DATASHEET - SDAINLM90(230V50HZ,240V60HZ)

Star-delta contactor combination, 380 V 400 V: 45 kW, 230 V 50 Hz, 240 V 60



Part no.	SDAINLM90(230V50HZ,240V60HZ)
Catalog No.	239937
Alternate Catalog	XTSD090D11F
No.	
EL-Nummer	4131006
(Norway)	

Delivery program

AC-3 Image: Constraint of the system of th				
Acessonies	Product range			Contactor combinations
liizatian category Nots Description Ac-3 380 V40 V Ac-3 380 V40 V Ac-3 380 V40 V Ac-3 380 V40 V Ac-3 20 V23 V Ac-3 20	Application			Star-delta motor starting for contactor combinations
Notes Acsaulable for motors with efficiency class IE3. Description perating frequency: maximum 30 starts per hour Act-3 Perating frequency: maximum 30 starts per hour 380 V400 V Perating for three-phase motors, 50-60 Hz Perating for three-phase motors, 50-60 Hz Act-3 Perating for three-phase motors, 50-60 Hz Perating for three-phase motors, 50-60 Hz Act-3 Perating for three-phase motors, 50-60 Hz Perating for three-phase motors, 50-60 Hz Act-3 Perating for three-phase motors, 50-60 Hz Perating for three-phase motors, 50-60 Hz Act-3 Perating for three-phase motors, 50-60 Hz Perating for three-phase motors, 50-60 Hz Solv 200 V Perating for three-phase motors, 50-60 Hz Perating for three-phase motors, 50-60 Hz Solv 200 V Perating for three-phase motors, 50-60 Hz Solv 200 V Solv 200 V Perating for three-phase motors, 50-60 Hz Solv 200 V Solv 200 V Perating for three-phase motors, 50-60 Hz Solv 200 V Solv 200 V Perating for three-phase motors, 200 Ps Solv 200 V Act-anspoort mine Perating for three-phase motors, 200 Ps Perating for three-phase motors, 200 Ps Individual components of	Accessories			Star-delta combinations SDAINL
Description Max Parting frequency: maximum 30 starts per hour Ac-3 A AC-3 A AC-3 A 20 V 20 V P A 300 V 400 V P V AC-3 A A 20 V 20 V P V A 300 V 400 V P V A 600 V 600 V P V A 600 V 600 V P V A Actaring oncentrine P V A Actaring to the combination V M A Actaring to components of the combination P V A Individual components of the combination P V A Individual components of the combination N N N Individual contro trift N N N </td <td>Utilization category</td> <td></td> <td></td> <td>NAC-3: Normal AC induction motors: starting, switch off during running</td>	Utilization category			NAC-3: Normal AC induction motors: starting, switch off during running
Rated operational current R	Notes			Also suitable for motors with efficiency class IE3.
AC3 Max Max Max Max 380 V400 V F A 9 Max.rating for three-phase motors, 50-60 Hz F F F AC3 - - - - 220 V 230 V P KW 2 - 380 V 400 V P KW 5 - 380 V 400 V P KW 5 - 380 V 400 V P KW 5 - 500 V P KW 5 - - 600 V 680 V P KW 5 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -	Description			Operating frequency: maximum 30 starts per hour
380 440 V Image: Marcing for three-phase motors, 50 - 60 Hz Image: Marcing for three-phase motors, 50 - 60 Hz Image: Marcing for three-phase motors, 50 - 60 Hz Image: Marcing for three-phase motors, 50 - 60 Hz Image: Marcing for three-phase motors, 50 - 60 Hz Image: Marcing for three-phase motors, 50 - 60 Hz Image: Marcing for three-phase motors, 50 - 60 Hz Image: Marcing for three-phase motors, 50 - 60 Hz Image: Marcing for three-phase motors, 50 - 60 Hz Image: Marcing for three-phase motors, 50 - 60 Hz Image: Marcing for three-phase motors, 50 - 60 Hz Image: Marcing for three-phase motors, 50 - 60 Hz Image: Marcing for three-phase motors, 50 - 60 Hz Image: Marcing for three-phase motors, 50 Hz Image: Ma	Rated operational current			
Max. rating for three-phase motors, 50 - 60 Hz AC-3 Image: Construct of the construct	AC-3			
AC-3 P KW 20 V 230 V P KW 380 V 400 V P KW 500 V P KW 660 V 690 V P KW 660 V 690 V P KW Actuating voltage P KW Actuating voltage F 20 V 200 V EV Voltage AC/DC F 20 V 200 V EV Individual components of the combination F 20 V 200 V EV Mains contactor Q11 F F F Delta contactor Q13 F F F Star contactor Q13 F F F	380 V 400 V	le	А	90
