



Star-delta contactor combination, 380 V 400 V: 11 kW, 230 V 50 Hz, 240 V 60 Hz, AC operation



Part no. SDAINLM22(230V50HZ,240V60HZ)  
Catalog No. 278336  
Alternate Catalog XTSD022B10F  
No.  
EL-Nummer 4130486  
(Norway)

Delivery program

|  |                |          |   |
|--|----------------|----------|---|
| Product range                                  |                |          | Contactor combinations  |
| Application                                    |                |          | Star-delta motor starting for contactor combinations  |
| Accessories                                    |                |          | Star-delta combinations SDAINL  |
| Utilization category                           |                |          | NAC-3: Normal AC induction motors: starting, switch off during running  |
|  |                |          |   |
| Notes  |                |          | Also suitable for motors with efficiency class IE3.<br>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        | 22  |
| Max. rating for three-phase motors, 50 - 60 Hz |                |          |   |
| AC-3   |                |          |   |
| 220 V 230 V                                    | P              | kW       | 5.5   |
| 380 V 400 V                                    | P              | kW       | 11  |
| 500 V  | P              | kW       | 11  |
| 660 V 690 V                                    | P              | kW       | 11  |
| Max. changeover time                           |                | s        | 20  |
| Actuating voltage                              |                |          | 230 V 50 Hz, 240 V 60 Hz  |
| Voltage AC/DC                                  |                |          | AC operation  |
| Individual components of the combination       |                |          |   |
| Mains contactor Q11                            |                | Part no. | DILM12-10<br>+ DILA-XHI20   |
| Delta contactor Q15                            |                | Part no. | DILM12-01<br>+ DILA-XHI20   |
| Star contactor Q13                             |                | Part no. | DILM7-01<br>+ DILA-XHI20  |
| Timing relay K1                                |                | Part no. | ETR4-51   |
| Spare auxiliary contacts                       |                |          |   |
|  |                |          |   |

Q13

Q15

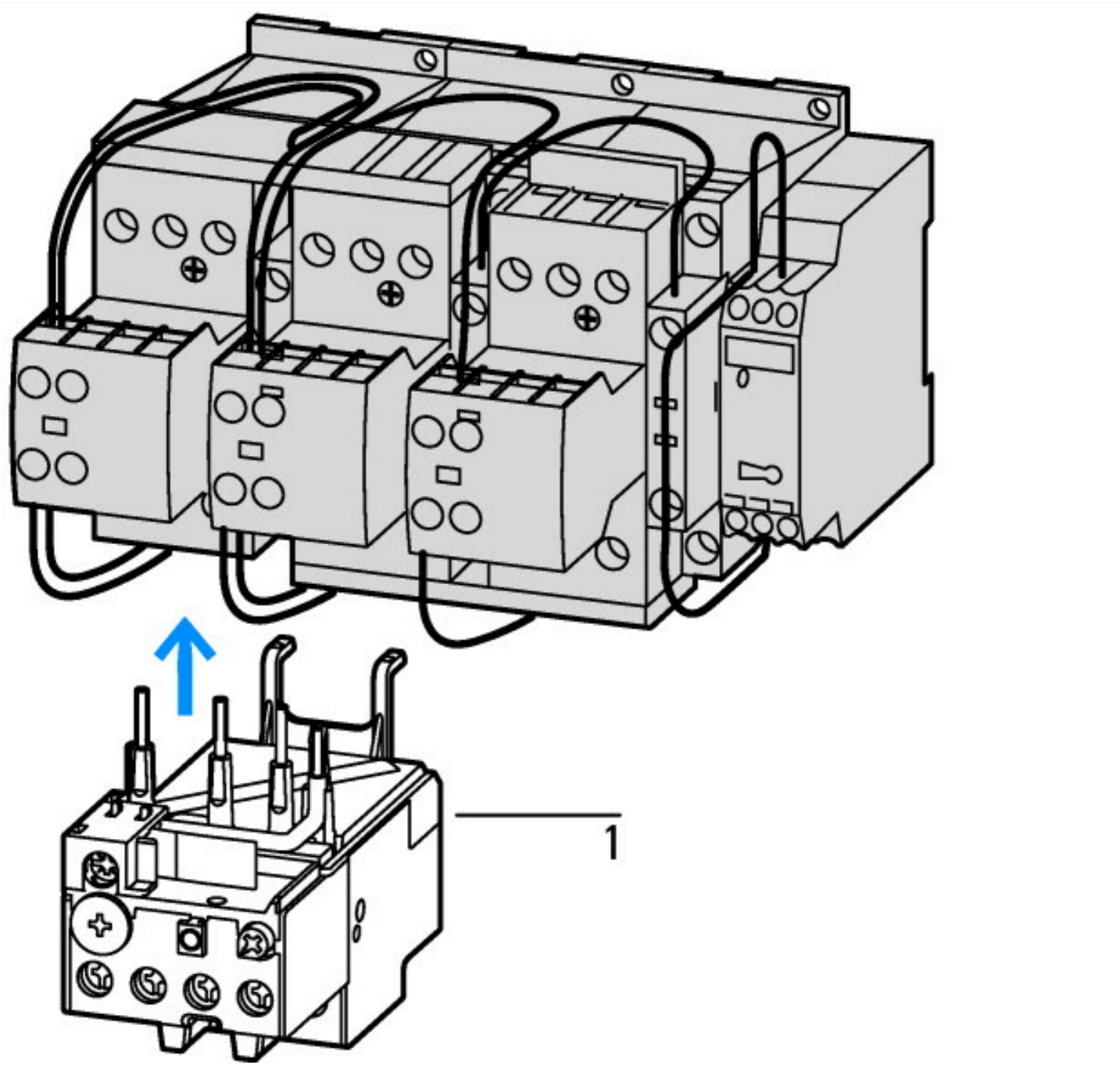
## Design verification as per IEC/EN 61439

