

Specifications



Eaton 109869

Eaton Moeller® series DILMP Contactor, 4 pole, 63 A, RDC 24: 24 - 27 V DC, DC operation

General specifications

PRODUCT NAME	Eaton Moeller® series DILMP 4-pole contactor
CATALOG NUMBER	109869
MODEL CODE	DILMP63(RDC24)
EAN	4015081094370
PRODUCT LENGTH/DEPTH	132 mm
PRODUCT HEIGHT	115 mm
PRODUCT WIDTH	74 mm
PRODUCT WEIGHT	1.2 kg

CERTIFICATIONS	CSA-C22.2 No. 60947-4-1-14 UL 60947-4-1 CE UL File No.: E29096 UL CSA Class No.: 2411-03, 3211-04 IEC/EN 60947 IEC/EN 60947-4-1 VDE 0660 UL Category Control No.: NLDX CSA CSA File No.: 012528
-----------------------	--

CATALOG NOTES	Also tested according to AC-3e.
----------------------	---------------------------------

Ambient conditions, mechanical

SHOCK RESISTANCE

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

Communication

CONNECTION TO SMARTWIRE-DT

No

Climatic environmental conditions

ALTITUDE Max. 2000 m

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 60068-2-3

Contacts

NUMBER OF MAIN CONTACTS (NORMALLY OPEN CONTACT) 4

NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS) 0

NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS) 0

NUMBER OF CONTACTS (NORMALLY CLOSED) AS MAIN CONTACT 0

Conventional thermal current I_{th}

**CONVENTIONAL
THERMAL CURRENT I_{TH}
(1-POLE, ENCLOSED)** 146 A

**CONVENTIONAL
THERMAL CURRENT I_{TH}
(3-POLE, ENCLOSED)** 50 A

**CONVENTIONAL
THERMAL CURRENT I_{TH}
AT 55°C (3-POLE, OPEN)** 58 A

**CONVENTIONAL
THERMAL CURRENT I_{TH}
AT 60°C (3-POLE, OPEN)** 54 A

**CONVENTIONAL
THERMAL CURRENT I_{TH}
OF MAIN CONTACTS (1-
POLE, OPEN)** 162 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.
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	16.5 W
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	5.5 W
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	63 A
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	1 W

Electrical rating

**RATED BREAKING
CAPACITY AT 220/230 V** 400 A

**RATED BREAKING
CAPACITY AT 380/400 V** 400 A

**RATED BREAKING
CAPACITY AT 500 V** 400 A

**RATED BREAKING
CAPACITY AT 660/690 V** 250 A

**RATED INSULATION
VOLTAGE (UI)** 690 V

**RATED MAKING
CAPACITY UP TO 690 V
(COS PHI TO IEC/EN
60947)** 560 A

**RATED OPERATIONAL
CURRENT (IE) AT AC-1,
380 V, 400 V, 415 V** 63 A

**RATED OPERATIONAL
CURRENT (IE) AT AC-3,
220 V, 230 V, 240 V** 40 A

**RATED OPERATIONAL
CURRENT (IE) AT AC-3,
380 V, 400 V, 415 V** 40 A

**RATED OPERATIONAL
CURRENT (IE) AT AC-3,
440 V** 40 A

**RATED OPERATIONAL
CURRENT (IE) AT AC-3,
500 V** 40 A

**RATED OPERATIONAL
CURRENT (IE) AT AC-3,
660 V, 690 V** 25 A

**RATED OPERATIONAL
CURRENT (IE) AT DC-1,
110 V** 63 A

**RATED OPERATIONAL
CURRENT (IE) AT DC-1,
220 V** 63 A

**RATED OPERATIONAL
CURRENT (IE) AT DC-1, 60
V** 63 A

**RATED OPERATIONAL
POWER AT AC-1, 220/230
V, 50 HZ** 23 kW

**RATED OPERATIONAL
POWER AT AC-1, 240 V, 50
HZ** 25 kW

**RATED OPERATIONAL
POWER AT AC-1, 380/400
V, 50 HZ** 39 kW

Features & functions

FITTED WITH: Suppressor circuit in
actuating electronics

NUMBER OF POLES Four-pole

RATED OPERATIONAL POWER AT AC-1, 415 V, 50 HZ	43 kW
RATED OPERATIONAL POWER AT AC-1, 440 V, 50 HZ	46 kW
RATED OPERATIONAL POWER AT AC-1, 500 V, 50 HZ	52 kW
RATED OPERATIONAL POWER AT AC-1, 690 V, 50 HZ	68 kW
RATED OPERATIONAL POWER AT AC-3, 240 V, 50 HZ	13.5 kW
RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ	18.5 kW
RATED OPERATIONAL POWER AT AC-3, 415 V, 50 HZ	24 kW
RATED OPERATIONAL POWER AT AC-3, 440 V, 50 HZ	25 kW
RATED OPERATIONAL POWER AT AC-3, 500 V, 50 HZ	28 kW
RATED OPERATIONAL POWER AT AC-3, 690 V, 50 HZ	23 kW
RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX	690 V

