DATASHEET - DILMC9-10(24VDC)



Contactor, 3 pole, 380 V 400 V 4 kW, 1 N/O, 24 V DC, DC operation, Springloaded terminals





Part no. **DILMC9-10(24VDC)** 277468

4110305

Catalog No. XTCEC009B10TD

Alternate Catalog

No.

EL-Nummer

(Norway)

Similar to illustration

Onimal Contact and			
Delivery program			
Product range			Contactors
Application			Contactors for Motors
Subrange			Contactors up to 170 A, 3 pole
Utilization category			AC-1: Non-inductive or slightly inductive loads, resistance furnaces NAC-3: Normal AC induction motors: starting, switch off during running AC-4: Normal AC induction motors: starting, plugging, reversing, inching
			IE3 ✓
Notes			Also suitable for motors with efficiency class IE3. IE3-ready devices are identified by the logo on their packaging.
Connection technique			Spring-loaded terminals
Number of poles			3 pole
Rated operational current			
AC-3			
Notes			At maximum permissible ambient temperature (open.)
380 V 400 V	I _e	Α	9
AC-1			
Conventional free air thermal current, 3 pole, 50 - 60 Hz			
Open			
at 40 °C	$I_{th} = I_e$	Α	22
enclosed	I _{th}	Α	18
Conventional free air thermal current, 1 pole			
open	I _{th}	Α	50
enclosed	I _{th}	Α	45
Max. rating for three-phase motors, 50 - 60 Hz			
AC-3			
220 V 230 V	P	kW	2.5
380 V 400 V	P	kW	4
660 V 690 V	P	kW	4.5
AC-4			
220 V 230 V	P	kW	1.5
380 V 400 V	P	kW	2.5
660 V 690 V	P	kW	3.6
Contacts			
N/0 = Normally open			1 N/O
Contact sequence			$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Instructions			Contacts to EN 50 012. Auxiliary current, coil, and main current terminals with spring-cage connection technology. Integrated varistor suppressor circuit.
Can be combined with auxiliary contact			DILM32-XHIC DILA-XHIC(V)

Actuating voltage	24 V DC
Voltage AC/DC	DC operation
Connection to SmartWire-DT	yes in conjunction with DIL-SWD SmartWire DT contactor module

