### DATASHEET - DILM820-XHI11-SA



Auxiliary contact module, 2 pole, lth= 10 A, 1 N/O, 1 NC, Side mounted, Screw terminals, DILM250 - DILH2600



Part no. Catalog No. Alternate Catalog No. EL-Nummer (Norway)

DILM820-XHI11-SA 208282 talog XTCEXSCR11 4110237

Similar to illustration

### **Delivery program**

AccessariesActiliary contact modulesDescriptionActiliary contact modulesFunctionFor standard applicationsNumber of polesFor standard applicationsConnection techniqueFor standard applicationsRated operational currentFor standard applicationsConventional free air thermal current, 1 poleFor standard applicationsOpenFor standard applicationsAct-15For standard applications200 / 200 /	bonnony program			
Function     Image: standard applications       Number of poles     2 pole       Connection technique     2 pole       Rated operational current     Image: standard applications       Conventional free air thermal current, 1 pole     Image: standard applications       Open     Image: standard applications       at 60 °C     Image: standard applications       AC-15     Image: standard applications       220 V 230 V 240 V     Image: standard applications       380 V 400 V 155 V     Image: standard applications       380 V 400 V 150 V     Image: standard applications       V/O = Normally open     Image: standard applications       N/C = Normally closed     Image: standard applications       Mounting type     Image: standard applications       Contacts     Image: standard applications       N/O = Normally closed     Image: standard applications       Mounting type     Image: standard applications       Contacts sequence     Side mounted       For uses with     DILL250 - DILL2500       Type     Image: standard applications       Istructions     Side mounting auxiliary contacts	Accessories			Auxiliary contact modules
Number of poles     Image: Poles     2 pole       Connection technique     Screw terminals       Rated operational current     Pole       Conventional free air thermal current, 1 pole     Pole       Open     Pole       at 60 °C     Pole       AC-15     Pole       220 V 230 V 240 V     Pole       380 V 400 V 15 V     Pole       380 V 400 V 500 V     Pole       NO = Normally open     Pole       NO = Normally open     Pole       NO = Normally closed     Pole       Mounting type     Stode mounted       Contacts     Stode mounted       Por see with     Pole       Type     Stode mounted       Type     Stode mounted       Instructions     Interlocked oppoing octracts according to IEC/EN 60947-51 Appendix L, inside the axuiliary contacts according to IEC/EN 60947-51 Appendix L, inside the axuiliary contacts according to IEC/EN 60947-51 Appendix L, inside the axuiliary contacts according to IEC/EN 60947-51 Appendix L, inside the axuiliary contacts according to IEC/EN 60947-51 Appendix L, inside the axuiliary contacts according to IEC/EN 60947-51 Appendix L, inside the axuiliary contacts according to IEC/EN 60947-51 Appendix L, inside the axuiliary contacts according to IEC/EN 60947-51 Appendix L, inside the axuiliary contacts according to IEC/EN 60947-51 Appendix L, inside the axuiliary contacts according to IEC/EN 60947-51 Appendix L, inside the axuiliary contact module	Description			with interlocked opposing contacts
Connection technique     Conventional current     Conventional free air thermal current, 1 pole     A     10       220 V 230 V 240 V     Ia     A     10     A     6     A       380 V 400 V 500 V     Ia     A     4     A     4       380 V 400 V 500 V     Ia     A     15     Interformal free air thermal current free air free a	Function			for standard applications
Rated operational current, 1 pole       Image: Conventional free air thermal current, 1 pole       Image: Conventional free air thermal current, 1 pole         Open       at 60 °C       Image: Conventional free air thermal current, 1 pole       Image: Conventional free air thermal current, 1 pole         AC-15       Image: Conventional free air thermal current, 1 pole       Image: Conventional free air thermal current, 1 pole         AC-15       Image: Conventional free air thermal current, 1 pole       Image: Conventional free air thermal current, 1 pole         220 V 230 V 240 V       Image: Conventional free air thermal current, 1 pole       Image: Conventional free air thermal current, 1 pole         380 V 400 V 500 V       Image: Conventional free air thermal current, 1 pole       Image: Conventional free air thermal current, 1 pole         Mounting type       Image: Conventional free air thermal current, 1 pole       Image: Conventional free air thermal current, 1 pole         Contacts sequence       Side mounted       Side mounted         For use with       DILLCSSO DILLCSGO         Type       Image: Contacts according to IEC/EN 60947-5-1 Appendix L, inside the audiary contacts media         Instructions       Image: Contacts according to IEC/EN 60947-5-1 Appendix L, inside the audiary contacts media	Number of poles			2 pole
