

Specifications

Eaton 048912

Eaton Moeller® series DILE Auxiliary contact module, 4 pole, 3 N/O, 1 NC, Front fixing, Screw terminals, DILE(E)M, DILER



General specifications

PRODUCT NAME	Eaton Moeller® series DILE Accessory Auxiliary contact module
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CATALOG NUMBER	048912
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MODEL CODE	31DILE
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EAN	4015080489122
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PRODUCT LENGTH/DEPTH	36 mm
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PRODUCT HEIGHT	32 mm
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PRODUCT WIDTH	45 mm
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PRODUCT WEIGHT	0.04 kg
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CERTIFICATIONS	CSA Class No.: 3211-03 CSA-C22.2 No. 14-05 CE IEC/EN 60947 VDE 0660 UL 508 UL Category Control No.: NKCR CSA UL IEC/EN 60947-4-1 UL File No.: E29184 CSA File No.: 012528
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Climatic environmental conditions

AMBIENT OPERATING TEMPERATURE - MAX	50 °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

Conventional thermal current I_{th}

CONVENTIONAL THERMAL CURRENT I_{TH} OF AUXILIARY CONTACTS (1-POLE, OPEN)	10 A
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Contacts

CODE NUMBER	71E in combination with DILER-40(-G) 62 in combination with DILER-31(-G) 53 in combination with DILER-22
CONTROL CIRCUIT RELIABILITY	< 2 λ, < 1 failure at 100,000,000 Operations (at 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 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.
10.9.2 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	0.24 W
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	4 A
STATIC HEAT	0 W

DISSIPATION, NON-CURRENT-DEPENDENT PVS

Electrical rating

RATED INSULATION VOLTAGE (UI) 690 V

RATED OPERATIONAL CURRENT (IE) 2.5 A at 24 V, DC L/R $\leq$ 15 ms (with 1 contact in series)
1.5 A at 110 V, DC L/R $\leq$ 15 ms (with 3 contacts in series)
0.5 A at 220 V, DC L/R $\leq$ 15 ms (with 3 contacts in series)
2.5 A at 60 V, DC L/R $\leq$ 15 ms (with 2 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 2 A

RATED OPERATIONAL CURRENT (IE) AT AC-15, 500 V 1.5 A

RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX 600 V

SAFE ISOLATION 300 V AC, Between auxiliary contacts, According to EN 61140
300 V AC, Between coil and auxiliary contacts, According to EN 61140

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: Interlocked opposing contacts
Switching elements according to EN 50005

FUNCTIONS For standard applications

NUMBER OF POLES Four-pole

General information

DEGREE OF PROTECTION	IP20
LIFESPAN, MECHANICAL	150,000 Operations (at 240 V, DC, L/R = 50 ms: 2 contacts in series 0.5 A) 20,000,000 Operations (DC operated) 10,000,000 Operations (AC operated) 200,000 Operations (at 240 V, AC-15)
MODEL	Top mounting
MOUNTING METHOD	Front fastening
MOUNTING POSITION	As required (except vertical with terminals A1/A2 at the bottom)
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	10 g, N/O contact, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms 8 g, N/C contact, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms

Switching capacity

SWITCHING CAPACITY (AUXILIARY CONTACTS, GENERAL USE)	10 A, 600 V AC, (UL/CSA) 0.5 A, 250 V DC, (UL/CSA)
SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY)	A600, AC operated (UL/CSA) P300, DC operated (UL/CSA)

Short-circuit rating

SHORT-CIRCUIT PROTECTION RATING	10 A fast, 500V, Maximum fuse, Short-circuit rating without welding, Contacts
SHORT-CIRCUIT PROTECTION RATING WITHOUT WELDING	6 A gG/gL, 500 V, Max. Fuse, Contacts

Terminal capacities

SCREW SIZE	M3.5, Terminal screw
SCREWDRIVER SIZE	0.8 x 5.5/1 x 6 mm, Terminal screw, Standard screwdriver 2, Terminal screw, Pozidriv screwdriver
TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)	2 x (0.75 - 1.5) mm ² 1 x (0.75 - 1.5) mm ²
TERMINAL CAPACITY (SOLID)	2 x (0.75 - 2.5) mm ² 1 x (0.75 - 2.5) mm ²
TERMINAL CAPACITY (SOLID/STRANDED AWG)	Single 18 - 14, double 18 - 14

Resources

CATALOGUES	eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf
CHARACTERISTIC CURVE	eaton-contactors-switch-dilm-characteristic-curve-002.eps eaton-contactors-short-time-loading-dilm-characteristic-curve.eps
DECLARATIONS OF CONFORMITY	eaton-accessory-declaration-of-conformity-eu250790en.pdf eaton-accessory-declaration-of-conformity-uk251273en.pdf
DRAWINGS	eaton-contactors-diler-dimensions-002.eps eaton-contactors-contact-dile-accessory-3d-drawing.eps
ECAD MODEL	ETN.048912.edz
INSTALLATION INSTRUCTIONS	IL03407009Z
MCAD MODEL	DA-CS-hs_dile eaton-contact-blocks-mcad-drawings-hs-dile.dwg
WIRING DIAGRAMS	eaton-contactors-contact-dila-accessory-wiring-diagram-005.eps

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

DATE: