

**Contactor, 3 pole, 380 V 400 V 5.5 kW, 1 N/O, 220 V 50/60 Hz, AC operation,  
Push in terminals**



**Part no. DILM12-10(220V50/60HZ)-PI  
199651**

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|--|---|
| Product name                                   | Eaton Moeller® series DILM contactor  |
| Part no.                                       | DILM12-10(220V50/60HZ)-PI   |
| EAN  | 4015081983520   |
| Product Length/Depth                           | 75 millimetre   |
| Product height                                 | 68 millimetre   |
| Product width                                  | 45 millimetre   |
| Product weight                                 | 0.225 kilogram  |
| Certifications                                 | IEC/EN 60947<br>VDE 0660  |
| Product Tradename                              | DILM  |
| Product Type                                   | Contactor   |
| Product Sub Type                               | None  |
| Catalog Notes                                  | At maximum permissible ambient temperature (open.)<br>Contacts according to EN 50012  |
| Application                                    | Contactors for Motors   |
| Degree of protection                           | IP20  |
| Frame size                                     | FS1   |
| Lifespan, mechanical                           | 10,000,000 Operations (AC operated)   |
| Operating frequency                            | 9000 mechanical Operations/h (AC operated)  |
| Overvoltage category                           | III   |
| Pollution degree                               | 3   |
| Product category                               | Contactors  |
| Protection                                     | Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274)  |
| Rated impulse withstand voltage (Uimp)         | 6000 V AC   |
| Suitable for                                   | Also motors with efficiency class IE3   |
| Utilization category                           | AC-1: Non-inductive or slightly inductive loads, resistance furnaces<br>AC-4: Normal AC induction motors: starting, plugging, reversing, inching<br>AC-3: Normal AC induction motors: starting, switch off during running   |
| Voltage type                                   | AC  |
| Shock resistance                               | 7 g, N/O auxiliary contact, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms<br>5 g, N/C auxiliary contact, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms<br>5.7 g, N/O main contact, Mechanical, according to IEC/EN 60068-2-27 when tabletop-mounted, Half-sinusoidal shock 10 ms<br>10 g, N/O main contact, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms<br>3.4 g, N/O auxiliary contact, Mechanical, according to IEC/EN 60068-2-27 when tabletop-mounted, Half-sinusoidal shock 10 ms<br>3.4 g, N/C auxiliary contact, Mechanical, according to IEC/EN 60068-2-27 when tabletop-mounted, Half-sinusoidal shock 10 ms |
| Ambient operating temperature - min            | -25 °C  |
| Ambient operating temperature - max            | 60 °C   |
| Ambient operating temperature (enclosed) - min | 25 °C   |
| Ambient operating temperature (enclosed) - max | 40 °C   |
| Ambient storage temperature - min              | 40 °C   |
| Ambient storage temperature - max              | 80 °C   |
| Climatic proofing                              | Damp heat, cyclic, to IEC 60068-2-30<br>Damp heat, constant, to IEC 60068-2-78  |

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| Emitted interference   |  |  | According to EN 60947-1   |
| Interference immunity  |  |  | According to EN 60947-1   |
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| Terminal capacity (flexible with ferrule)                        |  |  | 1 x (0.5 - 1.5) mm <sup>2</sup> , Control circuit cables<br>2 x (0.5 - 1.5) mm <sup>2</sup> , Main cables |
| Terminal capacity (flexible)                                     |  |  | 1 x (0.5 - 2.5) mm <sup>2</sup><br>2 x (0.5 - 2.5) mm <sup>2</sup>  |
| Terminal capacity (solid)  |  |  | 1 x (0.5 - 0.25) mm <sup>2</sup><br>2 x (0.5 - 2.5) mm <sup>2</sup> , Control circuit cables              |
| Terminal capacity (solid/stranded AWG)                           |  |  | 20 - 14   |
| Stripping length (main cable)                                    |  |  | 10 mm   |
| Screwdriver size   |  |  | 3.0 x 0.5 mm, Terminal screw<br>3 x 0.5 mm, Terminal screw  |
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| Rated breaking capacity at 220/230 V                             |  |  | 120 A   |
| Rated breaking capacity at 380/400 V                             |  |  | 120 A   |
| Rated breaking capacity at 500 V                                 |  |  | 100 A   |
| Rated breaking capacity at 660/690 V                             |  |  | 70 A  |
| Rated operational current (Ie) at AC-1, 380 V, 400 V, 415 V      |  |  | 22 A  |
| Rated operational current (Ie) at AC-3, 220 V, 230 V, 240 V      |  |  | 12 A  |
| Rated operational current (Ie) at AC-3, 380 V, 400 V, 415 V      |  |  | 12 A  |
| Rated operational current (Ie) at AC-3, 440 V                    |  |  | 12 A  |
| Rated operational current (Ie) at AC-3, 500 V                    |  |  | 10 A  |
| Rated operational current (Ie) at AC-3, 660 V, 690 V             |  |  | 7 A   |
| Rated operational current (Ie) at AC-4, 220 V, 230 V, 240 V      |  |  | 7 A   |
| Rated operational current (Ie) at AC-4, 440 V                    |  |  | 7 A   |
| Rated operational current (Ie) at AC-4, 500 V                    |  |  | 6 A   |
| Rated operational current (Ie) at AC-4, 660 V, 690 V             |  |  | 5 A   |
| Rated operational current (Ie) at DC-1, 60 V                     |  |  | 20 A  |
| Rated operational current (Ie) at DC-1, 110 V                    |  |  | 20 A  |
| Rated operational current (Ie) at DC-1, 220 V                    |  |  | 15 A  |
| Rated insulation voltage (Ui)                                    |  |  | 690 V   |
| Rated making capacity up to 690 V (cos phi to IEC/EN 60947)      |  |  | 144 A   |
| Rated operational power at AC-3, 240 V, 50 Hz                    |  |  | 4 kW  |
| Rated operational power at AC-3, 380/400 V, 50 Hz                |  |  | 5.5 kW  |
| Rated operational power at AC-3, 415 V, 50 Hz                    |  |  | 7 kW  |
| Rated operational power at AC-4, 220/230 V, 50 Hz                |  |  | 2 kW  |
| Rated operational power at AC-4, 240 V, 50 Hz                    |  |  | 2.2 kW  |
| Rated operational power at AC-4, 415 V, 50 Hz                    |  |  | 3.4 kW  |
| Rated operational power at AC-4, 440 V, 50 Hz                    |  |  | 3.6 kW  |
| Rated operational power at AC-4, 500 V, 50 Hz                    |  |  | 3.5 kW  |
| Rated operational power at AC-4, 660/690 V, 50 Hz                |  |  | 4.4 kW  |
| Rated operational voltage (Ue) at AC - max                       |  |  | 690 V   |
|  |  |  |   |
| Short-circuit protection rating (type 1 coordination) at 400 V   |  |  | 35 A gG/gL  |
| Short-circuit protection rating (type 1 coordination) at 690 V   |  |  | 25 A gG/gL  |
| Short-circuit protection rating (type 2 coordination) at 400 V   |  |  | 20 A gG/gL  |
| Short-circuit protection rating (type 2 coordination) at 690 V   |  |  | 20 A gG/gL  |
|  |  |  |   |
| Conventional thermal current ith (1-pole, enclosed)              |  |  | 45 A  |
| Conventional thermal current ith (3-pole, enclosed)              |  |  | 18 A  |
| Conventional thermal current ith at 55°C (3-pole, open)          |  |  | 21 A  |
| Conventional thermal current ith of main contacts (1-pole, open) |  |  | 50 A  |
|  |  |  |   |
| Arcing time  |  |  | 10 ms   |
| Drop-out voltage   |  |  | AC operated: 0.6 - 0.3 x UC, AC operated  |
| Duty factor  |  |  | 100 %   |

