

# Ex-Pendant light fittings and floodlights of the series VMV LED

4 (Zone 2, 21, 22)

## The powerful floodlight with LED technology VMV LED

The energy-saving VMV pendant light fittings and floodlights with LED technology are ideal for all general lighting applications in hazardous areas in Zone 2 and hazardous dust areas in Zones 21 and 22. With the integrated high-power LED technology, these lights can be used to replace comparable conventional light sources with an equivalent capacity of up to 1000 W.

## LED technology for heavy-duty use

Due to the particularly solid construction of the housing and the vibration resistance of the LED module, the VMV floodlight is resistant to impact, shock and vibration. As a result, it represents the ideal lighting concept for use in areas with difficult environmental conditions. Thanks to the non-sensitive LED technology, even extreme temperatures from -40 °C up to +65 °C are not a problem. The robust, powder-coated light metal housing in the degree of protection

IP66 and the impact-resistant lens meet the highest corrosion protection and mechanical resistance requirements. The advantages of the integrated, advanced LED technology with a high luminous flux and, at the same time, an extremely low energy consumption are a long service life and a high level of efficiency. With a power consumption of 29 W to 232 W, it is ideal for replacing 70 W to 1000 W light fittings with high pressure lamps.

## The best lighting technology for every application

The VMV LED pendant light fittings and floodlights series are available with 3 different custom optics:



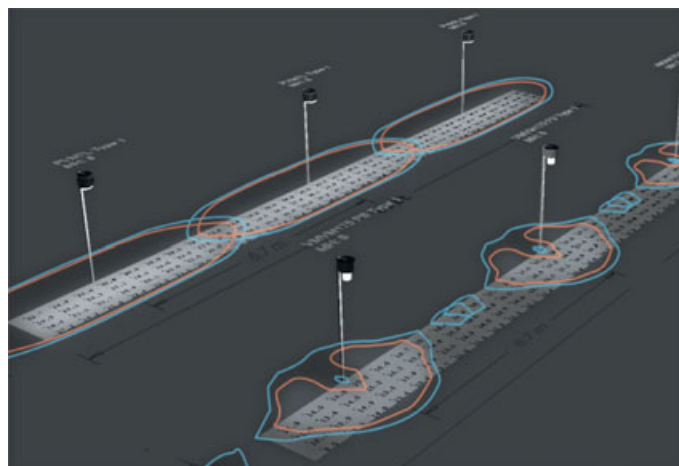
Type V has a symmetric light distribution and is optimised for general area illumination.



Type III has an asymmetrical light distribution and is, therefore, suitable for near-edge mounting (wall mounting) for surface illumination.



Type I has a narrow light distribution and is ideal for lighting roads and pathways.



Champ VMV with Type I optics (left row) compared to conventional fixtures (on the right)

## Features

- High power LED modules
- Multiple drivers
- High efficient heat sink design for optimised thermal management
- Wide temperature range from -40 °C up to +65 °C (depends on type)
- High degree of protection IP66 for harsh environments
- Dimmable by control input 0-10 V

