## **DATASHEET - DILM150-XHI04**

Part no.

(Norway)



Auxiliary contact module, 4 N/C

DILM150-XHI04 Catalog No. 277952 Eaton Catalog No. XTCEXFBG04 **EL-Nummer** 4130495



## **Delivery program**

Product range			Accessories
Accessories			Accessories Auxiliary contact modules
Description			with interlocked opposing contacts
Function			for standard applications
Number of poles			4 pole
Connection technique			Screw terminals
Rated operational current			
Conventional free air thermal current, 1 pole			
Open			
at 60 °C	I <sub>th</sub>	A	16
AC-15			
220 V 230 V 240 V	l <sub>e</sub>	A	6
380 V 400 V 415 V	l <sub>e</sub>	A	4
Contacts			
N/C = Normally closed			4 NC
Mounting type			Front fixing
Contact sequence			$\begin{array}{c} 11 \\ - \\ - \\ 12 \\ 22 \\ 32 \\ 42 \end{array}$
For use with			DILM40 DILM50 DILM55 DILM72 DILM72 DILM75 DILM155 DILM155 DILM156 DILMP63 DILMP63 DILMP63 DILMP63 DILMP160 DILMP160 DILMF160 DILMF50 DILMF50 DILMF55 DILMF55 DILMF55 DILMF55 DILMF55 DILMF55
Туре			Front mounting auxiliary contact
Instructions			Interlocked opposing contacts according to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contact module Auxiliary contacts used as mirror contacts according to IEC/EN 60947-4-1 Appendix F (not N/C late open)

#### **Technical data** Electrical successfunction

Electrical specifications for standard auxiliary contacts			
Interlocked opposing contacts within an auxiliary contact module (to IEC 60947-5-7 Annex L)			Yes
N/C contact (not late-break contact) suitable as a mirror contact (to IEC/EN 60947-4-1 Annex F)			DILM40 - DILM170
Overvoltage category/pollution degree			111/3
Rated insulation voltage	Ui	V AC	690
Rated operational voltage	U <sub>e</sub>	V AC	500

Safe isolation to EN 61140			
between coil and auxiliary contacts		V AC	440
between the auxiliary contacts		V AC	440
Rated operational current		А	
Conventional free air thermal current, 1 pole			
Open			
at 60 °C	I <sub>th</sub>	А	16
AC-15			
220 V 230 V 240 V	Ι <sub>e</sub>	A	6
380 V 400 V 415 V	Ι <sub>e</sub>	A	4
500 V	Ι <sub>e</sub>	A	1.5
DC current			
DC L/R ≦ 15 ms			
Contacts in series:		A	
1	24 V	A	10
1	60 V	A	6
1	110 V	А	3
1	220 V	A	1
Control circuit reliability	Failure rate	λ	<10 <sup>-8</sup> , < one failure at 100 million operations (at U <sub>e</sub> = 24 V DC, U <sub>min</sub> = 17 V, I <sub>min</sub> = 5.4 mA)
Component lifespan			
at U <sub>e</sub> = 230 V, AC-15, 3 A	Operations	x 10 <sup>6</sup>	1.3
Short-circuit rating without welding			
max. fuse		A gG/gL	16
Rating data for approved types			
Auxiliary contacts			
Pilot Duty			
AC operated			A600
DC operated			P300
General Use			
AC		V	600
AC		А	15
DC		V	250
DC		А	1

# Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	In	А	4
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	0.23
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 max.		°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.

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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) / Auxiliary contact block (EC000041)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Component for low-voltage switching technology / Auxiliary switch block (ecl@ss8.1-27-37-13-02 [AKN342010])
Number of contacts as change-over contact
Number of contacts as normally open contact
0

Number of contacts as normally closed contact		4
Rated operation current le at AC-15, 230 V	А	6
Type of electric connection		Screw connection
Model		Top mounting
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

