

Specifications



Eaton 199278

Eaton Moeller® series DILM Contactor, 3 pole, 380 V 400 V 6.8 kW, 1 N/O, 1 NC, RDC 24: 24 - 27 V DC, DC operation, Push in terminals

General specifications

PRODUCT NAME	Eaton Moeller® series DILM contactor
CATALOG NUMBER	199278
MODEL CODE	DILM14-11(RDC24)-PI
EAN	4015081973620
PRODUCT LENGTH/DEPTH	115 mm
PRODUCT HEIGHT	85 mm
PRODUCT WIDTH	45 mm
PRODUCT WEIGHT	0.546 kg
CERTIFICATIONS	VDE 0660 IEC/EN 60947 UL Listed CSA certified UL Category Control No.: NLDX CE marking UL File No.: E29096 CSA Class No.: 2411-03, 3211-04 CSA File No.: 012528
CATALOG NOTES	Also tested according to AC-3e.

Ambient conditions, mechanical

SHOCK RESISTANCE

10 g, N/O main contact, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms
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
6.5 g, N/O main contact, Mechanical, according to IEC/EN 60068-2-27 when tabletop-mounted, Half-sinusoidal shock 10 ms
8 g, N/O auxiliary contact, Mechanical, according to IEC/EN 60068-2-27 when tabletop-mounted, Half-sinusoidal shock 10 ms
2 g, N/C auxiliary contact, Mechanical, according to IEC/EN 60068-2-27 when tabletop-mounted, 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

Communication

CONNECTION TO SMARTWIRE-DT

In conjunction with DIL-SWD SmartWire DT contactor module
Yes

Contacts

NUMBER OF MAIN CONTACTS (NORMALLY OPEN CONTACT) 3

NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS) 1

NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS) 1

NUMBER OF CONTACTS (NORMALLY CLOSED CONTACTS) 1

NUMBER OF CONTACTS (NORMALLY OPEN CONTACTS) 1

NUMBER OF CONTACTS (NORMALLY CLOSED) AS MAIN CONTACT 0

Conventional thermal current I_{th}

**CONVENTIONAL
THERMAL CURRENT I_{TH}
(1-POLE, ENCLOSED)** 80 A

**CONVENTIONAL
THERMAL CURRENT I_{TH}
(3-POLE, ENCLOSED)** 32 A

**CONVENTIONAL
THERMAL CURRENT I_{TH}
AT 55°C (3-POLE, OPEN)** 37 A

**CONVENTIONAL
THERMAL CURRENT I_{TH}
OF MAIN CONTACTS (1-
POLE, OPEN)** 88 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

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.
HEAT DISSIPATION CAPACITY PDISS	0 W

Electrical rating

RATED BREAKING CAPACITY AT 220/230 V	120 A
RATED BREAKING CAPACITY AT 380/400 V	120 A
RATED BREAKING CAPACITY AT 500 V	100 A
RATED BREAKING CAPACITY AT 660/690 V	70 A
RATED INSULATION VOLTAGE (UI)	690 V
RATED MAKING CAPACITY UP TO 690 V (COS PHI TO IEC/EN 60947)	144 A
RATED OPERATIONAL CURRENT (IE)	14 A at AC-3, 220/230 V
RATED OPERATIONAL CURRENT (IE) AT AC-1, 380 V, 400 V, 415 V	40 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 220 V, 230 V, 240 V	14 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 380 V, 400 V, 415 V	14 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 440 V	14 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 500 V	10 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 660 V, 690 V	7 A
RATED OPERATIONAL CURRENT (IE) AT AC-4, 220 V, 230 V, 240 V	7 A
RATED OPERATIONAL CURRENT (IE) AT AC-4, 440 V	7 A
RATED OPERATIONAL CURRENT (IE) AT AC-4, 500 V	6 A
RATED OPERATIONAL CURRENT (IE) AT AC-4, 660 V, 690 V	5 A
RATED OPERATIONAL POWER AT AC-3, 240 V, 50 HZ	3.5 kW
RATED OPERATIONAL	5.5 kW

Electro magnetic compatibility

EMITTED INTERFERENCE According to EN 60947-1

INTERFERENCE IMMUNITY According to EN 60947-1

POWER AT AC-3, 380/400 V, 50 HZ	
RATED OPERATIONAL POWER AT AC-3, 415 V, 50 HZ	7 kW
RATED OPERATIONAL POWER AT AC-4, 220/230 V, 50 HZ	2 kW
RATED OPERATIONAL POWER AT AC-4, 240 V, 50 HZ	2.2 kW
RATED OPERATIONAL POWER AT AC-4, 415 V, 50 HZ	3.4 kW
RATED OPERATIONAL POWER AT AC-4, 440 V, 50 HZ	3.6 kW
RATED OPERATIONAL POWER AT AC-4, 500 V, 50 HZ	3.5 kW
RATED OPERATIONAL POWER AT AC-4, 660/690 V, 50 HZ	4.4 kW
RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX	690 V

Features & functions	
FITTED WITH:	Mirror contact Suppressor circuit in actuating electronics
NUMBER OF POLES	Three-pole

General information	
APPLICATION	Contactors for Motors
CONNECTION	Push in terminals
DEGREE OF PROTECTION	IP20
LIFESPAN, MECHANICAL	10,000,000 Operations (DC operated)
OPERATING FREQUENCY	5000 mechanical Operations/h (DC operated)
OVERVOLTAGE CATEGORY	III
POLLUTION DEGREE	3
PRODUCT CATEGORY	Contactors
PROTECTION	Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274)
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	8000 V AC
SUITABLE FOR	Also motors with efficiency class IE3

