## DATASHEET - DILK25-11(\*V50HZ)

No.



Contactor for capacitors, with series resistors, 25 kVAr, \*V 50 Hz

Part no. D Catalog No. 2 Alternate Catalog -

DILK25-11(\*V50HZ) 294041



## **Delivery program**

Product range			DILK Contactors for capacitors
Application			Contactors for power factor correction
Description			with series resistors
Rated power of AC-6b three-phase capacitors, 50 - 60 Hz			
Open			
230 V	۵	kVAr	15
400 V	۵	kVAr	25
525 V	۵	kVAr	33.3
690 V	۵	kVAr	40
Contact sequence			$ \begin{array}{c} \begin{array}{c} \begin{array}{c} \\ \\ \\ \end{array} \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ $
Actuating voltage			*V 50 Hz
Note on equipment supplied			Minimum order quantity 10 items (packaging unit)

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 with inrush current peaks up to 180 × l<sub>e</sub>.

#### **Technical data** General Standards IEC/EN 60947 Ambient temperature °C -25 - +60 Open °C Enclosed - 25 - 40 Mounting position Degree of Protection IP00 Protection against direct contact when actuated from front (EN 50274) Finger and back-of-hand proof Max. 2000 Altitude m Weight basic unit AC operated 0.51 kg Terminal capacity main cable Solid mm<sup>2</sup> 1 x (0.75 - 16) Flexible with ferrule 1 x (0.75 - 16) mm<sup>2</sup> Stranded mm<sup>2</sup> 1 x 16 Solid or stranded AWG 18 - 6 Flat conductor Lamellenzahl mm x Breite x Dicke

Rated power of AC-6b three-phase capacitors, 50 - 60 Hz

Open			
	0	13/4 -	17
230 V	0	kVAr	15
400 V	Q	kVAr	25
525 V	۵	kVAr	33.3
690 V	۵	kVAr	40
Rated operational current $\mathbf{I}_{\mathbf{e}}$ of three-phase capacitors			
Open			
230 V	le	А	38
400 V	le	A	38
525 V	I <sub>e</sub>	A	38
690 V		A	38
	l <sub>e</sub>	А	38
of three-phase capacitors enclosed	le		
230 V	le	А	34
400 V	Ι <sub>e</sub>	А	34
525 V	I <sub>e</sub>	A	34
690 V	l <sub>e</sub>	A	34
Making capacity (i-peak value) without damping	Ŭ	x l <sub>e</sub>	180
	0		
Component lifespan	Operations	x 10 <sup>6</sup>	0.15
Maximum operating frequency		Ops./h	
Max. operating frequency		0ps/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 ${\rm U}_{\rm S}$			
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 $\%~\text{U}_{S}$ (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			
AC operated			A600
DC operated			P300
General Use			
AC		V	600
AC		A	10
DC		V	250
DC		A	1
Special Purpose Ratings			
Capacitor Switching			

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

# Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	l <sub>n</sub>	А	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.		°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

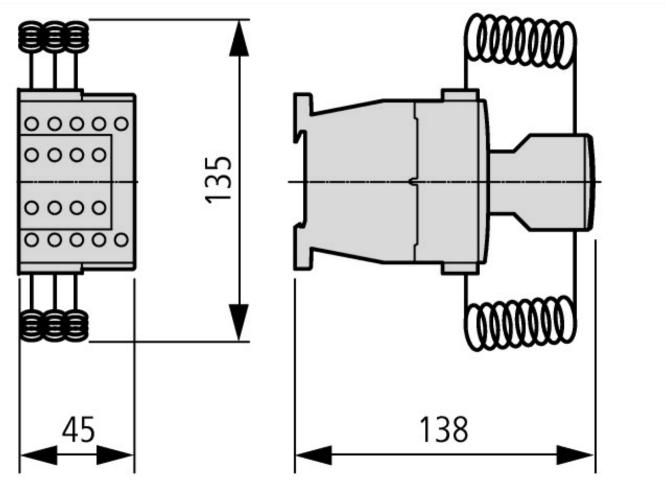
Low-voltage industrial components (EG000017) / Capacitor contactor (EC001079)			
Electric engineering, automation, process control engineering / Low-voltage switch technology / Contactor (LV) / Capacitor contactor (ecl@ss8.1-27-37-10-06 [AGZ569012])			
Rated control supply voltage Us at AC 50HZ		V	24 - 600
Rated control supply voltage Us at AC 60HZ		V	0 - 0
Rated control supply voltage Us at DC		V	0 - 0
Voltage type for actuating			AC
Number of auxiliary contacts as normally open contact			1
Number of auxiliary contacts as normally closed contact			1
Type of electrical connection of main circuit			Screw connection
Number of main contacts as normally open contact			3

	0
kvar	25
	IEC/EN 60947-4-1; UL 60947-4-1; CSA - C22.2 No. 60947-4-1-14; CE marking
	E29096
	NLDX
	012528
	3211-04
	UL listed, CSA certified
	kvar

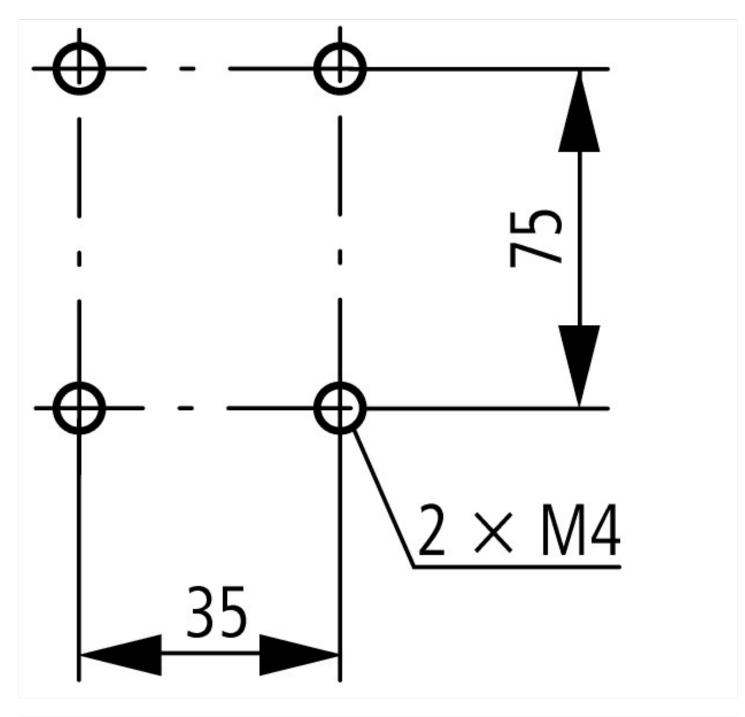
No

## **Dimensions**

Specially designed for North America



Contactors for capacitors with series resistors



## **Assets (links)**

Instruction Leaflets IL03407038Z2018\_06

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

IL03407038Z (AWA2100-2272) Contactor for capacitors

IL03407038Z (AWA2100-2272) Contactor for ftp://ftp.moeller.net/DOCUMENTATION/AWA\_INSTRUCTIONS/IL03407038Z2018\_06.pdf capacitors