

LEISTUNGSSCHÜTZE DIL

277146



Overview



Specifications



Resources

How to

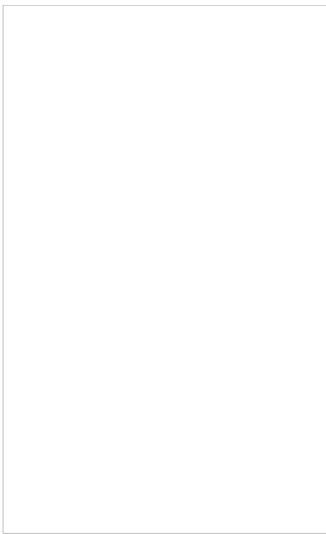


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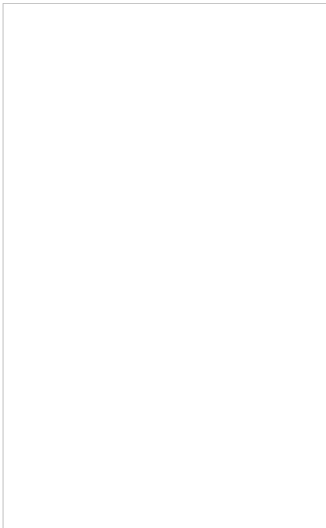


Photo is representative

277146

Eaton Moeller® series DILM Contactor, 3 pole, 380V
24: 24 - 27 VDC, DC operation, Screw terminals DIL

Anfrage zu diesem Produkt

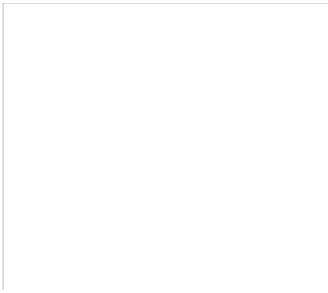


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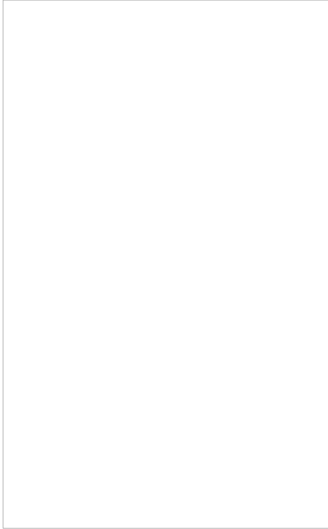


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Designed to work together

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

277377

Eaton Moeller® series DILM Auxiliary contact module, 4 pole, Ith= 16 A, 2 N/O, 2 NC, Front fixing, Screw terminals, DILM7-10 - DILM38-10

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

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GENERAL SPECIFICATIONS

General specifications	>	PRODUCT NAME	Eaton Moeller® series DILM contactor
		CATALOG NUMBER	277146
Product specifications	>	MODEL CODE	DILM25-10(RDC24)
		EAN	4015082771461
		PRODUCT LENGTH/DEPTH	97 mm
		PRODUCT HEIGHT	85 mm
		PRODUCT WIDTH	45 mm
		PRODUCT WEIGHT	0.534 kg
		CERTIFICATIONS	CSA File No.: 012528 CE IEC/EN 60947-4-1 CSA UL Category Control No.: NLDX CSA-C22.2 No. 60947-4-1-14 UL File No.: E29096 IEC/EN 60947 VDE 0660 UL 60947-4-1 CSA Class No.: 2411-03, 3211-04 UL
		CATALOG NOTES	Contacts according to EN 50012

PRODUCT SPECIFICATIONS

TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)	2 x (0.75 - 2.5) mm ² , Control circuit cables 1 x (0.75 - 16) mm ² , Main cables 2 x (0.75 - 10) mm ² , Main cables 1 x (0.75 - 2.5) mm ² , Control circuit cables
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	25 A
10.11 SHORT-CIRCUIT RATING	Is the panel builder's responsibility. The specifications must be observed.
RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ	11 kW
CONVENTIONAL THERMAL CURRENT I_{TH} (3-POLE, ENCLOSED)	36 A
RATED OPERATIONAL POWER AT AC-4, 380/400 V, 50	6 kW

