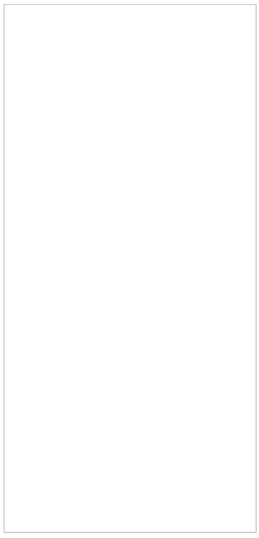


Photo is representative

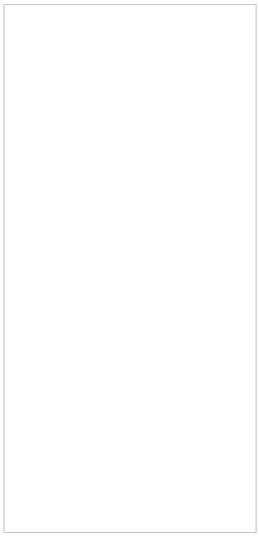


Photo is representative

277762

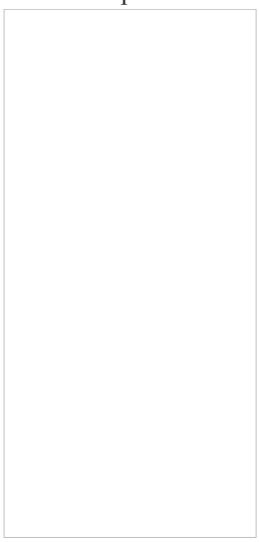
Eaton Moeller® series DILM Contactor, 3 pole, 380 Hz, 48 V 60 Hz, AC operation, Screw terminals

WIN-WIN with Push-in Terminals

How to improve wiring

Photo is representative

Photo is representative



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Designed to work together

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277950

Eaton Moeller® series DILM Auxiliary contact module, 4 pole, Ith= 16 A, 2 N/O, 2 NC, Front fixing, Screw terminals, DILM40 - DILM170

278458

Eaton Moeller® series ZB Overload relay, ZB65, Ir= 24 - 40 A, 1 N/O, 1 N/C, Direct mounting, IP00

278459

Eaton Moeller® series ZB Overload relay, ZB65, Ir= 40 - 57 A, 1 N/O, 1 N/C, Direct mounting, IP00

277946

Eaton Moeller® series DILM Au
contact module, 2 pole, Ith= 16
NC, Front fixing, Screw termina
- DILM170

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General specifications >

Product specifications >

GENERAL SPECIFICATIONS

PRODUCT NAME	Eaton Moeller® series DILM contactor
CATALOG NUMBER	277762
MODEL CODE	DILM40(42V50HZ,48V60HZ)
EAN	4015082777623
PRODUCT LENGTH/DEPTH	132.1 mm
PRODUCT HEIGHT	115 mm
PRODUCT WIDTH	55 mm
PRODUCT WEIGHT	0.872 kg
WARRANTY	Not Applicable
CERTIFICATIONS	CSA Certified UL Listed IEC 60947-4-1 EN 60947-4-1 CE IEC/EN 60947-4-1 UL Category Control No.: NLDX IEC/EN 60947 CSA File No.: 012528 CSA CSA-C22.2 No. 60947-4-1-14 UL 60947-4-1 CSA Class No.: 2411-03, 3211-04 VDE 0660 UL File No.: E29096

