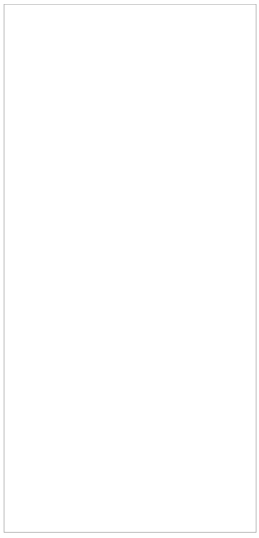

Photo is representative

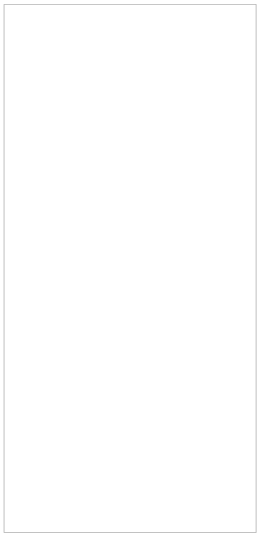

Photo is representative

277151

Eaton Moeller® series DILM Contactor, 3 pole, 380
50 Hz, AC operation, Screw terminals

Contact sales about this product

Contact technical support

Photo is representative

Photo is representative

Designed to work together

Discover other Eaton products and accessories built to enhance this product.

276426

Eaton Moeller® series DILA Auxiliary contact module, 4 pole, Ith= 16 A, 2 N/O, 2 NC, Front fixing, Screw terminals, DILA, DILM7 - DILM38

278452

Eaton Moeller® series ZB Overload relay, ZB32, Ir= 10 - 16 A, 1 N/O, 1 N/C, Direct mounting, IP20

278453

Eaton Moeller® series ZB Overload relay, ZB32, Ir= 16 - 24 A, 1 N/O, 1 N/C, Direct mounting, IP20

276427

Eaton Moeller® series DILA Au
contact module, 4 pole, Ith= 16
NC, Front fixing, Screw termina
DILM7 - DILM38

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Need product support?

Support from Eaton

Need urgent product technical support?

Phone: +44 (0) 1753 608 700, Option 3 then Option 1

GENERAL SPECIFICATIONS

PRODUCT NAME	Eaton Moeller® series DILM contactor
CATALOG NUMBER	277151
MODEL CODE	DILM25-01(24V50HZ)
EAN	4015082771515
PRODUCT LENGTH/DEPTH	97 mm
PRODUCT HEIGHT	85 mm
PRODUCT WIDTH	45 mm
PRODUCT WEIGHT	0.428 kg
COMPLIANCES	CE Marked
CERTIFICATIONS	IEC 60947-4-1 UL 508 CSA Std. C22.2 No. 14-05 EN 60947-4-1 VDE CE CSA IEC/EN 60947-4-1 CSA Class No.: 2411-03, 3211-04 UL VDE 0660 UL 60947-4-1 UL Category Control No.: NLDX CSA-C22.2 No. 60947-4-1-14 UL File No.: E29096 CSA File No.: 012528 IEC/EN 60947
CATALOG NOTES	Contacts according to EN 50012

FEATURES & FUNCTIONS

FITTED WITH:	Mirror contact

NUMBER OF POLES	Three-pole

Motor Rating >

Communication >

Contacts >

Safety >

Special purpose ratings >

Design verification >

GENERAL

APPLICATION	Contactors for Motors
FRAME SIZE	FS2
LIFESPAN, MECHANICAL	10,000,000 Operations (AC operated)
OPERATING FREQUENCY	5000 mechanical Operations/h (AC operated)
OVERVOLTAGE CATEGORY	III
POLLUTION DEGREE	3
PRODUCT CATEGORY	Contactors
PROTECTION	Finger and back-of-hand proof, Protection against di actuated from front (EN 50274)
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	8000 V AC
RESISTANCE PER POLE	2.7 mΩ
SUITABLE FOR	Also motors with efficiency class IE3
UTILIZATION CATEGORY	AC-1: Non-inductive or slightly inductive loads, re AC-3: Normal AC induction motors: starting, switc AC-4: Normal AC induction motors: starting, plugg inching
VOLTAGE TYPE	AC