Technical data

General

League, machanical Co. Co generation Co.	Standards			IEC/EN 60947, VDE 0660, UL, CSA
Operating frequency, mechanical Operations of Contract of Country (Contract of Country (Country	Lifespan, mechanical			
Description	DC operated	Operations	x 10 ⁶	10
Climatic proteing Climatic proteins Clim	Operating frequency, mechanical			
Dump heat, cyclic, to IEC 60088-2-30	DC operated	Operations/h		9000
Ambient tamperature C	Climatic proofing			
C 25 - 40	A 1:			Damp heat, cyclic, to IEC 60068-2-30
Enclosed Storage C - 25 - 40 Mounting position Mechanical shock resistance (IEC/EN 80088-2-27) Helf-sinuspidul shock, 10 ms Mini contacts ND centact Auxiliary contacts NDC centact Michanical shock resistance (IEC/EN 80088-2-27) when tabletop-mounted Helf-sinuspidul shock, 10 ms Mini contacts NDC centact Helf-sinuspidul shock, 10 ms Mini contacts NDC centact Auxiliary contacts NDC centact Auxiliary contacts NDC centact Q 5 5,7 Auxiliary contacts NDC centact Q 3.4 Degree of Protection Protection pajant direct contact when actuated from front (EN 80278) Mini contacts DC person of protection Protection pajant direct contact when actuated from front (EN 80278) Mini contacts Solid mm² 1 x (0.75 - 2.5) 2 x (0.75 - 2.5) 2 x (0.75 - 2.5) 3 x	•		0.0	25
Storage *C - 40 - 80 Mounting position Machanical shock resistance (IEC/RN 60089-2-27) Half-sinusoidal shock, 10 ms Main centracts N/O centact Availing restracts N/O centact Availing restracts N/O centact Availing restracts N/O centact G 7 N/C centact Half-sinusoidal shock, 10 ms Main centracts N/O centact Resistance (IEC/RN 80089-2-27) when tablestop-mounted Half-sinusoidal shock resistance (IEC/RN 80089-2-27) when tablestop-mounted Half-sinusoidal shock not ms Main centracts N/O centact G 5,7 Availing restracts N/O centact G 3,4 N/C				
Muchanical shock resistance (IECEN 0008-2-27) Half-aniacoidal shock, 10 ms Mini contacts Ni Contact Mini contact Ni Contact Mini contact Ni Contact Mini contact Ni Contact Mini co				
Machanical shock resistance (IEC/EN 50068-2-27) Malf-armusoidal shock, 10 ms Main contacts NOI contact NOI contact NOI contact NOI contact Half-armusoidal shock, 10 ms Main contacts NOI contact NOI contact NOI contact Half-armusoidal shock, 10 ms Main contacts NOI contact NOI			C	- 40 - 00
Half-sinusoidal shock, 10 ms	wounting position			
Main contacts g 10 Auxiliary contacts g 7 N/O contact g 5 N/C contact g 5 Mechanical shock resistance (EC/EN 60068-2-27) when tabletop-mounted Helf-sinusoidal shock, 10 ms Helf-sinusoidal shock, 10 ms Mill contacts g 5.7 Avxiliary contacts g 5.7 Avxiliary contacts g 3.4 N/C contact g 3.4 Degree of Protection P20 Finger and back-of-hand proof Altitude m Ms. 2000 Weight P0 P0 DC operated kg 0.29 Spring-loaded tarminal connection mm² 1 x (0.75 - 2.5) Terminal capacity main cable mm² 1 x (0.75 - 2.5) Solid or stranded mm² 1 x (0.75 - 2.5) Solid or stranded mm² 1 x (0.75 - 2.5) Solid or stranded mm² 1 x (0.75 - 2.5) Solid or stranded mm² 1 x (0.75 - 2.5) Solid or stranded	Mechanical shock resistance (IEC/EN 60068-2-27)			
N/O contact	Half-sinusoidal shock, 10 ms			
Auxiliary contacts	Main contacts			
N/C contact 9 7	N/O contact		g	10
N/C contact g 5 Mechanical shock resistance (IEC/EN 60068-2-27) when tabletop-mounted Half-sinusoidal shock, 10 ms Main contacts VO contact g 5.7 Auxiliary contacts g 3.4 N/C contact g 3.4 N/C contact g 3.4 Degree of Protection IP20 Protection against direct contact when actuated from front (EN 50274) Finger and back-of-hand proof Altitude m Max. 2000 Weight DC operated kg 0.29 Spring-loaded terminal connection mm² 1 x (0.75 - 2.5) 2 x (0.75 - 2.5) Terminal capacity main cable mm² 1 x (0.75 - 2.5) 2 x (0.75 - 2.5) 1 x (0.75 - 2.5) 2 x (0.75 - 1.5) 2 x (0.75 - 2.5) 1 x (0.75 - 2.5) 2 x (0.75 - 2.5)	Auxiliary contacts			
Mechanical shock resistance (IEC/EN 60088-2-27) when tabletop-mounted Half-sinusoidal shock, 10 ms Main contacts N/O contact g 5.7 Auxiliary contacts g 3.4 N/O contact g 3.4 Degree of Protection IP20 Protection against direct contact when actuated from front (EN 50274) Finger and back-of-hand proof Altitude m Max. 2000 Weight v DC operated kg 0.29 Spring-loaded terminal connection mm² 1 x (0.75 - 2.5) 2 x (0.75 - 2.5) 2 x (0.75 - 2.5) flexible mm² 1 x (0.75 - 2.5) 2 x (0.75 - 2.5) flexible with ferrules mm² 1 x (0.75 - 2.5) 2 x (0.75 - 1.5) Solid or stranded AVG 18 - 14 Stripping length mm 10 Terminal capacity control circuit cables Solid mm² 1 x (0.75 - 2.5) 2 x (0.75 - 2.5) Flexible mm² 1 x (0.75 - 2.5) Flexible mm² 1 x (0.75 - 2.5)	N/O contact		g	7
Half-sinusoidal shock, 10 ms	N/C contact		g	5
Main contacts g 5.7 Auxiliary contacts g 3.4 N/C contact g 3.4 Degree of Protection IP20 Protection against direct contact when actuated from front (EN 50274) Finger and back-of-hand proof Altitude m Max. 2000 Weight 0.29 DC operated kg 0.29 Spring-loaded terminal connection Terminal capacity main cable Solid mm² 1 x (0.75 - 2.5) flexible mm² 1 x (0.75 - 2.5) flexible with ferrules mm² 1 x (0.75 - 2.5) Solid or stranded AWG 18 - 14 Stripping length mm 10 Terminal capacity control circuit cables mm² 1 x (0.75 - 2.5) Solid mm² 1 x (0.75 - 2.5) 1 x (0.75 - 2.5) 2 x (0.75 - 2.5) 2 x (0.75 - 2.5) 2 x (0.75 - 2.5) 2 x (0.75 - 2.5) 2 x (0.75 - 2.5) 3 x (0.75 - 2.5) 3 x (0.75 - 2.5) 4 x (0.75 - 2.5) 3 x (0.75 - 2.5)	Mechanical shock resistance (IEC/EN 60068-2-27) when tabletop-mounted			
