV11L.

Issue 4: The addition of alternate 347-480 VAC LED Drivers and alternate Series Cat. Nos. VMV or VMVHE.

Issue 5: Drawing revisions.

Issue 6: Addition of Australia manufacturing location.

Issue 7: Addition of alternate mounting styles 20A, 25A, 20C, 25C, 2HA, 2TW, 3TW, 20TW, 25TW. The alternate mounting methods and plugs provided are identical to the mounting methods and plugs tested and certified under certificate number IECEx UL 14.0031X.

Issue 8: The update to the certificate is for an alternate gasket material that is located between sections of the luminaire and a new EXTR WAS ISSUED to replace all issues of US/UL/ExTR13.0052.

Issue 9: Addition of new LED drivers.

Issue 10: Updated IEC 60079-31 to 2nd edition and addition of Changzhou manufacturer.

Issue 11: Addition of alternate LED array 0307538 Series and Alternate silicone gasket between the lens to LED housing joint; Addition of internal Optic Type 1 and Alternate 3-pole connector for field and factory wiring.

Issue 12: Addition of luminaire model VMVL and VMVHEL.

Issue 13: Addition of Luminaire Models VMVL-9, VMVHEL-9, VMVL-11 and VMVHEL-11. Addition of Optic 3 to Models VMVL-3-VMVL-11.

Annex:

[Annex to IECEx UL 13.0052X Issue 13.pdf](#)



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TYPE DESIGNATION

Nomenclature for Luminaires:

Luminaire series VMV and VMVHE :

- I. VMV - LED series luminaire
VMVHE - High Efficacy Series
- II. Lamp/Function
3L - 4000 lumen equivalent LED
5L - 5000 lumen equivalent LED
7L - 7000 lumen equivalent LED
9L - 9000 lumen equivalent LED
11L - 11000 lumen equivalent LED
RL - Red (3200 Lumen)
GL - Green (4300 Lumen)
BL - Blue (2100 Lumen)
AL - Amber (5000 Lumen)
- III. LED Color Temperature
Blank - Cool (5000K)
W - Warm (3000K)
N - Neutral (4000K)
- IV. Mounting Style
Blank - No Cover
J - 1-1/2" Stanchion 25°
P - 1-1/2" Stanchion Straight
2A - 3/4" Pendant
3A - 1" Pendant
2B - 3/4" Dust Shedding
3B - 1" Dust Shedding
2C - 3/4" Ceiling
3C - 1" Ceiling
2HA - 3/4" Offset Pendant
2TW - 3/4" Wall Mount
3TW - 1" Wall Mount
20A - 20mm Pendant
25A - 25mm Pendant
20C - 20mm Ceiling Mount
25C - 25mm Ceiling Mount
2HA - 3/4" Offset Pendant
2TW - 3/4" Wall Mount
3TW - 1" Wall Mount
20TW - 20mm Wall Mount
25TW - 25mm Wall Mount



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V. Optics

- Blank - Type 5 Optic Standard (All mounts)
- R1 - Type 1 Optic (All Mounts Except ceiling)
- R1A - Type 1 Optic (Ceiling with conduit 45° counter-clockwise or 135° clockwise from hinge)
- R1B - Type 1 Optic (Ceiling with conduit 45° clockwise or 135° counter-clockwise from hinge)
- R3 - Type 3 Optic (All mounts except ceiling)
- R3A1 - Type 3 Optic (Ceiling with conduit 45° counter-clockwise from top hat hinge)
- R3A2 - Type 3 Optic (Ceiling with conduit 135° clockwise from top-hat hinge)
- R3AP - Type 3 Optic (Spacer plate, LED MCPCB and optic lens rotated 180°)
- R3B1 - Type 3 Optic (Ceiling with conduit 45° clockwise from top-hat hinge)
- R3B2 - Type 3 Optic (Ceiling with conduit 135° counter-clockwise from top-hat hinge)

VI. Guard

- Blank - No guard
- G - P3001 Wire guard

VII. Voltage

- /UNV1 - 100-277VAC, 50/60Hz
- /VDC - 108-250VDC
- /UNV34 - 347-480VAC, 50/60Hz

VIII. Suffix

- S890 - Quick Clip
- S903 - Polycarbonate
- S892 - Redundant Drivers (VMV5L and VMV7L only)
- S812 K1 - Trunion Mount Kit with Pin
- LensTBX - Terminal Block 'X' signifies the number of poles (/UNV1 and /VDC only)
- NO - No Optic provided in fixture