AMBIENT CONDITIONS, MECHANICAL

SHOCK RESISTANCE	7 g, N/O auxiliary contact, Mechanical, according to 27, Half-sinusoidal shock 10 ms 5.3 g, N/O auxiliary contact, Mechanical, according 27 when tabletop-mounted, Half-sinusoidal shock 1 10 g, N/O main contact, Mechanical, according to I Half-sinusoidal shock 10 ms 5 g, N/C auxiliary contact, Mechanical, according to 27, Half-sinusoidal shock 10 ms 6.9 g, N/O main contact, Mechanical, according to when tabletop-mounted, Half-sinusoidal shock 10 m 3.5 g, N/C auxiliary contact, Mechanical, according 27 when tabletop-mounted, Half-sinusoidal shock 1

CLIMATIC ENVIRONMENTAL CONDITIONS

AMBIENT OPERATING TEMPERATURE - MIN	-25 °C

AMBIENT OPERATING TEMPERATURE - MAX	60 °C
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN	25 °C
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX	40 °C
AMBIENT STORAGE TEMPERATURE - MIN	40 °C
AMBIENT STORAGE TEMPERATURE - MAX	80 °C
CLIMATIC PROOFING	Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30

ELECTRO MAGNETIC COMPATIBILITY

EMITTED INTERFERENCE	According to EN 60947-1
INTERFERENCE IMMUNITY	According to EN 60947-1

TERMINAL CAPACITIES

TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)	2 x (0.75 - 10) mm², Main cables 1 x (0.75 - 2.5) mm², Control circuit cables 2 x (0.75 - 2.5) mm², Control circuit cables 1 x (0.75 - 16) mm², Main cables
TERMINAL CAPACITY (SOLID)	2 x (0.75 - 10) mm², Main cables 2 x (0.75 - 2.5) mm², Control circuit cables 1 x (0.75 - 16) mm², Main cables 1 x (0.75 - 4) mm², Control circuit cables
TERMINAL CAPACITY (SOLID/STRANDED AWG)	Single 18 - 6, double 18 - 8, Main cables 18 - 14, Control circuit cables
TERMINAL CAPACITY (STRANDED)	1 x 16 mm², Main cables
STRIPPING LENGTH (MAIN CABLE)	10 mm
STRIPPING LENGTH (CONTROL CIRCUIT CABLE)	10 mm
SCREW SIZE	M5, Terminal screw, Main cables M3.5, Terminal screw, Control circuit cables
SCREWDRIVER SIZE	2, Terminal screw, Pozidriv screwdriver 0.8 x 5.5/1 x 6 mm, Terminal screw, Standard scre
TIGHTENING TORQUE	3.2 Nm, Screw terminals, Main cables 1.2 Nm, Screw terminals, Control circuit cables

ELECTRICAL RATING

RATED BREAKING CAPACITY AT 220/230 V	250 A
RATED BREAKING CAPACITY AT 380/400 V	250 A
RATED BREAKING CAPACITY AT 500 V	250 A
RATED BREAKING CAPACITY AT 660/690 V	150 A
RATED OPERATIONAL CURRENT (IE) AT AC-1, 380 V, 400 V, 415 V	45 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 220 V, 230 V, 240 V	25 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 380 V, 400 V, 415 V	25 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 440 V	25 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 500 V	25 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 660 V, 690 V	15 A
RATED OPERATIONAL CURRENT (IE) AT AC-4, 220 V, 230 V, 240 V	13 A
RATED OPERATIONAL CURRENT (IE) AT AC-4, 400 V	13 A
RATED OPERATIONAL CURRENT (IE) AT AC-4, 500 V	13 A
RATED OPERATIONAL CURRENT (IE) AT AC-4, 660 V, 690 V	10 A
RATED OPERATIONAL CURRENT (IE) AT DC-1, 60 V	40 A
RATED OPERATIONAL CURRENT (IE) AT DC-1, 110 V	40 A
RATED OPERATIONAL CURRENT (IE) AT DC-1, 220 V	40 A
RATED INSULATION VOLTAGE (UI)	690 V
RATED OPERATIONAL CURRENT (IE) AT AC-1, 380 V, 400 V, 415 V	45 A
RATED OPERATIONAL POWER AT AC-3, 240 V, 50 HZ	8.5 kW
RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ	11 kW
RATED OPERATIONAL POWER AT AC-3, 415 V, 50 HZ	14.5 kW
RATED OPERATIONAL POWER AT AC-4, 220/230 V, 50 HZ	3.5 kW
RATED OPERATIONAL POWER AT AC-4, 240 V, 50 HZ	4 kW
RATED OPERATIONAL POWER AT AC-4, 415 V, 50 HZ	6.5 kW
RATED OPERATIONAL POWER AT AC-4, 440 V, 50 HZ	7 kW
RATED OPERATIONAL POWER AT AC-4, 500 V, 50 HZ	8 kW