## Ordering details

| Type                                                                                        | Lamp / Illuminant | Rated luminous flux of the luminaire (± 10 %) | Weight  | Cable gland/ thread | Threaded plugs | Enclosure type | Order No.         |
|---------------------------------------------------------------------------------------------|-------------------|-----------------------------------------------|---------|---------------------|----------------|----------------|-------------------|
| <b>VMV LED lamp module with LEDs (without top mounting module, please order separately)</b> |                   |                                               |         |                     |                |                |                   |
| VMV LED 3L                                                                                  | 29 W Type V       | 3,531 lm                                      | 8.1 kg  | –                   | –              | 1              | <b>1 2364 745</b> |
| VMV LED 5L                                                                                  | 41 W Type V       | 5,256 lm                                      | 8.1 kg  | –                   | –              | 1              | <b>1 2364 746</b> |
| VMV LED 7L                                                                                  | 54 W Type V       | 7,120 lm                                      | 8.1 kg  | –                   | –              | 1              | <b>1 2365 201</b> |
| VMV LED 9L                                                                                  | 74 W Type V       | 9,134 lm                                      | 8.1 kg  | –                   | –              | 1              | <b>1 2365 202</b> |
| VMV LED 11L                                                                                 | 89 W Type V       | 11,034 lm                                     | 8.1 kg  | –                   | –              | 1              | <b>1 2396 576</b> |
| VMV LED 13L                                                                                 | 130 W Type V      | 13,266 lm                                     | 16.3 kg | –                   | –              | 2              | <b>1 2442 415</b> |
| VMV LED 17L                                                                                 | 168 W Type V      | 18,793 lm                                     | 16.3 kg | –                   | –              | 2              | <b>1 2442 952</b> |
| VMV LED 21L                                                                                 | 196 W Type V      | 22,110 lm                                     | 20.0 kg | –                   | –              | 3              | <b>1 2442 986</b> |
| VMV LED 25L                                                                                 | 232 W Type V      | 26,531 lm                                     | 20.0 kg | –                   | –              | 3              | <b>1 2443 020</b> |
| VMV LED 3L                                                                                  | 29 W Type I       | 3,531 lm                                      | 8.1 kg  | –                   | –              | 1              | <b>1 2374 698</b> |
| VMV LED 5L                                                                                  | 41 W Type I       | 5,256 lm                                      | 8.1 kg  | –                   | –              | 1              | <b>1 2375 046</b> |
| VMV LED 7L                                                                                  | 54 W Type I       | 7,120 lm                                      | 8.1 kg  | –                   | –              | 1              | <b>1 2375 106</b> |
| VMV LED 9L                                                                                  | 74 W Type I       | 9,134 lm                                      | 8.1 kg  | –                   | –              | 1              | <b>1 2375 186</b> |
| VMV LED 11L                                                                                 | 89 W Type I       | 11,034 lm                                     | 8.1 kg  | –                   | –              | 1              | <b>1 2401 259</b> |
| VMV LED 13L                                                                                 | 130 W Type I      | 13,266 lm                                     | 16.3 kg | –                   | –              | 2              | <b>1 2442 930</b> |
| VMV LED 17L                                                                                 | 168 W Type I      | 18,793 lm                                     | 16.3 kg | –                   | –              | 2              | <b>1 2442 963</b> |
| VMV LED 21L                                                                                 | 196 W Type I      | 22,110 lm                                     | 20.0 kg | –                   | –              | 3              | <b>1 2442 997</b> |
| VMV LED 25L                                                                                 | 232 W Type I      | 26,531 lm                                     | 20.0 kg | –                   | –              | 3              | <b>1 2443 031</b> |
| VMV LED 3L                                                                                  | 29 W Type III     | 3,531 lm                                      | 8.1 kg  | –                   | –              | 1              | <b>1 2374 782</b> |
| VMV LED 5L                                                                                  | 41 W Type III     | 5,256 lm                                      | 8.1 kg  | –                   | –              | 1              | <b>1 2375 047</b> |
| VMV LED 7L                                                                                  | 54 W Type III     | 7,120 lm                                      | 8.1 kg  | –                   | –              | 1              | <b>1 2375 107</b> |
| VMV LED 9L                                                                                  | 74 W Type III     | 9,134 lm                                      | 8.1 kg  | –                   | –              | 1              | <b>1 2375 187</b> |
| VMV LED 11L                                                                                 | 89 W Type III     | 11,034 lm                                     | 8.1 kg  | –                   | –              | 1              | <b>1 2402 998</b> |
| VMV LED 13L                                                                                 | 130 W Type III    | 13,266 lm                                     | 16.3 kg | –                   | –              | 2              | <b>1 2442 941</b> |
| VMV LED 17L                                                                                 | 168 W Type III    | 18,793 lm                                     | 16.3 kg | –                   | –              | 2              | <b>1 2442 974</b> |
| VMV LED 21L                                                                                 | 196 W Type III    | 22,110 lm                                     | 20.0 kg | –                   | –              | 3              | <b>1 2443 009</b> |
| VMV LED 25L                                                                                 | 232 W Type III    | 26,531 lm                                     | 20.0 kg | –                   | –              | 3              | <b>1 2443 042</b> |

