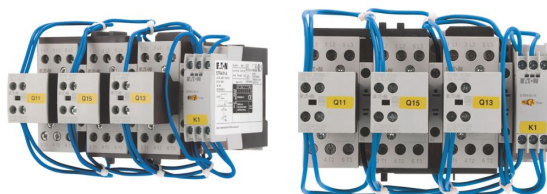
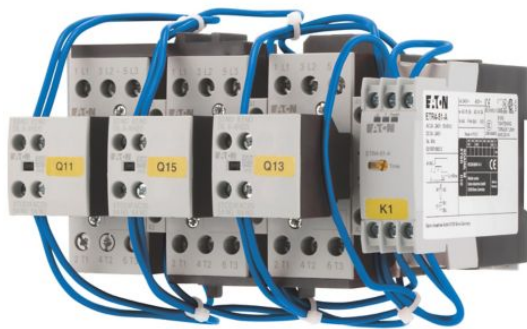


# Specifications



## Eaton 100420

Eaton Moeller® series SDAINL Star-delta contactor combination, 380 V 400 V: 22 kW, 24 V DC, DC operation

### General specifications

<b>PRODUCT NAME</b>	Eaton Moeller series star-delta contactor combination
<b>CATALOG NUMBER</b>	100420
<b>MODEL CODE</b>	SDAINLM45(RDC24)
<b>EAN</b>	4015081003976
<b>PRODUCT LENGTH/DEPTH</b>	138 mm
<b>PRODUCT HEIGHT</b>	95 mm
<b>PRODUCT WIDTH</b>	158 mm
<b>PRODUCT WEIGHT</b>	1.93 kg
<b>CERTIFICATIONS</b>	CE
<b>CATALOG NOTES</b>	Contacts according to EN 50012
<b>GLOBAL CATALOG</b>	100420

## Product specifications

<b>USED WITH</b>	ETR4-51
<b>ELECTRICAL CONNECTION TYPE FOR AUXILIARY- AND CONTROL-CURRENT CIRCUIT</b>	Screw connection
<b>NUMBER OF POLES</b>	Three-pole
<b>10.10 TEMPERATURE RISE</b>	The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
<b>10.11 SHORT-CIRCUIT RATING</b>	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
<b>10.12 ELECTROMAGNETIC COMPATIBILITY</b>	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
<b>10.13 MECHANICAL FUNCTION</b>	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.
<b>10.2.2 CORROSION RESISTANCE</b>	Meets the product standard's requirements.
<b>10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES</b>	Meets the product standard's requirements.
<b>10.2.3.2 VERIFICATION OF RESISTANCE OF INSULATING MATERIALS TO NORMAL HEAT</b>	Meets the product standard's requirements.
<b>10.2.3.3 RESIST. OF INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. EFFECTS</b>	Meets the product standard's requirements.
<b>10.2.4 RESISTANCE TO ULTRA-VIOLET (UV) RADIATION</b>	Meets the product standard's requirements.
<b>10.2.5 LIFTING</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.2.6 MECHANICAL</b>	Does not apply, since the

## Resources

<b>CATALOGS</b>	<a href="#">eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf</a>
<b>DECLARATIONS OF CONFORMITY</b>	<a href="#">DA-DC-00004783.pdf</a> <a href="#">DA-DC-00004816.pdf</a>
<b>DRAWINGS</b>	<a href="#">eaton-star-delta-starters-star-delta-sdainl-contactor-combination-dimensions-003.eps</a> <a href="#">eaton-general-ie-ready-dilm-contactor-standards.eps</a>
<b>ECAD MODEL</b>	<a href="#">ETN.SDAINLM45(RDC24).edz</a>
<b>INSTALLATION INSTRUCTIONS</b>	<a href="#">IL03407044Z</a> <a href="#">IL03407030Z</a>
<b>MCAD MODEL</b>	<a href="#">sdainl_bg2.stp</a> <a href="#">sdainl_bg2</a>
<b>SPECIFICATIONS AND DATASHEETS</b>	<a href="#">Eaton Specification Sheet - 100420</a>
<b>SYSTEM OVERVIEW</b>	<a href="#">eaton-star-delta-starters-star-delta-sdainl-contactor-combination-explosion-drawing.eps</a>
<b>WIRING DIAGRAMS</b>	<a href="#">eaton-contactors-contact-sdainl-combination-wiring-diagram-002.eps</a>

