



Reversing contactor combination, 380 V 400 V: 4 kW, 24 V DC, DC operation

Part no. DIULM9/21(24VDC)
Catalog No. 107022
Alternate Catalog No. XTCR009B21TD

Delivery program

| | | |
|----------------------|--|--|
| Product range | | Contactor combinations |
| Application | | Contactor combinations for starting motors with two directions of rotation |
| Accessories | | DIUL reversing combinations |
| Utilization category | | NAC-3: Normal AC induction motors: starting, switch off during running AC-4: Normal AC induction motors: starting, plugging, reversing, inching |
| | | |
| Notes | | Also suitable for motors with efficiency class IE3. IE3-ready devices are identified by the logo on their packaging. |

Rated operational current

| | | | |
|-------------|-------|---|---|
| AC-3 | | | |
| 380 V 400 V | I_e | A | 9 |

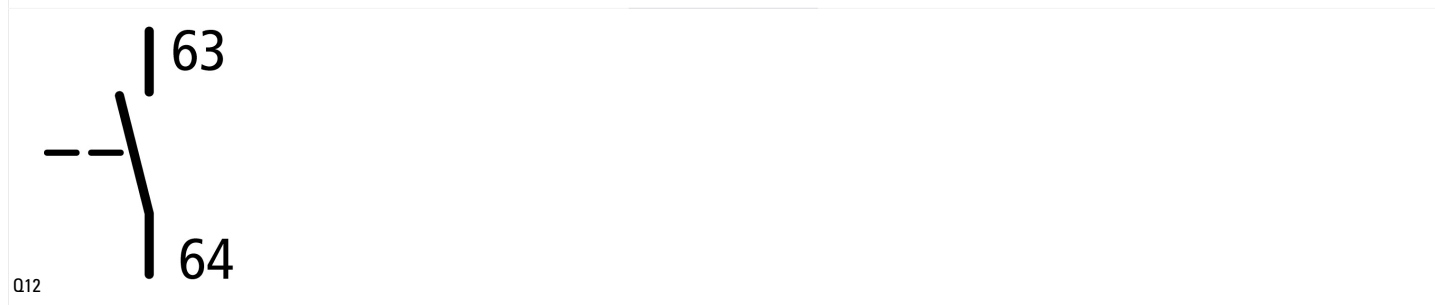
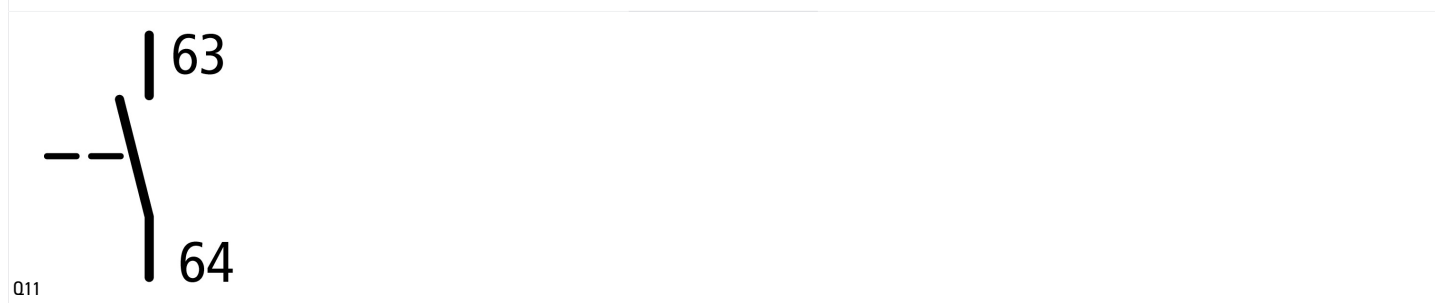
Max. rating for three-phase motors, 50 - 60 Hz

| | | | |
|-------------|---|----|-----|
| AC-3 | | | |
| 220 V 230 V | P | kW | 2.5 |
| 380 V 400 V | P | kW | 4 |
| 660 V 690 V | P | kW | 4.5 |
| AC-4 | | | |
| 220 V 230 V | P | kW | 1.5 |
| 380 V 400 V | P | kW | 2.5 |
| 660 V 690 V | P | kW | 3.6 |

| | | |
|---------------------|--|---|
| Actuating voltage | | 24 V DC |
| Voltage AC/DC | | DC operation |
| Instructions | | Integrated varistor suppressor circuit. |