N/O contact g 5.7 Auxiliary contacts g 3.4 N/C contact g 3.4 Degree of Protection IP20 Protection against direct contact when actuated from front (EN 50274) Finger and back-of-hand proof Altitude m Max. 2000 Weight DC operated kg 0.29 Spring-loaded terminal connection Terminal capacity main cable Solid mm² 1 x (0.75 - 2.5) 2 x (0.75 - 2.5) flexible mm² 1 x (0.75 - 2.5) 2 x (0.75 - 1.5) Solid or stranded AWG 18 - 14 Stripping length mm 10 Terminal capacity control circuit cables mm² 1 x (0.75 - 2.5) Solid mm² 1 x (0.75 - 2.5) Elexible mm² 1 x (0.75 - 2.5) Flexible mm² 1 x (0.75 - 2.5)	Half-sinusoidal shock, 10 ms			
Auxiliary contacts N/O contact N/C contact Degree of Protection Protection against direct contact when actuated from front (EN 50274) Alkitude M Max. 2000 Weight DC operated Spring-loaded terminal connection Terminal capacity main cable Solid flexible flexible flexible Mm² 1 x (0.75 - 2.5) 2 x (0.75 - 1.5) 3 x (0.75 - 1.5) 4 x (0.75 - 1.5) 3 x (0.75 - 1.5) 4 x (0.75 - 1.5) 4 x (0.75 - 1.5) 5 x (0.75 - 2.5) 5 x (Main contacts			
N/O contact g 3.4 N/C contact g 3.4 Degree of Protection IP20 Protection against direct contact when actuated from front (EN 50274) Finger and back-of-hand proof Altitude m Max. 2000 Weight Coperated kg 0.29 Spring-loaded terminal connection Terminal capacity main cable mm² 1 x (0.75 - 2.5) 2 x (0.75 - 2.5) Solid mm² 1 x (0.75 - 2.5) 2 x (0.75 - 2.5) 2 x (0.75 - 2.5) flexible with ferrules mm² 1 x (0.75 - 2.5) 2 x (0.75 - 1.5) Solid or stranded AWG 18 - 14 Stripping length mm 10 Terminal capacity control circuit cables mm² 1 x (0.75 - 2.5) 2 x (0.75 - 2.5) Solid mm² 1 x (0.75 - 2.5) 2 x (0.75 - 2.5) 2 x (0.75 - 2.5) Flexible mm² 1 x (0.75 - 2.5) 2 x (0.75 - 2.5)<	N/O contact		g	5.7
N/C contact g 3.4 Degree of Protection IP20 Protection against direct contact when actuated from front (EN 50274) Finger and back-of-hand proof Altitude m Max. 2000 Weight Weight Coperated kg 0.29 Spring-loaded terminal connection Terminal capacity main cable 1 x (0.75 - 2.5) 2x (0.75 - 2.5) Textile Textile 1 x (0.75 - 2.5) 2x (0.75 - 2.5) Textile	Auxiliary contacts			
Degree of Protection Protection against direct contact when actuated from front (EN 50274) Altitude Max. 2000 Weight DC operated Spring-loaded terminal connection Terminal capacity main cable Solid mm² 1x (0.75 - 2.5) 2x (0.75 - 2.5) 1x (0.75 - 1.5) 2x (0.75 - 1.5) Solid or stranded Awg 18 - 14 Stripping length Terminal capacity control circuit cables Solid mm² 1x (0.75 - 2.5) 2x (0.75 - 2.5)	N/O contact		g	3.4
Protection against direct contact when actuated from front (EN 50274) Altitude Max. 2000 Weight DC operated Spring-loaded terminal connection Terminal capacity main cable Solid mm² 1 x (0.75 - 2.5) 2 x (0.75 - 1.5) 3 Solid or stranded Stripping length Terminal capacity control circuit cables Solid mm² 1 x (0.75 - 2.5) 2 x (0.75 - 2.5) 3 x (0.75 - 2.5) 3 x (0.75 - 2.5) 4 x (0.75 - 2.5) 5 x (0.75 - 2.5)			g	
Altitude m Max. 2000 Weight kg 0.29 Spring-loaded terminal connection **** ***** Terminal capacity main cable mm² 1 x (0.75 - 2.5) 2 x (0.75 - 2.5) flexible mm² 1 x (0.75 - 2.5) 2 x (0.75 - 2.5) flexible with ferrules mm² 1 x (0.75 - 1.5) 2 x (0.75 - 1.5) Solid or stranded AWG 18 - 14 Stripping length mm 10 Terminal capacity control circuit cables mm² 1 x (0.75 - 2.5) 2 x (0.75 - 2.5) 2 x (0.75 - 2.5) Flexible mm² 1 x (0.75 - 2.5) 2 x (0.75 - 2.5) x (0.75 - 2.5) x (0.75 - 2.5) x (0.75 - 2.5) x (0.75 - 2.5)				
Weight kg 0.29 Spring-loaded terminal connection Terminal capacity main cable Solid mm² 1 x (0.75 - 2.5) 2x (0.75 - 2.5) 2x (0.75 - 2.5) flexible mm² 1 x (0.75 - 2.5) 2x (0.75 - 1.5) Solid or stranded AWG 18 - 14 Stripping length mm 10 Terminal capacity control circuit cables mm² 1 x (0.75 - 2.5) 2 x (0.75 - 2.5) Flexible mm² 1 x (0.75 - 2.5) 2 x (0.75 - 2.5)				
DC operated kg 0.29			m	Max. 2000
Spring-loaded terminal connection Terminal capacity main cable Solid mm² 1x (0.75 - 2.5) 2x (0.75 - 2.5) 2x (0.75 - 2.5) 2x (0.75 - 2.5) flexible mm² 1x (0.75 - 2.5) 2x (0.75 - 2.5) 2x (0.75 - 2.5) flexible with ferrules mm² 1x (0.75 - 1.5) 2x (0.75 - 1.5) Solid or stranded AWG 18 - 14 Stripping length mm 10 Terminal capacity control circuit cables mm² 1x (0.75 - 2.5) 2x (0.75 - 2.5) 2x (0.75 - 2.5) Flexible mm² 1x (0.75 - 2.5) 2x (0.75 - 2.5)				
Terminal capacity main cable mm² 1 x (0.75 - 2.5) 2 x (0.75 - 2.5) 2 x (0.75 - 2.5) 2 x (0.75 - 2.5) (0.75 - 2.5) (0.75 - 2.5) (0.75 - 2.5) (0.75 - 2.5) (0.75 - 2.5) (0.75 - 2.5) (0.75 - 1.5			kg	0.29
Solid mm² $1 \times (0.75 - 2.5)$ flexible mm² $1 \times (0.75 - 2.5)$ $2 \times (0.75 - 2.5)$ $2 \times (0.75 - 2.5)$ flexible with ferrules mm² $1 \times (0.75 - 1.5)$ Solid or stranded AWG 18 - 14 Stripping length mm 10 Terminal capacity control circuit cables mm² $1 \times (0.75 - 2.5)$ Solid mm² $1 \times (0.75 - 2.5)$ Flexible mm² $1 \times (0.75 - 2.5)$				
2 x (0.75 - 2.5) flexible mm² 1 x (0.75 - 2.5) flexible with ferrules mm² 1 x (0.75 - 1.5) 2 x (0.75 - 1.5) Solid or stranded AWG 18 - 14 Stripping length mm 10 Terminal capacity control circuit cables Solid mm² 1 x (0.75 - 2.5) x (0.75 - 2.5) Flexible mm² 1 x (0.75 - 2.5) Texible mm² 1 x (0.75 - 2.5)				4 (O.T. O.S.)
2 x (0.75 - 2.5) flexible with ferrules	Solid		mm ²	
Solid or stranded	flexible		mm ²	
Stripping length mm 10 Terminal capacity control circuit cables mm² 1 x (0.75 - 2.5) / 2 x (0.75 - 2.5) Solid mm² 1 x (0.75 - 2.5) / 2 x (0.75 - 2.5) Flexible mm² 1 x (0.75 - 2.5)	flexible with ferrules		mm ²	1 x (0.75 - 1.5) 2 x (0.75 - 1.5)
Terminal capacity control circuit cables	Solid or stranded		AWG	18 - 14
Solid $mm^2 = 1 \times (0.75 - 2.5) \\ 2 \times (0.75 - 2.5)$ Flexible $mm^2 = 1 \times (0.75 - 2.5)$	Stripping length		mm	10
2 x (0.75 - 2.5) Flexible	Terminal capacity control circuit cables			
Flexible $mm^2 = 1 \times (0.75 - 2.5)$	Solid		mm ²	1 x (0.75 - 2.5) 2 x (0.75 - 2.5)
2 x (0.75 - 2.5)	Flexible		mm ²	1 x (0.75 - 2.5) 2 x (0.75 - 2.5)

