

DIL CONTACTORS

277036



Overview



Specifications



Resources

How to

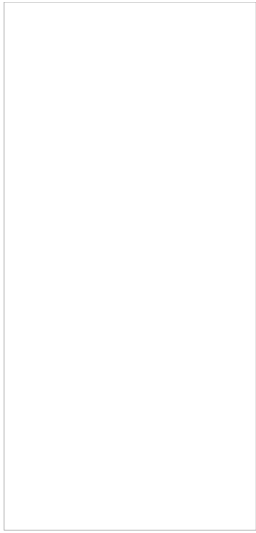
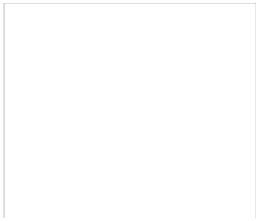
277036

Eaton Moeller® series DILM Contactor, 3 pole, 380 V 50 Hz, 240 V 60 Hz, AC operation, Screw terminals 01(230V50HZ,240V60HZ)



[WIN-WIN with Push-in Terminals](#)

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

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GENERAL SPECIFICATIONS

General specifications	>	PRODUCT NAME	Eaton Moeller® series DILM contactor
		CATALOG NUMBER	277036
Product specifications	>	MODEL CODE	DILM17-01(230V50HZ,240V60HZ)
		EAN	4015082770365
		PRODUCT LENGTH/DEPTH	97 mm
		PRODUCT HEIGHT	85 mm
		PRODUCT WIDTH	45 mm
		PRODUCT WEIGHT	0.428 kg
		WARRANTY	Not Applicable
		CERTIFICATIONS	CSA Certified UL Listed IEC 60947-4-1 EN 60947-4-1 UL Category Control No.: NLDX IEC/EN 60947 VDE 0660 CSA-C22.2 No. 60947-4-1-14 IEC/EN 60947-4-1 CE CSA File No.: 012528 UL 60947-4-1 CSA Class No.: 2411-03, 3211-04 UL UL File No.: E29096 CSA
		CATALOG NOTES	Contacts according to EN 50012

PRODUCT SPECIFICATIONS

CONTACT CONFIGURATION	1 NC
TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)	2 x (0.75 - 2.5) mm ² , Control circuit cables 2 x (0.75 - 10) mm ² , Main cables 1 x (0.75 - 16) mm ² , Main cables 1 x (0.75 - 2.5) mm ² , Control circuit cables
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	18 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	7.5 kW
CONVENTIONAL THERMAL CURRENT ITH (3-POLE,	32 A

ENCLOSED)	
RATED OPERATIONAL POWER AT AC-4, 380/400 V, 50 HZ	4.5 kW
RATED OPERATIONAL CURRENT (IE) AT AC-4, 440 V	10 A
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN	230 V
CONVENTIONAL THERMAL CURRENT ITH AT 60°C (3-POLE, OPEN)	35 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)	125/70 A, Class J, max. Fuse, SCCR (UL/CSA) 10/100 kA, Fuse, SCCR (UL/CSA) 10/65 kA, CB, SCCR (UL/CSA) 50/32 A, max. CB, SCCR (UL/CSA)
CONVENTIONAL THERMAL CURRENT ITH AT 55°C (3-POLE, OPEN)	37 A
RATED OPERATIONAL POWER (NEMA)	7.4 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:	Mirror contact
RATED BREAKING CAPACITY AT 380/400 V	170 A
SHORT-CIRCUIT CURRENT RATING (BASIC RATING)	5 kA, SCCR (UL/CSA) 125 A, max. CB, SCCR (UL/CSA) 125 A, max. Fuse, SCCR (UL/CSA)
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX	230 V
RATED BREAKING CAPACITY AT 660/690 V	120 A
OPERATING TEMPERATURE	-25° to 60°C
RATED OPERATIONAL CURRENT (IE) AT DC-1, 220 V	35 A
SPECIAL PURPOSE RATING OF ELEVATOR CONTROL	7.5 HP, 480 V 60 Hz 3-ph, (UL/CSA) 11 A, 480 V 60 Hz 3-ph, (UL/CSA) 3 HP, 240 V 60 Hz 3-ph, (UL/CSA) 3 HP, 200 V 60 Hz 3-ph, (UL/CSA) 10 HP, 600 V 60 Hz 3-ph, (UL/CSA) 11 A, 200 V 60 Hz 3-ph, (UL/CSA) 9.6 A, 240 V 60 Hz 3-ph, (UL/CSA) 11 A, 600 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	5.5 kW
ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Screw connection
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 (AC operated)
VOLTAGE TYPE	AC
SHORT-CIRCUIT PROTECTION RATING (TYPE 1 COORDINATION) AT 400 V	63 A gG/gL
PRODUCT CATEGORY	Contactors
RATED OPERATIONAL CURRENT (IE) AT AC-4, 220 V, 230 V, 240 V	10 A
RATED OPERATIONAL POWER AT AC-3, 690 V, 50 HZ	11 kW
POWER CONSUMPTION, PICK-UP, 50 HZ	52 VA, Dual-frequency coil in a cold state and 1.0 x
HEAT DISSIPATION CAPACITY PDISS	0 W
ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE	10 HP
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
SWITCHING TIME (AC OPERATED, MAKE CONTACTS, OPENING DELAY) - MIN	8 ms
CONTINUOUS AMPERE RATING	18 A
RATED OPERATIONAL CURRENT (IE) AT AC-4, 500 V	10 A
RATED OPERATIONAL POWER AT AC-3, 240 V, 50 HZ	5.5 kW
OPERATING VOLTAGE AT AC, 60 HZ - MAX	690 V
TERMINAL CAPACITY (SOLID/STRANDED AWG)	18 - 14, Control circuit cables Single 18 - 6, double 18 - 8, Main cables
10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH	Is the panel builder's responsibility.
DEGREE OF PROTECTION	IP00
OVERVOLTAGE CATEGORY	III
SWITCHING TIME (AC OPERATED, MAKE CONTACTS, OPENING DELAY) - MAX	14 ms