	UL
CATALOG NOTES	Contacts according to EN 50012

PRODUCT SPECIFICATIONS

TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)	1 x (0.75 - 35) mm², Main cables 1 x (0.75 - 2.5) mm², Control circuit cables 2 x (0.75 - 2.5) mm², Control circuit cables 2 x (0.75 - 25) mm², Main cables
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	40 A
10.11 SHORT-CIRCUIT RATING	Is the panel builder's responsibility. The specificatio must be observed.
RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ	18.5 kW
CONVENTIONAL THERMAL CURRENT ITH (3-POLE, ENCLOSED)	45 A
RATED OPERATIONAL POWER AT AC-4, 380/400 V, 50 HZ	9 kW
RATED OPERATIONAL CURRENT (IE) AT AC-4, 440 V	18 A
TERMINAL CAPACITY (COPPER BAND)	2 x (6 x 9 x 0.8) mm (Number of segments x width cables
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN	42 V
CONVENTIONAL THERMAL CURRENT ITH AT 60°C (3-POLE, OPEN)	50 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)	250/150 A, Class J, max. Fuse, SCCR (UL/CSA) 65 kA, CB, SCCR (UL/CSA) 30/100 kA, Fuse, SCCR (UL/CSA) 100 A, max. CB, SCCR (UL/CSA)
CONVENTIONAL THERMAL CURRENT ITH AT 55°C (3-POLE, OPEN)	55 A
RATED OPERATIONAL POWER (NEMA)	22 kW
10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES	Meets the product standard's requirements.
AMBIENT STORAGE TEMPERATURE - MIN	-40 °C
RATED BREAKING CAPACITY AT 380/400 V	400 A
	10 kA, SCCR (UL/CSA)

SHORT-CIRCUIT CURRENT RATING (BASIC RATING)	250 A, max. Fuse, SCCR (UL/CSA) 250 A, max. CB, SCCR (UL/CSA)
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX	42 V
RATED BREAKING CAPACITY AT 660/690 V	250 A
OPERATING TEMPERATURE	-25° to 60°C
RATED OPERATIONAL CURRENT (IE) AT DC-1, 220 V	45 A
SPECIAL PURPOSE RATING OF ELEVATOR CONTROL	34 A, 480 V 60 Hz 3-ph, (UL/CSA) 25.3 A, 200 V 60 Hz 3-ph, (UL/CSA) 7.5 HP, 200 V 60 Hz 3-ph, (UL/CSA) 32 A, 600 V 60 Hz 3-ph, (UL/CSA) 10 HP, 240 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) 25 HP, 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	3 HP
RATED OPERATIONAL POWER AT AC-4, 440 V, 50 HZ	10 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	125 A gG/gL
PRODUCT CATEGORY	Contactors
RATED OPERATIONAL CURRENT (IE) AT AC-4, 220 V, 230 V, 240 V	18 A
RATED OPERATIONAL POWER AT AC-3, 690 V, 50 HZ	23 kW
POWER CONSUMPTION, PICK-UP, 50 HZ	149 VA, Dual-frequency coil in a cold state and 1.0
HEAT DISSIPATION CAPACITY PDISS	0 W
ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE	30 HP

SPECIAL PURPOSE RATING OF TUNGSTEN INCANDESCENT LAMPS	74 A, 480 V 60 Hz 3phase, 277 V 60 Hz 1phase, (U 74 A, 600 V 60 Hz 3phase, 347 V 60 Hz 1phase, (U
SWITCHING TIME (AC OPERATED, MAKE CONTACTS, OPENING DELAY) - MIN	8 ms
CONTINUOUS AMPERE RATING	63 A
RATED OPERATIONAL CURRENT (IE) AT AC-4, 500 V	18 A
RATED OPERATIONAL POWER AT AC-3, 240 V, 50 HZ	13.5 kW
OPERATING VOLTAGE AT AC, 60 HZ - MAX	690 V
TERMINAL CAPACITY (SOLID/STRANDED AWG)	18 - 14, Control circuit cables Single 14 - 1, double 14 - 2, 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	13 ms
AMBIENT STORAGE TEMPERATURE - MAX	80 °C
POLLUTION DEGREE	3
RATED OPERATIONAL CURRENT (IE) AT AC-1, 380 V, 400 V, 415 V	60 A
POWER CONSUMPTION, PICK-UP, 60 HZ	178 VA, Dual-frequency coil in a cold state and 1.0
SWITCHING TIME (AC OPERATED, MAKE CONTACTS, CLOSING DELAY) - MAX	18 ms
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	8000 V AC
CONNECTION	Screw terminals
OPERATING VOLTAGE AT AC, 60 HZ - MIN	230 V
TIGHTENING TORQUE	3.3 Nm, Screw terminals, Main cables 1.2 Nm, Screw terminals, Control circuit cables
RATED OPERATIONAL POWER AT AC-4, 660/690 V, 50 HZ	12 kW
FRAME SIZE	FS3
CONVENTIONAL THERMAL CURRENT ITH (1-POLE, ENCLOSED)	112 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 660 V, 690 V	25 A
TYPE	Full voltage non-reversing medium contactor
10.2.2 CORROSION RESISTANCE	Meets the product standard's requirements.
10.2.4 RESISTANCE TO ULTRA-VIOLET (UV)	Meets the product standard's requirements.