Conventional free air thermal current, 1 pole         Image: Conventional free air thermal current, 1 pole         Image: Conventional free air thermal current, 1 pole           0pen         at 60 °C         Image: Conventional free air thermal current, 1 pole         Image: Conventional free air thermal current, 1 pole         Image: Conventional free air thermal current, 1 pole           at 60 °C         Image: Conventional free air thermal current, 1 pole         Image: Conventional free air thermal current, 1 pole         Image: Conventional free air thermal current, 1 pole           AC-15         Image: Conventional free air thermal current, 1 pole         Image: Conventional free air thermal current, 1 pole         Image: Conventional free air thermal current, 1 pole           220 V 230 V 240 V         Image: Conventional free air thermal current, 1 pole         Image: Conventional free air thermal current, 1 pole         Image: Conventional free air thermal current, 1 pole           220 V 230 V 240 V         Image: Conventional free air thermal current, 1 pole         Image: Conventional free air thermal current, 1 pole         Image: Conventional free air thermal current, 1 pole           N/O = Normally open         Image: Conventional free air thermal current, 1 pole         Image: Conventional free air thermal current, 1 pole         Image: Conventional free air thermal current, 1 pole           N/O = Normally closed         Image: Conventional free air thermal current, 1 pole         Image: Conventional free air thermal current, 1 pole           Contact sequence	Connection technique			Screw terminals
Open         Image: Constraint of the second of the se	Rated operational current			
it 60 °C     Im     A     Im     A       AC-15     Im     A     Im       220 V 230 V 240 V     Im     A     Imm       380 V 400 V 415 V     Imm     A     Imm       380 V 400 V 500 V     Imm     A     Imm       380 V 400 V 500 V     Imm     A     Imm       Optimization     Imm     A     Imm       380 V 400 V 500 V     Imm     A     Imm       Contacts     Imm     A     Imm       N/O = Normally open     Imm     Imm     Imm       N/C = Normally closed     Imm     Imm     Imm       Mounting type     Imm     Side mounted     Imm       Contact sequence     Side mounted     Side mounted     Imm       For use with     Imm     Imm     Imm     Imm       Type     Imm     Side mounting auxiliary contacts according to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contacts according to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contacts according to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contacts according to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contacts according to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contacts according to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contacts according to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contacts according to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contacts according to IEC/EN 60947-5-1	Conventional free air thermal current, 1 pole			
AC-15       Image: Contract sequence	Open			
220 V 230 V 240 VIeA6380 V 400 V 415 VIeA4380 V 400 V 500 VIeA1.5ContactsInInInN/0 = Normally obsedN/CNCNCNormally closedInCInInContact sequenceSide mountedSide mountedFor use withInInInTypeInterlocked opposing contacts according to IEC/EN 60947-5-1 Appendix L, inside the axiliary contacts according to IEC/EN 60947-4-1 Appendix L, inside the axiliary contacts mouleSide mounted the axiliary contacts according to IEC/EN 60947-4-1 Appendix L, inside the axiliary contacts moule	at 60 °C	I <sub>th</sub>	А	10
380 V 400 V 415 V       Ie       A         380 V 400 V 500 V       Ie       A         380 V 400 V 500 V       Ie       A         Contacts       Is       Is         N/0 = Normally open       IN/0       IN/0         N/C = Normally closed       INC         Mounting type       Side mounted         Contact sequence       53 • #8 61 • 72/ -54 • £8 62 • 1/2         For use with       DILM250 - DILH2600 DILDC300 - DILDC600         Type       Side-mounting auxiliary contacts         Instructions       Interlocked opposing contacts according to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contact module Auxiliary contact module Auxiliary contact sead as mirror contacts according to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contact module Auxiliary contact module Auxiliary contact module Auxiliary contact seacording to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contact module Auxiliary contact seacording to IEC/EN 60947-5-1 Appendix L	AC-15			