RATED OPERATIONAL POWER AT AC-4, 500 V, 50 HZ	8 kW
RATED OPERATIONAL POWER AT AC-4, 660/690 V, 50 HZ	8.5 kW
RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX	690 V

SHORT-CIRCUIT RATING

SHORT-CIRCUIT CURRENT RATING (BASIC RATING)	125 A, max. CB, SCCR (UL/CSA) 5 kA, SCCR (UL/CSA) 125 A, max. Fuse, SCCR (UL/CSA)
SHORT-CIRCUIT CURRENT RATING (HIGH FAULT AT 480 V)	10/65 kA, CB, SCCR (UL/CSA) 50/32 A, max. CB, SCCR (UL/CSA) 10/100 kA, Fuse, SCCR (UL/CSA) 125/70 A, Class J, max. Fuse, SCCR (UL/CSA)
SHORT-CIRCUIT CURRENT RATING (HIGH FAULT AT 600 V)	50/32 A, max. CB, SCCR (UL/CSA) 10/22 kA, CB, SCCR (UL/CSA) 10/100 kA, Fuse, SCCR (UL/CSA) 125/100 A, Class J, max. Fuse, SCCR (UL/CSA)
SHORT-CIRCUIT PROTECTION RATING (TYPE 1 COORDINATION) AT 400 V	100 A gG/gL
SHORT-CIRCUIT PROTECTION RATING (TYPE 1 COORDINATION) AT 690 V	50 A gG/gL
SHORT-CIRCUIT PROTECTION RATING (TYPE 2 COORDINATION) AT 400 V	35 A gG/gL
SHORT-CIRCUIT PROTECTION RATING (TYPE 2 COORDINATION) AT 690 V	35 A gG/gL

CONVENTIONAL THERMAL CURRENT

CONVENTIONAL THERMAL CURRENT ITH (1-POLE, ENCLOSED)	90 A
CONVENTIONAL THERMAL CURRENT ITH (3-POLE, ENCLOSED)	36 A
CONVENTIONAL THERMAL CURRENT ITH AT 55°C (3-POLE, OPEN)	42 A
CONVENTIONAL THERMAL CURRENT ITH OF MAIN CONTACTS (1-POLE, OPEN)	100 A

SWITCHING CAPACITY

SWITCHING CAPACITY (MAIN CONTACTS, GENERAL	40 A, Maximum motor rating (UL/CSA)

USE)	
SWITCHING CAPACITY (AUXILIARY CONTACTS, GENERAL USE)	1 A, 250 V DC, (UL/CSA) 10 A, 600 V AC, (UL/CSA)
SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY)	A600, AC operated (UL/CSA) P300, DC operated (UL/CSA)

SWITCHING TIME

ARCING TIME	10 ms
SWITCHING TIME (AC OPERATED, MAKE CONTACTS, CLOSING DELAY) - MIN	16 ms
SWITCHING TIME (AC OPERATED, MAKE CONTACTS, CLOSING DELAY) - MAX	22 ms
SWITCHING TIME (AC OPERATED, MAKE CONTACTS, OPENING DELAY) - MIN	8 ms
SWITCHING TIME (AC OPERATED, MAKE CONTACTS, OPENING DELAY) - MAX	14 ms

MAGNET SYSTEM

DROP-OUT VOLTAGE	AC operated: 0.6 - 0.3 x UC, AC operated
DUTY FACTOR	100 %
PICK-UP VOLTAGE	0.8 - 1.1 V AC x Uc
POWER CONSUMPTION, PICK-UP, 50 HZ	52 VA, Dual-frequency coil in a cold state and 1.0 x
POWER CONSUMPTION, PICK-UP, 60 HZ	67 VA, Dual-frequency coil in a cold state and 1.0 x
POWER CONSUMPTION, SEALING, 50 HZ	2.1 W, Dual-frequency coil in a cold state and 1.0 x 7.1 VA, Dual-frequency coil in a cold state and 1.0
POWER CONSUMPTION, SEALING, 60 HZ	8.7 VA, Dual-frequency coil in a cold state and 1.0 2.1 W, Dual-frequency coil in a cold state and 1.0 x
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN	24 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX	24 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN	0 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX	0 V
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN	0 V

RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX	0 V

MOTOR RATING

ASSIGNED MOTOR POWER AT 115/120 V, 60 HZ, 1-PHASE	2 HP
ASSIGNED MOTOR POWER AT 200/208 V, 60 HZ, 3-PHASE	7.5 HP
ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 1-PHASE	5 HP
ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 3-PHASE	10 HP
ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE	15 HP
ASSIGNED MOTOR POWER AT 575/600 V, 60 HZ, 3-PHASE	20 HP

COMMUNICATION

CONNECTION	Screw terminals
CONNECTION TO SMARTWIRE-DT	No

CONTACTS

NUMBER OF CONTACTS (NORMALLY CLOSED CONTACTS)	1
NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)	1
NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)	0

SAFETY

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

SPECIAL PURPOSE RATINGS

SPECIAL PURPOSE RATING OF BALLAST ELECTRICAL DISCHARGE LAMPS	40 A (600V 60Hz 3phase, 347V 60Hz 1phase) 40 A (480V 60Hz 3phase, 277V 60Hz 1phase)
SPECIAL PURPOSE RATING OF DEFINITE PURPOSE RATING	150 A, LRA 480 V 60 Hz 3-ph, 100,000 cycles acc (UL/CSA) 25 A, FLA 480 V 60 Hz 3-ph, 100,000 cycles acc. (UL/CSA)
SPECIAL PURPOSE RATING OF ELEVATOR CONTROL	14 A, 480 V 60 Hz 3-ph, (UL/CSA) 17 A, 600 V 60 Hz 3-ph, (UL/CSA) 5 HP, 240 V 60 Hz 3-ph, (UL/CSA) 15 HP, 600 V 60 Hz 3-ph, (UL/CSA) 15.2 A, 240 V 60 Hz 3-ph, (UL/CSA) 11 A, 200 V 60 Hz 3-ph, (UL/CSA) 10 HP, 480 V 60 Hz 3-ph, (UL/CSA) 3 HP, 200 V 60 Hz 3-ph, (UL/CSA)
SPECIAL PURPOSE RATING OF REFRIGERATION CONTROL (CSA ONLY)	240 A, LRA 480 V 60 Hz 3phase; (CSA) 180 A, LRA 600 V 60 Hz 3phase; (CSA) 30 A, FLA 600 V 60 Hz 3phase; (CSA) 40 A, FLA 480 V 60 Hz 3phase; (CSA)
SPECIAL PURPOSE RATING OF RESISTANCE AIR HEATING	40 A, 480 V 60 Hz 3phase, 277 V 60 Hz 1phase, (U 40 A, 600 V 60 Hz 3phase, 347 V 60 Hz 1phase, (U
SPECIAL PURPOSE RATING OF TUNGSTEN INCANDESCENT LAMPS	40 A, 600 V 60 Hz 3phase, 347 V 60 Hz 1phase, (U 40 A, 480 V 60 Hz 3phase, 277 V 60 Hz 1phase, (U

DESIGN VERIFICATION

EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	4.2 W
HEAT DISSIPATION CAPACITY PDISS	0 W
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	25 A
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
10.2.6 MECHANICAL IMPACT	Does not apply, since the entire switchgear needs to
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
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
10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS	Does not apply, since the entire switchgear needs to
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.
10.10 TEMPERATURE RISE	The panel builder is responsible for the temperature Eaton will provide heat dissipation data for the devi
10.11 SHORT-CIRCUIT RATING	Is the panel builder's responsibility. The specificatio must be observed.
10.12 ELECTROMAGNETIC COMPATIBILITY	Is the panel builder's responsibility. The specificatio must be observed.
10.13 MECHANICAL FUNCTION	The device meets the requirements, provided the inf instruction leaflet (IL) is observed.

Catalogs

Characteristic curve

Declarations of conformity

Drawings

eCAD model

Installation instructions

Installation videos

mCAD model

System overview

Wiring diagrams

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