RADIATION	
10.2.7 INSCRIPTIONS	Meets the product standard's requirements.
RATED OPERATIONAL CURRENT (IE) AT AC-3, 380 V, 400 V, 415 V	40 A
SWITCHING TIME (AC OPERATED, MAKE CONTACTS, CLOSING DELAY) - MIN	12 ms
SHORT-CIRCUIT PROTECTION RATING (TYPE 2 COORDINATION) AT 400 V	63 A gG/gL
SPECIAL PURPOSE RATING OF BALLAST ELECTRICAL DISCHARGE LAMPS	79 A (480V 60Hz 3phase, 277V 60Hz 1phase) 79 A (600V 60Hz 3phase, 347V 60Hz 1phase)
NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)	0
RATED OPERATIONAL POWER AT AC-3, 500 V, 50 HZ	28 kW
SHOCK RESISTANCE	7 g, N/O auxiliary contact, Mechanical, according to 27, Half-sinusoidal shock 10 ms 7 g, N/O auxiliary contact, Mechanical, according to when tabletop-mounted, Half-sinusoidal shock 10 m 5 g, N/C auxiliary contact, Mechanical, according to when tabletop-mounted, Half-sinusoidal shock 10 m 5 g, N/C auxiliary contact, Mechanical, according to 27, Half-sinusoidal shock 10 ms 10 g, N/O main contact, Mechanical, according to I Half-sinusoidal shock 10 ms 10 g, N/O main contact, Mechanical, according to I when tabletop-mounted, Half-sinusoidal shock 10 m
RATED OPERATIONAL CURRENT (IE) AT DC-1, 110 V	50 A
ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 3-PHASE	15 HP
DROP-OUT VOLTAGE	AC operated: 0.6 - 0.3 x UC, AC operated
POWER CONSUMPTION, SEALING, 60 HZ	4.1 W, Dual-frequency coil in a cold state and 1.0 x 19 VA, Dual-frequency coil in a cold state and 1.0 x
RESISTANCE PER POLE	1.9 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 specificatio must be observed.
AMPERAGE RATING	170A
10.2.5 LIFTING	Does not apply, since the entire switchgear needs to
STRIPPING LENGTH (MAIN CABLE)	14 mm
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX	40 °C