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Luminaire series VMVL and VMVHEL:

- I. VMVL – LED series luminaire
VMVHEL – High Efficacy Series
- II. Lamp/Function
 - 3 – 3000 Lumen LED
 - 5 – 5000 Lumen LED
 - 7 – 7000 Lumen LED
 - 9 – 9000 Lumen LED
 - 11 – 11000 Lumen LED
- III. LED Color Temperature
 - [BLANK] Cool: 5000K +/-200K
 - N - Neutral: 4000K +/-200k
 - W - Warm: 3000K +/-200k
- IV. Optics
 - Blank - TYPE 5 Standard (All mounts)
 - R1 - Type 1 Optic (All Mounts Except ceiling)
 - R1A - Type 1 Optic (Ceiling with conduit 45° counter-clockwise or 135° clockwise from hinge)
 - R1B - Type 1 Optic (Ceiling with conduit 45° clockwise or 135° counter-clockwise from hinge)
 - 1 - Type 1 Optic
 - R3 - Type 3 Optic (All mounts except ceiling)
 - R3A1 - Type 3 Optic (Ceiling with conduit 45° counter-clockwise from top hat hinge)
 - R3A2 - Type 3 Optic (Ceiling with conduit 135° clockwise from top-hat hinge)
 - R3B1 - Type 3 Optic (Ceiling with conduit 45° clockwise from top-hat hinge)
 - R3B2 - Type 3 Optic (Ceiling with conduit 135° counter-clockwise from top-hat hinge)
- V. Wire Guard
 - [BLANK] – No Wire Guard
 - G - Wire Guard
- VI. Voltage
 - /UNV1 - 100-277VAC, 50/60Hz
 - /VDC - 108-250VDC
- VII. Optional suffix – Indicates optional construction features
 - S812 – Trunion Mount Kit
 - S831 – Supplemental cable attachment
 - S896 – Teflon Coated Glass Lens (Division labeled devices only)
 - S890 – Quick Clips
 - S891 – Diffused Glass Lens (Division labeled devices only)
 - S903 – Indicates a polycarbonate lens
 - TBX – Terminal Block 'X' signifies the number of poles (/UNV1 and /VDC only)
 - DBR – Fixture provided with 94205-X PVC coating
 - NO – No Optic Provided



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PARAMETERS RELATING TO THE SAFETY

VMV3L-VMV11L, RL, GL, BL and AL	/UNV1: 100-277VAC, 50/60Hz, 1A and 0.75A /UNV34: 347-480VAC, 50/60Hz, 0.35A /VDC: 108-250VDC, 0.5A
VMVL-3, VMVL-5, VMVL-7	/UNV1: 100-240VAC, 50/60Hz, 1.3A /VDC: 127-250VDC, 1.3A

Luminaire models VMV and VMVHE:

Lamp Type	Voltage	Ambient Temperature	Gas	Dust
3L, 5L, 7L, 9L, 11L	100-277VAC	-40°C to +40°C	Ex nA nR IIC T6 Gc Ex nA IIC T5 Gc**	Ex tb IIIC T72°C Db IP66
		-40°C to +55°C	Ex nA nR IIC T5 Gc Ex nA IIC T5 Gc**	Ex tb IIIC T87°C Db IP66
		-40°C to +65°C *	Ex nA nR IIC T5 Gc Ex nA IIC T4 Gc**	Ex tb IIIC T92°C Db IP66
	347-480VAC	-40°C to +40°C	Ex nA nR IIC T4 Gc Ex nA IIC T4 Gc**	Ex tb IIIC T70°C Db IP66
		-40°C to +55°C	Ex nA nR IIC T4 Gc Ex nA IIC T4 Gc**	Ex tb IIIC T85°C Db IP66
		-40°C to +65°C *	Ex nA nR IIC T4 Gc Ex nA IIC T4 Gc**	Ex tb IIIC T92°C Db IP66
	100-250VDC	-40°C to +40°C	Ex nA nR IIC T6 Gc	Ex tb IIIC T72°C Db IP66
		-40°C to +55°C	Ex nA nR IIC T5 Gc	Ex tb IIIC T87°C Db IP66
		-40°C to +65°C *	Ex nA nR IIC T5 Gc	Ex tb IIIC T92°C Db IP66
RL, GL, BL, AL	100-277VAC	-40°C to +40°C	Ex nA nR IIC T5 Gc Ex nA IIC T4 Gc**	Ex tb IIIC T60°C Db IP66
		-40°C to +55°C	Ex nA nR IIC T4 Gc Ex nA IIC T4 Gc**	Ex tb IIIC T75°C Db IP66

* - Designates this ambient temperature is only applicable for luminaires utilizing Driver item 4 and 5 as detailed below.

