## DATASHEET - DIULM40/11(110V50HZ,120V60HZ)



Reversing contactor combination, 380 V 400 V: 18.5 kW, 110 V 50 Hz, 120 V  $\,$ 60 Hz, AC operation



Part no. Catalog No. Alternate Catalog No.

DIULM40/11(110V50HZ,120V60HZ) 278208 XTCR040D11A

### **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 |
|  |    |    | IE3 🗸  |
| Notes  |    |    | Also suitable for motors with efficiency class IE3.<br>IE3-ready devices are identified by the logo on their packaging.                            |
| Rated operational current                      |    |    |  |
| AC-3   |    |    |  |
| 380 V 400 V                                    | le | А  | 40   |
| Max. rating for three-phase motors, 50 - 60 Hz |    |    |  |
| AC-3   |    |    |  |
| 220 V 230 V                                    | Р  | kW | 12.5   |
| 380 V 400 V                                    | Р  | kW | 18.5   |
| 660 V 690 V                                    | Р  | kW | 23   |
| AC-4   |    |    |  |
| 220 V 230 V                                    | Р  | kW | 5  |
| 380 V 400 V                                    | Р  | kW | 9  |
| 660 V 690 V                                    | Р  | kW | 12   |
| Actuating voltage                              |    |    | 110 V 50 Hz, 120 V 60 Hz   |
| Voltage AC/DC                                  |    |    | AC operation   |
| Individual components of the combination       |    |    |  |
| Contactor Q11 DILM40<br>+ DILM150-XHI11        |    |    |  |
| Contactor Q12 DILM40<br>+ DILM150-XHI11        |    |    |  |
| Spare auxiliary contacts                       |    |    |  |
| Mechanical interlock +                         |    |    |  |
| Circuit diagram                                |    |    |  |
| Contact sequence $(-)N = -\frac{A^2}{A^2}$     |    |    |  |

### Design verification as per IEC/EN 61439

| Technical data for design verification                   |                  |   |     |
|--|------------------|---|-----|
| Rated operational current for specified heat dissipation | I <sub>n</sub>   | А | 40  |
| Heat dissipation per pole, current-dependent             | P <sub>vid</sub> | W | 3.1 |
| Equipment heat dissipation, current-dependent            | P <sub>vid</sub> | W | 9.3 |

| Static heat dissipation, non-current-dependent   | P <sub>vs</sub>   | W  | 4.1  |
|--|-------------------|----|--|
| Heat dissipation capacity  | P <sub>diss</sub> | 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.                         |

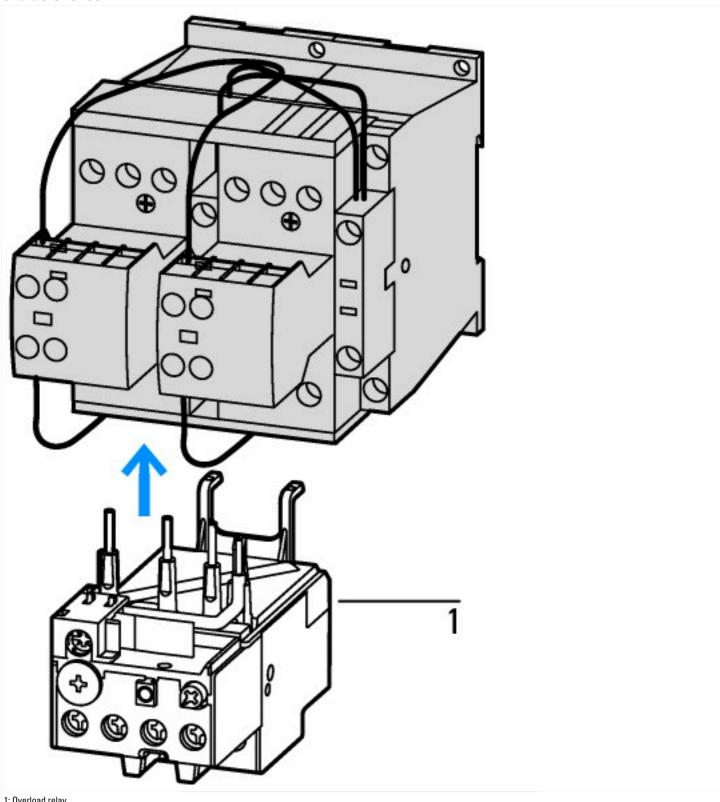
## **Technical data ETIM 7.0**

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 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 le at AC-3, 400 V  |  | А  | 40               |
| Rated operation power at AC-3, 400 V   |  | kW | 18.5             |
| Rated operation power NEMA   |  | kW | 22               |
| Type of electrical connection of main circuit  |  |    | Screw connection |
| Degree of protection (IP)  |  |    | IP00             |
| Degree of protection (NEMA)  |  |    | Other            |

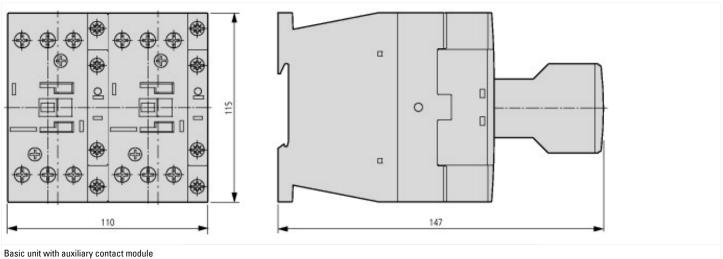
# Approvals

| 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**



## Assets (links)

Declaration of CE Conformity 00003252 Instruction Leaflets IL03407030Z2018\_05

IL03407033Z2018\_03

### 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