Flexible with ferrule		mm ²	1 x (0.75 - 1.5) 2 x (0.75 - 1.5)
Solid or stranded		AWG	18 - 14
Stripping length		mm	10
Tool			
Screwdriver blade width		mm	3.5
Main conducting paths			
Rated impulse withstand voltage	U_{imp}	V AC	8000
Overvoltage category/pollution degree			III/3
Rated insulation voltage	Ui	V AC	690
Rated operational voltage	U _e	V AC	690
Safe isolation to EN 61140			
between coil and contacts		V AC	400
between the contacts		V AC	400
Making capacity (p.f. to IEC/EN 60947)			
	Up to 690 V	Α	126
Breaking capacity			
220 V 230 V		Α	90
380 V 400 V		Α	90
500 V		Α	70
660 V 690 V		Α	50
Short-circuit rating			
Short-circuit protection maximum fuse			
Type "2" coordination	C/I F00.V		20
400 V 690 V		A	20
Type "1" coordination	gG/gL 690 V	А	16
400 V	gG/gL 500 V	۸	35
690 V	gG/gL 690 V		20
AC	gu/gL 000 V	^	
AC-1			
Rated operational current			
Conventional free air thermal current, 3 pole, 50 - 60 Hz			
Open			
at 40 °C	$I_{th} = I_e$	Α	22
at 50 °C	$I_{th} = I_e$	Α	21
at 55 °C	$I_{th} = I_e$	Α	21
at 60 °C	I _{th} =I _e	Α	20
enclosed	I _{th}	Α	18
Conventional free air thermal current, 1 pole			
open	I _{th}	Α	50
enclosed	I _{th}	Α	45
AC-3			
Rated operational current			
Open, 3-pole: 50 – 60 Hz			
Notes			At maximum permissible ambient temperature (open.)
220 V 230 V	I _e	Α	9
240 V	I _e	Α	9
380 V 400 V	l _e	Α	9
415 V	I _e	Α	9
440V	I _e	Α	9
500 V	l _e	Α	7
660 V 690 V	I _e	A	5
380 V 400 V	I _e	A	9
Motor rating	'e P	kWh	
		KVVII	