HZ	
RATED OPERATIONAL CURRENT (IE) AT AC-4, 440 V	13 A
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN	0 V
CONVENTIONAL THERMAL CURRENT ITH AT 60°C (3-POLE, OPEN)	40 A
10.4 CLEARANCES AND CREEPAGE DISTANCES	Meets the product standard's requirements.
NUMBER OF CONTACTS (NORMALLY CLOSED) AS MAIN CONTACT	0
SHORT-CIRCUIT CURRENT RATING (HIGH FAULT AT 480 V)	10/100 kA, Fuse, SCCR (UL/CSA) 10/65 kA, CB, SCCR (UL/CSA) 125/70 A, Class J, max. Fuse, SCCR (UL/CSA) 50/32 A, max. CB, SCCR (UL/CSA)
CONVENTIONAL THERMAL CURRENT ITH AT 55°C (3-POLE, OPEN)	42 A
RATED OPERATIONAL POWER (NEMA)	11 kW
10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES	Meets the product standard's requirements.
AMBIENT STORAGE TEMPERATURE - MIN	40 °C
FITTED WITH:	Suppressor circuit in actuating electronics
RATED BREAKING CAPACITY AT 380/400 V	250 A
SHORT-CIRCUIT CURRENT RATING (BASIC RATING)	5 kA, SCCR (UL/CSA) 125 A, max. Fuse, SCCR (UL/CSA) 125 A, max. CB, SCCR (UL/CSA)
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX	0 V
RATED BREAKING CAPACITY AT 660/690 V	150 A
RATED OPERATIONAL CURRENT (IE) AT DC-1, 220 V	40 A
SPECIAL PURPOSE RATING OF ELEVATOR CONTROL	15.2 A, 240 V 60 Hz 3-ph, (UL/CSA) 10 HP, 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) 11 A, 200 V 60 Hz 3-ph, (UL/CSA) 15 HP, 600 V 60 Hz 3-ph, (UL/CSA) 3 HP, 200 V 60 Hz 3-ph, (UL/CSA) 14 A, 480 V 60 Hz 3-ph, (UL/CSA)
AMBIENT OPERATING TEMPERATURE - MAX	60 °C
ASSIGNED MOTOR POWER AT 115/120 V, 60 HZ, 1-PHASE	2 HP
RATED OPERATIONAL POWER AT AC-4, 440 V, 50 HZ	7 kW
ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Screw connection
POWER CONSUMPTION (SEALING) AT DC	0.9 W

NUMBER OF POLES	Three-pole
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS	Does not apply, since the entire switchgear needs to
10.2.6 MECHANICAL IMPACT	Does not apply, since the entire switchgear needs to
10.3 DEGREE OF PROTECTION OF ASSEMBLIES	Does not apply, since the entire switchgear needs to
APPLICATION	Contactors for Motors
OPERATING FREQUENCY	5000 mechanical Operations/h (DC operated)
VOLTAGE TYPE	DC
SHORT-CIRCUIT PROTECTION RATING (TYPE 1 COORDINATION) AT 400 V	100 A gG/gL
PRODUCT CATEGORY	Contactors
RATED OPERATIONAL CURRENT (IE) AT AC-4, 220 V, 230 V, 240 V	13 A
RATED OPERATIONAL POWER AT AC-3, 690 V, 50 HZ	14 kW
HEAT DISSIPATION CAPACITY PDISS	0 W
ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE	15 HP
SPECIAL PURPOSE RATING OF TUNGSTEN INCANDESCENT LAMPS	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
RATED OPERATIONAL CURRENT (IE) AT AC-4, 500 V	13 A
RATED OPERATIONAL POWER AT AC-3, 240 V, 50 HZ	8.5 kW
OPERATING VOLTAGE AT AC, 60 HZ - MAX	690 V
TERMINAL CAPACITY (SOLID/STRANDED AWG)	Single 18 - 6, double 18 - 8, Main cables 18 - 14, Control circuit cables
10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH	Is the panel builder's responsibility.
DEGREE OF PROTECTION	IP00
OVERVOLTAGE CATEGORY	III
AMBIENT STORAGE TEMPERATURE - MAX	80 °C
POLLUTION DEGREE	3
RATED OPERATIONAL CURRENT (IE) AT AC-1, 380 V, 400 V, 415 V	45 A
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	8000 V AC
CONNECTION	Screw terminals
OPERATING VOLTAGE AT AC, 60 HZ - MIN	24 V

