# DATASHEET - SDAINLM140(110V50HZ,120V60HZ)

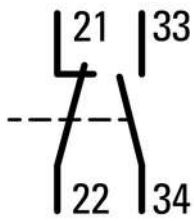


**Star-delta contactor combination, 380 V 400 V: 75 kW, 110 V 50 Hz, 120 V 60 Hz, AC operation**

| | |
|---|---|
| **Part no.** | **SDAINLM140(110V50HZ,120V60HZ)** |
| **Catalog No.** | **240006** |
| **Alternate Catalog No.** | **XTSD140F11A** |

## 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 |
| | | | IE3 |
| Notes | | | Also suitable for motors with efficiency class IE3. |
| Description | | | Operating frequency: maximum 30 starts per hour |
| **Rated operational current** | | | |
| AC-3 | | | |
| 380 V 400 V | $I_e$ | A | 140 |
| **Max. rating for three-phase motors, 50 - 60 Hz** | | | |
| AC-3 | | | |
| 220 V 230 V | P | kW | 37 |
| 380 V 400 V | P | kW | 75 |
| 500 V | P | kW | 90 |
| 660 V 690 V | P | kW | 90 |
| 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. | DILM80<br>+ DILM150-XHI11 |
| Delta contactor Q15 | | Part no. | DILM80<br>+ DILM150-XHI31 |
| Star contactor Q13 | | Part no. | DILM50<br>+ DILM150-XHI11 |
| Timing relay K1 | | Part no. | ETR4-51 |
| Spare auxiliary contacts | | | |




Q11

## Design verification as per IEC/EN 61439

| | | | |
|---|---|---|---|
| Technical data for design verification | | | |
| Rated operational current for specified heat dissipation | $I_n$ | A | 140 |
| Heat dissipation per pole, current-dependent | $P_{vid}$ | W | 7.9 |
| Equipment heat dissipation, current-dependent | $P_{vid}$ | W | 23.8 |
| Static heat dissipation, non-current-dependent | $P_{vs}$ | W | 13.6 |
| Heat dissipation capacity | $P_{diss}$ | W | 0 |
| Operating ambient temperature min. | | °C | -25 |
| Operating ambient temperature max. | | °C | 60 |

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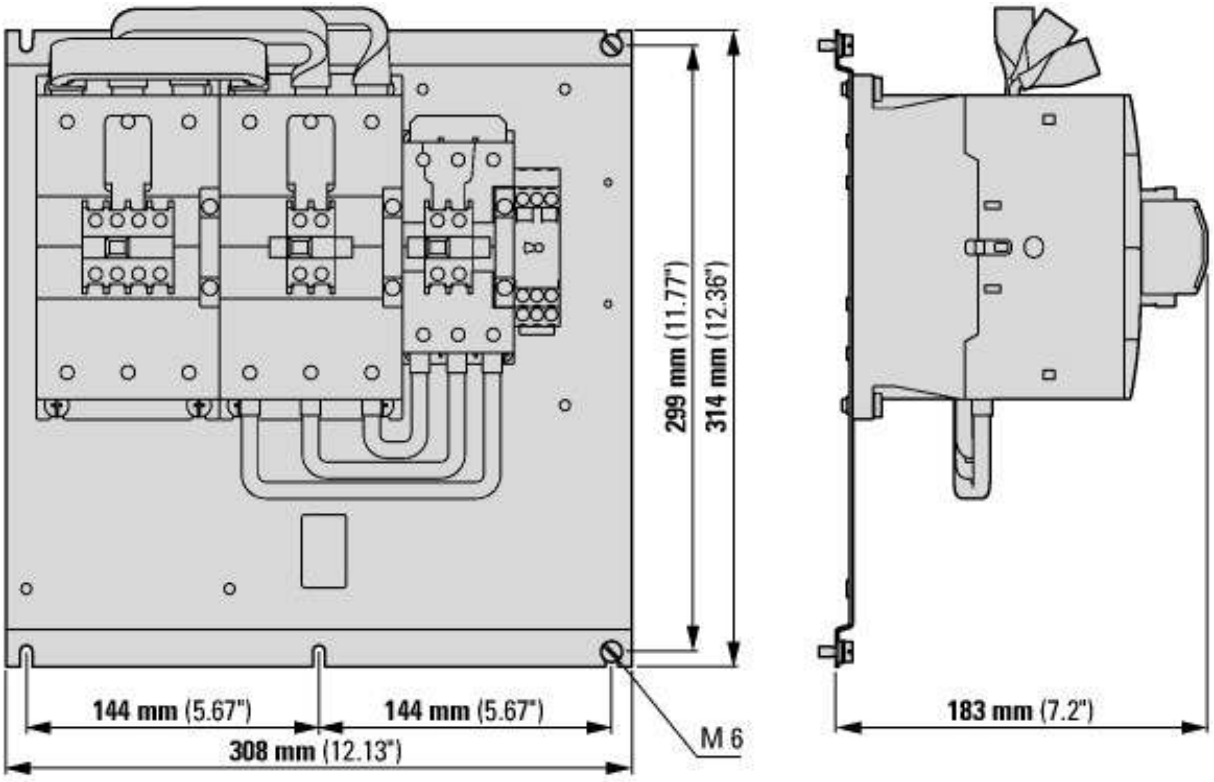
|---|---|
| IEC/EN 61439 design verification | |
| 10.2 Strength of materials and parts | |
| 10.2.2 Corrosion resistance | Meets the product standard's requirements. |
| 10.2.3.1 Verification of thermal stability of enclosures | Meets the product standard's requirements. |
| 10.2.3.2 Verification of 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 8.0

| | | |
|---|---|---|
| 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 | 110 - 110 |
| Rated control supply voltage Us at AC 60HZ | V | 120 - 120 |
| 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 | 140 |
| Rated operation current Ie at AC-3, 400 V | A | 140 |
| Rated operation power at AC-3, 400 V | kW | 75 |
| Rated operation power NEMA | kW | 0 |
| Number of normally closed contacts as main contact | | 0 |
| Number of normally open contacts as main contact | | 9 |
| Type of electrical connection for auxiliary- and control current circuit | | Screw connection |
| Type of electrical connection of main circuit | | Screw connection |
| Degree of protection (IP) | | IP00 |
| Degree of protection (NEMA) | | Other |
| Rail mounting possible | | No |

## Dimensions




SDAINLM140…SDAINLM260

## Additional product information (links)

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

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|---|---|
| IL03407030Z (AWA2100-2139) Wiring for contactor combinations | https://es-assets.eaton.com/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407030Z2021_08.pdf |


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