

**Reversing contactor combination, 380 V 400 V: 4 kW, 24 V DC, DC operation**
**Part no. DIULM9/21(24VDC)**  
**107022**

<b>General specifications</b>		
Product name		Eaton Moeller® series DIUL contactor combination
Part no.		DIULM9/21(24VDC)
EAN		4015081067909
Product Length/Depth		117 millimetre
Product height		68 millimetre
Product width		90 millimetre
Product weight		0.716 kilogram
Compliances		RoHS Compliant CE Marked
Certifications		IEC/EN 60947-4-1 CSA Class No.: 2411-03, 3211-04 UL 60947-4-1 CSA-C22.2 No. 60947-4-1-14 CSA File No.: 012528 UL Category Control No.: NLDX CE UL File No.: E29096 CSA Certified UL Listed UL CSA
Product Tradename		DIUL
Product Type		Contactor combination
Product Sub Type		None
Catalog Notes		IE3-fähige Geräte sind mit dem Logo auf der Verpackung gekennzeichnet.
<b>Features &amp; Functions</b>		
Features		Mechanical interlock
Functions		Reversing safety
<b>General information</b>		
Application		Contactor combinations for starting motors with two directions of rotation
Degree of protection		IP20 NEMA Other
Product category		Contactor combinations
Suitable for		Also motors with efficiency class IE3
Utilization category		AC-3: Normal AC induction motors: starting, switch off during running AC-4: Normal AC induction motors: starting, plugging, reversing, inching
Voltage type		DC
<b>Climatic environmental conditions</b>		
Ambient operating temperature - min		-25 °C
Ambient operating temperature - max		60 °C
<b>Terminal capacities</b>		
Terminals		Screw terminals
<b>Electrical rating</b>		
Rated operational current (Ie) at AC-1, 380 V, 400 V, 415 V		9 A
Rated operational current (Ie) at AC-3, 380 V, 400 V, 415 V		9 A
Rated operational power at AC-3, 380/400 V, 50 Hz		4 kW
Rated operational power at AC-3, 690 V, 50 Hz		4.5 kW
Rated operational power at AC-4, 220/230 V, 50 Hz		1.5 kW
Rated operational power at AC-4, 660/690 V, 50 Hz		3.6 kW
<b>Magnet system</b>		
Duty factor		100 %
Rated control supply voltage (Us) at AC, 50 Hz - min		0 V

Rated control supply voltage (Us) at AC, 50 Hz - max		0 V
Rated control supply voltage (Us) at AC, 60 Hz - min		0 V
Rated control supply voltage (Us) at AC, 60 Hz - max		0 V
Rated control supply voltage (Us) at DC - min		24 V
Rated control supply voltage (Us) at DC - max		24 V
<b>Communication</b>		
Connection		Screw connection
<b>Contacts</b>		
Number of auxiliary contacts (normally closed contacts)		0
Number of auxiliary contacts (normally open contacts)		2
<b>Design verification</b>		
Equipment heat dissipation, current-dependent Pvid		1.35 W
Heat dissipation capacity Pdis		0 W
Heat dissipation per pole, current-dependent Pvid		0.45 W
Rated operational current for specified heat dissipation (In)		9 A
Static heat dissipation, non-current-dependent Pvs		4.5 W
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 Resist. of insul. mat. to abnormal heat/fire by internal elect. 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.
10.9.2 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 9.0

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@ss13-27-37-10-09 [AGZ572019])		
Function		Reversing contactor
Rail mounting possible		No
Rated control supply voltage AC 50 Hz	V	0 - 0
Rated control supply voltage AC 60 Hz	V	0 - 0
Rated control supply voltage DC	V	24 - 24
Voltage type for actuating		DC
Number of normally closed contacts as main contact		0
Number of normally open contacts as main contact		6
Type of electrical connection of main circuit		Screw connection
Voltage type (operating voltage)		AC
Operating voltage AC 50 Hz	V	24 - 690

Operating voltage AC 60 Hz	V	24 - 690
Operating voltage DC	V	0 - 0
Rated operation current I <sub>e</sub> at AC-1, 400 V	A	9
Rated operation current I <sub>e</sub> at AC-3, 400 V	A	9
Rated operation power at AC-3, 400 V	kW	4
Rated operation power NEMA	kW	3.7
Number of auxiliary contacts as normally closed contact		0
Number of auxiliary contacts as normally open contact		2
Number of auxiliary contacts as change-over contact		0
Type of electrical connection for auxiliary- and control current circuit		Screw connection
Degree of protection (IP)		IP20
Degree of protection (NEMA)		Other
Width	mm	90
Height	mm	68
Depth	mm	117