<b>IMPACT</b>	entire switchgear needs to be evaluated.
<b>10.2.7 INSCRIPTIONS</b>	Meets the product standard's requirements.
<b>10.3 DEGREE OF PROTECTION OF ASSEMBLIES</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.4 CLEARANCES AND CREEPAGE DISTANCES</b>	Meets the product standard's requirements.
<b>10.5 PROTECTION AGAINST ELECTRIC SHOCK</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS</b>	Is the panel builder's responsibility.
<b>10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS</b>	Is the panel builder's responsibility.
<b>10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH</b>	Is the panel builder's responsibility.
<b>10.9.3 IMPULSE WITHSTAND VOLTAGE</b>	Is the panel builder's responsibility.
<b>10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL</b>	Is the panel builder's responsibility.
<b>POLLUTION DEGREE</b>	3
<b>UTILIZATION CATEGORY</b>	AC-3: Normal AC induction motors: starting, switch off during running
<b>CONNECTION</b>	Screw terminals
<b>AMBIENT OPERATING TEMPERATURE - MAX</b>	60 °C
<b>AMBIENT OPERATING TEMPERATURE - MIN</b>	-25 °C
<b>AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX</b>	40 °C
<b>AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN</b>	-25 °C
<b>AMBIENT STORAGE TEMPERATURE - MAX</b>	80 °C
<b>AMBIENT STORAGE TEMPERATURE - MIN</b>	-40 °C
<b>EQUIPMENT HEAT</b>	12.4 W

<b>DISSIPATION, CURRENT-DEPENDENT PVID</b>	
<b>HEAT DISSIPATION CAPACITY PDISS</b>	0 W
<b>HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID</b>	4.1 W
<b>APPLICATION</b>	Star-delta motor starting for contactor combinations
<b>PRODUCT CATEGORY</b>	Contactor combinations
<b>ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT</b>	Screw connection
<b>VOLTAGE TYPE</b>	DC
<b>DEGREE OF PROTECTION</b>	IP00 NEMA Other
<b>NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)</b>	0
<b>NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)</b>	3
<b>NUMBER OF CONTACTS (NORMALLY CLOSED) AS MAIN CONTACT</b>	0
<b>NUMBER OF MAIN CONTACTS (NORMALLY OPEN CONTACT)</b>	9
<b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX</b>	0 V
<b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN</b>	0 V
<b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX</b>	0 V
<b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN</b>	0 V
<b>OVERVOLTAGE CATEGORY</b>	III
<b>DUTY FACTOR</b>	100 %
<b>CHANGEOVER TIME</b>	20 s, max.
<b>INTERFERENCE IMMUNITY</b>	According to EN 60947-1
<b>FUNCTIONS</b>	Star-delta contactor

<b>RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX</b>	24 V
<b>RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN</b>	24 V
<b>RATED INSULATION VOLTAGE (UI)</b>	690 V
<b>RATED OPERATIONAL CURRENT (IE) AT AC-1, 380 V, 400 V, 415 V</b>	45 A
<b>RATED OPERATIONAL CURRENT (IE) AT AC-3, 380 V, 400 V, 415 V</b>	45 A
<b>RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)</b>	45 A
<b>RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ</b>	22 kW
<b>RATED OPERATIONAL POWER (NEMA)</b>	0 kW
<b>STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS</b>	3.7 W
<b>SUITABLE FOR</b>	Also motors with efficiency class IE3
<b>RATED OPERATIONAL POWER AT AC-3, 500 V, 50 HZ</b>	30 kW
<b>RATED OPERATIONAL POWER AT AC-3, 690 V, 50 HZ</b>	22 kW
<b>ACTUATING VOLTAGE</b>	24 V DC
<b>NUMBER OF AUXILIARY CONTACTS (CHANGE-OVER CONTACTS)</b>	0
<b>VOLTAGE TYPE OF OPERATING VOLTAGE</b>	AC
<b>OPERATING VOLTAGE AT AC, 50 HZ - MIN</b>	24 V
<b>OPERATING VOLTAGE AT AC, 50 HZ - MAX</b>	690 V
<b>OPERATING VOLTAGE AT AC, 60 HZ - MIN</b>	24 V
<b>OPERATING VOLTAGE AT AC, 60 HZ - MAX</b>	690 V
<b>OPERATING VOLTAGE AT</b>	0 V

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DC - MIN

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OPERATING VOLTAGE AT  
DC - MAX 0 V

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PROJECT NAME:

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PROJECT NUMBER:

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PREPARED BY:

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DATE:

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