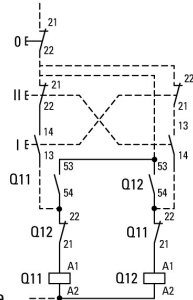
Individual components of the combination

- Contactor Q11 DILM9-01 + DILA-XHI20
- Contactor Q12 DILM9-01 + DILA-XHI20
- Spare auxiliary contacts



Mechanical interlock +

Circuit diagram



Contact sequence

Design verification as per IEC/EN 61439

Technical data for design verification

| | | | |
|--|------------|----|------|
| Rated operational current for specified heat dissipation | I_n | A | 9 |
| Heat dissipation per pole, current-dependent | P_{vid} | W | 0.45 |
| Equipment heat dissipation, current-dependent | P_{vid} | W | 1.35 |
| Static heat dissipation, non-current-dependent | P_{vs} | W | 4.5 |
| 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)

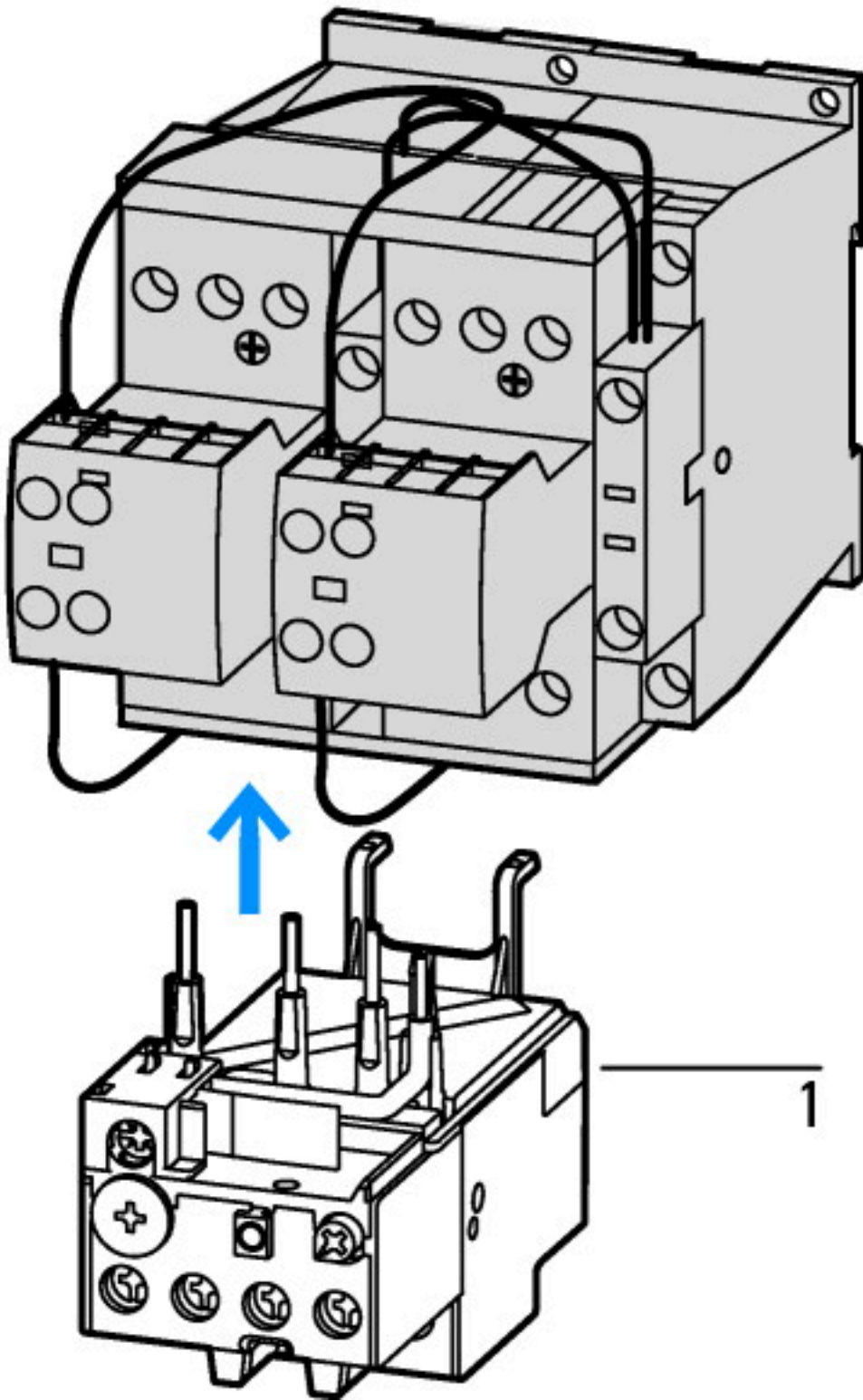
Electric engineering, automation, process control engineering / Low-voltage switch technology / Contactor (LV) / Combination of contactor (ecl@ss10.0.1-27-37-10-09 [AGZ572014])

