DATASHEET - DILA-XHIC22



Auxiliary contact module, 4 pole, Ith= 16 A, 2 N/O, 2 NC, Front fixing, Spring-loaded terminals, DILA, DILM7 - DILM38



Part no. DILA-XHIC22
Catalog No. 276532
Alternate Catalog XTCEXFACC22

No.

EL-Nummer 4110273

EL-Nummer (Norway)	4110273		
Delivery program			
Accessories			Auxiliary contact modules
Description			with interlocked opposing contacts Switching elements according to EN 50005 Version E combinations correspond to EN 50011 and are to be preferred. The DC operated contactor DILA(C)-22 must only be combined with 2-pole auxiliary contacts.
Function			for standard applications
Number of poles			4 pole
Connection technique			Spring-loaded terminals
Rated operational current			
Conventional free air thermal current, 1 pole			
Open			
at 60 °C	I _{th}	Α	16
AC-15			
220 V 230 V 240 V	I _e	Α	4
380 V 400 V 415 V	I _e	Α	4
Contacts			
N/O = Normally open			2 N/O
N/C = Normally closed			2 NC
Mounting type			Front fixing
Contact sequence			$-\sqrt{\frac{153}{54}} \frac{61}{62} \frac{71}{72} \sqrt{\frac{183}{84}}$
For use with			DILA(C) DILM(C)7 DILM(C)9 DILM(C)12 DILM(C)15 DILM(C)17 DILM(C)25 DILM(C)32 DILM38 DILMP20 DILMP45 DILMP45 DILMP45 DILMP45 DILMF11 DILMF11 DILMF14 DILMF15 DILMF15 DILMF15 DILMF15 DILMF15 DILMF15 DILMF16
Туре			Front mounting auxiliary contact
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 DILM 7 - DILM32 Auxiliary contacts used as mirror contacts according to IEC/EN 60947-4-1 Appendix F (not N/C late open)
Code number and version of combination			
Distinctive number			62E
with basic device			DILA(C)-40
			53
with basic device			DILA(C)-31
			44

Technical data General

Standards			IEC/EN 60947, VDE 0660, UL, CSA
Lifespan, mechanical			
AC operated	Operations	x 10 ⁶	10
DC operated	Operations	x 10 ⁶	10
Component lifespan			
at U _e = 230 V, AC-15, 3 A	Operations	x 10 ⁶	1.3
Maximum operating frequency	Operations/h		9000
Climatic proofing			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Ambient temperature			
0pen		°C	-25 - +60
Enclosed		°C	- 25 - 40
Ambient temperature, storage		°C	- 40 - 80
Mounting position			
Mounting position			
Mechanical shock resistance (IEC/EN 60068-2-27)			
Half-sinusoidal shock, 10 ms			
Basic unit with auxiliary contact module		g	
N/O contact		g	7
N/C contact		g	5
Degree of Protection			IP20
Protection against direct contact when actuated from front (EN 50274)			Finger and back-of-hand proof
Weight		kg	0.057
Terminal capacities		mm ²	
Screw terminals			
Terminal screw			M3.5
Spring-loaded terminals			
Flexible with ferrule		mm ²	1 x (0.75 - 1.5) 2 x (0.75 - 1.5)
Solid or stranded		AWG	18 – 14
Standard screwdriver		mm	0.6 x 3.5
Contacts Interlocked opposing contacts within an auxiliary contact module (to IEC 60947-5-1 Annex L)			Yes
N/C contact (not late-break contact) suitable as a mirror contact (to IEC/EN 60947-4-1 Annex F)			DILM7 - DILM32
Rated impulse withstand voltage	U _{imp}	V AC	6000
Overvoltage category/pollution degree			III/3
Rated insulation voltage	Ui	V AC	690
Rated operational voltage	U _e	V AC	500
Safe isolation to EN 61140			
between coil and auxiliary contacts		V AC	400
between the auxiliary contacts		V AC	400
Rated operational current		Α	
Conventional free air thermal current, 1 pole			
Conventional free air thermal current, 1 pole at 60 °C	I _{th}	Α	16

