### **DATASHEET - 22DILEM**



Auxiliary contact module, 4 pole, 2 N/O, 2 NC, Front fixing, Screw terminals, DILE(E)M



Part no. 22DILEM
Catalog No. 010112
Alternate Catalog XTMCXFC22

No.

**EL-Nummer** 4130387

(Norway)

Delivery program

Delivery program			
Accessories			Auxiliary contact modules
Description			with interlocked opposing contacts Switching elements according to EN 50012 Switching elements according to EN 50012 are to be preferred. Version E combinations correspond to EN 50011 and are to be preferred.
Function			for standard applications
Number of poles			4 pole
Connection technique			Screw terminals
Rated operational current			
AC-15			
220 V 230 V 240 V	I <sub>e</sub>	Α	4
380 V 400 V 415 V	I <sub>e</sub>	Α	2
Contacts			
N/O = Normally open			2 N/O
N/C = Normally closed			2 NC
Mounting type			Front fixing
Contact sequence			21 31 43 53 
For use with			DILEM-10(-G)() DILEM-4(-G)() DILEEM-10(-G)() DILEM12-10(-G)()
Instructions			Interlocked opposing contacts according to IEC/EN 60947-5-1 appendix L, inside the auxiliary contact modules, also for the integrated auxiliary contacts of the DILER, DILE(E)M  Auxiliary contacts used as mirror contacts according to IEC/EN 60947-4-1 Appendix F (not N/C late open)

### **Technical data**

General

Lifespan, mechanical  AC operated  Operations $\times 10^6$ DC operated  Operations $\times 10^6$ Op	General			
AC operated Operations x 106 10 10 10 10 10 10 10 10 10 10 10 10 10	Standards			IEC/EN 60947, VDE 0660, UL, CSA
DC operated  Operations x 10 <sup>6</sup> Component lifespan at U <sub>e</sub> = 240 V  AC-15  Operations x 10 <sup>6</sup> Operations	Lifespan, mechanical			
Component lifespan at U <sub>e</sub> = 240 V  AC-15  DC  L/R = 50 ms: 2 contacts in series at I <sub>e</sub> = 0.5 A  Maximum operating frequency  Operations/Definition of the imperature  Open  Enclosed  Operations/Definition of the imperature  Open  Enclosed  Operations/Definition of the imperature  Open  Enclosed  Operations/Definition of the imperature  Open  Component lifespan at U <sub>e</sub> = 240 V  Operations/Definition of the imperature  Open  Component lifespan at U <sub>e</sub> = 240 V  Operations/Definition of the imperature of the imper	AC operated	Operations	x 10 <sup>6</sup>	10
AC-15  DC  L/R = 50 ms: 2 contacts in series at I <sub>e</sub> = 0.5 A  Maximum operating frequency  Operations/ Climatic proofing  Ambient temperature  Open  Enclosed  Operations/  Op	DC operated	Operations	x 10 <sup>6</sup>	20
DC  L/R = 50 ms: 2 contacts in series at I <sub>e</sub> = 0.5 A  Maximum operating frequency  Operations/h  Climatic proofing  Ambient temperature  Open  Open  Cc  Cc  -25 - 40	Component lifespan at $U_e = 240 \text{ V}$			
L/R = 50 ms: 2 contacts in series at I <sub>e</sub> = 0.5 A  Maximum operating frequency  Operations/  Climatic proofing  Ambient temperature  Open  Enclosed  Operations/  Operations/  Operations/  Operations/  Operations/  Operations/  Operations/  State	AC-15	Operations	x 10 <sup>6</sup>	0.2
Maximum operating frequency  Operations/h  Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30  Ambient temperature  Open  °C  -25 - +50 Enclosed  °C  -25 - 40	DC			
Climatic proofing  Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30  Ambient temperature  Open  °C -25 - +50 Enclosed  °C -25 - 40	$L/R = 50~\text{ms}$ : 2 contacts in series at $I_e = 0.5~\text{A}$	Operations	x 10 <sup>6</sup>	0.15
Ambient temperature         °C         -25 - +50           Enclosed         °C         -25 - 40	Maximum operating frequency	Operations/h		9000
Open         °C         -25 - +50           Enclosed         °C         -25 - 40	Climatic proofing			
Enclosed °C - 25 - 40	Ambient temperature			
	Open		°C	-25 - +50
Ambient temperature, storage °C - 40 - 80	Enclosed		°C	- 25 - 40
	Ambient temperature, storage		°C	- 40 - 80