AMBIENT STORAGE TEMPERATURE - MAX	80 °C
POLLUTION DEGREE	3
RATED OPERATIONAL CURRENT (IE) AT AC-1, 380 V, 400 V, 415 V	40 A
POWER CONSUMPTION, PICK-UP, 60 HZ	67 VA, Dual-frequency coil in a cold state and 1.0 x
SWITCHING TIME (AC OPERATED, MAKE CONTACTS, CLOSING DELAY) - MAX	22 ms
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	6.5 kW
FRAME SIZE	FS2
CONVENTIONAL THERMAL CURRENT ITH (1-POLE, ENCLOSED)	80 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 660 V, 690 V	12 A
TYPE	Full voltage non-reversing small contactor
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	18 A
SWITCHING TIME (AC OPERATED, MAKE CONTACTS, CLOSING DELAY) - MIN	16 ms
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)	0
SPECIAL PURPOSE RATING OF DEFINITE PURPOSE RATING	108 A, LRA 480 V 60 Hz 3-ph, 100,000 cycles acc. (UL/CSA) 18 A, FLA 480 V 60 Hz 3-ph, 100,000 cycles acc. (UL/CSA)
RATED OPERATIONAL POWER AT AC-3, 500 V, 50 HZ	12 kW
	3.5 g. N/C auxiliary contact. Mechanical. according

	27 when tabletop-mounted, Halfsinusoidal shock 10 ms 5 g, N/C auxiliary contact, Mechanical, according to IEC 60068-2-27, 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 6.9 g, N/O main contact, Mechanical, according to IEC 60068-2-27 when tabletop-mounted, 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
SHOCK RESISTANCE	
RATED OPERATIONAL CURRENT (IE) AT DC-1, 110 V	35 A
ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 3-PHASE	5 HP
DROP-OUT VOLTAGE	AC operated: 0.6 - 0.3 x UC, AC operated
POWER CONSUMPTION, SEALING, 60 HZ	2.1 W, Dual-frequency coil in a cold state and 1.0 x UC 8.7 VA, Dual-frequency coil in a cold state and 1.0 x UC
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)	180 A, LRA 600 V 60 Hz 3phase; (CSA) 30 A, FLA 600 V 60 Hz 3phase; (CSA) 240 A, LRA 480 V 60 Hz 3phase; (CSA) 40 A, FLA 480 V 60 Hz 3phase; (CSA)
AMPERE RATING	170A
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	0 V
SHORT-CIRCUIT CURRENT RATING (HIGH FAULT AT 600 V)	125/70 A, Class J, max. Fuse, SCCR (UL/CSA) 10/100 kA, Fuse, SCCR (UL/CSA) 50/32 A, max. CB, SCCR (UL/CSA) 10/22 kA, CB, SCCR (UL/CSA)
FREQUENCY RATING	50-60 Hz
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	170 A
SCREW SIZE	M3.5, Terminal screw, Control circuit cables M5, Terminal screw, Main cables
RATED OPERATIONAL CURRENT (IE) AT AC-4, 400 V	10 A
TERMINALS	Screw terminals
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	15 HP
PROTECTION	Finger and back-of-hand proof, Protection against dirt actuated from front (EN 50274)
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 x
RATED OPERATIONAL POWER AT AC-3, 440 V, 50 HZ	10.5 kW
TERMINAL CAPACITY (STRANDED)	1 x 16 mm ² , Main cables
HP RATING - MAX	2, 3/ 5, 5, 10, 15 hp (1/3PH @120,240/208,240,48
RATED BREAKING CAPACITY AT 500 V	170 A
RATED OPERATIONAL POWER AT AC-3, 415 V, 50 HZ	10 kW
CLIMATIC PROOFING	Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
EMITTED INTERFERENCE	According to EN 60947-1
CONNECTION TO SMARTWIRE-DT	No
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	2.1 W
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX	0 V
10.9.3 IMPULSE WITHSTAND VOLTAGE	Is the panel builder's responsibility.
UTILIZATION CATEGORY	AC-3: Normal AC induction motors: starting, switching AC-4: Normal AC induction motors: starting, plugging, inching AC-1: Non-inductive or slightly inductive loads, resistive
COIL VOLTAGE	230-240 Vac, 50/60 Hz
RATED OPERATIONAL CURRENT (IE) AT AC-3, 440 V	18 A
10.5 PROTECTION AGAINST ELECTRIC SHOCK	Does not apply, since the entire switchgear needs to be
SAFE ISOLATION	440 V AC, Between the contacts, According to EN 60947-1 440 V AC, Between coil and contacts, According to EN 60947-1
OPERATING VOLTAGE AT AC, 50 HZ - MIN	24 V