# Additional product information (links)

Switchgear of Power Factor Correction       http://www.moeller.net/binary/ver_techpapers/ver934en.pdf         X-Start - Modern Switching Installations       http://www.moeller.net/binary/ver_techpapers/ver938en.pdf         Mirror Contacts for Highly-Reliable Information       http://www.moeller.net/binary/ver_techpapers/ver944en.pdf         Mirror Contacts for Highly-Reliable Information       http://www.moeller.net/binary/ver_techpapers/ver944en.pdf         Effect of the Cabel Capacitance of Long Control       http://www.moeller.net/binary/ver_techpapers/ver949en.pdf         Cables on the Actuation of Contactors       http://www.moeller.net/binary/ver_techpapers/ver959an.pdf         Motor starters and "Special Purpose Ratings"       http://www.moeller.net/binary/ver_techpapers/ver959an.pdf         Switchgear for Luminaires       http://www.moeller.net/binary/ver_techpapers/ver955en.pdf         Switchgear for Luminaires       http://www.moeller.net/binary/ver_techpapers/ver956en.pdf         The Interaction of Contactors with PLCs       http://www.moeller.net/binary/ver_techpapers/ver956en.pdf         Busbar Component Adapters for moderm       http://www.moeller.net/binary/ver_techpapers/ver957en.pdf		
Systems       Interventional installations         K-Start - Modern Switching Installations       http://www.moeller.net/binary/ver_techpapers/ver938en.pdf         Mirror Contacts for Highly-Reliable Information       http://www.moeller.net/binary/ver_techpapers/ver944en.pdf         Relating to Safety-Related Control Functions       http://www.moeller.net/binary/ver_techpapers/ver949en.pdf         Motor starters and "Special Purpose Ratings"       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/ver956en.pdf         Busbar Component Adapters for modern       http://www.moeller.net/binary/ver_techpapers/ver957en.pdf	IL03407034Z (AWA2100-2251) Auxiliary contact	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407034Z2010_10.pdf
Efficiently Fitted and Wired Securely       Introduction of Contacts for Highly-Reliable Information Relating to Safety-Related Control Functions         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"       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       http://www.moeller.net/binary/ver_techpapers/ver955en.pdf         The Interaction of Contactors with PLCs       http://www.moeller.net/binary/ver_techpapers/ver957en.pdf         Busbar Component Adapters for modern       http://www.moeller.net/binary/ver_techpapers/ver957en.pdf	Switchgear of Power Factor Correction Systems	http://www.moeller.net/binary/ver_techpapers/ver934en.pdf
Relating to Safety-Related Control Functions       Intp://www.moeller.net/binary/ver_techpapers/ver949en.pdf         Effect of the Cabel Capacitance of Long Control       http://www.moeller.net/binary/ver_techpapers/ver953en.pdf         Motor starters and "Special Purpose Ratings"       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       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       http://www.moeller.net/binary/ver_techpapers/ver957en.pdf	X-Start - Modern Switching Installations Efficiently Fitted and Wired Securely	http://www.moeller.net/binary/ver_techpapers/ver938en.pdf
Cables on the Actuation of Contactors       Inter//www.moeller.net/binary/ver_techpapers/ver953en.pdf         Motor starters and "Special Purpose Ratings"       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       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       http://www.moeller.net/binary/ver_techpapers/ver957en.pdf	Mirror Contacts for Highly-Reliable Information Relating to Safety-Related Control Functions	http://www.moeller.net/binary/ver_techpapers/ver944en.pdf
for the North American market       http://www.moeller.net/binary/ver_techpapers/ver955en.pdf         Switchgear for Luminaires       http://www.moeller.net/binary/ver_techpapers/ver955en.pdf         Standard Compliant and Functionally Safe Engineering Design with Mechanical Auxiliary       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       http://www.moeller.net/binary/ver_techpapers/ver957en.pdf	Effect of the Cabel Capacitance of Long Control Cables on the Actuation of Contactors	http://www.moeller.net/binary/ver_techpapers/ver949en.pdf
Standard Compliant and Functionally Safe Engineering Design with Mechanical Auxiliary       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       http://www.moeller.net/binary/ver_techpapers/ver950en.pdf	Motor starters and "Special Purpose Ratings" for the North American market	http://www.moeller.net/binary/ver_techpapers/ver953en.pdf
Engineering Design with Mechanical Auxiliary Contacts       http://www.moeller.net/binary/ver_techpapers/ver957en.pdf         The Interaction of Contactors with PLCs       http://www.moeller.net/binary/ver_techpapers/ver957en.pdf         Busbar Component Adapters for modern       http://www.moeller.net/binary/ver_techpapers/ver960en.pdf	Switchgear for Luminaires	http://www.moeller.net/binary/ver_techpapers/ver955en.pdf
Busbar Component Adapters for modern http://www.moeller.net/binary/ver_techpapers/ver960en.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