| Type                                                                               | Content                                                                   | Weight  | Cable gland/ thread                    | Threaded plugs | Order No.         |
|------------------------------------------------------------------------------------|---------------------------------------------------------------------------|---------|----------------------------------------|----------------|-------------------|
| <b>VMV LED top mounting module, (without lamp module, please order separately)</b> |                                                                           |         |                                        |                |                   |
| JM5 <sup>1)</sup>                                                                  | top mounting module for 1 1/2" pole mounting, 25°                         | 1.6 kg  | 1 x 3/4" thread                        | –              | <b>22 250</b>     |
| PM5                                                                                | top mounting module for 1 1/2" pole mounting, straight                    | 2.5 kg  | 1 x 3/4" thread                        | –              | <b>00 080</b>     |
| CM20                                                                               | top mounting module with M20 ceiling mounting                             | 1.3 kg  | 4 x M20 thread                         | 4 x M20        | <b>1 1843 088</b> |
| TWM20                                                                              | top mounting module with M20 wall mounting                                | 2.0 kg  | 4 x M20 thread                         | 4 x M20        | <b>1 1832 237</b> |
| S812                                                                               | mounting bracket (can only be used with top mounting module CM20 or CM25) | 1.0 kg  | –                                      | –              | <b>1 2268 927</b> |
| JGA5520                                                                            | Pole adapter for M20 cable gland (JM5/PM5)                                | 0.45 kg | 1 1/2" NPT pole thread, 1 x M20 thread | –              | <b>1 1826 774</b> |
| JGA5525                                                                            | Pole adapter for M25 cable gland (JM5/PM5)                                | 0.45 kg | 1 1/2" NPT pole thread, 1 x M25 thread | –              | <b>1 1826 777</b> |

<sup>1)</sup> only for VMV 3L-11L

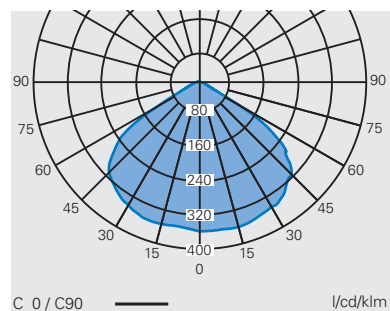
Scope of delivery without lamp and fixing accessories, if not stated otherwise.