Mounting position			
Mounting position			As required, except vertical with terminals A1/A2 at the bottom
Mechanical shock resistance (IEC/EN 60068-2-27)			
Half-sinusoidal shock, 10 ms			
Basic unit with auxiliary contact module		g	
N/O contact		g	10
N/C contact		g	8
Degree of Protection			IP20
Protection against direct contact when actuated from front (EN 50274)			Finger and back-of-hand proof
Weight		kg	0.04
Terminal capacities		mm <sup>2</sup>	
Screw terminals			
Solid		mm <sup>2</sup>	1 x (0.75 - 2.5) 2 x (0.75 - 2.5)
Flexible with ferrule		mm <sup>2</sup>	1 x (0.75 - 1.5) 2 x (0.75 - 1.5)
Solid or stranded		AWG	Single 18 – 14/Double 18 – 14
Terminal screw			M3.5
Pozidriv screwdriver		Size	2
Standard screwdriver		mm	0.8 x 5.5 1 x 6
Max. tightening torque		Nm	1.2
Contacts Interlocked opposing contacts within an auxiliary contact module (to IEC 60947-5-Annex L)	1		Yes
Rated impulse withstand voltage	U <sub>imp</sub>	V AC	6000
Overvoltage category/pollution degree	imp		III/3
Rated insulation voltage	Ui	V AC	690
Rated operational voltage	U <sub>e</sub>	V AC	600
Safe isolation to EN 61140	O e	7710	
between coil and auxiliary contacts		V AC	300
between the auxiliary contacts		V AC	300
Rated operational current		A	
Conventional free air thermal current, 1 pole		^	
Notes			At maximum permissible ambient air temperature.
Conv. thermal current	I <sub>th</sub>	A	10
AC-15	01		
220 V 230 V 240 V	I <sub>e</sub>	Α	4
380 V 400 V 415 V	l <sub>e</sub>	A	2
500 V		A	1.5
	l <sub>e</sub>	A	1.3
DC current			Cruitab are and quitab off conditions board on DC 12 time constant as associated
DO 1/D < 45			Switch-on and switch-off conditions based on DC-13, time constant as specified.
DC L/R ≦ 15 ms		۸	
Contacts in series:	24 \/	A	2.5
2	24 V	A	
	60 V	A	2.5
3	110 V 220 V	A A	1.5 0.5
Control circuit reliability	Failure rate	λ	<10 <sup>-8</sup> , < one failure at 100 million operations
			(at $U_e = 24 \text{ V DC}$ , $U_{min} = 17 \text{ V}$ , $I_{min} = 5.4 \text{ mA}$ )
Short-circuit rating without welding			
Maximum overcurrent protective device		D.V.	
220 V 230 V 240 V		PKZM0	
380 V 400 V 415 V		PKZM0	4
Short-circuit protection maximum fuse		A 0/ :	c.
500 V		A gG/gL	
500 V		A fast	10

Current heat loss at I <sub>th</sub>		
AC operated	W	1.5
DC operated	W	1.5
Current heat loss per auxiliary circuit at I <sub>e</sub> (AC-15/230 V)	CO	0.24
Rating data for approved types		

Auxiliary contacts		
Pilot Duty		
AC operated		A600
DC operated		P300
General Use		
AC	V	600
AC	Α	10
DC	V	250
DC	А	0.5

# Design verification as per IEC/EN 61439

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Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	4
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	0.24
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	0
Static heat dissipation, non-current-dependent	P <sub>vs</sub>	W	0
Heat dissipation capacity	P <sub>diss</sub>	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	50
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 b observed.
10.12 Electromagnetic compatibility			Is the panel builder's responsibility. The specifications for the switchgear must b observed.
10.13 Mechanical function			The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

