



Star-delta contactor combination, 380 V 400 V: 30 kW, 110 V 50 Hz, 120 V 60 Hz, AC operation



Part no. **SDAINLM55(110V50HZ,120V60HZ)**  
 Catalog No. **278408**  
 Alternate Catalog No. **XTSD055C10A**

**Delivery program**

|                      |  |  |  |
|----------------------|--|--|--|
| Product range        |  |  | Contactor combinations   |
| Application          |  |  | Star-delta motor starting for contactor combinations   |
| Utilization category |  |  | NAC-3: Normal AC induction motors: starting, switch off during running   |
|                      |  |  |  |
| Notes                |  |  | Also suitable for motors with efficiency class IE3. IE3-ready devices are identified by the logo on their packaging. |
| Description          |  |  | Operating frequency: maximum 30 starts per hour  |

**Rated operational current**

|             |                |   |    |
|-------------|----------------|---|----|
| AC-3        |                |   |    |
| 380 V 400 V | I <sub>e</sub> | A | 55 |

**Max. rating for three-phase motors, 50 - 60 Hz**

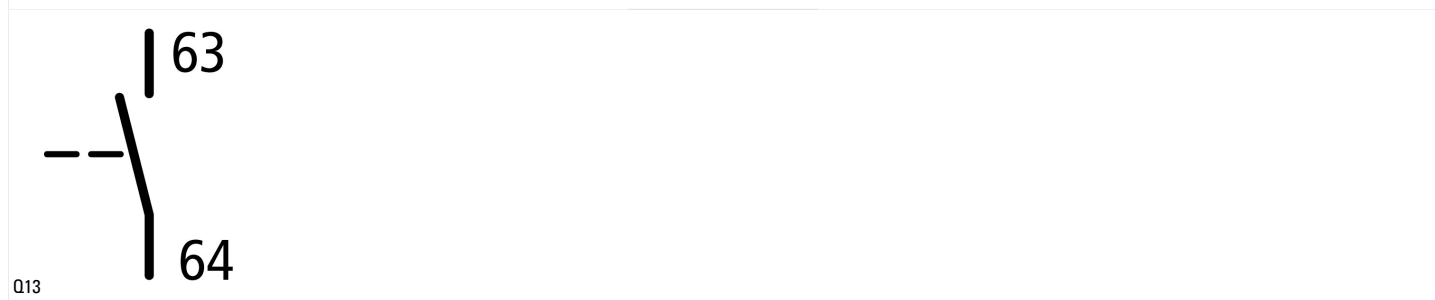
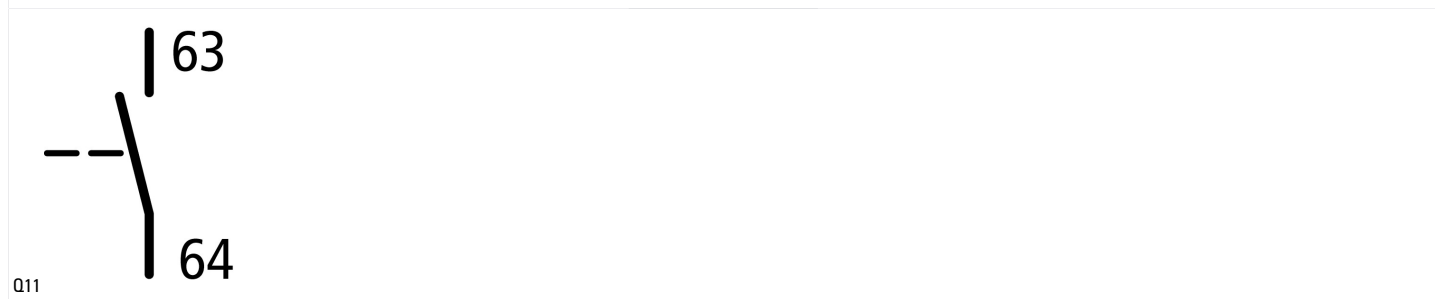
|                      |   |    |    |
|----------------------|---|----|----|
| AC-3                 |   |    |    |
| 220 V 230 V          | P | kW | 15 |
| 380 V 400 V          | P | kW | 30 |
| 500 V                | P | kW | 37 |
| 660 V 690 V          | P | kW | 30 |
| Max. changeover time |   | s  | 20 |