220 V 230 V 240 V	l _e	Α	4
380 V 400 V 415 V	l _e	Α	4
500 V	l _e	Α	1.5
DC current			
			Switch-on and switch-off conditions based on DC-13, time constant as specified.
DC L/R ≦ 15 ms			
Contacts in series:		Α	
1	24 V	Α	10
1	60 V	Α	6
2	60 V	Α	10
1	110 V	Α	3
3	110 V	Α	6
1	220 V	Α	1
3	220 V	Α	5
DC L/R ≦ 50 ms			
Contacts in series:		Α	
3	24 V	Α	2.5
3	60 V	Α	1
3	110 V	Α	0.5
3	220 V	Α	0.25
DC-13 (6xP)			
24 V	I _e	Α	2.5
60 V	I _e	Α	1
110 V	I _e	Α	0.5
220 V	I _e	Α	0.25
Control circuit reliability	Failure rate	λ	$<10^{-8}$, $<$ one failure at 100 million operations (at U _e = 24 V DC, U _{min} = 17 V, I _{min} = 5.4 mA)
Short-circuit rating without welding			(at 0 ₆ = 24 V 00, 0 _{min} = 17 V, 1 _{min} = 3.4 iiA)
Short-circuit rating without weighing Short-circuit protection maximum fuse			
500 V		A gG/gL	10
Current heat loss at I _{th}		A gu/gL	
AC operated		W	2.6
DC operated		W	2.6
Current heat loss per auxiliary circuit at I _e (AC-15/230 V)		CO	0.16
Rating data for approved types		CO	0.10
Auxiliary contacts			
Pilot Duty			
AC operated			A600
DC operated			P300
General Use			
AC		V	600
AC		A	10
DC		V	250
-			

Design verification as per IEC/EN 61439

DC

Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	4
Heat dissipation per pole, current-dependent	P _{vid}	W	0.16
Equipment heat dissipation, current-dependent	P _{vid}	W	0
Static heat dissipation, non-current-dependent	P_{vs}	W	0
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

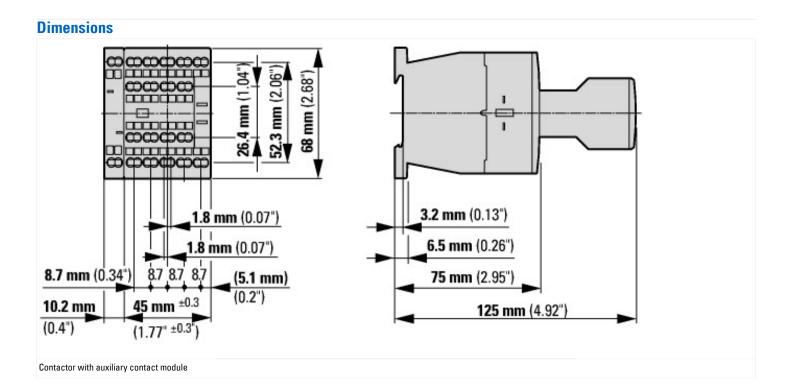
Low-voltage industrial components (EG000017) / Auxiliary contact block (EC000041)