** - Designates luminaires marked "Model M4".



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Luminaire models VMVL and VMVHEL:

VMVL-3,- 5, -7, -9, -11	100- 240VAC	-40°C to +40°C	Ex ec mb IIC T5 Gc	Ex tb IIIC T72°C Db IP66
		-40°C to +55°C	Ex ec mb IIC T5 Gc	Ex tb IIIC T87°C Db IP66
		-40°C to +65°C	Ex ec mb IIC T4 Gc	Ex tb IIIC T92°C Db IP66

Luminaire models VMV and VMVHE

Driver Model Numbers and Ratings					
Item No.	Manufacturer	Manufacturer Part Number	Input Rating	Output Rating	Catalog Usage
1	Martek Power	PS2556-Y	347-480 Vac, 50/60 Hz	16-40 Vdc, 1.0 Amp	UNV34
2	Martek Power	PS2548-Y-0.7-C2	100-277 Vac, 50/60 Hz	16-40 Vdc, 0.70 Amp	UNV1 (COLOR LED)
3	Martek Power	PS2548-Y-0.7-C2-DC	108-250 Vdc	16-40 Vdc, 0.70 Amp	VDC (COLOR LED)
4	Martek Power	PS2565R-Y-XXX	100-277 Vac, 50/60 Hz, 108- 250 Vdc	20-80 VDC, 1.0 Amp	UNV1/VDC
5	Martek Power	PS2569R-Y-XXX	347-480 VAC, 50/60 Hz	20-80 VDC, 1.0 Amp	UNV34

Luminaire models VMVL and VMVHEL

Item No.	Manufacturer	Manufacturer Part Number	Input Rating	Output Rating	Catalog Usage
1	Inventronics Inc.	EUD-060S120DT-FTxxy	100-240VAC; 50/60Hz 127-250VDC	25-86VDC 1.2A	UNV1/VDC
2	Inventronics Inc.*	EUD-096S105DTAFTxx	100-240VAC; 50/60 Hz 127-250VDC	48-137 VDC	UNV1/VDC



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MARKING

Marking has to be readable and indelible; it has to include the following indications:

Models VMV:

Crouse-Hinds by **EAT-N**

LUMINAIRE FITTING FOR HAZARDOUS LOCATIONS

CL I, DIV. 2, Gr. A, B, C, D
CL II, Gr. E, F, G, CL III
TYPE 4X

CL I, ZN. 2 AEX nA nR IIC
CL I, ZN. 2 EX nA nR IIC
IP66

*DEMKO 13 ATEX 1475031X
**DEMKO 13 ATEX 1305741X
IECEx UL 13.0052X

Ex nA nR IIC T5 Gc Tamb -40°C - +40°C
Ex nA nR IIC T5 Gc Tamb -40°C - +55°C
Ex nA nR IIC T4 Gc Tamb -40°C - +55°C
Ex nA nR IIC T4 Gc Tamb -40°C - +65°C
Ex nA nR IIC T5 Gc Tamb -40°C - +65°C
Ex nA nR IIC T5 Gc Tamb -40°C - +85°C
Ex nA nR IIC T5 Gc Tamb -40°C - +95°C
Ex nA nR IIC T5 Gc Tamb -40°C - +105°C
Ex nA nR IIC T5 Gc Tamb -40°C - +125°C
Ex nA nR IIC T5 Gc Tamb -40°C - +150°C
Ex nA nR IIC T5 Gc Tamb -40°C - +175°C
Ex nA nR IIC T5 Gc Tamb -40°C - +200°C
Ex nA nR IIC T5 Gc Tamb -40°C - +225°C
Ex nA nR IIC T5 Gc Tamb -40°C - +250°C
Ex nA nR IIC T5 Gc Tamb -40°C - +275°C
Ex nA nR IIC T5 Gc Tamb -40°C - +300°C
Ex nA nR IIC T5 Gc Tamb -40°C - +325°C
Ex nA nR IIC T5 Gc Tamb -40°C - +350°C
Ex nA nR IIC T5 Gc Tamb -40°C - +375°C
Ex nA nR IIC T5 Gc Tamb -40°C - +400°C
Ex nA nR IIC T5 Gc Tamb -40°C - +425°C
Ex nA nR IIC T5 Gc Tamb -40°C - +450°C
Ex nA nR IIC T5 Gc Tamb -40°C - +475°C
Ex nA nR IIC T5 Gc Tamb -40°C - +500°C
Ex nA nR IIC T5 Gc Tamb -40°C - +525°C
Ex nA nR IIC T5 Gc Tamb -40°C - +550°C
Ex nA nR IIC T5 Gc Tamb -40°C - +575°C
Ex nA nR IIC T5 Gc Tamb -40°C - +600°C
Ex nA nR IIC T5 Gc Tamb -40°C - +625°C
Ex nA nR IIC T5 Gc Tamb -40°C - +650°C
Ex nA nR IIC T5 Gc Tamb -40°C - +675°C
Ex nA nR IIC T5 Gc Tamb -40°C - +700°C
Ex nA nR IIC T5 Gc Tamb -40°C - +725°C
Ex nA nR IIC T5 Gc Tamb -40°C - +750°C
Ex nA nR IIC T5 Gc Tamb -40°C - +775°C
Ex nA nR IIC T5 Gc Tamb -40°C - +800°C
Ex nA nR IIC T5 Gc Tamb -40°C - +825°C
Ex nA nR IIC T5 Gc Tamb -40°C - +850°C
Ex nA nR IIC T5 Gc Tamb -40°C - +875°C
Ex nA nR IIC T5 Gc Tamb -40°C - +900°C
Ex nA nR IIC T5 Gc Tamb -40°C - +925°C
Ex nA nR IIC T5 Gc Tamb -40°C - +950°C
Ex nA nR IIC T5 Gc Tamb -40°C - +975°C
Ex nA nR IIC T5 Gc Tamb -40°C - +1000°C

CATALOG NO. VMV9LC/UNV1
INPUT VOLTS (VAC) 100-277
INPUT VOLTS (VDC) 108-250
HERTZ 50/60
WATTS XXX-XXX
OPER. AMPS XXX-XXX
MIN. P.F.% XXX

UL LISTED 700G **UL** MARINE

Wolf & 7th North Streets Syracuse, NY 13221 DDDMY MODEL: M2 Assembled in the USA 0307073 REV. 1

MAX. AMBI. TEMP °C	MIN °C SUPPLY WIRE	CL I DIV. 2 TEMP. CODE	CL II DIV. 1 TEMP. CODE	SIMULTANEOUS PRESENCE CL I DIV. 2 CL II DIV. 1 TEMP. CODE	CL I, DIV. 2 / ZN. 2 AEX nA nR IIC TEMP. CODE
40	75	T5	T5	T5	T6
55	90	T5	T4A	T3A	T5
65	90	T4A	T4A	T3A	T4

Model "M4":