000 \/ 000 \/	В	LAAZ	0.5
220 V 230 V	P	kW	2.5
240V	Р	kW	3
380 V 400 V	Р	kW	4
415 V	Р	kW	5.5
440 V	Р	kW	5.5
500 V	Р	kW	4.5
660 V 690 V	Р	kW	4.5
AC-4			
Open, 3-pole: 50 – 60 Hz			
220 V 230 V	l _e	Α	6
240 V	l _e	Α	6
380 V 400 V	I _e	Α	6
415 V	I _e	A	6
440 V		A	6
	l _e		
500 V	l _e	Α	5
660 V 690 V	l _e	Α	4.5
Motor rating	Р	kWh	
220 V 230 V	Р	kW	1.5
240 V	Р	kW	1.6
380 V 400 V	Р	kW	2.5
415 V	Р	kW	2.8
440 V	Р	kW	3
500 V	Р	kW	2.8
660 V 690 V	Р	kW	3.6
DC			
Rated operational current, open			
DC-1			
60 V	l _e	Α	20
110 V	I _e	Α	20
220 V	I _e	A	15
Current heat loss	·e		
3 pole, at I _{th} (60°)		W	4.4
Current heat loss at I _e to AC-3/400 V		W	0.9
Impedance per pole		mΩ	4.6
Magnet systems		ΠΩ	4.0
Voltage tolerance			
DC operated	Pick-up	x U _c	0.8 - 1.1
Notes	i ick up	λ 00	
Notes			0.85 - 1.1 only with auxiliary contact module with 3 or more N/C contacts 0.7 – 1.3 without auxiliary contact module and at ambient air temperature + +40 °C
DC operated	Drop-out	x U _c	0.15 - 0.6
Notes			at least smoothed two-phase bridge rectifier or three-phase rectifier
Power consumption of the coil in a cold state and 1.0 x U _S			
	Pick-up	W	4.5
DC operated			
DC operated	Sealing	W % DE	4.5
Duty factor		% DF	100
Changeover time at 100 % U _S (recommended value)			
Main contacts			
DC operated		ms	
Closing delay		ms	31
Opening delay		ms	12
Arcing time		ms	10
Electromagnetic compatibility (EMC)			
Emitted interference			according to EN 60947-1
Interference immunity			according to EN 60947-1
Rating data for approved types			
Switching capacity			

Maximum motor rating		
Three-phase		
200 V 208 V	HP	3
230 V 240 V	HP	3
460 V 480 V	НР	5
575 V	HP	7.5
600 V		
Single-phase	IID	0.5
115 V 120 V	HP	0.5
230 V 240 V	HP	1.5
General use	Α	20
Auxiliary contacts		
Pilot Duty		
AC operated		A600
DC operated		P300
General Use		
AC	V	600
AC	Α	10
DC	V	250
DC	Α	1
Short Circuit Current Rating	SCCR	
Basic Rating		
SCCR	kA	5
max. Fuse	Α	45
max. CB	Α	60
480 V High Fault		
SCCR (fuse)	kA	30/100
max. Fuse	Α	25 Class RK5/20 Class J
SCCR (CB)	kA	65
max. CB	Α	16
600 V High Fault		
SCCR (fuse)	kA	30/100
max. Fuse	Α	25 Class RK5/20 Class J
Special Purpose Ratings		
Electrical Discharge Lamps (Ballast)		
480V 60Hz 3phase, 277V 60Hz 1phase	Α	18
600V 60Hz 3phase, 347V 60Hz 1phase	Α	18
Incandescent Lamps (Tungsten)		
480V 60Hz 3phase, 277V 60Hz 1phase	Α	14
600V 60Hz 3phase, 347V 60Hz 1phase	Α	14
Resistance Air Heating		
480V 60Hz 3phase, 277V 60Hz 1phase	Α	18
600V 60Hz 3phase, 347V 60Hz 1phase	Α	18
Refrigeration Control (CSA only)		
LRA 480V 60Hz 3phase	Α	60
FLA 480V 60Hz 3phase	Α	10
LRA 600V 60Hz 3phase	Α	60
FLA 600V 60Hz 3phase	Α	10
Definite Purpose Ratings (100,000 cycles acc. to UL 1995)		
• • • • • • • • • • • • • • • • • • • •	Α	54
LRA 480V 60Hz 3phase		
LRA 480V 60Hz 3phase FLA 480V 60Hz 3phase	Α	9
LRA 480V 60Hz 3phase FLA 480V 60Hz 3phase Elevator Control	A	9

200V 60Hz 3phase	А	7.8
240V 60Hz 3phase	НР	2
240V 60Hz 3phase	Α	6.8
480V 60Hz 3phase	НР	3
480V 60Hz 3phase	Α	4.8
600V 60Hz 3phase	НР	5
600V 60Hz 3phase	А	6.1

Design verification as per IEC/EN 61439

2001gii 1011110411011 40 poi 120,211 01 100			
Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	9
Heat dissipation per pole, current-dependent	P _{vid}	W	0.3
Equipment heat dissipation, current-dependent	P _{vid}	W	0
Static heat dissipation, non-current-dependent	P _{vs}	W	4.5
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 switch gear must be observed. $\label{eq:constraint}$
10.12 Electromagnetic compatibility			Is the panel builder's responsibility. The specifications for the switch gear must be observed. $\label{eq:constraint}$
10.13 Mechanical function			The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

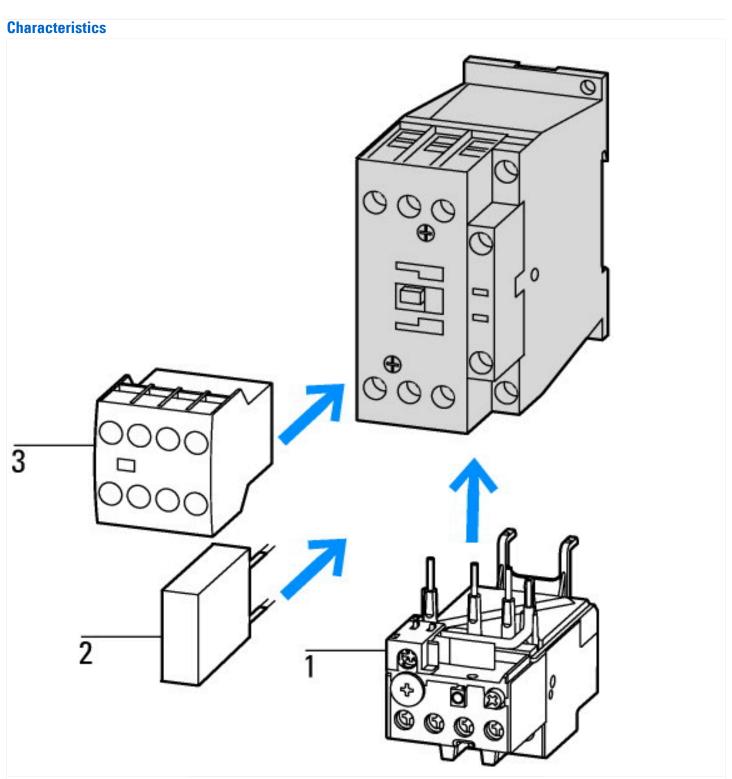
Technical data ETIM 7.0

Low-voltage industrial components (EG000017) / Power contactor, AC switching (EC000066)				
Electric engineering, automation, process control engineering / Low-voltage switch technology / Contactor (LV) / Power contactor, AC switching (ecl@ss10.0.1-27-37-10-03 [AAB718015])				
Rated control supply voltage Us at AC 50HZ	,	V	0 - 0	
Rated control supply voltage Us at AC 60HZ	,	V	0 - 0	
Rated control supply voltage Us at DC	,	V	24 - 24	
Voltage type for actuating			DC	
Rated operation current le at AC-1, 400 V		Α	22	
Rated operation current le at AC-3, 400 V		Α	9	
Rated operation power at AC-3, 400 V		kW	4	