| | | |
|---|---|------------------|
| Function | | Reversing safety |
| Rated control supply voltage U_s at AC 50HZ | V | 0 - 0 |
| Rated control supply voltage U_s at AC 60HZ | V | 0 - 0 |

| | | |
|---|----|------------------|
| Rated control supply voltage U_s at DC | V | 24 - 24 |
| Voltage type for actuating | | DC |
| Rated operation current I_e at AC-3, 400 V | A | 9 |
| Rated operation power at AC-3, 400 V | kW | 4 |
| Rated operation power NEMA | kW | 3.7 |
| Type of electrical connection of main circuit | | Screw connection |
| Degree of protection (IP) | | IP20 |
| Degree of protection (NEMA) | | Other |

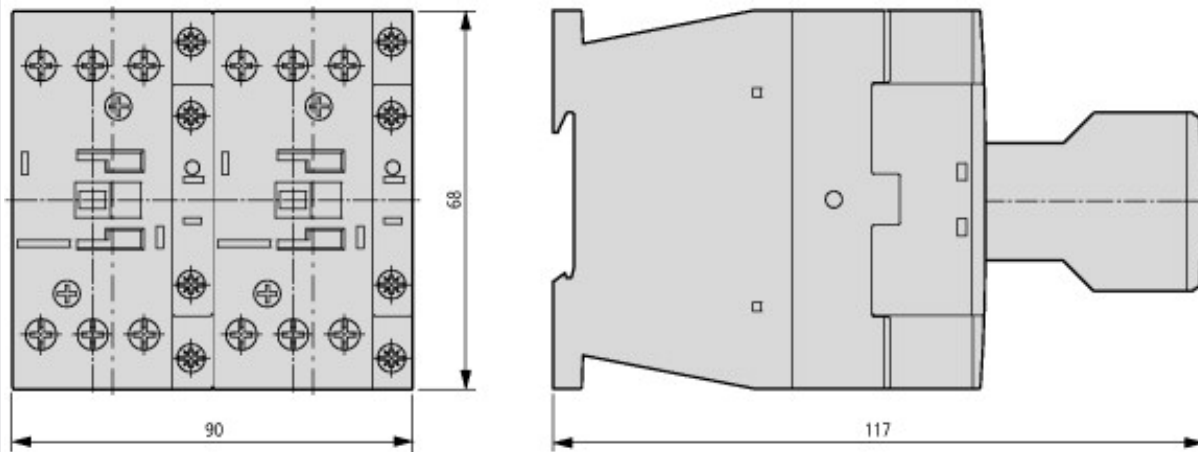
Approvals

| | | |
|--------------------------------------|--|--|
| Product Standards | | IEC/EN 60947-4-1; UL 60947-4-1; CSA - C22.2 No. 60947-4-1-14; CE marking |
| UL File No. | | E29096 |
| UL Category Control No. | | NLDX |
| CSA File No. | | 012528 |
| CSA Class No. | | 2411-03, 3211-04 |
| North America Certification | | UL listed, CSA certified |
| Specially designed for North America | | No |



1: Overload relay

Dimensions



Basic unit with auxiliary contact module

Assets (links)

Declaration of CE Conformity

00002875

Instruction Leaflets

IL03407030Z2018_05

IL03407043Z2018_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