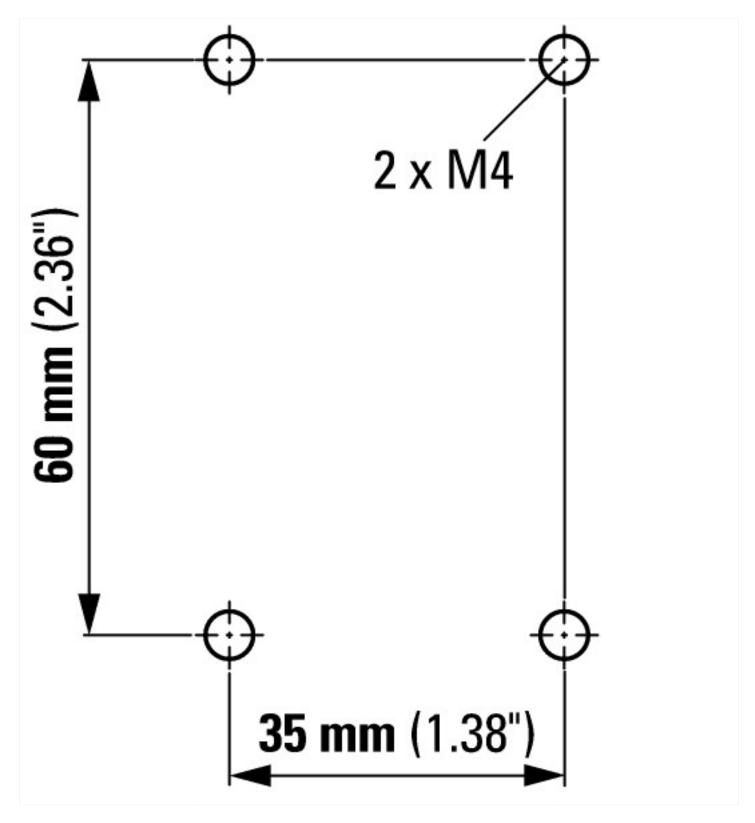
Electric engineering, automation, process control engineering / Low-voltage switch technology / Component for low-voltage switching technology / Auxiliary switch block (ecl@ss10.0.1-27-37-13-02 [AKN342013])

Number of contacts as normally open contact Number of contacts as normally open contact Number of contacts as normally closed contact Number of fault-signal switches Number of fault-signal switches Rated operation current le at AC-15, 230 V A 4 Type of electric connection Model Mounting method Lamp holder O Spring clamp connection Front fastening None				
Number of contacts as normally closed contact 2 Number of fault-signal switches Rated operation current le at AC-15, 230 V Type of electric connection Model Mounting method 2 A 4 Spring clamp connection Top mounting Front fastening	Number of contacts as change-over contact			0
Number of fault-signal switches 0 Rated operation current le at AC-15, 230 V A 4 Type of electric connection Model Mounting method 0 Spring clamp connection Top mounting Front fastening	Number of contacts as normally open contact			2
Rated operation current le at AC-15, 230 V Type of electric connection Model Mounting method A 4 Spring clamp connection Top mounting Front fastening	Number of contacts as normally closed contact			2
Type of electric connection Model Top mounting Mounting method Spring clamp connection Top mounting Front fastening	Number of fault-signal switches			0
Model Top mounting Mounting method Front fastening	Rated operation current le at AC-15, 230 V	A	Д	4
Mounting method Front fastening	Type of electric connection			Spring clamp connection
	Model			Top mounting
Lamp holder None	Mounting method			Front fastening
	Lamp holder			None

Approvals

Durations Observationals	150/FN 50047 A 1.11 500 50A 500 5 No. 14 55 OF marking
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





Additional product information (links)

IL03407013Z (AWA2100-2126) Contactors	
IL03407013Z (AWA2100-2126) Contactors	https://es-assets.eaton.com/D0CUMENTATION/AWA_INSTRUCTIONS/IL03407013Z2020_05.pdf
Motor starters and "Special Purpose Ratings" for the North American market	http://www.eaton.eu/ecm/groups/public/@pub/@europe/@electrical/documents/content/pct_3258146.pdf
Switchgear of Power Factor Correction Systems	http://www.moeller.net/binary/ver_techpapers/ver934en.pdf
X-Start - Modern Switching Installations Efficiently Fitted and Wired Securely	http://www.moeller.net/binary/ver_techpapers/ver938en.pdf
Mirror Contacts for Highly-Reliable Information Relating to Safety-Related Control Functions	http://www.moeller.net/binary/ver_techpapers/ver944en.pdf
Effect of the Cabel Capacitance of Long Control Cables on the Actuation of Contactors	http://www.moeller.net/binary/ver_techpapers/ver949en.pdf
Switchgear for Luminaires	http://www.moeller.net/binary/ver_techpapers/ver955en.pdf

Standard Compliant and Functionally Safe Engineering Design with Mechanical Auxiliary Contacts	http://www.moeller.net/binary/ver_techpapers/ver956en.pdf
The Interaction of Contactors with PLCs	http://www.moeller.net/binary/ver_techpapers/ver957en.pdf
Busbar Component Adapters for modern Industrial control panels	http://www.moeller.net/binary/ver_techpapers/ver960en.pdf