278111
DIUL M12/21(230V50HZ,240V60HZ)

Overview | Specifications | Resources

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

IE3

Notes
Also suitable for motors with efficiency class IE3.

Rated operational current [I_e]

AC-3
380 V 400 V [I_e]
12 A

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

AC-3
220 V 230 V [P]
3.5 kW

AC-3
380 V 400 V [P]
5.5 kW

AC-3
660 V 690 V [P]
6.5 kW

AC-4
220 V 230 V [P]
2 kW

AC-4
380 V 400 V [P]
3 kW

AC-4
660 V 690 V [P]
4.4 kW

Actuating voltage
230 V 50 Hz, 240 V 60 Hz

Voltage AC/DC
AC operation

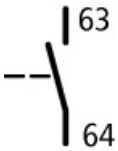
Individual components of the combination

Contactor Q11
DILM12-01
+ DILA-XHI20 Part no.

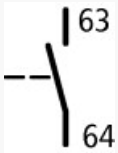
Contactor Q12
DILM12-01
+ DILA-XHI20 Part no.

Spare auxiliary contacts

Q11



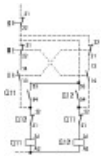
Q12



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]
12 A

Heat dissipation per pole, current-dependent [P_{vid}]
0.5 W

Equipment heat dissipation, current-dependent [P_{vid}]

1.5 W

Static heat dissipation, non-current-dependent [P_{vs}]
1.4 W

Heat dissipation capacity [P_{diss}]
0 W

Operating ambient temperature min.
-25 °C

Operating ambient temperature max.
+60 °C

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 Strength of materials and parts
10.2.3.1 Verification of thermal stability of enclosures
Meets the product standard's requirements.

10.2 Strength of materials and parts
10.2.3.2 Verification of resistance of insulating materials to normal heat
Meets the product standard's requirements.

10.2 Strength of materials and parts
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 Strength of materials and parts
10.2.4 Resistance to ultra-violet (UV) radiation
Meets the product standard's requirements.

10.2 Strength of materials and parts
10.2.5 Lifting
Does not apply, since the entire switchgear needs to be evaluated.

10.2 Strength of materials and parts
10.2.6 Mechanical impact

Does not apply, since the entire switchgear needs to be evaluated.

10.2 Strength of materials and parts
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 Insulation properties
10.9.3 Impulse withstand voltage
Is the panel builder's responsibility.

10.9 Insulation properties
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
230 - 230 V

Rated control supply voltage Us at AC 60HZ
240 - 240 V

Rated control supply voltage Us at DC
0 - 0 V

Voltage type for actuating
AC

Rated operation current Ie at AC-3, 400 V
12 A

Rated operation power at AC-3, 400 V
5.5 kW

Rated operation power NEMA
7.4 kW

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

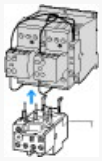
CSA File No.
012528

CSA Class No.
2411-03, 3211-04

North America Certification
UL listed, CSA certified

Specially designed for North America
No

CHARACTERISTICS



Accessories
1: Overload relay

DIMENSIONS

Basic unit with auxiliary contact module

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