



## 240009 SDAINLM 140(230V50HZ,240V60HZ)



Overview



Specifications



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### DELIVERY PROGRAM

Product range  
Contactor combinations

Application  
Star-delta motor starting for contactor combinations

Accessories  
Star-delta combinations SDAINL

Utilization category  
NAC-3: Normal AC induction motors: starting, switch off during running



Notes  
Also suitable for motors with efficiency class IE3.

Description

Operating frequency: maximum 30 starts per hour

### Rated operational current [ $I_e$ ]

AC-3  
380 V 400 V [ $I_e$ ]  
140 A

### Max. rating for three-phase motors, 50 - 60 Hz

AC-3  
220 V 230 V [F]  
37 kW

AC-3  
380 V 400 V [F]  
75 kW

AC-3  
500 V [F]  
90 kW

AC-3  
660 V 690 V [F]  
90 kW

Max. changeover time  
< 20 s

Actuating voltage  
230 V 50 Hz, 240 V 60 Hz

Voltage AC/DC  
AC operation

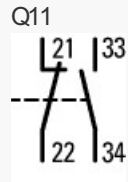
### Individual components of the combination

Mains contactor Q11  
DILM80  
+ DLM150-XH131 Part no.

Delta contactor Q15  
DILM80  
+ DLM150-XH111 Part no.

Star contactor Q13  
DLM50  
+ DLM150-XH11 Part no.

Timing relay K1  
ETR4-51 Part no.



## DESIGN VERIFICATION AS PER IEC/EN 61439

### Technical data for design verification

Rated operational current for specified heat  
dissipation [ $I_n$ ]  
140 A

Heat dissipation per pole, current-dependent [ $P_{vid}$ ]  
7.9 W

Equipment heat dissipation, current-dependent  
[ $P_{vid}$ ]  
23.8 W

Static heat dissipation, non-current-dependent [ $P_{vs}$ ]  
13.6 W

Heat dissipation capacity [ $P_{diss}$ ]  
0 W

Operating ambient temperature min.  
-25 °C

Operating ambient temperature max.  
+60 °C

### IEC/EN 61439 design verification

10.2 Strength of materials and parts  
10.2.2 Corrosion resistance  
Meets the product standard's requirements.

10.2 Strength of materials and parts  
10.2.3.1 Verification of thermal stability of enclosures  
Meets the product standard's requirements.

10.2 Strength of materials and parts  
10.2.3.2 Verification of resistance of insulating materials to normal heat  
Meets the product standard's requirements.

10.2 Strength of materials and parts  
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects  
Meets the product standard's requirements.

10.2 Strength of materials and parts  
10.2.4 Resistance to ultra-violet (UV) radiation  
Meets the product standard's requirements.

10.2 Strength of materials and parts  
10.2.5 Lifting  
Does not apply, since the entire switchgear needs to be evaluated.

10.2 Strength of materials and parts  
10.2.6 Mechanical impact  
Does not apply, since the entire switchgear needs to be evaluated.

10.2 Strength of materials and parts  
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 Insulation properties  
10.9.2 Power-frequency electric strength  
Is the panel builder's responsibility.

10.9 Insulation properties  
10.9.3 Impulse withstand voltage  
Is the panel builder's responsibility.

10.9 Insulation properties  
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 7.0

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@ss10.0.1-27-37-10-09 [AGZ572014])

Function  
Star-delta contactor

Rated control supply voltage  $U_s$  at AC 50HZ  
230 - 230 V

Rated control supply voltage  $U_s$  at AC 60HZ  
240 - 240 V

Rated control supply voltage  $U_s$  at DC  
0 - 0 V

Voltage type for actuating  
AC

Rated operation current  $I_e$  at AC-3, 400 V  
140 A

Rated operation power at AC-3, 400 V  
75 kW

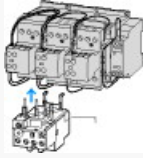
Rated operation power NEMA  
0 kW

Type of electrical connection of main circuit  
Screw connection

Degree of protection (IP)  
IP00

Degree of protection (NEMA)  
Other

## CHARACTERISTICS



Accessories  
1: Overload relay

## DIMENSIONS

