

Type: **DILM25-10(RDC24)**

Article No.: **277146**



### Ordering information

|                                                           |                |    |                               |
|-----------------------------------------------------------|----------------|----|-------------------------------|
| Rated operational current AC-3 400 V                      | $I_e$          | A  | 25                            |
| Max. rating for three-phase motors, 50 – 60 Hz AC-3 230 V | $P$            | kW | 7.5                           |
| Max. rating for three-phase motors, 50 – 60 Hz AC-3 400 V | $P$            | kW | 11                            |
| Max. rating for three-phase motors, 50 – 60 Hz AC-3 690 V | $P$            | kW | 14                            |
| Max. rating for three-phase motors, 50 – 60 Hz AC-4 230 V | $P$            | kW | 3.5                           |
| Max. rating for three-phase motors, 50 – 60 Hz AC-4 400 V | $P$            | kW | 6                             |
| Max. rating for three-phase motors, 50 – 60 Hz AC-4 690 V | $P$            | kW | 8.5                           |
| Conventional thermal current $I_{th} = I_e$ AC-1 Open     | $I_{th} = I_e$ | A  | 40                            |
| For use with                                              |                |    | DILM32-XHI..<br>DILA-XHI(V).. |

### General

|                                 |              |               |                                                                                  |
|---------------------------------|--------------|---------------|----------------------------------------------------------------------------------|
| Standards                       |              |               | IEC/EN 60947, VDE 0660, UL, CSA                                                  |
| Lifespan, mechanical            |              |               |                                                                                  |
| AC operated                     | Operations   | $\times 10^6$ | 10                                                                               |
| DC operated                     | Operations   | $\times 10^6$ | 10                                                                               |
| Operating frequency, mechanical |              |               |                                                                                  |
| AC operated                     | Operations/h |               | 5000                                                                             |
| DC operated                     | Operations/h |               | 5000                                                                             |
| Climatic proofing               |              |               | Damp heat, constant, to IEC 60068-2-78<br>Damp heat, cyclical, to IEC 60068-2-30 |
| Ambient temperature             |              |               |                                                                                  |

|                                                                      |  |                 |                                      |
|----------------------------------------------------------------------|--|-----------------|--------------------------------------|
| Open                                                                 |  | °C              | –25/60                               |
| Enclosed                                                             |  | °C              | –25/40                               |
| Storage                                                              |  | °C              | –40/80                               |
| Mechanical shock resistance (IEC/EN 60068–2–27)                      |  |                 |                                      |
| Half-sinusoidal shock, 20 ms                                         |  |                 |                                      |
| Main contacts                                                        |  |                 |                                      |
| Make contact                                                         |  | g               | 10                                   |
| Auxiliary contacts                                                   |  |                 |                                      |
| Make contact                                                         |  | g               | 7                                    |
| Break contact                                                        |  | g               | 5                                    |
| Protection type                                                      |  |                 | IP00                                 |
| Protection against direct contact when actuated from front (IEC 536) |  |                 | Finger- and back-of-hand proof       |
| Weight                                                               |  |                 |                                      |
| AC operated                                                          |  | kg              | 0,42                                 |
| DC operated                                                          |  | kg              | 0,48                                 |
| Terminal capacity Main cable                                         |  |                 |                                      |
| Solid                                                                |  | mm <sup>2</sup> | 1 × (0.75 – 16)<br>2 × (0.75 – 10)   |
| Flexible with ferrule                                                |  | mm <sup>2</sup> | 1 × (0.75 – 16)<br>2 × (0.75 – 10)   |
| Stranded                                                             |  | mm <sup>2</sup> | 1 × 16                               |
| Solid or stranded                                                    |  | AWG             | 18 – 6                               |
| Anschlussschraube Hauptleiter                                        |  |                 | M5                                   |
| Tightening torque                                                    |  | Nm              | 3                                    |
| Terminal capacity Control circuit cables                             |  |                 |                                      |
| Solid                                                                |  | mm <sup>2</sup> | 1 × (0.75 – 4)<br>1 × (0.75 – 4)     |
| Flexible with ferrule                                                |  | mm <sup>2</sup> | 1 × (0.75 – 2.5)<br>2 × (0.75 – 2.5) |
| Solid or stranded                                                    |  | AWG             | 18 – 14                              |
| Anschlussschraube Hilfsleiter                                        |  |                 | M3.5                                 |
| Tightening torque                                                    |  | Nm              | 1.2                                  |
| Tool                                                                 |  |                 |                                      |
| Main cable                                                           |  |                 |                                      |
| Pozidriv screwdriver                                                 |  | Size            | 2                                    |
| Standard screwdriver                                                 |  | mm              | 0.8 × 5.5<br>1 × 6                   |
| Control circuit cables                                               |  |                 |                                      |
| Pozidriv screwdriver                                                 |  | Size            | 2                                    |
| Standard screwdriver                                                 |  | mm              | 0.8 × 5.5<br>1 × 6                   |
| Terminal capacity Control circuit cables                             |  |                 |                                      |
| Solid                                                                |  | mm <sup>2</sup> | 0.75 – 2.5                           |
| Flexible                                                             |  | mm <sup>2</sup> | 0.75 – 2.5                           |
| Flexible with ferrule                                                |  | mm <sup>2</sup> | 0.75 – 2.5                           |
| Solid or stranded                                                    |  | AWG             | 18 – 14                              |