TIGHTENING TORQUE	3.2 Nm, Screw terminals, Main cables 1.2 Nm, Screw terminals, Control circuit cables
RATED OPERATIONAL POWER AT AC-4, 660/690 V, 50 HZ	8.5 kW
FRAME SIZE	FS2
CONVENTIONAL THERMAL CURRENT ITH (1-POLE, ENCLOSED)	90 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 660 V, 690 V	15 A
10.2.2 CORROSION RESISTANCE	Meets the product standard's requirements.
10.2.4 RESISTANCE TO ULTRA-VIOLET (UV) RADIATION	Meets the product standard's requirements.
10.2.7 INSCRIPTIONS	Meets the product standard's requirements.
RATED OPERATIONAL CURRENT (IE) AT AC-3, 380 V, 400 V, 415 V	25 A
NUMBER OF CONTACTS (NORMALLY OPEN CONTACTS)	1
SHORT-CIRCUIT PROTECTION RATING (TYPE 2 COORDINATION) AT 400 V	35 A gG/gL
SPECIAL PURPOSE RATING OF BALLAST ELECTRICAL DISCHARGE LAMPS	40 A (600V 60Hz 3phase, 347V 60Hz 1phase) 40 A (480V 60Hz 3phase, 277V 60Hz 1phase)
NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)	1
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)
RATED OPERATIONAL POWER AT AC-3, 500 V, 50 HZ	17.5 kW
SHOCK RESISTANCE	3.5 g, N/C auxiliary contact, Mechanical, according to IEC 60068-2-27 when tabletop-mounted, Halfsinusoidal shock 10 ms 6.9 g, N/O main contact, Mechanical, according to IEC 60068-2-27 when tabletop-mounted, Halfsinusoidal shock 10 ms 7 g, N/O auxiliary contact, Mechanical, according to IEC 60068-2-27, Halfsinusoidal shock 10 ms 10 g, N/O main contact, Mechanical, according to IEC 60068-2-27, Halfsinusoidal shock 10 ms 5 g, N/C auxiliary contact, Mechanical, according to IEC 60068-2-27, Halfsinusoidal shock 10 ms 5.3 g, N/O auxiliary contact, Mechanical, according to IEC 60068-2-27 when tabletop-mounted, Halfsinusoidal shock 10 ms
RATED OPERATIONAL CURRENT (IE) AT DC-1, 110 V	40 A
ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 3-PHASE	10 HP
DROP-OUT VOLTAGE	0.6 - 0.15 x UC, DC operated At least smoothed two-phase bridge rectifier or three

RESISTANCE PER POLE	2.7 mΩ
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN	25 °C
STRIPPING LENGTH (CONTROL CIRCUIT CABLE)	10 mm
OPERATING VOLTAGE AT AC, 50 HZ - MAX	690 V
10.12 ELECTROMAGNETIC COMPATIBILITY	Is the panel builder's responsibility. The specifications must be observed.
SPECIAL PURPOSE RATING OF REFRIGERATION CONTROL (CSA ONLY)	240 A, LRA 480 V 60 Hz 3phase; (CSA) 40 A, FLA 480 V 60 Hz 3phase; (CSA) 30 A, FLA 600 V 60 Hz 3phase; (CSA) 180 A, LRA 600 V 60 Hz 3phase; (CSA)
10.2.5 LIFTING	Does not apply, since the entire switchgear needs to be lifted.
STRIPPING LENGTH (MAIN CABLE)	10 mm
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX	40 °C
SPECIAL PURPOSE RATING OF RESISTANCE AIR HEATING	40 A, 600 V 60 Hz 3phase, 347 V 60 Hz 1phase, (UL/CSA) 40 A, 480 V 60 Hz 3phase, 277 V 60 Hz 1phase, (UL/CSA)
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN	24 V
SHORT-CIRCUIT CURRENT RATING (HIGH FAULT AT 600 V)	10/100 kA, Fuse, SCCR (UL/CSA) 125/100 A, Class J, max. Fuse, SCCR (UL/CSA) 50/32 A, max. CB, SCCR (UL/CSA) 10/22 kA, CB, SCCR (UL/CSA)
10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS	Is the panel builder's responsibility.
NUMBER OF MAIN CONTACTS (NORMALLY OPEN CONTACT)	3
RATED BREAKING CAPACITY AT 220/230 V	250 A
SCREW SIZE	M5, Terminal screw, Main cables M3.5, Terminal screw, Control circuit cables
RATED OPERATIONAL CURRENT (IE) AT AC-4, 400 V	13 A
SHORT-CIRCUIT PROTECTION RATING (TYPE 2 COORDINATION) AT 690 V	35 A gG/gL
ASSIGNED MOTOR POWER AT 575/600 V, 60 HZ, 3-PHASE	20 HP
PROTECTION	Finger and back-of-hand proof, Protection against direct contact, actuated from front (EN 50274)
RATED OPERATIONAL POWER AT AC-3, 440 V, 50 HZ	15.5 kW
TERMINAL CAPACITY (STRANDED)	1 x 16 mm ² , Main cables
RATED BREAKING CAPACITY AT 500 V	250 A
RATED OPERATIONAL POWER AT AC-3, 415 V, 50 HZ	14.5 kW
CLIMATE PROTECTIVE CLASSIFICATION	Damp heat, cyclic, to IEC 60068-2-30