General information

APPLICATION	Contactors for 4 pole electric consumers
CONNECTION	Screw terminals
DEGREE OF PROTECTION	IP00
LIFESPAN, MECHANICAL	10,000,000 Operations (AC operated) 10,000,000 Operations (DC operated)
OPERATING FREQUENCY	5000 mechanical Operations/h (AC operated) 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
RESIDUAL CURRENT	1 mA (with actuation of A1 - A2 by the electronics with "0" signal)
RESISTANCE PER POLE	1.9 mΩ
UTILIZATION CATEGORY	AC-3: Normal AC induction motors: starting, switch off during running AC-1: Non-inductive or slightly inductive loads, resistance furnaces
VOLTAGE TYPE	DC

Magnet system

ARCING TIME	10 ms
DROP-OUT VOLTAGE	0.2 - 0.6 x UC, DC operated
DUTY FACTOR	100 %
PICK-UP VOLTAGE	0.7 - 1.2 V DC x Uc 0.85 - 1.1 V AC/DC x Us
POWER CONSUMPTION (PICK-UP) AT DC	24 W
POWER CONSUMPTION (SEALING) AT DC	1 W
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX	27 V
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN	24 V
SWITCHING TIME (DC OPERATED, MAKE CONTACTS, CLOSING DELAY) - MAX	54 ms
SWITCHING TIME (DC OPERATED, MAKE CONTACTS, OPENING DELAY) - MAX	24 ms

Motor rating

ASSIGNED MOTOR

POWER AT 115/120 V, 60
HZ, 1-PHASE 3 HP

ASSIGNED MOTOR

POWER AT 200/208 V, 60
HZ, 3-PHASE 10 HP

ASSIGNED MOTOR

POWER AT 230/240 V, 60
HZ, 1-PHASE 7.5 HP

ASSIGNED MOTOR

POWER AT 230/240 V, 60
HZ, 3-PHASE 15 HP

ASSIGNED MOTOR

POWER AT 460/480 V, 60
HZ, 3-PHASE 30 HP

ASSIGNED MOTOR

POWER AT 575/600 V, 60
HZ, 3-PHASE 40 HP

Safety

SAFE ISOLATION

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

440 V AC, Between the
contacts, According to EN
61140

Short-circuit rating

SHORT-CIRCUIT CURRENT RATING (BASIC RATING)	10 kA, 250 A max. fuse, SCCR (UL/CSA) 10 kA, 250 A max. CB, SCCR (UL/CSA)
SHORT-CIRCUIT CURRENT RATING (HIGH FAULT AT 480 V)	100 kA, 150 A CLASS J max. fuse, SCCR (UL/CSA) 30 kA, 250 A max. fuse, SCCR (UL/CSA) 65 kA, 100 A max. CB, SCCR (UL/CSA) 30 kA, 250 A max. CB, SCCR (UL/CSA)
SHORT-CIRCUIT CURRENT RATING (HIGH FAULT AT 600 V)	100 kA, 150 A CLASS J max. fuse, SCCR (UL/CSA) 30 kA, 250 A max. fuse, SCCR (UL/CSA) 30 kA, 250 A max. CB, SCCR (UL/CSA)
SHORT-CIRCUIT PROTECTION RATING (TYPE 1 COORDINATION) AT 400 V	125 A gG/gL
SHORT-CIRCUIT PROTECTION RATING (TYPE 1 COORDINATION) AT 690 V	80 A gG/gL
SHORT-CIRCUIT PROTECTION RATING (TYPE 2 COORDINATION) AT 400 V	63 A gG/gL
SHORT-CIRCUIT PROTECTION RATING (TYPE 2 COORDINATION) AT 690 V	50 A gG/gL

Switching capacity

SWITCHING CAPACITY (MAIN CONTACTS, GENERAL USE)	63 A, Maximum motor rating (UL/CSA)
--	-------------------------------------

