Specifications





Eaton 277951

Eaton Moeller® series DILM Auxiliary contact module, 4 pole, Ith= 16 A, 1 N/O, 3 NC, Front fixing, Screw terminals, DILM40 - DILM170

General specifications

PRODUCT NAME	Eaton Moeller® series DILM auxiliary contact module
CATALOG NUMBER	277951
MODEL CODE	DILM150-XHI13
EAN	4015082779511
PRODUCT LENGTH/DEPTH	39 mm
PRODUCT HEIGHT	46 mm
PRODUCT WIDTH	45 mm
PRODUCT WEIGHT	0.055 kg
CERTIFICATIONS	CE CSA File No.: 012528 CSA-C22.2 No. 14-05 IEC/EN 60947 VDE 0660 UL UL 508 CSA Class No.: 3211-03 UL Category Control No.: NKCR CSA IEC/EN 60947-4-1 UL File No.: E29184

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Ambient conditions, mechanical

SHOCK RESISTANCE	5 g, N/C auxiliary contact, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms 7 g, N/O auxiliary contact, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms

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, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30

Contacts

CONTROL CIRCUIT RELIABILITY	$\lambda < 5 \times 1/10^7$ (1 failure at 2,000,000 operations for U_e = 24 V DC, Umin = 17 V, Imin = 5.4 mA)
NUMBER OF CONTACTS (CHANGE-OVER CONTACTS)	0
NUMBER OF CONTACTS (NORMALLY CLOSED CONTACTS)	3
NUMBER OF CONTACTS (NORMALLY OPEN CONTACTS)	1

Conventional thermal current Ith

CONVENTIONAL THERMAL CURRENT ITH AT 60°C (3-POLE, OPEN)	16 A

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

RATED INSULATION VOLTAGE (UI)	690 V
RATED OPERATIONAL CURRENT (IE)	3 A at 110 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) 6 A at 60 V, DC L/R ≤ 15 ms (with 1 contact in series)
RATED OPERATIONAL CURRENT (IE) AT AC-15, 220 V, 230 V, 240 V	6 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 VOLTAGE (UE) AT AC - MAX	500 V

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	0.23 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:	Interlocked opposing contacts
FUNCTIONS	For standard applications
NUMBER OF POLES	Four-pole

General information

CONNECTION	Screw terminals
DEGREE OF PROTECTION	IP20
LIFESPAN, ELECTRICAL	1,300,000 Operations (at 230 V, AC-15, 3 A)
MODEL	Top mounting
MOUNTING METHOD	Front fastening
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	6000 V AC

WITHSTAND VOLTAGE (UIMP)	
TYPE	Front mounting auxiliary contact

Safety

SAFE ISOLATION	440 V AC, Between coil and auxiliary contacts, According to EN 61140 440 V AC, Between auxiliary contacts, According to EN 61140

Short-circuit rating

SHORT-CIRCUIT PROTECTION RATING	Max. 16 A gG/gL, Fuse, Without welding, Auxiliary contacts
SHORT-CIRCUIT PROTECTION RATING WITHOUT WELDING	16 A gG/gL, 500 V, Max. Fuse, Contacts

Switching capacity

SWITCHING CAPACITY (AUXILIARY CONTACTS, GENERAL USE)	1 A, 250 V DC, (UL/CSA) 15 A, 600 V AC, (UL/CSA)
SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY)	P300, DC operated (UL/CSA) A600, AC operated (UL/CSA)

Terminal capacities

SCREWDRIVER SIZE	2, Terminal screw, Pozidriv screwdriver 0.8 x 5.5/1 x 6 mm, Terminal screw, Standard screwdriver
TERMINAL CAPACITY (SOLID)	1 x (0.75 - 2.5) mm² 2 x (0.75 - 2.5) mm²
TIGHTENING TORQUE	1.2 Nm, Screw terminals
TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)	2 x (0.75 - 2.5) mm² 1 x (0.75 - 2.5) mm²
TERMINAL CAPACITY (SOLID/STRANDED AWG)	18 - 14

Resources

CATALOGUES	eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf
DECLARATIONS OF CONFORMITY	eaton-accessory-declaration-of-conformity-eu250793en.pdf eaton-accessory-declaration-of-conformity-uk251276en.pdf
DRAWINGS	eaton-contactors-contact-dilm-accessory-3d-drawing-004.eps
ECAD MODEL	ETN.277951.edz
INSTALLATION INSTRUCTIONS	IL03407034Z
INSTALLATION VIDEOS	WIN-WIN with push-in technology
MCAD MODEL	dil_m150_xhi_4.stp eaton-contact-blocks-mcad-drawings-dil-m150-xhi-4.dwg
WIRING DIAGRAMS	eaton-contactors-wiring-diagram-2100swi-132.eps

PROJECT NAME:	
PROJECT NUMBER:	
PREPARED BY:	
DATE:	

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