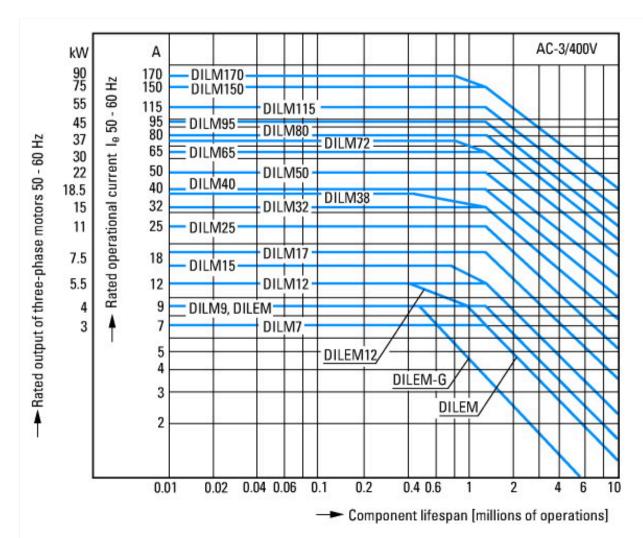
Rated operation current le at AC-4, 400 V	А	6
Rated operation power at AC-4, 400 V	kW	2.5
Rated operation power NEMA	kW	3.7
Modular version		No
Number of auxiliary contacts as normally open contact		1
Number of auxiliary contacts as normally closed contact		0
Type of electrical connection of main circuit		Spring clamp connection
Number of normally closed contacts as main contact		0
Number of main contacts as normally open contact		3

Approvals

Product Standards	IEC/EN 60947-4-1; UL 60947-4-1; CSA - C22.2 No. 60947-4-1-14; CE marking
UL File No.	E29096
UL Category Control No.	NLDX
CSA File No.	012528
CSA Class No.	2411-03, 3211-04
North America Certification	UL listed, CSA certified
Specially designed for North America	No



- 1: Overload relay 2: Suppressor 3: Auxiliary contact modules



Squirrel-cage motor Operating characteristics Starting:from rest Stopping:after attaining full running speed Electrical characteristics Make: up to 6 x rated motor current Break: up to 1 x rated motor current Utilization category 100 % AC-3 Typical applications Compressors

Lifts

Mixers

Pumps

Escalators

Agitators

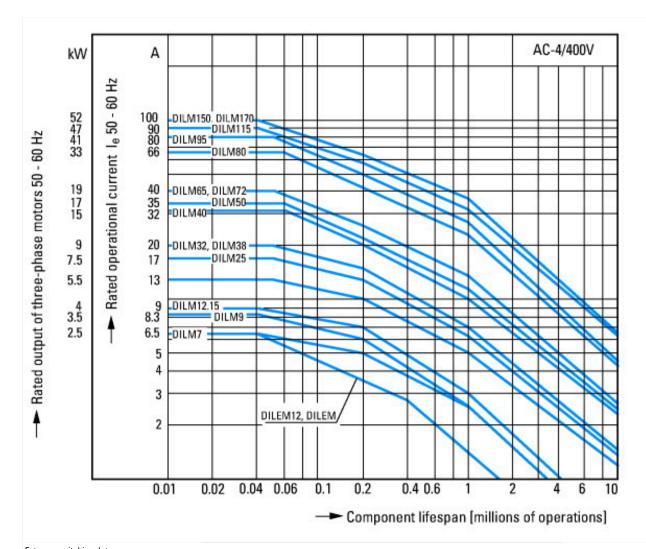
Fans Conveyor belts

Centrifuges

Hinged flaps

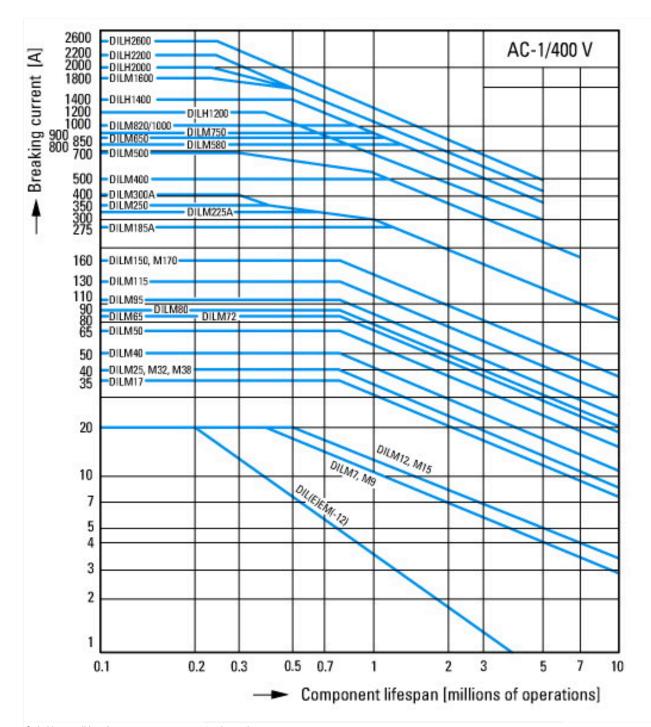
Bucket-elevators Air conditioning system

General drives in manufacturing and processing machines



Extreme switching duty
Squirrel-cage motor
Operating characteristics
Inching, plugging, reversing
Electrical characteristics
Make: up to 6 x rated motor current
Break: up to 6 x rated motor current
Utilization category
100 % AC-4
Typical applications
Printing presses
Wire-drawing machines
Centrifuges

