## **DATASHEET - DILK25-11(230V50HZ,240V60HZ)**



Contactor for capacitors, with series resistors, 25 kVAr, 230 V 50 Hz, 240 V 60 Hz  $\,$ 



Powering Business Worldwide

Part no. DILK25-11(230V50HZ,240V60HZ)

Catalog No. 294032 Alternate Catalog XTCC025C11F

No

## **Delivery program**

		DILK Contactors for capacitors
		Contactors for power factor correction
		with series resistors
Q	kVAr	15
Q	kVAr	25
Q	kVAr	33.3
Q	kVAr	40
		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
		230 V 50 Hz, 240 V 60 Hz
	α α	Q kVAr Q kVAr Q kVAr

Instructions In the case of group compensation multi-stage capacitor banks are connected to the mains, as required. Transient currents of up to 180 × le could flow between the capacitors. The capacitors are pre-charged via the early-make auxiliary contacts and the fitted wire resistors, thereby reducing the inrush current. The main contacts then close in a time-delayed manner and bring about the continuous current. Due to their special contacts, the contactors for the capacitors are weld-resistant for capacitors with inrush current peaks. Due to their special contacts, the contactors for capacitors are weld-resistant for capacitors with inrush current peaks up to 180 × I<sub>e</sub>.

### **Technical data**

#### General

Open

General			
Standards			IEC/EN 60947
Ambient temperature			
Open		°C	-25 - +60
Enclosed		°C	- 25 - 40
Mounting position			30°
Degree of Protection			IP00
Protection against direct contact when actuated from front (EN 50274)			Finger and back-of-hand proof
Altitude		m	Max. 2000
Weight basic unit			
AC operated		kg	0.51
Terminal capacity main cable			
Solid		$mm^2$	1 x (0.75 - 16)
Flexible with ferrule		$\mathrm{mm}^2$	1 x (0.75 - 16)
Stranded		$\mathrm{mm}^2$	1 x 16
Solid or stranded		AWG	18 - 6
Flat conductor	Lamellenzahl x Breite x Dicke	mm	
Rated power of AC-6b three-phase capacitors, 50 - 60 Hz			

230 V	Q	kVAr	15
400 V	Q	kVAr	25
525 V	Q	kVAr	33.3
690 V	Q	kVAr	40
Rated operational current $I_{e}$ of three-phase capacitors			
Open			
230 V	I <sub>e</sub>	Α	38
400 V	I <sub>e</sub>	Α	38
525 V	l <sub>e</sub>	Α	38
690 V	I <sub>e</sub>	Α	38
of three-phase capacitors enclosed	I <sub>e</sub>		
230 V	I <sub>e</sub>	Α	34
400 V	l <sub>e</sub>	A	34
525 V	l <sub>e</sub>	Α	34
690 V	l <sub>e</sub>	Α	34
Making capacity (i-peak value) without damping		x I <sub>e</sub>	180
Component lifespan	Operations	x 10 <sup>6</sup>	0.15
Maximum operating frequency		Ops./h	
Max. operating frequency		Ops/h	120
Magnet systems			
Voltage tolerance			
AC operated	Pick-up	x U <sub>c</sub>	0.8 - 1.1
Drop-out voltage AC operated	Drop-out	x U <sub>c</sub>	0.3 - 0.6
Power consumption of the coil in a cold state and 1.0 x $\rm U_{S}$			
50 Hz	Pick-up	VA	58
50 Hz	Sealing	VA	7.6
50 Hz	Sealing	W	2.1
60 Hz	Pick-up	VA	71
60 Hz	Sealing	VA	9.3
60 Hz	Sealing	W	2.1
Duty factor		% DF	100
Changeover time at 100 % U <sub>S</sub> (recommended value)			
Main contacts			
AC operated			
Closing delay		ms	16 - 22
Opening delay		ms	8 - 14
Arcing time		ms	10
Electromagnetic compatibility (EMC)			
Emitted interference			according to EN 60947-1
Interference immunity			according to EN 60947-1
Additional technical data			
like the contactar	DIL		M32
Rating data for approved types			
Auxiliary contacts			
Pilot Duty			Acco.
AC operated			A600
DC operated			P300
General Use		V	200
AC		V	600
AC		A	10
DC		V	250
DC		Α	1
Special Purpose Ratings			
Capacitor Switching			
240V 60Hz 3phase		Α	36

240V 60Hz 3phase	kVar	15
480V 60Hz 3phase	А	36
480V 60Hz 3phase	kVar	30
600V 60Hz 3phase	Α	38.4
600V 60Hz 3phase	kVar	40

# Design verification as per IEC/EN 61439

Design vermountion as per 120/214 01403			
Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	38
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	3.1
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	9.3
Static heat dissipation, non-current-dependent	P <sub>vs</sub>	W	2.1
Heat dissipation capacity	P <sub>diss</sub>	W	0
Operating ambient temperature min.	0.00	°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.