# 4.11

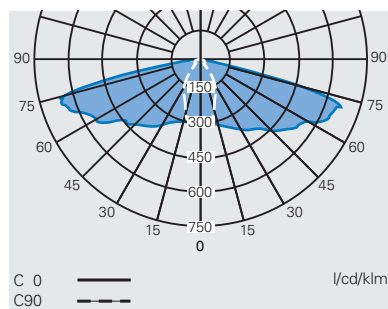
## Polar curve / Dimension drawing

VMV LED

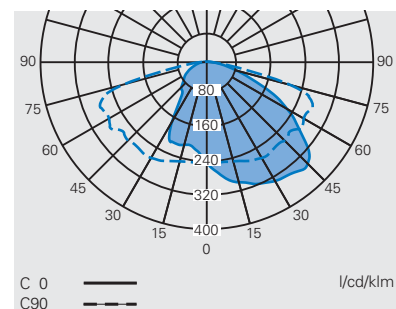
Polar curve VMV LED Type V



Polar curve VMV LED Type I

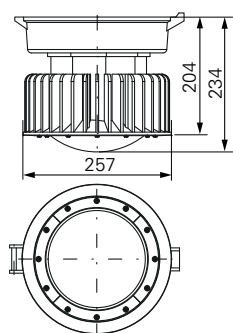


Polar curve VMV LED Type III

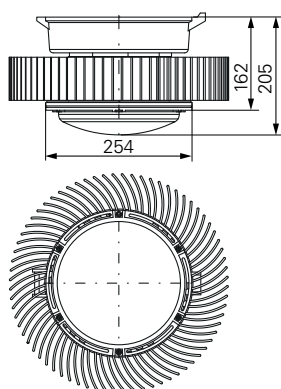


### VMV LED

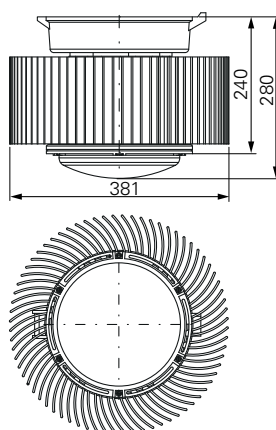
Enclosure type 1



Enclosure type 2

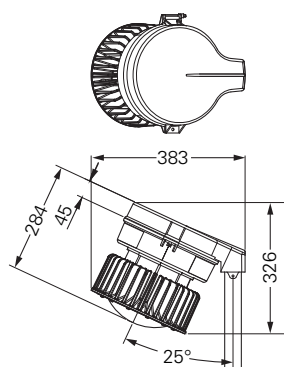


Enclosure type 3

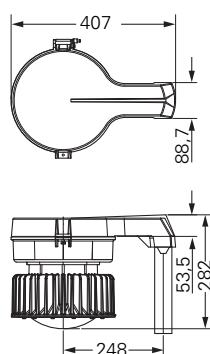


### VMV LED

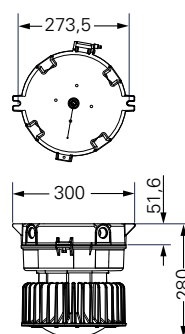
with top mounting module JM5



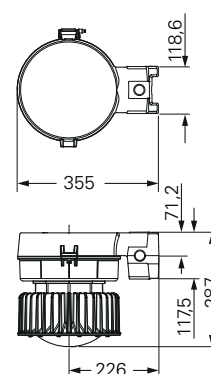
with top mounting module PM5



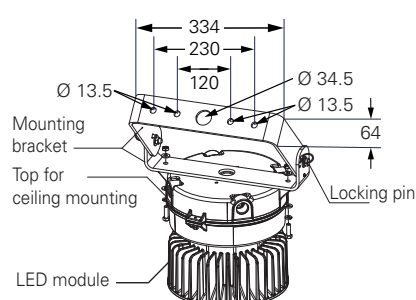
with top mounting module CM20



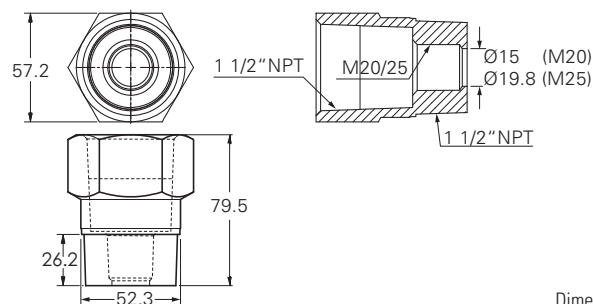
with top mounting module TWM20



Mounting bracket S812



Pole adapter JGA5520 / JGA5525



Dimensions in mm



## Technical data

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|                                                        | VMV LED 3L - 11L                                                            | VMV LED 13L - 17L                                                           | VMV LED 21L - 25L                                                           |
|--------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Type Examination Certificate (gas)                     | DEMKO 13 ATEX 1475031X                                                      | DEMKO 13 ATEX 1475031X                                                      | DEMKO 13 ATEX 1475031X                                                      |
| EC-Type Examination Certificate (dust)                 | DEMKO 13 ATEX 1305741X                                                      | DEMKO 13 ATEX 1305741X                                                      | DEMKO 13 ATEX 1305741X                                                      |
| IECEX Certificate of Conformity                        | IECEX UL 13.0052X                                                           | IECEX UL 14.0031X                                                           | IECEX UL 14.0031X                                                           |
| Marking accd. to 2014/34/EU                            | Ⓢ II 3 G Ex nA nR IIC T6/T5 Gc<br>Ⓢ II 2 D Ex tb IIIC T92/T87/72°C Db IP66  | Ⓢ II 3 G Ex nA nR IIC T6/T5 Gc<br>Ⓢ II 2 D Ex tb IIIC T87/72°C Db IP66      | Ⓢ II 3 G Ex nA nR IIC T6/T5 Gc<br>Ⓢ II 2 D Ex tb IIIC T87/72°C Db IP66      |
| Marking accd. to IECEx                                 | Ex nA nR IIC T6 Gc /<br>Ex tb IIIC T87°C/T72 °C Db IP66                     | Ex nA nR IIC T6/T5 Gc /<br>Ex tb IIIC T81°C/T66 °C Db IP66                  | Ex nA nR IIC T6/T5 Gc /<br>Ex tb IIIC T86°C/T71 °C Db IP66                  |
| Permissible ambient temperature                        | -40 °C up to +65 °C                                                         | -40 °C up to +55 °C                                                         | -40 °C up to +55 °C                                                         |
| Lifetime fixture                                       | 200,000 h at t <sub>a</sub> = +25 °C<br>60,000 h at t <sub>a</sub> = +65 °C | 170,000 h at t <sub>a</sub> = +25 °C<br>60,000 h at t <sub>a</sub> = +55 °C | 170,000 h at t <sub>a</sub> = +25 °C<br>60,000 h at t <sub>a</sub> = +55 °C |
| Rated voltage                                          | 120 - 277 V AC / 108 - 250 V DC                                             | 100 - 277 V AC / 108 - 250 V DC                                             | 100 - 277 V AC / 108 - 250 V DC                                             |
| Frequency                                              | 50 - 60 Hz                                                                  | 50 - 60 Hz                                                                  | 50 - 60 Hz                                                                  |
| Power                                                  | <sup>1)</sup>                                                               | <sup>1)</sup>                                                               | <sup>1)</sup>                                                               |
| Power factor cos φ                                     | > 0.9                                                                       | > 0.9                                                                       | > 0.9                                                                       |
| Circuit                                                | electronic driver                                                           | electronic driver                                                           | electronic driver                                                           |
| Dimming control input                                  | 0 -10 V, 15 - 100 %                                                         | 0 -10 V, 15 - 100 %                                                         | 0 -10 V, 15 - 100 %                                                         |
| Protection class                                       | I                                                                           | I                                                                           | I                                                                           |
| Lamp / Illuminant                                      | LED System, scope of delivery                                               | LED System, scope of delivery                                               | LED System, scope of delivery                                               |
| Light colour/CRI                                       | 5000 K/70, 3000 K/80 on request                                             | 5000 K/70, 3000 K/80 on request                                             | 5000 K/70, 3000 K/80 on request                                             |
| Rated luminous flux of the luminaire (typical, ± 10 %) | <sup>1)</sup>                                                               | <sup>1)</sup>                                                               | <sup>1)</sup>                                                               |
| Dimensions (L x W x H)                                 | 280 x 295 x 230 mm                                                          | 381 x 381 x 197 mm                                                          | 381 x 381 x 274 mm                                                          |
| Connecting terminals                                   | L, N, PE max. 2 x 2.5 mm <sup>2</sup>                                       | L, N, PE max. 2 x 2.5 mm <sup>2</sup>                                       | L, N, PE max. 2 x 2.5 mm <sup>2</sup>                                       |
| Enclosure colour                                       | grey/black                                                                  | grey/black                                                                  | grey/black                                                                  |
| Enclosure material                                     | Copper-free aluminium with epoxy-powder coating                             | Copper-free aluminium with epoxy-powder coating                             | Copper-free aluminium with epoxy-powder coating                             |
| Weight                                                 | 8.1 kg                                                                      | 16.3 kg                                                                     | 20.0 kg                                                                     |
| Degree of protection accd. to EN 60529                 | IP66                                                                        | IP66                                                                        | IP66                                                                        |
| Protective cover / protective bowl                     | Heat- and impact-resistant glass <sup>2)</sup>                              | Heat- and impact-resistant glass <sup>2)</sup>                              | Heat- and impact-resistant glass <sup>2)</sup>                              |