20 V 200 V P KW 2 300 V 400 V P KW 5 500 V P KW 5 600 V 600 V P KW 5 600 V 600 V P KW 5 Actuating voltage P KW 5 Voltage AC/DC F S 20 V 500 V 60 Hz Mains contactor Q15 F F C Mains contactor Q15 F F F Star contactor Q13 F F F	Max. rating for three-phase motors, 50 - 60 Hz			
Note Note <th< td=""><td>AC-3</td><td></td><td></td><td></td></th<>	AC-3			
Store Reserve of the combination Pice Reserve of the combination Pice Reserve of the combination Reserve of the combi	220 V 230 V	Р	kW	22
660 Y 690 Y P KW 5 Max. changeover time s 3 Actuating voltage s 30 Y 50 Hz, 240 Y 60 Hz Voltage AC/DC Coperation Coperation Individual components of the combination Farton Fulty Mains contactor Q13 Parton LMSS Star contactor Q13 Farton LMSS	380 V 400 V	Р	kW	45
Max.changeover time Max.changeover t	500 V	Ρ	kW	55
Actuating voltage 30 V 50 Hz, 240 V 60 Hz Voltage AC/DC Ac operation Individual components of the combination For the combination Mains contactor Q11 Part no. Delta contactor Q15 Part no. Star contactor Q13 ILM40	660 V 690 V	Ρ	kW	45
Votage AC/DC AC operation Individual components of the combination Image: Components of the combination Mains contactor Q11 Image: Components of the combination Delta contactor Q15 Image: Components of the combination Star contactor Q13 Image: Components of the combination	Max. changeover time		S	20
Individual components of the combination Image: Components of the combination Mains contactor Q11 Part no. Delta contactor Q15 Part no. Star contactor Q13 Part no.	Actuating voltage			230 V 50 Hz, 240 V 60 Hz
Mains contactor Q11 Part no. DILM50 + DILM150-XHI31 Delta contactor Q15 Part no. DILM50 + DILM150-XHI11 Star contactor Q13 Part no. DILM40 + DILM150-XHI11	Voltage AC/DC			AC operation
Delta contactor Q15 DILM150-XHI31 Star contactor Q13 Part no. DILM50-XHI11	Individual components of the combination			
Star contactor Q13 Part no. DILM40 + DILM150-XHI11	Mains contactor Q11		Part no.	
+ DILM150-XH11	Delta contactor Q15		Part no.	
Timing relay K1 Part no. ETR4-51	Star contactor Q13		Part no.	
	Timing relay K1		Part no.	ETR4-51

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	In	А	90
Heat dissipation per pole, current-dependent	P _{vid}	W	10.7
Equipment heat dissipation, current-dependent	P _{vid}	W	32.1
Static heat dissipation, non-current-dependent	P _{vs}	W	10.2
Heat dissipation capacity	P _{diss}	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	60
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
10.2.2 Corrosion resistance			Meets the product standard's requirements.
10.2.3.1 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 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric 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 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.
10.9.3 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.
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	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 Us at AC 50HZ		V	230 - 230	
Rated control supply voltage Us at AC 60HZ		V	240 - 240	
Rated control supply voltage Us at DC		V	0 - 0	
Voltage type for actuating			AC	
Rated operation current le at AC-1, 400 V			90	
Rated operation current le at AC-3, 400 V		А	90	
Rated operation power at AC-3, 400 V		kW	45	
Rated operation power NEMA		kW	0	
Number of normally closed contacts as main contact			0	
Number of main contacts as normally open contact			9	
Type of electrical connection for auxiliary- and control current circuit			EV000415	
Type of electrical connection of main circuit			Screw connection	
Degree of protection (IP)			IP00	
Degree of protection (NEMA)			Other	
Rail mounting possible			Yes	