10.13 MECHANICAL FUNCTION	instruction leaflet (IL) is observed.
10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL	Is the panel builder's responsibility.
NUMBER OF CONTACTS (NORMALLY CLOSED CONTACTS)	1
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	0.7 W
ACTUATING VOLTAGE	230 V 50 Hz, 240 V 60 Hz
SWITCHING CAPACITY (AUXILIARY CONTACTS, GENERAL USE)	10 A, 600 V AC, (UL/CSA) 1 A, 250 V DC, (UL/CSA)
OPERATING TEMPERATURE - MIN	-25 °C
RATED OPERATIONAL CURRENT (IE) AT AC-4, 660 V, 690 V	8 A
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	2.1 W
ASSIGNED MOTOR POWER AT 200/208 V, 60 HZ, 3-PHASE	5 HP
PICK-UP VOLTAGE	0.8 - 1.1 V AC x U _c
SUITABLE FOR	Also motors with efficiency class IE3
OPERATION	Reversing
CONVENTIONAL THERMAL CURRENT I_{TH} AT 40°C (3-POLE, OPEN)	40 A
TERMINAL CAPACITY (SOLID)	2 x (0.75 - 2.5) mm ² , Control circuit cables 1 x (0.75 - 16) mm ² , Main 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)	1
INTERFERENCE IMMUNITY	According to EN 60947-1
POWER CONSUMPTION	7.5 kW
10.2.3.2 VERIFICATION OF RESISTANCE OF INSULATING MATERIALS TO NORMAL HEAT	Meets the product standard's requirements.
OPERATING TEMPERATURE - MAX	60 °C
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 (AC 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)	238 A

RATED OPERATIONAL POWER AT AC-4, 240 V, 50 HZ	3 kW
RATED OPERATIONAL POWER AT AC-4, 500 V, 50 HZ	6 kW
VOLTAGE RATING	400 V
NUMBER OF CONTACTS	1 NC
RATED OPERATIONAL CURRENT (IE) AT DC-1, 60 V	35 A
RATED OPERATIONAL POWER AT AC-4, 220/230 V, 50 HZ	2.5 kW
RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX	690 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN	240 V
10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS	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 device.
SWITCHING CAPACITY (MAIN CONTACTS, GENERAL USE)	40 A, Maximum motor rating (UL/CSA)
CONVENTIONAL THERMAL CURRENT ITH AT 50°C (3-POLE, OPEN)	38 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 500 V	18 A
ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 1-PHASE	3 HP
SCREWDRIVER SIZE	2, Terminal screw, Pozidriv screwdriver 0.8 x 5.5/1 x 6 mm, Terminal screw, Standard screwdriver
DUTY FACTOR	100 %
RATED OPERATIONAL CURRENT (IE) AT AC-3, 220 V, 230 V, 240 V	18 A
CONVENTIONAL THERMAL CURRENT ITH OF MAIN CONTACTS (1-POLE, OPEN)	88 A
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX	240 V
ARCING TIME	10 ms
RATED OPERATIONAL POWER AT AC-4, 415 V, 50 HZ	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

Specifications and datasheets

System overview

Wiring diagrams

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