SPECIAL PURPOSE RATING OF RESISTANCE AIR HEATING	79 A, 480 V 60 Hz 3phase, 277 V 60 Hz 1phase, (U 79 A, 600 V 60 Hz 3phase, 347 V 60 Hz 1phase, (U
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN	0 V
SHORT-CIRCUIT CURRENT RATING (HIGH FAULT AT 600 V)	250/150 A, Class J, max. Fuse, SCCR (UL/CSA) 250 A, max. CB, SCCR (UL/CSA) 30/100 kA, Fuse, SCCR (UL/CSA) 30 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	400 A
SCREW SIZE	M3.5, Terminal screw, Control circuit cables M6, Terminal screw, Main cables
RATED OPERATIONAL CURRENT (IE) AT AC-4, 400 V	18 A
TERMINALS	Spring loaded terminals
SHORT-CIRCUIT PROTECTION RATING (TYPE 2 COORDINATION) AT 690 V	50 A gG/gL
ASSIGNED MOTOR POWER AT 575/600 V, 60 HZ, 3-PHASE	40 HP
PROTECTION	Finger and back-of-hand proof, Protection against di actuated from front (EN 50274)
POWER CONSUMPTION, SEALING, 50 HZ	4.1 W, Dual-frequency coil in a cold state and 1.0 x 16 VA, Dual-frequency coil in a cold state and 1.0 x
RATED OPERATIONAL POWER AT AC-3, 440 V, 50 HZ	25 kW
TERMINAL CAPACITY (STRANDED)	1 x (16 - 50) mm², Main cables 2 x (16 - 35) mm², Main cables
HP RATING - MAX	3, 7.5/ 10, 15, 30, 40 hp (1/3PH @120,240/208,24
RATED BREAKING CAPACITY AT 500 V	400 A
RATED OPERATIONAL POWER AT AC-3, 415 V, 50 HZ	24 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	4.1 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-4: Normal AC induction motors: starting, plugg inching AC-3: Normal AC induction motors: starting, switc AC-1: Non-inductive or slightly inductive loads, res
COIL VOLTAGE	42-48 Vac, 50/60 Hz
RATED OPERATIONAL CURRENT (IE) AT AC-3, 440 V	40 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
USED WITH	Can be combined with auxiliary contacts: DILM150 DILM1000-XHI(V)
OPERATING VOLTAGE AT AC, 50 HZ - MIN	230 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	2.2 W
ACTUATING VOLTAGE	42 V 50 Hz, 48 V 60 Hz
OPERATING TEMPERATURE - MIN	-25 °C
RATED OPERATIONAL CURRENT (IE) AT AC-4, 660 V, 690 V	14 A
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	6.6 W
ASSIGNED MOTOR POWER AT 200/208 V, 60 HZ, 3-PHASE	10 HP
PICK-UP VOLTAGE	0.8 - 1.1 V AC x Uc
SUITABLE FOR	Also motors with efficiency class IE3
OPERATION	Non-reversing
CONVENTIONAL THERMAL CURRENT ITH AT 40°C (3-POLE, OPEN)	60 A
TERMINAL CAPACITY (SOLID)	1 x (0.75 - 16) mm², Main cables 2 x (0.75 - 16) mm², Main cables 1 x (0.75 - 4) mm², Control circuit cables 2 x (0.75 - 2.5) mm², Control circuit cables
NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)	0
INTERFERENCE IMMUNITY	According to EN 60947-1
POWER CONSUMPTION	18.5 kW
10.2.3.2 VERIFICATION OF RESISTANCE OF	Meets the product standard's requirements.

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	80 A gG/gL
RATED MAKING CAPACITY UP TO 690 V (COS PHI TO IEC/EN 60947)	560 A
RATED OPERATIONAL POWER AT AC-4, 240 V, 50 HZ	5.5 kW
RATED OPERATIONAL POWER AT AC-4, 500 V, 50 HZ	11 kW
VOLTAGE RATING	400 V
RATED OPERATIONAL CURRENT (IE) AT DC-1, 60 V	50 A
RATED OPERATIONAL POWER AT AC-4, 220/230 V, 50 HZ	5 kW
RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX	690 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN	48 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 devi
SWITCHING CAPACITY (MAIN CONTACTS, GENERAL USE)	63 A, Maximum motor rating (UL/CSA)
CONVENTIONAL THERMAL CURRENT ITH AT 50°C (3-POLE, OPEN)	57 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 500 V	40 A
ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 1-PHASE	7.5 HP
SCREWDRIVER SIZE	0.8 x 5.5/1 x 6 mm, Terminal screw, Standard scre 2, Terminal screw, Pozidriv screwdriver
DUTY FACTOR	100 %
RATED OPERATIONAL CURRENT (IE) AT AC-3, 220 V, 230 V, 240 V	40 A
CONVENTIONAL THERMAL CURRENT ITH OF MAIN CONTACTS (1-POLE, OPEN)	125 A
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX	48 V
ARCING TIME	10 ms

RATED OPERATIONAL POWER AT AC-4, 415 V, 50 HZ	9.5 kW
RATED INSULATION VOLTAGE (UI)	690 V
ALTITUDE	Max. 2000 m

Catalogs

Certification reports

Characteristic curve

Declarations of conformity

Drawings

eCAD model

Installation instructions

Installation videos

mCAD model

System overview

Wiring diagrams

277762

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