



Reversing contactor combination, 380 V 400 V: 7.5 kW, 230 V 50 Hz, 240 V 60 Hz, AC operation



Part no. DIULM17/21(230V50HZ,240V60HZ)  
 Catalog No. 278136  
 Alternate Catalog XTCR018C21F  
 No.  
 EL-Nummer 4130467  
 (Norway)

**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<br>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 | 18 |

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

|             |   |    |     |
|-------------|---|----|-----|
| AC-3        |   |    |     |
| 220 V 230 V | P | kW | 5   |
| 380 V 400 V | P | kW | 7.5 |
| 660 V 690 V | P | kW | 11  |
| AC-4        |   |    |     |
| 220 V 230 V | P | kW | 2.5 |
| 380 V 400 V | P | kW | 4.5 |
| 660 V 690 V | P | kW | 6.5 |

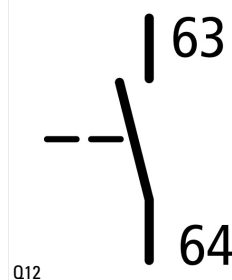
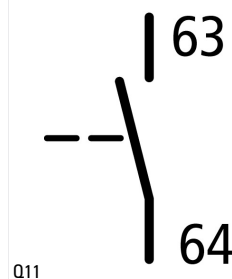
Actuating voltage 230 V 50 Hz, 240 V 60 Hz  
 Voltage AC/DC AC operation

Individual components of the combination

Contactor Q11 DILM17-01 + DILA-XHI20

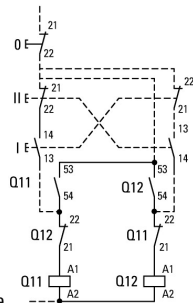
Contactor Q12 DILM17-01 + DILA-XHI20

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  | 17  |
| Heat dissipation per pole, current-dependent             | $P_{vid}$  | W  | 0.8 |
| Equipment heat dissipation, current-dependent            | $P_{vid}$  | W  | 2.5 |
| Static heat dissipation, non-current-dependent           | $P_{vs}$   | W  | 2.1 |
| 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 | 230 - 230        |
| Rated control supply voltage $U_s$ at AC 60HZ | V | 240 - 240        |

|   |    |                  |
|---|----|------------------|
| 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  | 18               |
| Rated operation power at AC-3, 400 V          | kW | 7.5              |
| Rated operation power NEMA                    | kW | 7.4              |
| Type of electrical connection of main circuit |    | Screw connection |
| Degree of protection (IP)                     |    | IP00             |
| Degree of protection (NEMA)                   |    | Other            |

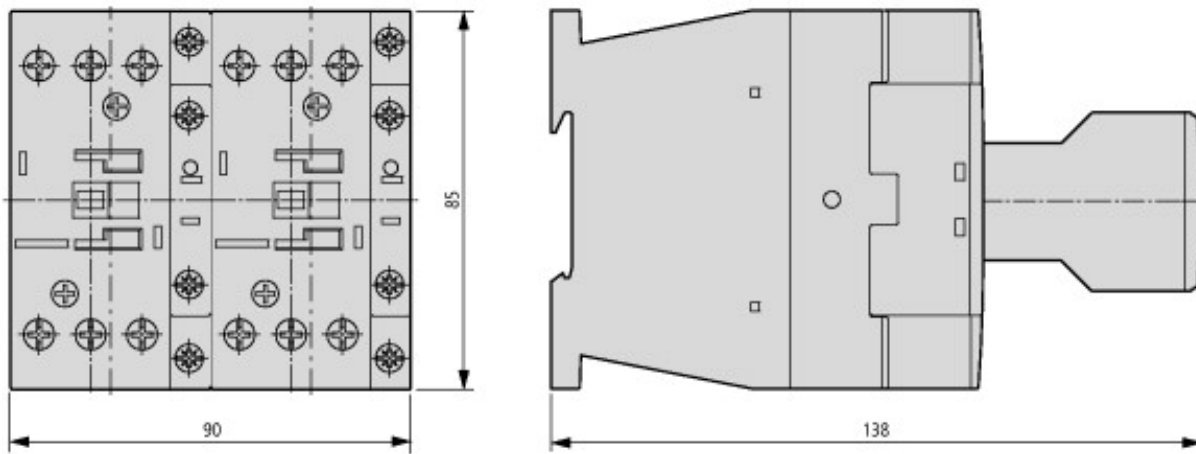
## Approvals

|                                      |  |  |
|--------------------------------------|--|--|
| 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

## Additional product information (links)

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

IL03407030Z (AWA2100-2139) Wiring for contactor combinations

[https://es-assets.eaton.com/DOCUMENTATION/AWA\\_INSTRUCTIONS/IL03407030Z2018\\_05.pdf](https://es-assets.eaton.com/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407030Z2018_05.pdf)