380 V 400 V 500 V       Ie       A       1.5         Contacts       N/0 = Normally open       1 N/0       1 N/0         N/C = Normally closed       1 N/0       1 N/C         Mounting type       Side mounted       53 • 1/8 61 • 72/         Contact sequence       53 • 1/8 61 • 72/       54 • 68 62 • 1/2         For use with       DILM250 - DILH2600       DILDC300 - DILDC600         Type       Side-mounting auxiliary contacts       Side-mounting auxiliary contacts according to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contacts according to IEC/EN 60947-4-1 Appendix L, uside dualiary contacts according to IEC/EN 60947-4-1 Appendix L, uside dualiary contacts according to IEC/EN 60947-4-1 Appendix L	220 V 230 V 240 V	le	А	6
Contacts       Image: Contact sequence         N/0 = Normally open       1 N/0         N/C = Normally closed       1 NC         Mounting type       Side mounted         Contact sequence       53 • t78 61 • 72/ - 54 • 68 62 • 1/2         For use with       DILM250 - DILH2600 DILDC300 - DILDC600         Type       Side-mounting auxiliary contacts         Instructions       Inter/ocked opposing contacts secording to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contacts used as mirror contacts used as mirror contacts according to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contacts used as mirror contacts according to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contacts used as mirror contacts according to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contacts used as mirror contacts according to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contacts used as mirror contacts according to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contacts used as mirror contacts according to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contacts used as mirror contacts according to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contacts used as mirror contacts according to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contacts used as mirror contacts used as mirror contacts used as mirror contacts according to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contacts used as mirror contacts used as mirror contacts according to IEC/EN 60947-5-1 Appendix L	380 V 400 V 415 V	le	А	4
N/O = Normally open       1 N/O         N/C = Normally closed       1 N/O         Mounting type       Side mounted         Contact sequence       53 • t/8 61 • 72/ - 4 • 68 62 • 1/2         For use with       DILM250 - DILH2600 DILDC300 - DILDC600         Type       Side-mounting auxiliary contacts         Instructions       Side-mounting to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contact s according to IEC/EN 60947-4-1 Appendix L, inside the auxiliary contact s used as mirror contacts according to IEC/EN 60947-4-1 Appendix	380 V 400 V 500 V	l <sub>e</sub>	А	1.5
N/C = Normally closed       1 NC         Mounting type       Side mounted         Contact sequence       53 • #8 61 • 72/ - 4 • £8 62 • 12         For use with       DILM250 - DILH2600 DILDC300 - DILDC600         Type       Side-mounting auxiliary contacts         Instructions       Side-mounting auxiliary contacts according to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contact used as mirror contacts according to IEC/EN 60947-4-1 Appendix	Contacts			
Mounting type       Side mounted         Contact sequence       53 • 78 61 • 72/ -54 • 68 62 • 12         For use with       DILM250 - DILH2600 DILDC300 - DILDC600         Type       Side mounting auxiliary contacts         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 L	N/O = Normally open			1 N/O
Contact sequence       53 • t 8 61 • 2/         For use with       DILM250 • DILH2600         Type       Side-mounting auxiliary contacts         Instructions       Interlocked opposing contacts according to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contacts used as mirror contacts according to IEC/EN 60947-4-1 Appendix	N/C = Normally closed			1 NC
For use with       DILM250 - DILH2600         Type       Side-mounting auxiliary contacts         Instructions       Interlocked opposing contacts according to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contacts used as mirror contacts according to IEC/EN 60947-4-1 Appendix	Mounting type			Side mounted
DILDC300 - DILDC600       Type     Side-mounting auxiliary contacts       Instructions     Interlocked opposing contacts according to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contacts used as mirror contacts according to IEC/EN 60947-4-1 Appendix	Contact sequence			/
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	For use with			
the auxiliary contact module Auxiliary contacts used as mirror contacts according to IEC/EN 60947-4-1 Appendix	Туре			Side-mounting auxiliary contacts
	Instructions			the auxiliary contact module Auxiliary contacts used as mirror contacts according to IEC/EN 60947-4-1 Appendix