Special drives for manufacturing and processing machines



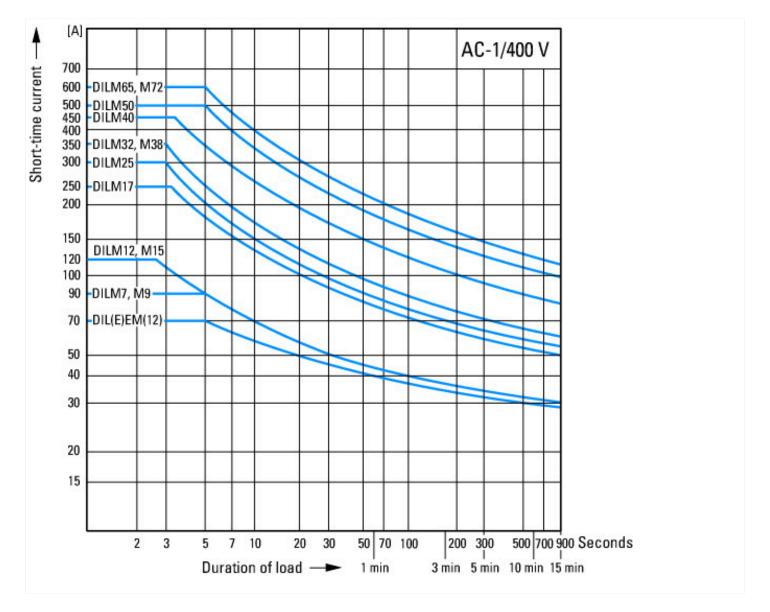
Switching conditions for non-motor consumers, 3 pole, 4 pole Operating characteristics Non inductive and slightly inductive loads Electrical characteristics Switch on: 1 x rated operational current

Switch off: 1 x rated operational current

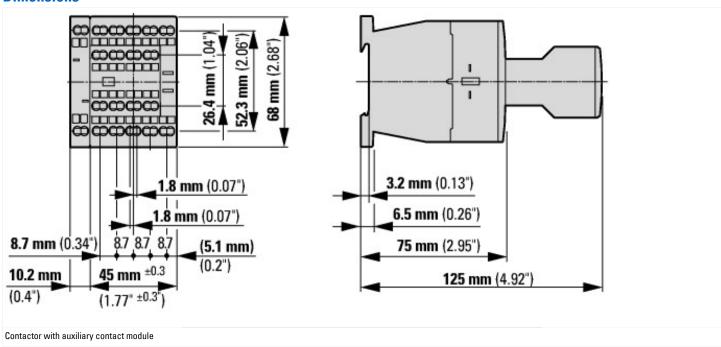
Utilization category 100 % AC-1

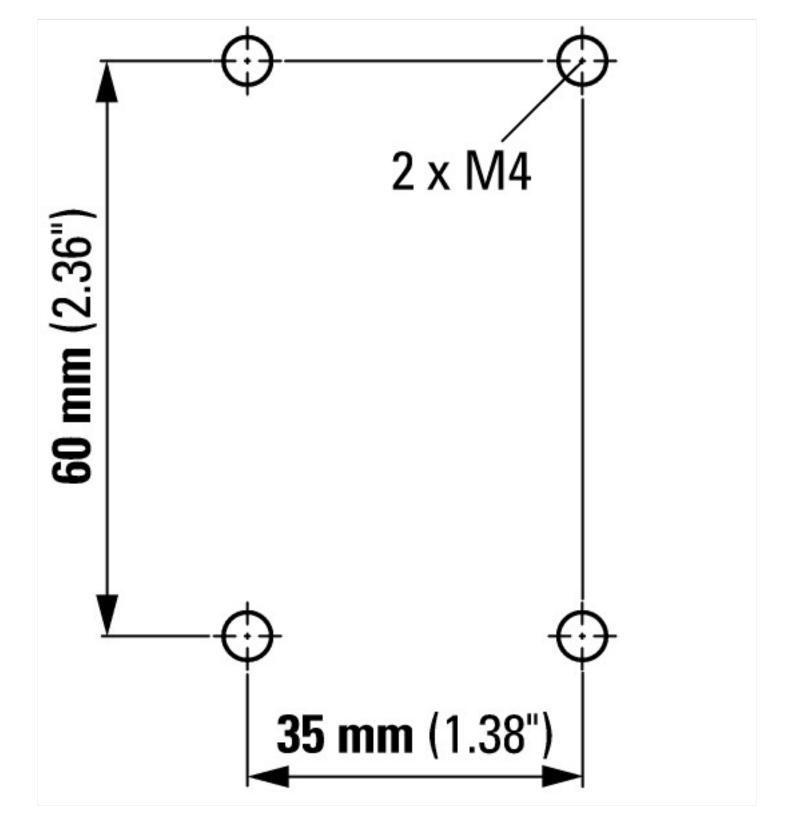
Typical examples of application

Electric heat



Dimensions





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