Magnet system

ARCING TIME	10 ms
DUTY FACTOR	100 %
PICK-UP VOLTAGE	0.7 - 1.2 V DC x Us 24 - 27 V DC (RDC 24) 0.7 - 1.2 V DC x Uc
POWER CONSUMPTION (PICK-UP) AT DC	12 W
POWER CONSUMPTION (SEALING) AT DC	0.9 W
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX	27 V
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN	27 V
SWITCHING TIME (DC OPERATED, MAKE CONTACTS, CLOSING DELAY) - MAX	47 ms
SWITCHING TIME (DC OPERATED, MAKE CONTACTS, OPENING DELAY) - MAX	30 ms

Safety

SAFE ISOLATION	400 V AC, Between the contacts, According to EN 61140 400 V AC, Between coil and contacts, According to EN 61140
----------------	---

UTILIZATION CATEGORY

AC-4: Normal AC induction motors: starting, plugging, reversing, inching
AC-3: Normal AC induction motors: starting, switch off during running
AC-1: Non-inductive or slightly inductive loads, resistance furnaces

VOLTAGE TYPE

DC

FRAME SIZE

FS2

Motor rating

ASSIGNED MOTOR
POWER AT 115/120 V, 60 HZ, 1-PHASE 1 HP

ASSIGNED MOTOR
POWER AT 200/208 V, 60 HZ, 3-PHASE 3 HP

ASSIGNED MOTOR
POWER AT 230/240 V, 60 HZ, 1-PHASE 2 HP

ASSIGNED MOTOR
POWER AT 230/240 V, 60 HZ, 3-PHASE 3 HP

ASSIGNED MOTOR
POWER AT 460/480 V, 60 HZ, 3-PHASE 10 HP

ASSIGNED MOTOR
POWER AT 575/600 V, 60 HZ, 3-PHASE 10 HP

Short-circuit rating

SHORT-CIRCUIT CURRENT RATING (BASIC RATING)	5 kA, 125 A max. fuse CLASS RK5, SCCR (UL/CSA) 5 kA, 125 A max. CB, SCCR (UL/CSA)
SHORT-CIRCUIT CURRENT RATING (HIGH FAULT AT 480 V)	100 kA, 70 A CLASS J max. fuse, SCCR (UL/CSA) 30 kA, 30 A CLASS RK5, SCCR (UL/CSA) 65 kA, 32 A max. CB, SCCR (UL/CSA)
SHORT-CIRCUIT CURRENT RATING (HIGH FAULT AT	100 kA, 70 A CLASS J max. fuse, SCCR (UL/CSA)

600 V)30 kA, 30 A CLASS RK5,
SCCR (UL/CSA)

Terminal capacities

SCREWDRIVER SIZE	3.0 x 0.5 mm, Terminal screw 3 x 0.5 mm, Terminal screw
TERMINAL CAPACITY (FLEXIBLE WITH UNISOLATED FERRULE)	1 x (0.75 - 2.5) mm ² , Main cables 2 x (0.75 - 2.5) mm ² , Main cables 1 x (0.75 - 2.5) mm ² , Control circuit cables 2 x (0.75 - 2.5) mm ² , Control circuit cables 1 x (0.5 - 2.5) mm ² , Control circuit cables 2 x (0.5 - 2.5) mm ² , Control circuit cables 1 x (1 - 6) mm ² , Main cables 2 x (1 - 6) mm ² , Main cables
TERMINAL CAPACITY (FLEXIBLE)	1 x (0.5 - 2.5) mm ² 2 x (1-6) mm ² 2 x (0.5 - 2.5) mm ² 1 x (1 - 10) mm ²
TERMINAL CAPACITY (FLEXIBLE WITH ULTRASONIC WELDED CABLE END)	1 x (0.75 - 2.5) mm ² , Main cables 2 x (0.75 - 2.5) mm ² , Main cables 1 x (0.75 - 2.5) mm ² , Control circuit cables 2 x (0.75 - 2.5) mm ² , Control circuit cables 1 x (0.5 - 2.5) mm ² , Control circuit cables 2 x (0.5 - 2.5) mm ² , Control circuit cables 1 x (1 - 10) mm ² , Main cables 2 x (1 - 6) mm ² , Main cables
TERMINAL CAPACITY (SOLID)	1 x (1 - 6) mm ² 1 x (0.5 - 0.25) mm ² 2 x (1 - 6) mm ² 2 x (0.5 - 2.5) mm ² , Control circuit cables
TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)	1 x (0.75 - 2.5) mm ² 2 x (0.75 - 2.5) mm ²
TERMINAL CAPACITY (SOLID/STRANDED AWG)	20 - 14 18 - 8, Main cables

Resources

CATALOGUES	eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf
DECLARATIONS OF CONFORMITY	eaton-contactor-declaration-of-conformity-uk251219en.pdf eaton-contactor-declaration-of-conformity-eu250736en.pdf
DRAWINGS	eaton-contactors-dimensions-008.eps
ECAD MODEL	ETN.199278.edz
INSTALLATION INSTRUCTIONS	IL034094ZU
INSTALLATION VIDEOS	WIN-WIN with push-in technology eaton-iec-contactors-mcad-drawings-dil-m8-38-pi.dwg eaton-iec-contactors-mcad-3d-models-dil-m8-38-pi.stp
WIRING DIAGRAMS	eaton-contactors-wiring-diagram-2100swi-124.eps

PROJECT NAME:
PROJECT NUMBER:
PREPARED BY:
DATE:



Eaton Corporation plc Eaton House
30 Pembroke Road
Dublin 4, Ireland
Eaton.com

© 2026 Eaton. All Rights Reserved.

Follow us on social media to get the latest product and support information.