EAT-N CROUSE-HINDS SERIES

LUMINAIRE FITTING FOR HAZARDOUS LOCATIONS

CL I, DIV. 2, Gr. A, B, C, D
CL II, Gr. E, F, G, CL III
TYPE 4X

CL I, ZN. 2 AEX nA IIC
CL I, ZN. 2 EX nA IIC
IP66

*DEMKO 13 ATEX 1475031X
**DEMKO 13 ATEX 1305741X
IECEx UL 13.0052X

Ex nA IIC T5 Gc Tamb -40°C - +40°C
Ex nA IIC T5 Gc Tamb -40°C - +55°C
Ex nA IIC T4 Gc Tamb -40°C - +55°C
Ex nA IIC T4 Gc Tamb -40°C - +65°C
Ex nA IIC T5 Gc Tamb -40°C - +65°C
Ex nA IIC T5 Gc Tamb -40°C - +85°C
Ex nA IIC T5 Gc Tamb -40°C - +95°C
Ex nA IIC T5 Gc Tamb -40°C - +105°C
Ex nA IIC T5 Gc Tamb -40°C - +125°C
Ex nA IIC T5 Gc Tamb -40°C - +150°C
Ex nA IIC T5 Gc Tamb -40°C - +175°C
Ex nA IIC T5 Gc Tamb -40°C - +200°C
Ex nA IIC T5 Gc Tamb -40°C - +225°C
Ex nA IIC T5 Gc Tamb -40°C - +250°C
Ex nA IIC T5 Gc Tamb -40°C - +275°C
Ex nA IIC T5 Gc Tamb -40°C - +300°C
Ex nA IIC T5 Gc Tamb -40°C - +325°C
Ex nA IIC T5 Gc Tamb -40°C - +350°C
Ex nA IIC T5 Gc Tamb -40°C - +375°C
Ex nA IIC T5 Gc Tamb -40°C - +400°C
Ex nA IIC T5 Gc Tamb -40°C - +425°C
Ex nA IIC T5 Gc Tamb -40°C - +450°C
Ex nA IIC T5 Gc Tamb -40°C - +475°C
Ex nA IIC T5 Gc Tamb -40°C - +500°C
Ex nA IIC T5 Gc Tamb -40°C - +525°C
Ex nA IIC T5 Gc Tamb -40°C - +550°C
Ex nA IIC T5 Gc Tamb -40°C - +575°C
Ex nA IIC T5 Gc Tamb -40°C - +600°C
Ex nA IIC T5 Gc Tamb -40°C - +625°C
Ex nA IIC T5 Gc Tamb -40°C - +650°C
Ex nA IIC T5 Gc Tamb -40°C - +675°C
Ex nA IIC T5 Gc Tamb -40°C - +700°C
Ex nA IIC T5 Gc Tamb -40°C - +725°C
Ex nA IIC T5 Gc Tamb -40°C - +750°C
Ex nA IIC T5 Gc Tamb -40°C - +775°C
Ex nA IIC T5 Gc Tamb -40°C - +800°C
Ex nA IIC T5 Gc Tamb -40°C - +825°C
Ex nA IIC T5 Gc Tamb -40°C - +850°C
Ex nA IIC T5 Gc Tamb -40°C - +875°C
Ex nA IIC T5 Gc Tamb -40°C - +900°C
Ex nA IIC T5 Gc Tamb -40°C - +925°C
Ex nA IIC T5 Gc Tamb -40°C - +950°C
Ex nA IIC T5 Gc Tamb -40°C - +975°C
Ex nA IIC T5 Gc Tamb -40°C - +1000°C

CATALOG NO. VMV9L/UNV1 S891
INPUT VOLTS (VAC) 120-277
INPUT VOLTS (VDC) 108-250
HERTZ 50/60
WATTS 84-90
OPER. AMPS .31-.86

UL LISTED 700G **UL** MARINE

1201 Wolf Street, Syracuse, NY 13208 DDDMY MODEL: M4 Assembled in the USA 0307073 REV. 9

MAX. AMBI. TEMP °C	MIN °C SUPPLY WIRE	CL I DIV. 2 TEMP. CODE	CL II DIV. 1 TEMP. CODE	SIMULTANEOUS PRESENCE CL I DIV. 2 CL II DIV. 1 TEMP. CODE	CL I, DIV. 2 / ZN. 2 AEX nA IIC TEMP. CODE
40	75	T5	T5	T3C	T5
55	90	T5	T4A	T3A	T5
65	90	T4A	T4A	T3A	T4

Models VMVL:

EAT-N CROUSE-HINDS SERIES

LUMINAIRE FITTING FOR HAZARDOUS LOCATIONS

CL I, DIV. 2, Gr. A, B, C, D
CL II, Gr. E, F, G, CL III
TYPE 4X

CL I, ZN. 2 AEX ec mb IIC
CL I, ZN. 2 EX ec mb IIC
ZN. 2 I AEX IIC
IP66

*DEMKO 13 ATEX 1475031X
**DEMKO 13 ATEX 1305741X
IECEx UL 13.0052X

Ex ec mb IIC T5 Gc Tamb -40°C - +40°C
Ex ec mb IIC T5 Gc Tamb -40°C - +55°C
Ex ec mb IIC T4 Gc Tamb -40°C - +55°C
Ex ec mb IIC T4 Gc Tamb -40°C - +65°C
Ex ec mb IIC T5 Gc Tamb -40°C - +65°C
Ex ec mb IIC T5 Gc Tamb -40°C - +85°C
Ex ec mb IIC T5 Gc Tamb -40°C - +95°C
Ex ec mb IIC T5 Gc Tamb -40°C - +105°C
Ex ec mb IIC T5 Gc Tamb -40°C - +125°C
Ex ec mb IIC T5 Gc Tamb -40°C - +150°C
Ex ec mb IIC T5 Gc Tamb -40°C - +175°C
Ex ec mb IIC T5 Gc Tamb -40°C - +200°C
Ex ec mb IIC T5 Gc Tamb -40°C - +225°C
Ex ec mb IIC T5 Gc Tamb -40°C - +250°C
Ex ec mb IIC T5 Gc Tamb -40°C - +275°C
Ex ec mb IIC T5 Gc Tamb -40°C - +300°C
Ex ec mb IIC T5 Gc Tamb -40°C - +325°C
Ex ec mb IIC T5 Gc Tamb -40°C - +350°C
Ex ec mb IIC T5 Gc Tamb -40°C - +375°C
Ex ec mb IIC T5 Gc Tamb -40°C - +400°C
Ex ec mb IIC T5 Gc Tamb -40°C - +425°C
Ex ec mb IIC T5 Gc Tamb -40°C - +450°C
Ex ec mb IIC T5 Gc Tamb -40°C - +475°C
Ex ec mb IIC T5 Gc Tamb -40°C - +500°C
Ex ec mb IIC T5 Gc Tamb -40°C - +525°C
Ex ec mb IIC T5 Gc Tamb -40°C - +550°C
Ex ec mb IIC T5 Gc Tamb -40°C - +575°C
Ex ec mb IIC T5 Gc Tamb -40°C - +600°C
Ex ec mb IIC T5 Gc Tamb -40°C - +625°C
Ex ec mb IIC T5 Gc Tamb -40°C - +650°C
Ex ec mb IIC T5 Gc Tamb -40°C - +675°C
Ex ec mb IIC T5 Gc Tamb -40°C - +700°C
Ex ec mb IIC T5 Gc Tamb -40°C - +725°C
Ex ec mb IIC T5 Gc Tamb -40°C - +750°C
Ex ec mb IIC T5 Gc Tamb -40°C - +775°C
Ex ec mb IIC T5 Gc Tamb -40°C - +800°C
Ex ec mb IIC T5 Gc Tamb -40°C - +825°C
Ex ec mb IIC T5 Gc Tamb -40°C - +850°C
Ex ec mb IIC T5 Gc Tamb -40°C - +875°C
Ex ec mb IIC T5 Gc Tamb -40°C - +900°C
Ex ec mb IIC T5 Gc Tamb -40°C - +925°C
Ex ec mb IIC T5 Gc Tamb -40°C - +950°C
Ex ec mb IIC T5 Gc Tamb -40°C - +975°C
Ex ec mb IIC T5 Gc Tamb -40°C - +1000°C

CATALOG NO. VMVL-7-UNV1
INPUT VOLTS (VAC) 100-277***
INPUT VOLTS (VDC) 127-250
HERTZ 50/60
WATTS XXX-XXX
OPER. AMPS XXX-XXX
*** 100-240 VAC (EN/IEC)
DO NOT REMOVE LENS, NO REPLACEABLE COMPONENTS

UL LISTED 700G **UL** MARINE

1201 Wolf Street, Syracuse, NY 13208 DDDMY MODEL: M1 Assembled in the USA 0307685-1

MAX. AMBI. TEMP °C	MIN °C SUPPLY WIRE	CL I DIV. 2 TEMP. CODE	CL II DIV. 1 TEMP. CODE	SIMULTANEOUS PRESENCE CL I DIV. 2 CL II DIV. 1 TEMP. CODE	CL I, DIV. 2 / ZN. 2 AEX ec mb IIC TEMP. CODE
40	75	T5	T5	T3C	T5
55	90	T5	T4A	T3A	T5
65	90	T4A	T4A	T3A	T4



IECEX Certificate of Conformity

Certificate No.: IECEx UL 13.0052X

Issue No.: 13

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ROUTINE EXAMINATIONS AND TESTS

Each piece of equipment defined above has to have successfully passed; before delivery:

Routine dielectric testing is to be performed as follows:

1. /UNV1: Input to luminaire ground, voltage of 2176VDC for 60s, or 2611VDC for 100ms.
2. /UNV34: Input to luminaire ground, voltage of 2744VDC for 60s, or 3293VDC for 100ms.
3. /VDC: Input to Luminaire ground, voltage of 2100VDC for 60s, or 2520VDC for 100ms.
4. LED PCB: Between P1 inputs tied together and aluminum substrate, voltage of 700VDC, for 60s, or 840VDC for 100ms.
5. LED PCB: Between P2 inputs tied together and aluminum substrate, voltage of 700VDC, for 60s, or 840VDC for 100ms.