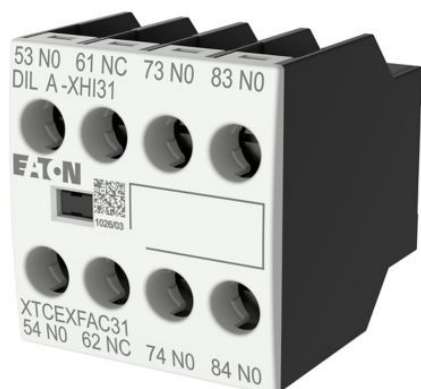


Specifications



Eaton 276427

Eaton Moeller® series DILA Auxiliary contact module, 4 pole, Ith= 16 A, 3 N/O, 1 NC, Front fixing, Screw terminals, DILA, DILM7 - DILM38

General specifications

PRODUCT NAME	Eaton Moeller® series DILA Accessory Auxiliary contact module
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CATALOG NUMBER	276427
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MODEL CODE	DILA-XHI31
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EAN	4015082764272
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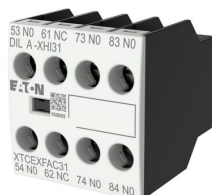
PRODUCT LENGTH/DEPTH	45 mm
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PRODUCT HEIGHT	38 mm
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PRODUCT WIDTH	36 mm
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PRODUCT WEIGHT	0.048 kg
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CERTIFICATIONS	CSA File No.: 012528 IEC/EN 60947-4-1 IEC/EN 60947 VDE 0660 UL Category Control No.: NKCR CE CSA CSA Class No.: 3211-03 UL UL 508 UL File No.: E29184 CSA-C22.2 No. 14-05
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Powering Business Worldwide

Climatic environmental conditions

AMBIENT OPERATING TEMPERATURE - MAX	60 °C
AMBIENT STORAGE TEMPERATURE - MAX	80 °C
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX	40 °C
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN	-25 °C
AMBIENT STORAGE TEMPERATURE - MIN	-40 °C
CLIMATIC PROOFING	Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78

Contacts

CODE NUMBER	53 in combination with DILA(C)-22 62 in combination with DILA(C)-31 71E in combination with DILA(C)-40
CONTROL CIRCUIT RELIABILITY	$\lambda < 5 \times 1/10^7$ (1 failure at 2,000,000 operations for $U_e = 24$ V DC, $U_{min} = 17$ V, $I_{min} = 5.4$ mA)
NUMBER OF CONTACTS (CHANGE-OVER CONTACTS)	0
NUMBER OF CONTACTS (NORMALLY CLOSED CONTACTS)	1
NUMBER OF CONTACTS (NORMALLY OPEN CONTACTS)	3

Design verification

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.
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 RESIST. OF INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. 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	Does not apply, since the

Electrical rating

CONVENTIONAL THERMAL CURRENT ITH AT 60°C (3-POLE, OPEN)

16 A

RATED INSULATION VOLTAGE (UI)

690 V

RATED OPERATIONAL CURRENT (IE)

0.5 A at 110 V, DC L/R ≤ 50 ms (with 3 contacts in series)
 10 A at 60 V, DC L/R ≤ 15 ms (with 2 contacts in series)
 6 A at 110 V, DC L/R ≤ 15 ms (with 3 contacts in series)
 6 A at 60 V, DC L/R ≤ 15 ms (with 1 contact in series)
 1 A at 220 V, DC L/R ≤ 15 ms (with 1 contact in series)
 10 A at 24 V, DC L/R ≤ 15 ms (with 1 contact in series)
 3 A at 110 V, DC L/R ≤ 15 ms (with 1 contact in series)
 2.5 A at 24 V, DC L/R ≤ 50 ms (with 3 contacts in series)
 0.25 A at 220 V, DC L/R ≤ 50 ms (with 3 contacts in series)
 5 A at 220 V, DC L/R ≤ 15 ms (with 3 contacts in series)
 1 A at 60 V, DC L/R ≤ 50 ms (with 3 contacts in series)

