Eaton 186872

Eaton Moeller® series DILDC DC contactor, 2 N/O, 2 NC, 1000 V: 400 A, RDS 250: 110 - 250 V 40 - 60 Hz/110 - 350 V DC, AC and DC operation

PRODUCT NAME	Eaton Moeller® series DILDC DC Contactor
CATALOG NUMBER	186872
PRODUCT LENGTH/DEPTH	248 mm
PRODUCT HEIGHT	219 mm
PRODUCT WIDTH	160 mm
PRODUCT WEIGHT	7.5 kg
CERTIFICATIONS	CSA File No.: 012528 UL508 IEC/EN 60947-5-1 CSA UL Category Control No.: NRNT CSA Class No.: C321124 CE IEC/EN 60947-4-1 UL File No.: E338590 CSA-C22.2 No. 14-05 UL
CATALOG NOTES	DILDC contactors feature an electronic arc suppression system. Because of this, it is important not to exceed any technical data limits in general – especially the making and breaking capacity limits. Opening the device will immediately void the warranty.

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ACCESSORIES	Fitting options auxiliary contacts: on the side: 2 x DILM820-XHI11(V)-SI; 2 x DILM820-XHI11-SA
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.

DECLARATIONS OF CONFORMITY	DA-DC-00004669.pdf DA-DC-00004670.pdf
	IL034035ZU
	eaton-contactors-mounting-dildc-dc-dimensions.eps eaton-contactors-dildc-dimensions.eps eaton-contactors-dildc-dc-3d-drawing.eps eaton-contactors-mounting-dilm-3d-drawing-002.eps

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.
OPERATING FREQUENCY	100 electrical Operations/h 1000 mechanical Operations/h (AC operated) 1000 mechanical Operations/h (DC operated)
POLLUTION DEGREE	3
CLIMATIC PROOFING	Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	8000 V DC
AMBIENT OPERATING TEMPERATURE - MAX	70 °C
AMBIENT OPERATING TEMPERATURE - MIN	-40 °C
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX	40 °C
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN	-40 °C

AMBIENT STORAGE TEMPERATURE - MAX	80 °C
AMBIENT STORAGE TEMPERATURE - MIN	-40 °C
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	0 W
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	32 W
NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)	2
NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)	2
NUMBER OF CONTACTS (NORMALLY CLOSED CONTACTS)	2
NUMBER OF CONTACTS (NORMALLY CLOSED) AS MAIN CONTACT	0
NUMBER OF CONTACTS (NORMALLY OPEN CONTACTS)	2
NUMBER OF MAIN CONTACTS (NORMALLY OPEN CONTACT)	2
RATED BREAKING CAPACITY AT 1000 V	600 A
RATED BREAKING CAPACITY AT 220/230 V	600 A
RATED BREAKING CAPACITY AT 380/400 V	600 A
RATED BREAKING CAPACITY AT 500 V	600 A
RATED BREAKING CAPACITY AT 660/690 V	600 A
SWITCHING TIME (AC OPERATED, MAKE CONTACTS, OPENING DELAY) - MAX	40 ms
APPLICATION	DC contactor
PRODUCT CATEGORY	Contactors
ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Connection rail

SCREWDRIVER SIZE	0.8 x 5.5/1 x 6 mm, Terminal screw, Control circuit cables, Standard screwdriver 2, Terminal screw, Control circuit cables, Pozidriv screwdriver
VOLTAGE TYPE	DC
DEGREE OF PROTECTION	IP00
DROP-OUT VOLTAGE	0.2 x US max - 0.6 x US min, DC operated AC operated: 0.2 x US max - 0.6 x US min, AC operated
OVERVOLTAGE CATEGORY	III
DUTY FACTOR	100 %
ELECTROMAGNETIC COMPATIBILITY	Designed for operation in industrial environments. Its use in residential environments may cause radio-frequency interference, requiring additional noise suppression.
LIFESPAN, MECHANICAL	1,000,000 Operations (AC operated) 1,000,000 Operations (DC operated)
PICK-UP VOLTAGE	0.7 - 1.15 V AC x Us 0.7 - 1.15 V DC x Us
POWER CONSUMPTION, PICK-UP, 50 HZ	600 VA, Pull-in power, Coil in a cold state and 1.0 x Us 550 W, Pull-in power, Coil in a cold state and 1.0 x Us
SAFE ISOLATION	1000 V, Between the contacts, According to EN 61140 1000 V, Between control inputs and main contacts, According to EN 61140 1000 V, Between auxiliary contacts and main contacts, According to EN 61140
POWER CONSUMPTION, PICK-UP, 60 HZ	550 W, Pull-in power, Coil in a cold state and 1.0 x Us 600 VA, Pull-in power, Coil in a cold state and 1.0 x Us
SCREW SIZE	M10, Terminal screw, Main