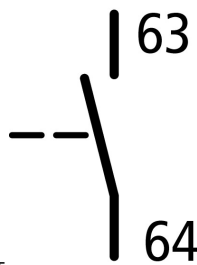
|                   |  |  |                          |
|-------------------|--|--|--------------------------|
| Actuating voltage |  |  | 110 V 50 Hz, 120 V 60 Hz |
| Voltage AC/DC     |  |  | AC operation             |

**Individual components of the combination**

|                     |  |          |                        |
|---------------------|--|----------|------------------------|
| Mains contactor Q11 |  | Part no. | DILM32-10 + DILA-XHI20 |
| Delta contactor Q15 |  | Part no. | DILM32-01 + DILA-XHI20 |
| Star contactor Q13  |  | Part no. | DILM25-01 + DILA-XHI20 |
| Timing relay K1     |  | Part no. | ETR4-51                |

Spare auxiliary contacts





Q15

## Design verification as per IEC/EN 61439

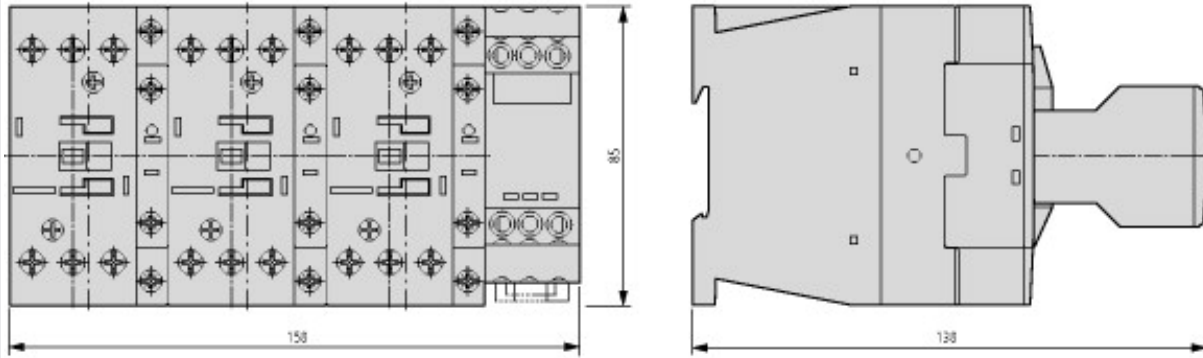
| Technical data for design verification   |            |    |  |
|--|------------|----|--|
| Rated operational current for specified heat dissipation   | $I_n$      | A  | 55   |
| Heat dissipation per pole, current-dependent   | $P_{vid}$  | W  | 6  |
| Equipment heat dissipation, current-dependent  | $P_{vid}$  | W  | 17.9   |
| Static heat dissipation, non-current-dependent   | $P_{vs}$   | W  | 6.2  |
| Heat dissipation capacity  | $P_{diss}$ | W  | 0  |
| Operating ambient temperature min.   |            | °C | -25  |
| Operating ambient temperature max.   |            | °C | 60   |
| IEC/EN 61439 design verification   |            |    |  |
| 10.2 Strength of materials and parts   |            |    |  |
| 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 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric 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 Insulation properties   |            |    |  |
| 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 7.0

| 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@ss10.0.1-27-37-10-09 [AGZ572014]) |                      |   |           |
| Function   | Star-delta contactor |   |           |
| Rated control supply voltage $U_s$ at AC 50HZ  |                      | V | 110 - 110 |
| Rated control supply voltage $U_s$ at AC 60HZ  |                      | V | 120 - 120 |
| Rated control supply voltage $U_s$ at DC   |                      | V | 0 - 0     |
| Voltage type for actuating   |                      |   | AC        |
| Rated operation current $I_e$ at AC-3, 400 V   |                      | A | 55        |

|   |    |                  |
|---|----|------------------|
| Rated operation power at AC-3, 400 V          | kW | 30               |
| Rated operation power NEMA                    | kW | 0                |
| Type of electrical connection of main circuit |    | Screw connection |
| Degree of protection (IP)                     |    | IP00             |
| Degree of protection (NEMA)                   |    | Other            |

## Dimensions



Basic unit with auxiliary contact module

## Assets (links)

### Declaration of CE Conformity

00003050

### Instruction Leaflets

IL03407030Z2018\_05

IL03407044Z2018\_05

## Additional product information (links)

### IL03407030Z (AWA2100-2139) Wiring for contactor combinations

IL03407030Z (AWA2100-2139) Wiring for contactor combinations

[ftp://ftp.moeller.net/DOCUMENTATION/AWA\\_INSTRUCTIONS/IL03407030Z2018\\_05.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407030Z2018_05.pdf)