

Eaton 100420

Catalog Number: 100420

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

General specifications



Product Name	Catalog Number
Eaton Moeller® series SDAINL contactor 100420 combination	
	Model Code
	SDAINLM45(RDC24)
EAN	Product Length/Depth
4015081003976	138 mm
Product Height	Product Width
95 mm	158 mm
Product Weight	Certifications
1.93 kg	CE
Catalog Notes	
Contacts according to EN 50012	

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

Resources

Catalogs

[SmartWire-DT Catalog](#)

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

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

Declarations of conformity

[DA-DC-00004783.pdf](#)

[DA-DC-00004816.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](#)

Installation videos

[WIN-WIN with push-in technology](#)

mCAD model

[sdainl_bg2.stp](#)

[sdainl_bg2](#)

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](#)

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.

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 P_{vid}

12.4 W

Heat dissipation capacity P_{diss}

0 W

Heat dissipation per pole, current-dependent P_{vid}

4.1 W

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

Rated control supply voltage (U_s) at AC, 50 Hz - max

0 V

Rated control supply voltage (U_s) at AC, 50 Hz - min

0 V

Rated control supply voltage (U_s) at AC, 60 Hz - max

0 V

Rated control supply voltage (U_s) at AC, 60 Hz - min

0 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

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

Rated operational power (NEMA)

0 kW

Static heat dissipation, non-current-dependent Pvs

3.7 W

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

Operating voltage at DC - min

0 V

Operating voltage at DC - max

0 V



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