	connections M3.5, Terminal screw, Control circuit cables
POWER CONSUMPTION, SEALING, 50 HZ	9.5 W, Coil in a cold state and 1.0 x Us 18 VA, Coil in a cold state and 1.0 x Us
POWER CONSUMPTION, SEALING, 60 HZ	18 VA, Coil in a cold state and 1.0 x Us 9.5 W, Coil in a cold state and 1.0 x Us
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX	250 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN	110 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX	250 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN	110 V
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX	350 V
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN	110 V
RATED INSULATION VOLTAGE (UI) AT DC	1000 V
RATED MAKING CAPACITY (COS PHI TO IEC/EN 60947)	600 A
RATED OPERATIONAL CURRENT (IE) AT DC-1, 1000 V	400 A
RATED OPERATIONAL CURRENT (IE) AT DC-3/DC-5 AT 440 V	0 A
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	400 A
RATED OPERATIONAL POWER AT DC-3/DC-5 AT 440 V	0 kW
RATED OPERATIONAL VOLTAGE (UE) AT DC - MAX	1000 V
STATIC HEAT	9 W

DISSIPATION, NON-CURRENT-DEPENDENT PVS	
SWITCHING TIME (AC OPERATED, MAKE CONTACTS, CLOSING DELAY) - MAX	80 ms
SWITCHING CAPACITY (AUXILIARY CONTACTS, GENERAL USE)	15 A, 600 V AC, (UL/CSA) 1 A, 250 V DC, (UL/CSA)
SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY)	A600, AC operated (UL/CSA) P300, DC operated (UL/CSA)
TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)	1 x (0.75 - 2.5) mm^2, Control circuit cales 1 x (0.75 - 2.5) mm^2, Control circuit cables
SHOCK RESISTANCE	8 g, N/C auxiliary contact, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms 10 g, N/O auxiliary contact, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms 10 g, N/O main contact, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms
TERMINAL CAPACITY (SOLID)	1 x (0.75 - 2.5) mm^2, Control circuit cales 1 x (0.75 - 2.5) mm^2, Control circuit cables
SHORT-CIRCUIT PROTECTION RATING	Max. 630 A gR 1000 V DC (max. short-circuit current 6 kA), Fuse, Type “2” coordination, 1000 V DC, Main conducting paths Max. 630 A gR 1000 V DC (max. short-circuit current 30 kA), Fuse, Type “1” coordination, 400 V DC, Main conducting paths Max. 630 A gR 1000 V DC (max. short-circuit current 30 kA), Fuse, Type “1” coordination, 690 V DC, Main conducting paths Max. 630 A gR 1000 V DC (max. short-circuit current 6 kA), Fuse, Type “2” coordination, 400 V DC, Main conducting paths

	Max. 630 A gR 1000 V DC (max. short-circuit current 6 kA), Fuse, Type “2” coordination, 690 V DC, Main conducting paths Max. 630 A gR 1000 V DC (max. short-circuit current 30 kA), Fuse, Type “1” coordination, 1000 V DC, Main conducting paths
TERMINAL CAPACITY (SOLID/STRANDED AWG)	2 x (18 - 12) 1/0 - 500 MCM, Main cables
SIGNAL LEVEL	5 V - 15 V, PLC signal level (A3 - A4) to IEC/EN 61131-2 (type 2), Magnet systems
TERMINAL CAPACITY (BUSBAR)	40 mm width, Main connection
TERMINAL CAPACITY (FLEXIBLE WITH CABLE LUG)	50 - 240 mm^2
SWITCHING CAPACITY (MAIN CONTACTS, GENERAL USE)	400 A, Maximum motor rating, Single-phase (UL/CSA)
TERMINAL CAPACITY (STRANDED WITH CABLE LUG)	50 - 240 mm^2
TIGHTENING TORQUE	1.2 Nm, Screw terminals, Control circuit cables 24 Nm, Main cable connection screw/bolt
WIDTH ACROSS FLATS	16 mm
OPERATING VOLTAGE AT DC - MIN	110 V
OPERATING VOLTAGE AT DC - MAX	350 V

PROJECT NAME:	
PROJECT NUMBER:	
PREPARED BY:	
:	

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