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| Pick-up voltage  |  | 0.8 - 1.1 V AC x Uc  |
| Power consumption, pick-up, 50 Hz                                |  | 25 VA, Dual-frequency coil in a cold state and 1.0 x Us<br>27 VA, Dual-frequency coil in a cold state and 1.0 x Us   |
| Power consumption, pick-up, 60 Hz                                |  | 25 VA, Dual-frequency coil in a cold state and 1.0 x Us<br>27 VA, Dual-frequency coil in a cold state and 1.0 x Us   |
| Power consumption, sealing, 50 Hz                                |  | 1.4 W, Dual-frequency coil in a cold state and 1.0 x Us<br>1.2 W, Dual-frequency coil in a cold state and 1.0 x Us   |
| Power consumption, sealing, 60 Hz                                |  | 4.2 VA, Dual-frequency coil in a cold state and 1.0 x Us, at 60 Hz<br>3.3 VA, Dual-frequency coil in a cold state and 1.0 x Us, at 60 Hz<br>1.2 W, Dual-frequency coil in a cold state and 1.0 x Us<br>1.4 W, Dual-frequency coil in a cold state and 1.0 x Us |
| Rated control supply voltage (Us) at AC, 50 Hz - min             |  | 220 V  |
| Rated control supply voltage (Us) at AC, 50 Hz - max             |  | 220 V  |
| Rated control supply voltage (Us) at AC, 60 Hz - min             |  | 220 V  |
| Rated control supply voltage (Us) at AC, 60 Hz - max             |  | 220 V  |
| Rated control supply voltage (Us) at DC - min                    |  | 0 V  |
| Rated control supply voltage (Us) at DC - max                    |  | 0 V  |
| Switching time (AC operated, make contacts, closing delay) - min |  | 15 ms  |
| Switching time (AC operated, make contacts, closing delay) - max |  | 21 ms  |
| Switching time (AC operated, make contacts, opening delay) - min |  | 9 ms   |
| Switching time (AC operated, make contacts, opening delay) - max |  | 18 ms  |
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| Connection   |  | Push in terminals  |
| Connection to SmartWire-DT                                       |  | No   |
|  |  |  |
| Number of contacts (normally open contacts)                      |  | 1  |
| Number of auxiliary contacts (normally closed contacts)          |  | 0  |
| Number of auxiliary contacts (normally open contacts)            |  | 1  |
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| Safe isolation   |  | 400 V AC, Between the contacts, According to EN 61140<br>400 V AC, Between coil and contacts, According to EN 61140  |

## Technical data ETIM 8.0

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|---|----|-------------------------|
| Low-voltage industrial components (EG000017) / Power contactor, AC switching (EC000066)   |    |                         |
| Electric engineering, automation, process control engineering / Low-voltage switch technology / Contactor (LV) / Power contactor, AC switching (ecl@ss10.0.1-27-37-10-03 [AAB718015]) |    |                         |
| Rated control supply voltage Us at AC 50HZ  | V  | 220 - 220               |
| Rated control supply voltage Us at AC 60HZ  | V  | 220 - 220               |
| Rated control supply voltage Us at DC   | V  | 0 - 0                   |
| Voltage type for actuating  |    | AC                      |
| Rated operation current Ie at AC-1, 400 V   | A  | 22                      |
| Rated operation current Ie at AC-3, 400 V   | A  | 12                      |
| Rated operation power at AC-3, 400 V  | kW | 5.5                     |
| Rated operation current Ie at AC-4, 400 V   | A  | 7                       |
| Rated operation power at AC-4, 400 V  | kW | 3                       |
| Rated operation power NEMA  | kW | 0                       |
| Modular version   |    | No                      |
| Number of auxiliary contacts as normally open contact   |    | 1                       |
| Number of auxiliary contacts as normally closed contact   |    | 0                       |
| Type of electrical connection of main circuit   |    | Spring clamp connection |
| Number of normally closed contacts as main contact  |    | 0                       |
| Number of normally open contacts as main contact  |    | 3                       |