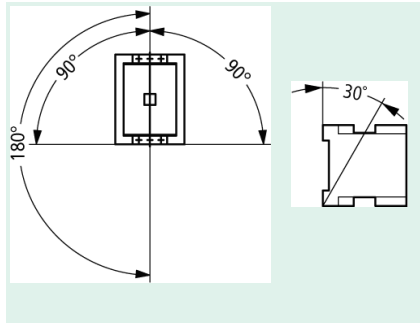
|                                                          |             |       |                          |
|----------------------------------------------------------|-------------|-------|--------------------------|
| Tool                                                     |             |       |                          |
| Stripping length                                         |             | mm    | 10                       |
| Screwdriver blade width                                  |             | mm    | 3,5                      |
| <b>Main conducting paths</b>                             |             |       |                          |
| Rated impulse withstand voltage                          | $U_{imp}$   | V AC  | 8000                     |
| Overvoltage category/pollution degree                    |             |       | III/3                    |
| Rated insulation voltage                                 |             |       |                          |
| AC                                                       | $U_i$       | V AC  | 690                      |
| Rated operational voltage                                | $U_e$       | V AC  | 690                      |
| Safe isolation to VDE 0106 Part 101 and Part 101/A1      |             |       |                          |
| between coil and contacts                                |             | V AC  | 440                      |
| between the contacts                                     |             | V AC  | 440                      |
| Making capacity (cos $\phi$ to IEC/EN 60947) up to 690 V |             | A     | 350                      |
| Breaking capacity                                        |             |       |                          |
| 220/230 V                                                |             | A     | 250                      |
| 380/400 V                                                |             | A     | 250                      |
| 500 V                                                    |             | A     | 250                      |
| 660/690 V                                                |             | A     | 150                      |
| Component lifespan                                       |             |       |                          |
| AC-3/AC-4                                                |             |       | Tripping characteristics |
| Maximum operating frequency                              |             |       |                          |
| AC-1; 400 V                                              | $I_e$       | Ops/h | 800                      |
| AC-3; 400 V                                              | $I_e$       | Ops/h | 800                      |
| AC-4; 400 V                                              | $I_e$       | Ops/h | 300                      |
| Short-circuit rating                                     |             |       |                          |
| Short-circuit protection Maximum fuse                    |             |       |                          |
| Type "2" coordination                                    |             |       |                          |
| 400 V                                                    | gG/gL 500 V | A     | 35                       |
| 690 V                                                    | gG/gL 690 V | A     | 35                       |
| Type "1" coordination                                    |             |       |                          |
| 400 V                                                    | gG/gL 500 V | A     | 100                      |
| 690 V                                                    | gG/gL 690 V | A     | 50                       |
| <b>AC</b>                                                |             |       |                          |
| AC-1 duty                                                |             |       |                          |
| conv. therm. current 3-pole 50 – 60 Hz                   |             |       |                          |
| open                                                     |             |       |                          |
| at 40 °C                                                 | $I_{th}$    | A     | 45                       |
| at 50 °C                                                 | $I_{th}$    | A     | 43                       |
| at 55 °C                                                 | $I_{th}$    | A     | 42                       |
| at 60 °C                                                 | $I_{th}$    | A     | 40                       |
| Enclosed                                                 | $I_{th}$    | A     | 36                       |
| Conventional free air thermal current, 1-pole            |             |       |                          |
| open                                                     | $I_{th}$    | A     | 85                       |

|                                                         |          |    |     |
|---------------------------------------------------------|----------|----|-----|
| Enclosed                                                | $I_{th}$ | A  | 80  |
| AC–3 duty                                               |          |    |     |
| Rated operational current AC–3 open, 50 – 60 Hz, 3–pole |          |    |     |
| 220/230 V                                               | $I_e$    | A  | 25  |
| 240 V                                                   | $I_e$    | A  | 25  |
| 380/400 V                                               | $I_e$    | A  | 25  |
| 415 V                                                   | $I_e$    | A  | 25  |
| 440V                                                    | $I_e$    | A  | 25  |
| 500 V                                                   | $I_e$    | A  | 25  |
| 660/690 V                                               | $I_e$    | A  | 15  |
| Motor rating                                            |          |    |     |
| 220/230 V                                               | $P$      | kW | 7,5 |
| 240V                                                    | $P$      | kW | 11  |
| 380/400 V                                               | $P$      | kW | 11  |
| 415 V                                                   | $P$      | kW | 19  |
| 440 V                                                   | $P$      | kW | 14  |
| 500 V                                                   | $P$      | kW | 23  |
| 660/690 V                                               | $P$      | kW | 14  |
| AC–4 duty                                               |          |    |     |
| Rated operational current AC–4 open, 50 – 60 Hz, 3–pole |          |    |     |
| 220/230 V                                               | $I_e$    | A  | 13  |
| 240 V                                                   | $I_e$    | A  | 13  |
| 380/400 V                                               | $I_e$    | A  | 13  |
| 415 V                                                   | $I_e$    | A  | 13  |
| 440 V                                                   | $I_e$    | A  | 13  |
| 500 V                                                   | $I_e$    | A  | 13  |
| 660/690 V                                               | $I_e$    | A  | 10  |
| Motor rating                                            |          |    |     |
| 220/230 V                                               | $P$      | kW | 3,5 |
| 240 V                                                   | $P$      | kW | 4   |
| 380/400 V                                               | $P$      | kW | 6   |
| 415 V                                                   | $P$      | kW | 6,5 |
| 440 V                                                   | $P$      | kW | 7   |
| 500 V                                                   | $P$      | kW | 8   |
| 660/690 V                                               | $P$      | kW | 8,5 |
| <b>DC</b>                                               |          |    |     |
| of three–phase capacitors open                          |          |    |     |
| DC–1 operation                                          |          |    |     |
| 60 V                                                    | $I_e$    | A  | 40  |
| 110 V                                                   | $I_e$    | A  | 40  |
| 220 V                                                   | $I_e$    | A  | 40  |
| 440 V                                                   | $I_e$    | A  | 2,9 |
| DC–3 operation                                          |          |    |     |
| 60 V                                                    | $I_e$    | A  | 35  |
| 110 V                                                   | $I_e$    | A  | 35  |