CLIMATIC PROOFING	Damp heat, constant, to IEC 60068-2-78
EMITTED INTERFERENCE	According to EN 60947-1
CONNECTION TO SMARTWIRE-DT	In conjunction with DIL-SWD SmartWire DT cont Yes
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	0.9 W
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX	27 V
10.9.3 IMPULSE WITHSTAND VOLTAGE	Is the panel builder's responsibility.
UTILIZATION CATEGORY	AC-3: Normal AC induction motors: starting, swit AC-1: Non-inductive or slightly inductive loads, res AC-4: Normal AC induction motors: starting, plug inching
RATED OPERATIONAL CURRENT (IE) AT AC-3, 440 V	25 A
10.5 PROTECTION AGAINST ELECTRIC SHOCK	Does not apply, since the entire switchgear needs to
SAFE ISOLATION	440 V AC, Between the contacts, According to EN 440 V AC, Between coil and contacts, According to
OPERATING VOLTAGE AT AC, 50 HZ - MIN	24 V
10.13 MECHANICAL FUNCTION	The device meets the requirements, provided the inf instruction leaflet (IL) is observed.
10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL	Is the panel builder's responsibility.
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	1.4 W
ACTUATING VOLTAGE	RDC 24: 24 - 27 V DC
SWITCHING TIME (DC OPERATED, MAKE CONTACTS, OPENING DELAY) - MAX	30 ms
SWITCHING CAPACITY (AUXILIARY CONTACTS, GENERAL USE)	10 A, 600 V AC, (UL/CSA) 1 A, 250 V DC, (UL/CSA)
SWITCHING TIME (DC OPERATED, MAKE CONTACTS, CLOSING DELAY) - MAX	47 ms
RATED OPERATIONAL CURRENT (IE) AT AC-4, 660 V, 690 V	10 A
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	4.2 W
ASSIGNED MOTOR POWER AT 200/208 V, 60 HZ, 3-PHASE	7.5 HP
PICK-UP VOLTAGE	0.7 - 1.2 V DC x U _c 24 - 27 V DC (RDC 24)
SUITABLE FOR	Also motors with efficiency class IE3
CONVENTIONAL THERMAL CURRENT ITH AT 40°C (3-	45 A

POLE, OPEN)	45 A
TERMINAL CAPACITY (SOLID)	1 x (0.75 - 16) mm ² , Main cables 2 x (0.75 - 2.5) mm ² , Control circuit cables 1 x (0.75 - 4) mm ² , Control circuit cables 2 x (0.75 - 10) mm ² , Main cables
NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)	0
INTERFERENCE IMMUNITY	According to EN 60947-1
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.
LIFESPAN, MECHANICAL	10,000,000 Operations (DC operated)
SHORT-CIRCUIT PROTECTION RATING (TYPE 1 COORDINATION) AT 690 V	50 A gG/gL
RATED MAKING CAPACITY UP TO 690 V (COS PHI TO IEC/EN 60947)	350 A
RATED OPERATIONAL POWER AT AC-4, 240 V, 50 HZ	4 kW
RATED OPERATIONAL POWER AT AC-4, 500 V, 50 HZ	8 kW
RATED OPERATIONAL CURRENT (IE) AT DC-1, 60 V	40 A
RATED OPERATIONAL POWER AT AC-4, 220/230 V, 50 HZ	3.5 kW
RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX	690 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN	0 V
10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS	Is the panel builder's responsibility.
POWER CONSUMPTION (PICK-UP) AT DC	12 W
10.10 TEMPERATURE RISE	The panel builder is responsible for the temperature Eaton will provide heat dissipation data for the device
SWITCHING CAPACITY (MAIN CONTACTS, GENERAL USE)	40 A, Maximum motor rating (UL/CSA)
CONVENTIONAL THERMAL CURRENT I_{TH} AT 50°C (3-POLE, OPEN)	43 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 500 V	25 A
ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 1-PHASE	5 HP
SCREWDRIVER SIZE	0.8 x 5.5/1 x 6 mm, Terminal screw, Standard screwdriver 2, Terminal screw, Pozidriv screwdriver
DUTY FACTOR	100 %

RATED OPERATIONAL CURRENT (IE) AT AC-3, 220 V, 230 V, 240 V	25 A
CONVENTIONAL THERMAL CURRENT I_{TH} OF MAIN CONTACTS (1-POLE, OPEN)	100 A
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX	0 V
ARCING TIME	10 ms
RATED OPERATIONAL POWER AT AC-4, 415 V, 50 HZ	6.5 kW
SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY)	P300, DC operated (UL/CSA) A600, AC operated (UL/CSA)
RATED INSULATION VOLTAGE (UI)	690 V
ALTITUDE	Max. 2000 m

Catalogs

Characteristic curve

Declarations of conformity

Drawings

eCAD model

Installation instructions

Installation videos

mCAD model

PEP Eco-passport

System overview

Wiring diagrams



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[Kontakt](#)

277146



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