#### Technical data General

General			
Standards			IEC/EN 60947, VDE 0660, UL, CSA
Component lifespan			
at U <sub>e</sub> = 230 V, AC-15, 3 A	Operations	x 10 <sup>6</sup>	1.3
Climatic proofing			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Ambient temperature			
Open		°C	-40 - +60
Enclosed		°C	- 25 - 40
Ambient temperature, storage		°C	- 40 - 80
Degree of Protection			IP20

Protection against direct contact when actuated from front (EN 50274)			Finger and back-of-hand proof
Weight		kg	
Terminal capacities		mm <sup>2</sup>	
		mm <sup>+</sup>	
Screw terminals Solid		mm <sup>2</sup>	1 x (0.75 - 2.5)
		mm-	2 x (0.75 - 2.5)
Flexible with ferrule		mm <sup>2</sup>	1 x (0.75 - 2.5) 2 x (0.75 - 2.5)
Solid or stranded		AWG	18 – 14
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
N/C contact (not late-break contact) suitable as a mirror contact (to IEC/EN 60947-4-1 Annex F)			DILM250 - DILH2600
Rated impulse withstand voltage	U <sub>imp</sub>	V AC	6000
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
Between auxiliary contacts and main contacts		V AC	440
Rated operational current		A	
Conventional free air thermal current, 1 pole			
at 60 °C	I <sub>th</sub>	A	10
AC-15			
220 V 230 V 240 V	l <sub>e</sub>	A	6
380 V 400 V 415 V	le	A	4
500 V	l <sub>e</sub>	A	1.5
DC current	c		
			Switch-on and switch-off conditions based on DC-13, time constant as specified.
DC L/R ≦ 15 ms			
Contacts in series:		A	
1	24 V	A	10
1	60 V	A	6
1	110 V	A	3
1	220 V	A	1
DC-13 (6xP)			
24 V	le	A	2
60 V	l <sub>e</sub>	A	1.5
110 V	l <sub>e</sub>	A	0.8
220 V		A	0.3
	l <sub>e</sub> Failura rata		
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)
Short-circuit rating without welding			
Maximum overcurrent protective device			
Short-circuit protection only			FAZ-C4/1
Short-circuit protection maximum fuse			
500 V		A gG/gL	16
Rated conditional short-circuit current 500 V	Iq	kA	1
Current heat loss at I <sub>th</sub>			
AC operated		W	0.69

DC operated	V	V	0.69
Current heat loss per auxiliary circuit at I <sub>e</sub> (AC-15/230 V)	C	:0	0.11
Rating data for approved types			
Auxiliary contacts			
Pilot Duty			
AC operated			A600
DC operated			P300
General Use			
AC	V	1	600
AC	A	4	15
DC	V	/	250
DC	А	4	1

## Design verification as per IEC/EN 61439

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Technical data for design verification			
Rated operational current for specified heat dissipation	I <sub>n</sub>	А	6
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	0.11
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	0.25
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	-40
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 change-over contact

Number of contacts as normally open contact		1
Number of contacts as normally closed contact		1
Number of fault-signal switches		0
Rated operation current le at AC-15, 230 V	А	6
Type of electric connection		Screw connection
Model		Top mounting
Mounting method		Side mounting
Lamp holder		None

## **Approvals**

IEC/EN 60947-4-1; UL 508; CSA-C22.2 No. 14-05; CE marking
E29184
NKCR
012528
3211-04
UL listed, CSA certified
No

# Additional product information (links)

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