|                                                                    |         |              |             |
|--------------------------------------------------------------------|---------|--------------|-------------|
| 220 V                                                              | $I_e$   | A            | 10          |
| 440 V                                                              | $I_e$   | A            | 0,6         |
| DC-5 operation                                                     |         |              |             |
| 60 V                                                               | $I_e$   | A            | 35          |
| 110 V                                                              | $I_e$   | A            | 35          |
| 220 V                                                              | $I_e$   | A            | 10          |
| 440 V                                                              | $I_e$   | A            | 0,6         |
| <b>Current heat loss (3-pole)</b>                                  |         |              |             |
| Current heat loss at $I_{th}$                                      |         | W            | 9,6         |
| Current heat loss at $I_e$ to AC-3/400 V                           |         | W            | 3,8         |
| Impedance per pole                                                 |         | mΩ           | 2           |
| <b>Magnet systems</b>                                              |         |              |             |
| Voltage tolerance                                                  |         |              |             |
| AC operated                                                        |         |              |             |
| AC operated                                                        | Pick-up | $\times U_c$ | 0,8 – 1,1   |
| Drop-out voltage AC operated                                       |         |              |             |
| Drop-out voltage AC operated                                       | Abfall  | $\times U_c$ | 0,3 – 0,6   |
| DC operated                                                        |         |              |             |
| DC operated                                                        | Pick-up | $\times U_c$ | 0,7 – 1,2   |
| DC operated                                                        |         |              |             |
| DC operated                                                        | Abfall  | $\times U_c$ | 0,15–0,6    |
| Power consumption of the coil in a cold state and $1.0 \times U_c$ |         |              |             |
| 50 Hz                                                              | Pick-up | VA           | 50          |
| 50 Hz                                                              | Pick-up | W            | 40          |
| 50 Hz                                                              | Sealing | VA           | 8           |
| 50 Hz                                                              | Sealing | W            | 2,4         |
| 60 Hz                                                              | Pick-up | VA           | 62          |
| 60 Hz                                                              | Pick-up | W            | 50          |
| 60 Hz                                                              | Sealing |              | 9,1         |
| 60 Hz                                                              | Sealing | VA           | 2,7         |
| 50/60 Hz                                                           | Pick-up | VA           | 60<br>54    |
| 50/60 Hz                                                           | Pick-up | W            | 48<br>43    |
| 50/60 Hz                                                           | Sealing | VA           | 9,5<br>7,9  |
| 50/60 Hz                                                           | Sealing | W            | 2,8<br>2,4  |
| DC operated                                                        | Pick-up | W            | 12 at 24 V  |
| DC operated                                                        | Sealing | W            | 0.5 at 24 V |
| Duty factor                                                        |         | % DF         | 100         |
| Switching times at 100 % $U_c$ (approximate values)                |         |              |             |
| Main contacts                                                      |         |              |             |
| AC operated                                                        |         |              |             |
| Closing delay                                                      |         | ms           | 25          |
| Opening delay                                                      |         | ms           | 25          |

|                                            |  |    |               |
|--------------------------------------------|--|----|---------------|
| DC operated                                |  |    |               |
| Closing delay                              |  | ms | 60            |
| Opening delay                              |  | ms | 15            |
| Arcing time                                |  | ms | 10            |
| <b>Electromagnetic compatibility (EMC)</b> |  |    |               |
| Emitted interference                       |  |    | to EN 60947-1 |
| Interference immunity                      |  |    | to EN 60947-1 |

## Mounting position, AC- and DC operated



Moeller GmbH, Hein-Moeller-Str. 7-11, D-53115 Bonn  
E-Mail: [catalog@moeller.net](mailto:catalog@moeller.net), Internet: [www.moeller.net](http://www.moeller.net), <http://catalog.moeller.net>  
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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.