RATED OPERATIONAL CURRENT (IE) AT AC-15, 220 V, 230 V, 240 V

4 A

RATED OPERATIONAL CURRENT (IE) AT AC-15, 380 V, 400 V, 415 V

4 A

RATED OPERATIONAL CURRENT (IE) AT AC-15, 500 V

1.5 A

RATED OPERATIONAL CURRENT (IE) AT DC-13, 110 V

0.5 A

RATED OPERATIONAL CURRENT (IE) AT DC-13, 220 V, 230 V

0.25 A

RATED OPERATIONAL CURRENT (IE) AT DC-13, 24 V

2.5 A

AGAINST ELECTRIC SHOCK	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.
10.9.2 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.
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	0 W
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	0.16 W
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	4 A
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	0 W

Features & functions	
ELECTRIC CONNECTION TYPE	Screw connection
FEATURES	Interlocked opposing contacts within an auxiliary contact module (according to IEC 60947-5-1 Annex L)
FITTED WITH:	Switching elements according to EN 50005 Interlocked opposing contacts
FUNCTIONS	For standard applications
NUMBER OF POLES	Four-pole

RATED OPERATIONAL CURRENT (IE) AT DC-13, 60 V	1 A
RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX	500 V
SAFE ISOLATION	400 V AC, Between auxiliary contacts, According to EN 61140 400 V AC, Between coil and auxiliary contacts, According to EN 61140
SHORT-CIRCUIT PROTECTION RATING	Max. 10 A gG/gL, Fuse, Without welding, Auxiliary contacts
SHORT-CIRCUIT PROTECTION RATING WITHOUT WELDING	10 A gG/gL, 500 V, Max. Fuse, Contacts
SWITCHING CAPACITY (AUXILIARY CONTACTS, GENERAL USE)	10 A, 600 V AC, (UL/CSA) 1 A, 250 V DC, (UL/CSA)
SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY)	P300, DC operated (UL/CSA) A600, AC operated (UL/CSA)

General information	
CONNECTION	Screw terminals
DEGREE OF PROTECTION	IP20
LIFESPAN, ELECTRICAL	1,300,000 Operations (at 230 V, AC-15, 3 A)
LIFESPAN, MECHANICAL	10,000,000 Operations (DC operated) 10,000,000 Operations (AC operated)
MODEL	Top mounting
MOUNTING METHOD	Front fastening
OPERATING FREQUENCY	9000 Operations/h
OVERVOLTAGE CATEGORY	III
POLLUTION DEGREE	3

PROTECTION	Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274)
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	6000 V AC
SHOCK RESISTANCE	5 g, N/C auxiliary contact, Basic unit with auxiliary contact module, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms 7 g, N/O auxiliary contact, Basic unit with auxiliary contact module, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms
TYPE	Front mounting auxiliary contact

Terminal capacities

SCREW SIZE	M3.5, Terminal screw
SCREWDRIVER SIZE	2, Terminal screw, Pozidriv screwdriver 0.8 x 5.5/1 x 6 mm, Terminal screw, Standard screwdriver
TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)	1 x (0.75 - 2.5) mm ² , Screw terminals 2 x (0.75 - 2.5) mm ² , Screw terminals
TERMINAL CAPACITY (SOLID)	2 x (0.75 - 2.5) mm ² , Screw terminals 1 x (0.75 - 2.5) mm ² , Screw terminals
TERMINAL CAPACITY (SOLID/STRANDED AWG)	18 - 14, Screw terminals
TIGHTENING TORQUE	1.2 Nm, Screw terminals

Resources

CATALOGUES	eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf
DECLARATIONS OF CONFORMITY	eaton-accessory-declaration-of-conformity-uk251276en.pdf eaton-accessory-declaration-of-conformity-eu250793en.pdf
	eaton-contactors-mounting-dilm-dimensions.eps eaton-contactors-mounting-dilm-dimensions-002.eps
DRAWINGS	eaton-contactors-module-dilm-dimensions.eps eaton-contactors-frame-dilm-dimensions.eps eaton-contactors-contact-dilm-accessory-3d-drawing-008.eps
ECAD MODEL	ETN.276427.edz
INSTALLATION INSTRUCTIONS	eaton-contactors-dila-dilm7-15-dilmp20-il03407013z.pdf

INSTALLATION VIDEOS	WIN-WIN with push-in technology dil_a_xhi_4.stp
MCAD MODEL	eaton-contact-blocks-mcad-drawings-dil-a-xhi-4.dwg
WIRING DIAGRAMS	eaton-contactors-wiring-diagram-2100swi-116.eps

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

DATE:



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