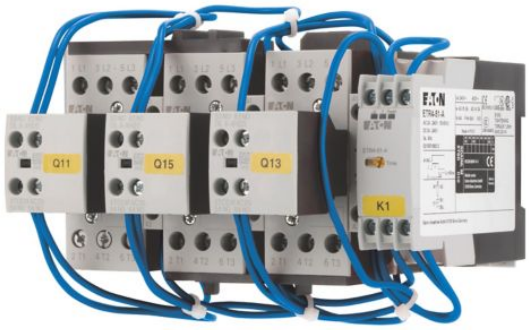
Specifications



Eaton 100420

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

General specifications

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

Powering Business Worldwide

Product specifications

USED WITH	ETR4-51
ELECTRICAL CONNECTION TYPE FOR AUXILIARY- AND CONTROL-CURRENT CIRCUIT	Screw connection
NUMBER OF POLES	Three-pole
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.
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

Resources

CATALOGS	eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf
DECLARATIONS OF CONFORMITY	eaton-star-delta-contactor-combination-declaration-of-conformity-eu250763en.pdf eaton-star-delta-contactor-combination-declaration-of-conformity-uk251246en.pdf
DRAWINGS	eaton-star-delta-starters-star-delta-sdainl-contactor-combination-dimensions-003.eps eaton-general-ie-ready-dilm-contactor-standards.eps
ECAD MODEL	ETN.SDAINLM45(RDC24).edz
INSTALLATION INSTRUCTIONS	IL03407044Z IL03407030Z
MCAD MODEL	sdainl_bg2.stp eaton-iec-contactors-mcad-drawings-sdainl-bg2.dwg
SPECIFICATIONS AND DATASHEETS	Eaton Specification Sheet - 100420
SYSTEM OVERVIEW	eaton-star-delta-starters-star-delta-sdainl-contactor-combination-explosion-drawing.eps
WIRING DIAGRAMS	eaton-contactors-contact-sdainl-combination-wiring-diagram-002.eps

	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.
POLLUTION DEGREE	3
UTILIZATION CATEGORY	AC-3: Normal AC induction motors: starting, switch off during running
CONNECTION	Screw terminals
AMBIENT OPERATING TEMPERATURE - MAX	60 °C
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX	40 °C
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN	-25 °C
AMBIENT STORAGE TEMPERATURE - MAX	80 °C
AMBIENT STORAGE TEMPERATURE - MIN	-40 °C
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	12.4 W
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT-	4.1 W

DEPENDENT PVID	
APPLICATION	Star-delta motor starting for contactor combinations
PRODUCT CATEGORY	Contactor combinations
ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Screw connection
VOLTAGE TYPE	DC
DEGREE OF PROTECTION	IP00 NEMA Other
NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)	3
NUMBER OF CONTACTS (NORMALLY CLOSED) AS MAIN CONTACT	0
NUMBER OF MAIN CONTACTS (NORMALLY OPEN CONTACT)	9
OVERVOLTAGE CATEGORY	III
DUTY FACTOR	100 %
CHANGEOVER TIME	20 s, max.
INTERFERENCE IMMUNITY	According to EN 60947-1
FUNCTIONS	Star-delta contactor
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX	24 V
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN	24 V
RATED INSULATION VOLTAGE (UI)	690 V
RATED OPERATIONAL CURRENT (IE) AT AC-1, 380 V, 400 V, 415 V	45 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 380 V, 400 V, 415 V	45 A
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	45 A
RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ	22 kW
STATIC HEAT	3.7 W

DISSIPATION, NON-CURRENT-DEPENDENT PVS	
SUITABLE FOR	Also motors with efficiency class IE3
RATED OPERATIONAL POWER AT AC-3, 500 V, 50 HZ	30 kW
RATED OPERATIONAL POWER AT AC-3, 690 V, 50 HZ	22 kW
ACTUATING VOLTAGE	24 V DC
NUMBER OF AUXILIARY CONTACTS (CHANGE-OVER CONTACTS)	0
VOLTAGE TYPE OF OPERATING VOLTAGE	AC
OPERATING VOLTAGE AT AC, 50 HZ - MIN	24 V
OPERATING VOLTAGE AT AC, 50 HZ - MAX	690 V
OPERATING VOLTAGE AT AC, 60 HZ - MIN	24 V
OPERATING VOLTAGE AT AC, 60 HZ - MAX	690 V

PROJECT NAME:	
PROJECT NUMBER:	
PREPARED BY:	
DATE:	

Eaton Corporation plc Eaton House
30 Pembroke Road
Dublin 4, Ireland
Eaton.com

© 2026 Eaton. All Rights Reserved.

Follow us on social media to get the latest product and support information.