Special purpose ratings

SPECIAL PURPOSE RATING OF ELEVATOR CONTROL	7.5 HP, 200 V 60 Hz 3-ph, (UL/CSA) 25.3 A, 200 V 60 Hz 3-ph, (UL/CSA) 10 HP, 240 V 60 Hz 3-ph, (UL/CSA) 34 A, 480 V 60 Hz 3-ph, (UL/CSA) 25 HP, 480 V 60 Hz 3-ph, (UL/CSA) 30 HP, 600 V 60 Hz 3-ph, (UL/CSA) 28 A, 240 V 60 Hz 3-ph, (UL/CSA) 32 A, 600 V 60 Hz 3-ph, (UL/CSA)
SPECIAL PURPOSE RATING OF RESISTANCE AIR HEATING	79 A, 480 V 60 Hz 3phase, 277 V 60 Hz 1phase, (UL/CSA) 79 A, 600 V 60 Hz 3phase, 347 V 60 Hz 1phase, (UL/CSA)
SPECIAL PURPOSE RATING OF TUNGSTEN INCANDESCENT LAMPS	74 A, 600 V 60 Hz 3phase, 347 V 60 Hz 1phase, (UL/CSA) 74 A, 480 V 60 Hz 3phase, 277 V 60 Hz 1phase, (UL/CSA)
SPECIAL PURPOSE RATING OF BALLAST ELECTRICAL DISCHARGE LAMPS	79 A (480V 60Hz 3phase, 277V 60Hz 1phase) 79 A (600V 60Hz 3phase, 347V 60Hz 1phase)

Terminal capacities

SCREW SIZE	M3.5, Terminal screw, Control circuit cables M6, Terminal screw, Main cables
SCREWDRIVER SIZE	0.8 x 5.5/1 x 6 mm, Terminal screw, Standard screwdriver 2, Terminal screw, Pozidriv screwdriver
STRIPPING LENGTH (CONTROL CIRCUIT CABLE)	10 mm
STRIPPING LENGTH (MAIN CABLE)	10 mm
TERMINAL CAPACITY	2 x (6 x 9 x 0.8) mm

(COPPER BAND)	(Number of segments x width x thickness), Main cables
TERMINAL CAPACITY (FLEXIBLE)	1 x (0.75 - 2.5) mm ² 2 x (0.75 - 2.5) mm ²
TERMINAL CAPACITY (SOLID)	1 x (2.5 - 16) mm ² , Main cables 1 x (0.75 - 4) mm ² , Control circuit cables 2 x (2.5 - 16) mm ² , Main cables 2 x (0.75 - 4) mm ² , Control circuit cables 1 x (0.75 - 2.5) mm ²
TERMINAL CAPACITY (STRANDED)	2 x (16 - 35) mm ² , Main cables 1 x (16 - 50) mm ² , Main cables
TIGHTENING TORQUE	1.2 Nm, Screw terminals, Control circuit cables 3.3 Nm, Screw terminals, Main cables
TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)	1 x (0.75 - 1.5) mm ² 2 x (0.75 - 1.5) mm ²
TERMINAL CAPACITY (SOLID/STRANDED AWG)	12 - 2, Main Cables 18 - 14, Control circuit cables

Resources

CATALOGUES	eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf
CHARACTERISTIC CURVE	eaton-contactors-characteristic-curve-2110dia-3.eps
DECLARATIONS OF CONFORMITY	eaton-4-pole-contactor-declaration-of-conformity-uk251253en.pdf eaton-4-pole-contactor-declaration-of-conformity-eu250770en.pdf
DRAWINGS	eaton-contactors-mounting-dilm-dimensions.eps eaton-contactors-dilmp-dimensions-002.eps eaton-contactors-mounting-dilm-dimensions-002.eps eaton-contactors-dilmp-dimensions.eps
ECAD MODEL	ETN.109869.edz
INSTALLATION INSTRUCTIONS	IL03407049Z
INSTALLATION VIDEOS	WIN-WIN with push-in technology
MCAD MODEL	eaton-iec-contactors-mcad-drawings-dil-mp63-80.dwg DA-CS-dil_mp63_80
PEP ECO-PASSPORT	eaton-iec-contactors-pep-eato-00019-v0101-en.pdf
WIRING DIAGRAMS	eaton-contactors-contact-dilem-wiring-diagram.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.