### **Technical data ETIM 8.0**

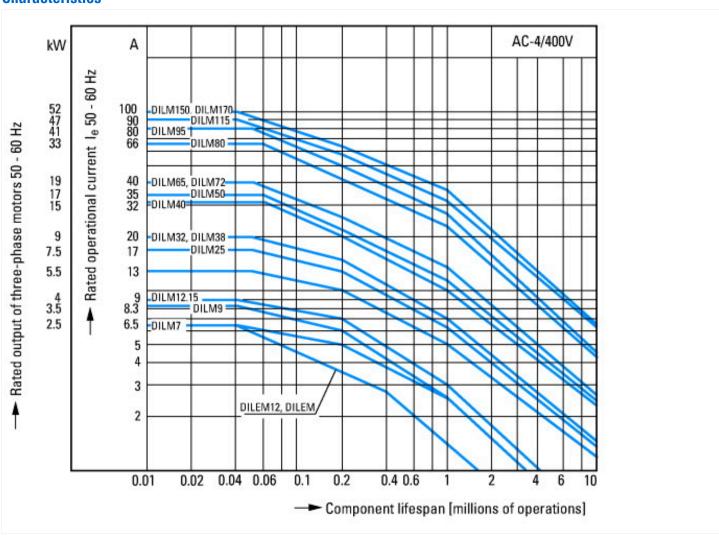
Low-voltage industrial components (EG000017) / Auxiliary contact block (EC000041)

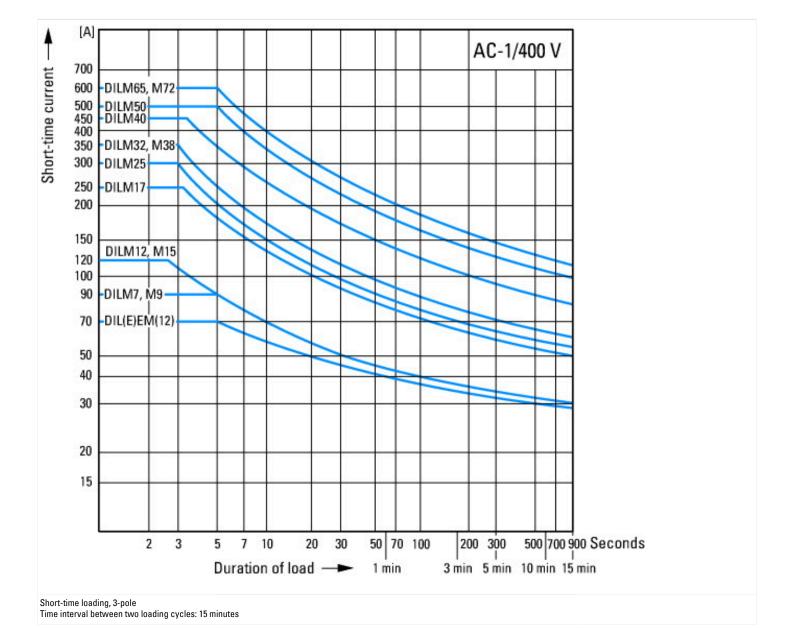
Electric engineering, automation, process control engineering / Low-voltage switch technology / Component for low-voltage switching technology / Auxiliary switch block (ecl@ss10.0.1-27-37-13-02 [AKN342013])			
Number of contacts as change-over contact			0
Number of contacts as normally open contact			2
Number of contacts as normally closed contact			2
Number of fault-signal switches			0
Rated operation current le at AC-15, 230 V		Α	4
Type of electric connection			Screw connection
Model			Top mounting
Mounting method			Front fastening
Lamp holder			None

## **Approvals**

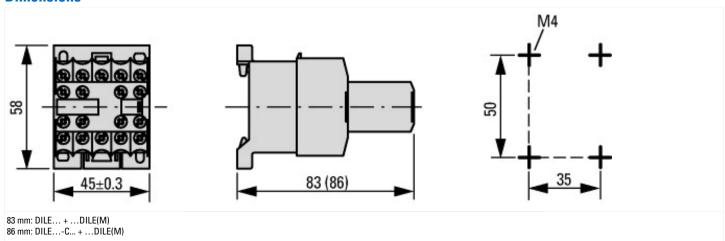
Product Standards	IEC/EN 60947-4-1; UL 508; CSA-C22.2 No. 14-05; CE marking
UL File No.	E29184
UL Category Control No.	NKCR
CSA File No.	012528
CSA Class No.	3211-03
North America Certification	UL listed, CSA certified
Specially designed for North America	No

### **Characteristics**





#### **Dimensions**



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

IL03407009Z (AWA2100-0882) Mini contactor relay

IL03407009Z (AWA2100-0882) Mini contactor relay

 $https://es-assets.eaton.com/DOCUMENTATION/AWA\_INSTRUCTIONS/IL03407009Z2021\_09.pdf$