

**Star-delta contactor combination, 380 V 400 V: 7.5 kW, 24 V DC, DC operation**



**Part no. SDAINLM16(24VDC)  
100417**

<b>General specifications</b>		
Product name		Eaton Moeller® series SDAINL contactor combination
Part no.		SDAINLM16(24VDC)
EAN		4015081003945
Product Length/Depth		117 millimetre
Product height		82 millimetre
Product width		158 millimetre
Product weight		1.19 kilogram
Compliances		Contact Manufacturer
Certifications		CE
Product Tradename		SDAINL
Product Type		Contactor combination
Product Sub Type		None
Catalog Notes		Contacts according to EN 50012
<b>Features &amp; Functions</b>		
Functions		Star-delta contactor
<b>General information</b>		
Application		Star-delta motor starting for contactor combinations
Degree of protection		IP20 NEMA Other
Product category		Contactor combinations
Suitable for		Also motors with efficiency class IE3
Used with		ETR4-51
Utilization category		AC-3: Normal AC induction motors: starting, switch off during running
Voltage type		DC
<b>Climatic environmental conditions</b>		
Ambient operating temperature - min		-25 °C
Ambient operating temperature - max		60 °C
<b>Electrical rating</b>		
Rated operational current (Ie) at AC-1, 380 V, 400 V, 415 V		16 A
Rated operational current (Ie) at AC-3, 380 V, 400 V, 415 V		16 A
Rated operational power at AC-3, 380/400 V, 50 Hz		7.5 kW
Rated operational power at AC-3, 500 V, 50 Hz		7.5 kW
Rated operational power at AC-3, 690 V, 50 Hz		7.5 kW
<b>Magnet system</b>		
Changeover time		20 s, max.
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>Contacts</b>		
Number of auxiliary contacts (normally closed contacts)		0
Number of auxiliary contacts (normally open contacts)		3
<b>Design verification</b>		

Equipment heat dissipation, current-dependent Pvid		3.89 W
Heat dissipation capacity Pdis		0 W
Heat dissipation per pole, current-dependent Pvid		1.3 W
Rated operational current for specified heat dissipation (In)		9.28 A
Static heat dissipation, non-current-dependent Pvs		10.8 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		Star-delta 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		9
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 Ie at AC-1, 400 V	A	16
Rated operation current Ie at AC-3, 400 V	A	16
Rated operation power at AC-3, 400 V	kW	7.5
Rated operation power NEMA	kW	0
Number of auxiliary contacts as normally closed contact		0
Number of auxiliary contacts as normally open contact		3
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	158
Height	mm	82
Depth	mm	117