

Specifications



Eaton 278411

Eaton Moeller® series SDAINL Star-delta contactor combination, 380 V 400 V: 30 kW, 230 V 50 Hz, 240 V 60 Hz, AC operation

General specifications

PRODUCT NAME	Eaton Moeller series star-delta contactor combination
CATALOG NUMBER	278411
EAN	4015082784119
PRODUCT LENGTH/DEPTH	138 mm
PRODUCT HEIGHT	95 mm
PRODUCT WIDTH	158 mm
PRODUCT WEIGHT	1.61 kg
CERTIFICATIONS	CE
MODEL CODE	SDAINLM55(230V50HZ,240V60HZ)

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	Does not apply, since the

IMPACT	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.
FREQUENCY RATING	50-60 Hz
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	17.9 W
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	6 W
APPLICATION	Star-delta motor starting for contactor combinations
PRODUCT CATEGORY	Contactor combinations
ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Screw connection
VOLTAGE TYPE	AC
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
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX	230 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN	230 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX	240 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN	240 V
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	0 V
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN	0 V
RATED INSULATION VOLTAGE (UI)	690 V
RATED OPERATIONAL CURRENT (IE) AT AC-1, 380 V, 400 V, 415 V	55 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 380 V, 400 V, 415 V	55 A
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	55 A
RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ	30 kW
RATED OPERATIONAL POWER (NEMA)	0 kW
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	6.2 W
SUITABLE FOR	Also motors with efficiency class IE3
RATED OPERATIONAL POWER AT AC-3, 500 V, 50 HZ	37 kW
RATED OPERATIONAL POWER AT AC-3, 690 V, 50 HZ	30 kW
ACTUATING VOLTAGE	230 V 50 Hz, 240 V 60 Hz
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

OPERATING VOLTAGE AT DC - MIN	0 V
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OPERATING VOLTAGE AT DC - MAX	0 V
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Resources

[Product Range Catalog Switching and protecting motors](#)

[SmartWire-DT Catalog](#)

CATALOGUES [eaton-switching-and-protecting-motors-product-range-catalog-ca034001en-en-us.pdf](#)

[eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf](#)

**DECLARATIONS
OF
CONFORMITY** [DA-DC-00004783.pdf](#) [DA-DC-00004816.pdf](#)

[eaton-star-delta-starters-star-delta-sdainl-contactor-combination-dimensions-003.eps](#)

DRAWINGS [eaton-star-delta-starters-star-delta-sdainl-contactor-combination-3d-drawing-002.eps](#)

[eaton-general-ie-ready-dilm-contactor-standards.eps](#)

ECAD MODEL [ETN.SDAINLM55\(230V50HZ,240V60HZ\).edz](#)

**INSTALLATION
INSTRUCTIONS** [IL03407030Z](#) [IL03407044Z](#)

**INSTALLATION
VIDEOS** [WIN-WIN with push-in technology](#)

MCAD MODEL [sdainl_bg2.stp](#) [sdainl_bg2](#)

**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](#)

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

DATE:



Eaton Corporation plc

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

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