# DATASHEET - SDAINLM12(24VDC)

**Star-delta contactor combination, 380 V 400 V: 5.5 kW, 24 V DC, DC operation**

**Part no.** **SDAINLM12(24VDC)**
**100416**

| | | | |
|---|---|---|---|
| **General specifications** | | | |
| Product name | | | Eaton Moeller® series SDAINL contactor combination |
| Part no. | | | SDAINLM12(24VDC) |
| EAN | | | 4015081003938 |
| Product Length/Depth | | | 117 millimetre |
| Product height | | | 82 millimetre |
| Product width | | | 158 millimetre |
| Product weight | | | 1.19 kilogram |
| Compliances | | | Contact Manufacturer |
| Certifications | | | CE |
| Product Tradename | | | SDAINL |
| Product Type | | | Contactor combination |
| Product Sub Type | | | None |
| Catalog Notes | | | Contacts according to EN 50012 |
| **Features & Functions** | | | |
| Functions | | | Star-delta contactor |
| **General information** | | | |
| Application | | | Star-delta motor starting for contactor combinations |
| Degree of protection | | | IP20<br>NEMA Other |
| Product category | | | Contactor combinations |
| Suitable for | | | Also motors with efficiency class IE3 |
| Used with | | | ETR4-51 |
| Utilization category | | | AC-3: Normal AC induction motors: starting, switch off during running |
| Voltage type | | | DC |
| **Climatic environmental conditions** | | | |
| Ambient operating temperature - min | | | -25 °C |
| Ambient operating temperature - max | | | 60 °C |
| **Electrical rating** | | | |
| Rated operational current (Ie) at AC-1, 380 V, 400 V, 415 V | | | 12 A |
| Rated operational current (Ie) at AC-3, 380 V, 400 V, 415 V | | | 12 A |
| Rated operational power at AC-3, 380/400 V, 50 Hz | | | 5.5 kW |
| Rated operational power at AC-3, 500 V, 50 Hz | | | 5.5 kW |
| Rated operational power at AC-3, 690 V, 50 Hz | | | 5.5 kW |
| **Magnet system** | | | |
| Changeover time | | | 20 s, max. |
| Duty factor | | | 100 % |
| Rated control supply voltage (Us) at AC, 50 Hz - min | | | 0 V |
| Rated control supply voltage (Us) at AC, 50 Hz - max | | | 0 V |
| Rated control supply voltage (Us) at AC, 60 Hz - min | | | 0 V |
| Rated control supply voltage (Us) at AC, 60 Hz - max | | | 0 V |
| Rated control supply voltage (Us) at DC - min | | | 24 V |
| Rated control supply voltage (Us) at DC - max | | | 24 V |
| **Contacts** | | | |
| Number of auxiliary contacts (normally closed contacts) | | | 0 |
| Number of auxiliary contacts (normally open contacts) | | | 3 |
| **Design verification** | | | |

| | | | |
|---|---|---|---|
| Equipment heat dissipation, current-dependent Pvid | | | 2.8 W |
| Heat dissipation capacity Pdiss | | | 0 W |
| Heat dissipation per pole, current-dependent Pvid | | | 0.93 W |
| Rated operational current for specified heat dissipation (In) | | | 7 A |
| Static heat dissipation, non-current-dependent Pvs | | | 7.8 W |
| 10.2.2 Corrosion resistance | | | Meets the product standard's requirements. |
| 10.2.3.1 Verification of thermal stability of enclosures | | | Meets the product standard's requirements. |
| 10.2.3.2 Verification of resistance of insulating materials to normal heat | | | Meets the product standard's requirements. |
| 10.2.3.3 Resist. of insul. mat. to abnormal heat/fire by internal elect. effects | | | Meets the product standard's requirements. |
| 10.2.4 Resistance to ultra-violet (UV) radiation | | | Meets the product standard's requirements. |
| 10.2.5 Lifting | | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.2.6 Mechanical impact | | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.2.7 Inscriptions | | | Meets the product standard's requirements. |
| 10.3 Degree of protection of assemblies | | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.4 Clearances and creepage distances | | | Meets the product standard's requirements. |
| 10.5 Protection against electric shock | | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.6 Incorporation of switching devices and components | | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.7 Internal electrical circuits and connections | | | Is the panel builder's responsibility. |
| 10.8 Connections for external conductors | | | Is the panel builder's responsibility. |
| 10.9.2 Power-frequency electric strength | | | Is the panel builder's responsibility. |
| 10.9.3 Impulse withstand voltage | | | Is the panel builder's responsibility. |
| 10.9.4 Testing of enclosures made of insulating material | | | Is the panel builder's responsibility. |
| 10.10 Temperature rise | | | The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices. |
| 10.11 Short-circuit rating | | | Is the panel builder's responsibility. The specifications for the switchgear must be observed. |
| 10.12 Electromagnetic compatibility | | | Is the panel builder's responsibility. The specifications for the switchgear must be observed. |
| 10.13 Mechanical function | | | The device meets the requirements, provided the information in the instruction leaflet (IL) is observed. |

## Technical data ETIM 9.0

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|---|---|---|---|
| Low-voltage industrial components (EG000017) / Combination of contactors (EC000010) | | | |
| Electric engineering, automation, process control engineering / Low-voltage switch technology / Contactor (LV) / Combination of contactor (ecl@ss13-27-37-10-09 [AGZ572019]) | | | |
| Function | | | Star-delta contactor |
| Rail mounting possible | | | No |
| Rated control supply voltage AC 50 Hz | | V | 0 - 0 |
| Rated control supply voltage AC 60 Hz | | V | 0 - 0 |
| Rated control supply voltage DC | | V | 24 - 24 |
| Voltage type for actuating | | | DC |
| Number of normally closed contacts as main contact | | | 0 |
| Number of normally open contacts as main contact | | | 9 |
| Type of electrical connection of main circuit | | | Screw connection |
| Voltage type (operating voltage) | | | AC |
| Operating voltage AC 50 Hz | | V | 24 - 690 |
| Operating voltage AC 60 Hz | | V | 24 - 690 |
| Operating voltage DC | | V | 0 - 0 |
| Rated operation current Ie at AC-1, 400 V | | A | 12 |
| Rated operation current Ie at AC-3, 400 V | | A | 12 |
| Rated operation power at AC-3, 400 V | | kW | 5.5 |
| Rated operation power NEMA | | kW | 0 |
| Number of auxiliary contacts as normally closed contact | | | 0 |
| Number of auxiliary contacts as normally open contact | | | 3 |
| Number of auxiliary contacts as change-over contact | | | 0 |
| Type of electrical connection for auxiliary- and control current circuit | | | Screw connection |
| Degree of protection (IP) | | | IP20 |
| Degree of protection (NEMA) | | | Other |

| | | | |
|---|---|---|---|
| Width | | mm | 158 |
| Height | | mm | 82 |
| Depth | | mm | 117 |