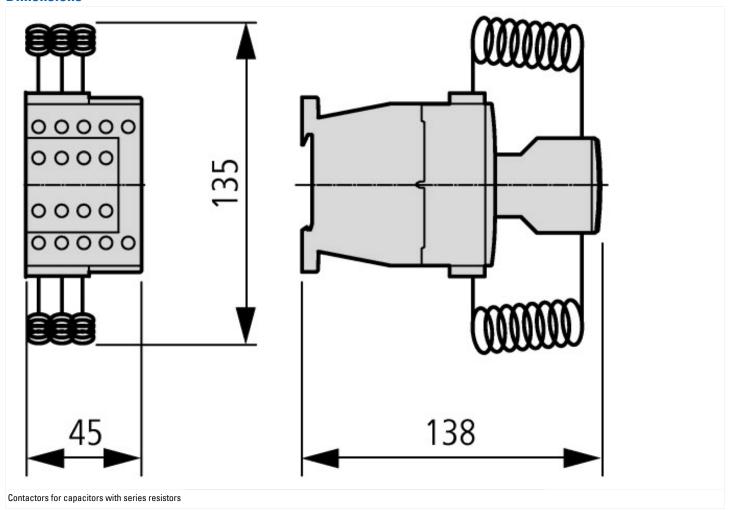
# **Technical data ETIM 6.0**

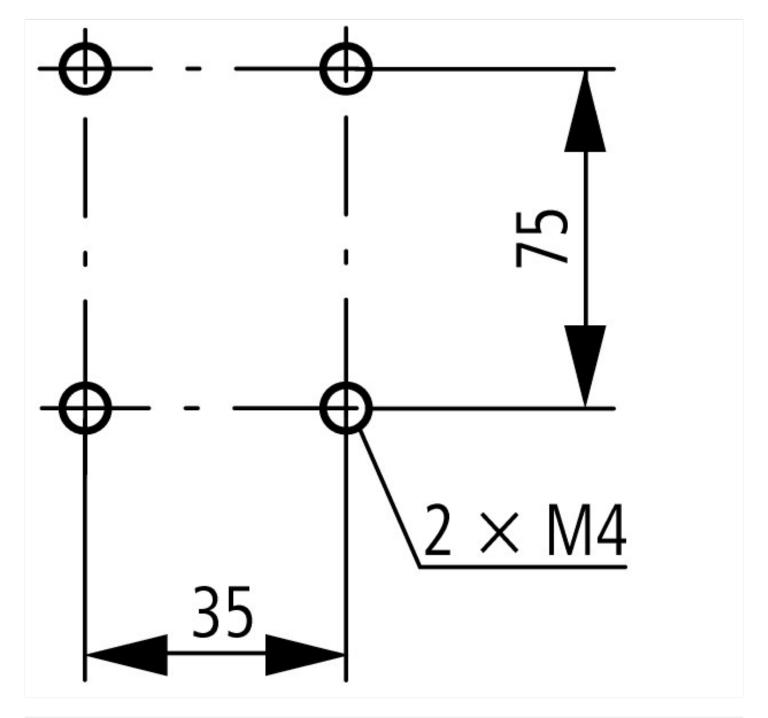
ctric engineering, automation, process control engineering / Low-voltage switch technology / Contactor (LV) / Capacitor contactor (ecl@ss8.1-27-37-10-06 [AGZ569012])  ted control supply voltage Us at AC 50HZ  V 230 - 230  ted control supply voltage Us at AC 60HZ  V 240 - 240  ted control supply voltage Us at DC  V 0 - 0  tage type for actuating  Meer of auxiliary contacts as normally open contact  1			
ted control supply voltage Us at AC 50HZ  V 230 - 230  ted control supply voltage Us at AC 60HZ  V 240 - 240  ted control supply voltage Us at DC  V 0 - 0  tage type for actuating  Mer of auxiliary contacts as normally open contact  1	Low-voltage industrial components (EG000017) / Capacitor contactor (EC001079)		
ted control supply voltage Us at AC 60HZ  V 240 - 240  ted control supply voltage Us at DC  V 0 - 0  tage type for actuating  Mer of auxiliary contacts as normally open contact  1	Electric engineering, automation, process control engineering / Low-voltage switch		
ted control supply voltage Us at DC  V 0 - 0  Itage type for actuating  AC  Inher of auxiliary contacts as normally open contact  1	Rated control supply voltage Us at AC 50HZ	Us at AC 50HZ	V 230 - 230
tage type for actuating AC  mber of auxiliary contacts as normally open contact 1	Rated control supply voltage Us at AC 60HZ	Us at AC 60HZ	V 240 - 240
mber of auxiliary contacts as normally open contact	Rated control supply voltage Us at DC	Us at DC V	V 0 - 0
, , , ,	Voltage type for actuating		AC
mber of auxiliary contacts as normally closed contact	Number of auxiliary contacts as normally open contact	as normally open contact	1
	Number of auxiliary contacts as normally closed contact	as normally closed contact	1
pe of electrical connection of main circuit  Screw connection	Type of electrical connection of main circuit	ı of main circuit	Screw connection
mber of main contacts as normally open contact 3	Number of main contacts as normally open contact	normally open contact	3
mber of normally closed contacts as main contact 0	Number of normally closed contacts as main contact	ontacts as main contact	0

## **Approvals**

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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.	3211-04
North America Certification	UL listed, CSA certified
Specially designed for North America	No

## **Dimensions**





## **Additional product information (links)**

IL03407038Z (AWA2100-2272) Contactor for capacitors

IL03407038Z (AWA2100-2272) Contactor for capacitors

 $ftp://ftp.moeller.net/DOCUMENTATION/AWA\_INSTRUCTIONS/IL03407038Z2018\_06.pdf$