|  |            |    |  |
|--|------------|----|--|
| Technical data for design verification   |            |    |  |
| Rated operational current for specified heat dissipation   | $I_n$      | A  | 12.76  |
| Heat dissipation per pole, current-dependent   | $P_{vid}$  | W  | 1.37   |
| Equipment heat dissipation, current-dependent  | $P_{vid}$  | W  | 4.1  |
| Static heat dissipation, non-current-dependent   | $P_{vs}$   | W  | 4.8  |
| 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

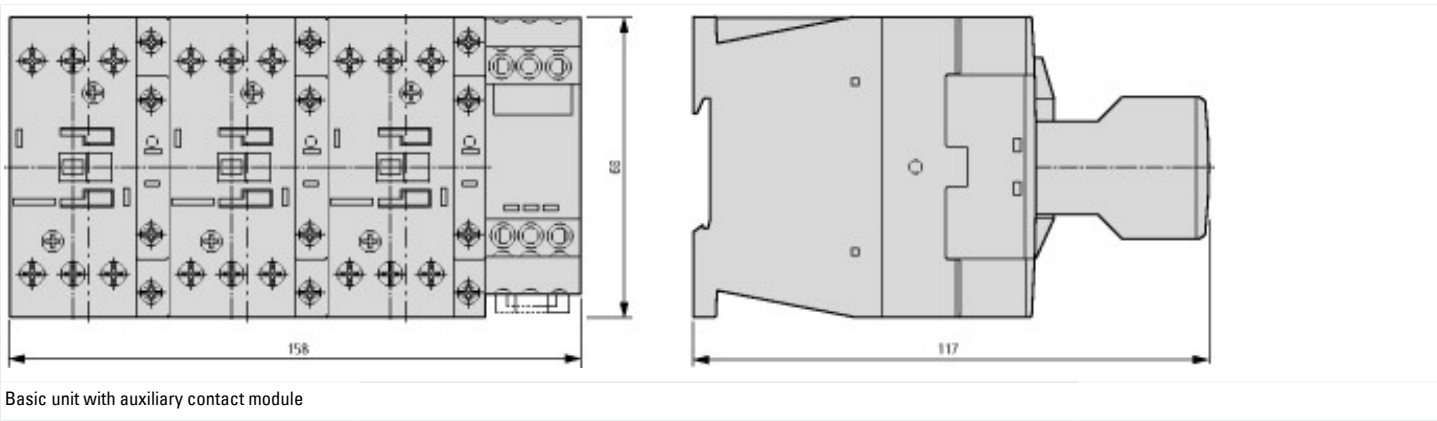
|  |    |                      |
|--|----|----------------------|
| Low-voltage industrial components (EG000017) / Combination of contactors (EC000010)  |    |                      |
| Electric engineering, automation, process control engineering / Low-voltage switch technology / Contactor (LV) / Combination of contactor (ecl@ss10.0.1-27-37-10-09 [AGZ572014]) |    |                      |
| Function   |    | Star-delta contactor |
| Rated control supply voltage Us at AC 50HZ   | V  | 230 - 230            |
| Rated control supply voltage Us at AC 60HZ   | V  | 240 - 240            |
| Rated control supply voltage Us at DC  | V  | 0 - 0                |
| Voltage type for actuating   |    | AC                   |
| Rated operation current Ie at AC-3, 400 V  | A  | 22                   |
| Rated operation power at AC-3, 400 V   | kW | 11                   |
| Rated operation power NEMA   | kW | 0                    |
| Type of electrical connection of main circuit  |    | Screw connection     |
| Degree of protection (IP)  |    | IP20                 |
| Degree of protection (NEMA)  |    | Other                |

Characteristics



1: Overload relay

Dimensions



Additional product information (links)

|  |   |
|--|---|
| IL03407030Z (AWA2100-2139) Wiring for contactor combinations |   |
| IL03407030Z (AWA2100-2139) Wiring for contactor combinations | <a href="https://es-assets.eaton.com/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407030Z2018_05.pdf">https://es-assets.eaton.com/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407030Z2018_05.pdf</a> |