<sup>1)</sup> See table luminaire data

<sup>2)</sup> Polycarbonate lens on request / frosted cover on request

## Additional luminaire data

| Type        | Power | luminous flux of the<br>luminaire type V<br>(± 10 %) | Temperature class II 3 G |            |            | max. surface temp. II 2 D |            |            |
|-------------|-------|------------------------------------------------------|--------------------------|------------|------------|---------------------------|------------|------------|
|             |       |                                                      | TU ≤ 40 °C               | TU ≤ 55 °C | TU ≤ 65 °C | TU ≤ 40 °C                | TU ≤ 55 °C | TU ≤ 65 °C |
| VMV LED     |       |                                                      |                          |            |            |                           |            |            |
| VMV 3L LED  | 29 W  | 3,531 lm                                             | T6                       | T5         | T4         | T72 °C                    | T87 °C     | T92 °C     |
| VMV 5L LED  | 41 W  | 5,256 lm                                             | T6                       | T5         | T4         | T72 °C                    | T87 °C     | T92 °C     |
| VMV 7L LED  | 54 W  | 7,120 lm                                             | T6                       | T5         | T4         | T72 °C                    | T87 °C     | T92 °C     |
| VMV 9L LED  | 74 W  | 9,134 lm                                             | T6                       | T5         | T4         | T72 °C                    | T87 °C     | T92 °C     |
| VMV 11L LED | 89 W  | 11,034 lm                                            | T6                       | T5         | T4         | T72 °C                    | T87 °C     | T92 °C     |
| VMV 13L LED | 130 W | 13,266 lm                                            | T6                       | T5         |            | T66 °C                    | T81 °C     |            |
| VMV 17L LED | 168 W | 18,793 lm                                            | T6                       | T5         |            | T66 °C                    | T81 °C     |            |
| VMV 21L LED | 196 W | 22,110 lm                                            | T6                       | T5         |            | T71 °C                    | T86 °C     |            |
| VMV 25L LED | 232 W | 26,531 lm                                            | T6                       | T5         |            | T71 °C                    | T86 °C     |            |