

Auxiliary contact module, raised, 1N/O+1N/O early+1N/C+1N/C late, surface mounting, screw connection



Part no. DILA-XHIV22 276429 Article no. Catalog No. XTCEXFCLC22

Delivery programme

Product range Accessories Accessories Auxiliary contact modules Function for standard applications Pole 4 pole Connection technique Screw terminals Rated operational current AC-3 Conventional free air thermal current, 3 pole, 50 - 60 Hz Open at 60 °C I _{th} = I _{th} A 16 AC-15 220 V 230 V 240 V I _{th} A 4 380 V 400 V 415 V I _{th} A 4 Contacts N/O = Normally open 1 N/O N/O = Normally closed 1 N/O N/C = Normally closed 1 N/C N/O = Normally closed 1 N/C N/C = Normally closed 1 N/C N/O
Function For standard applications Pole 4 pole Connection technique Screw terminals Rated operational current AC-3 Conventional free air thermal current, 3 pole, 50 - 60 Hz
Pole 4 pole Connection technique Screw terminals Rated operational current AC-3 Conventional free air thermal current, 3 pole, 50 - 60 Hz V Open Image: Serve terminals at 60 °C Image: Serve terminals AC-15 V 220 V 230 V 240 V Image: Serve terminals AC-15 V 220 V 230 V 240 V Image: Serve terminals AC-15 V 200 V 230 V 240 V Image: Serve terminals AC-15 V 200 V 230 V 240 V Image: Serve terminals A V 4 A Contacts Image: Serve terminals N/0 = Normally open Image: Serve terminals N/0 = Normally open Image: N/0 = Normally open N/0 = Normally closed Image: N/0 = Normally closed N/0 = Normally closed Image: N/0 = Normally closed N/0 = Normally closed Image: N/0 = Normally closed N/0 = Normally closed Image: N/0 = Normally closed N/0 = Normally closed Image: N/0 = Normally closed N/0 = Normally closed </td
Connection technique Rated operational current AC-3 Conventional free air thermal current, 3 pole, 50 - 60 Hz Open at 60 °C AC-15 220 V 230 V 240 V 380 V 400 V 415 V Contacts N/O = Normally open N/O _E : NO early-make NC = Normally closed NC = Normally closed NC = Normally closed NC = Normally closed NC = Normally type Contact sequence For use with Screw terminals 16 16 16 4 4 4 4 4 4 4 Contact sequence 1 N/O
Rated operational current AC-3 Conventional free air thermal current, 3 pole, 50 - 60 Hz Open Ith = Ie A 16 at 60 °C Ith = Ie A 16 AC-15 220 V 230 V 240 V Ie A 4 380 V 400 V 415 V Ie A 4 Contacts N/O = Normally open 1 N/O E 1 N/O E N/C = Normally closed 1 NC INC Late-break 1 NC INC Late-break Mounting type Front fixing Contact sequence Front fixing For use with DILA
AC-3 Conventional free air thermal current, 3 pole, 50 - 60 Hz Open at 60 °C AC-15 220 V 230 V 240 V 380 V 400 V 415 V Le A Contacts N/O = Normally open N/O _E : NO early-make N/C = Normally closed NC L=NC late-break Mounting type Contact sequence For use with For use with
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at 60 °C Ith = Ie A 16 AC-15 Ie A 4 220 V 230 V 240 V Ie A 4 380 V 400 V 415 V Ie A 4 Contacts N/O = Normally open 1 N/O 1 N/O E N/C = Normally closed 1 N/O E 1 N/O E NC table-break 1 NC E 1 NC E Mounting type Front fixing Front fixing Contact sequence 1 NC E 1 NC E For use with DILA DILA
AC-15 220 V 230 V 240 V 380 V 400 V 415 V Ie A 4 Contacts N/0 = Normally open N/0 _E : N0 early-make N/C = Normally closed NC _L =NC late-break Mounting type Contact sequence Front fixing For use with DILA
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$N/0 = Normally open$ $N/O_E: NO early-make$ $N/C = Normally closed$ $NC_L=NC late-break$ $NOL_L=NC late-break$ $NOL_L=NC late-break$ INC_L $Mounting type$ INC_L
$N/O_E: NO \ early-make \\ N/C = Normally \ closed \\ NC_L=NC \ late-break \\ Mounting \ type \\ Contact \ sequence \\ Front \ fixing \\ \hline $
N/C = Normally closed
NCL=NC late-break
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Contact sequence
For use with $ \begin{array}{c c} & & & & & & & & & & \\ & & & & & & & \\ \hline & & & & & & \\ \hline & & & & & & \\ \hline & & & \\ \hline & & & \\ \hline & & & \\ \hline & & & \\$
DILM(C)7 DILM(C)12 DILM(C)15 DILM(C)15 DILM(C)25 DILM(C)32 DILM(C)32 DILM920 DILMP20 DILMP25 DILMP45 DILMP45
Instructions Auxiliary contacts used as mirror contacts according to IEC/EN 60947-4-1 App
F (not N/C late open)
F (not N/C late open) Code number and version of combination
F (not N/C late open)
Code number and version of combination F (not N/C late open)

Technical data

Electrical specifications for standard auxiliary contacts			
Interlocked opposing contacts within an auxiliary contact module (to IEC 60947-5-1 Annex L) $$			No
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			

		V 40	400
between coil and auxiliary contacts		V AC	400
between the auxiliary contacts		V AC	400
Rated operational current		Α	
Conventional free air thermal current, 3 pole, 50 - 60 Hz			
Open			
at 60 °C	$I_{th} = I_e$	Α	16
Conv. thermal current	I _{th}	Α	16
AC-15			
220 V 230 V 240 V	I _e	Α	4
380 V 400 V 415 V	l _e	Α	4
500 V	l _e	Α	1.5
DC current			
DC L/R ≦ 15 ms			
		^	
Contacts in series:	24.1/	A	10
1	24 V	A	10
1	60 V	A	6
2	60 V	A	10
1	110 V	A	3
3	110 V	A	6
1	220 V	Α	1
3	220 V	Α	5
$_{ m DC\ L/R}$ \leq $_{ m 50\ ms}$			
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)			
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
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)
Component lifespan			
at U _e = 230 V, AC-15, 3 A	Operations	x 10 ⁶	1.3
Short-circuit rating without welding			
max. fuse		A gG/gL	10

Design verification as per IEC/EN 61439

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
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 5.0

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

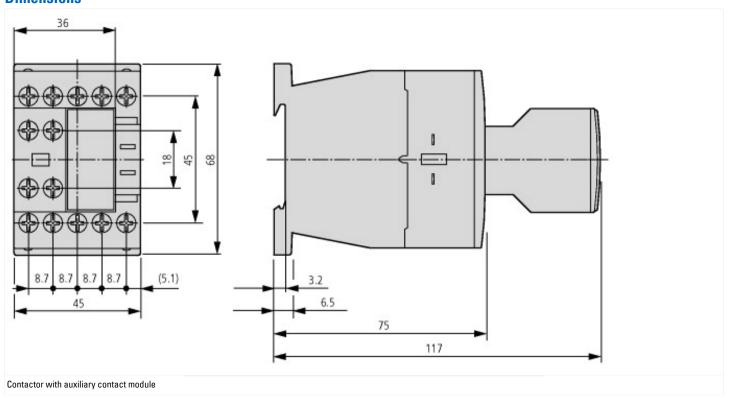
Electric engineering, automation, process control engineering / Low-voltage switch technology / Component for low-voltage switching technology / Auxiliary switch block (ecl@ss8-27-37-13-02 [AKN342009])

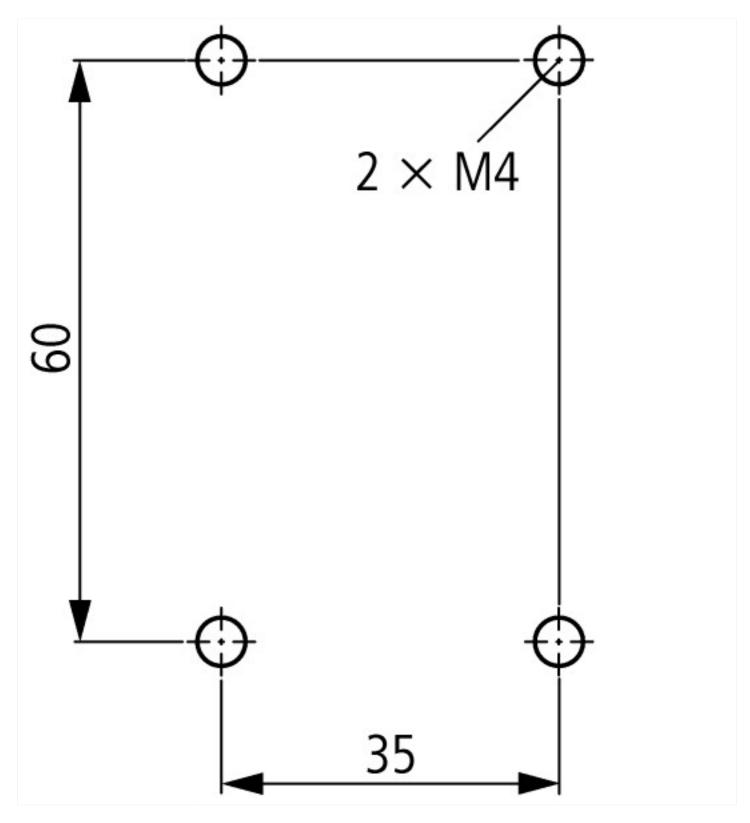
Number of contacts as change-over contact		0
Number of contacts as normally open contact		2
Number of contacts as normally closed contact		2
Rated operation current le at AC-15, 230 V	Α	4
Type of electric connection		Screw connection
Mounting method		Front fastening

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

Dimensions





Additional product information (links)

Additional product information (miks)				
IL03407013Z (AWA2100-2126) Contactors				
IL03407013Z (AWA2100-2126) Contactors	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407013Z2012_03.pdf			
UL/CSA: Approved rating data	http://de.ecat.moeller.net/flip-cat/?edition=HPLTE&startpage=5.84			
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			
Motor starters and "Special Purpose Ratings" for the North American market	http://www.moeller.net/binary/ver_techpapers/ver953en.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