

Contactor, 3 pole, 380 V 400 V 75 kW, RAC 240: 190 - 240 V 50/60 Hz, AC operation, Screw terminals



Part no. DILM150(RAC240)

239588

**EL Number
(Norway)**

4134058

Product name	Eaton Moeller® series DILM contactor
Part no.	DILM150(RAC240)
EAN	4015082395889
Product Length/Depth	160 millimetre
Product height	170 millimetre
Product width	90 millimetre
Product weight	2.25 kilogram
Certifications	CSA UL CSA-C22.2 No. 60947-4-1-14 VDE 0660 IEC/EN 60947 CE CSA File No.: 012528 UL File No.: E29096 IEC/EN 60947-4-1 UL 60947-4-1 CSA Class No.: 2411-03, 3211-04 UL Category Control No.: NLDX
Product Tradename	DILM
Product Type	Contactor
Product Sub Type	None
Catalog Notes	Contacts according to EN 50012
Fitted with:	Suppressor circuit in actuating electronics
Application	Contactors for Motors
Degree of protection	IP00
Frame size	FS4
Lifespan, mechanical	10,000,000 Operations (AC operated)
Operating frequency	3600 mechanical Operations/h (AC 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	0.6 mΩ
Suitable for	Also motors with efficiency class IE3
Utilization category	AC-1: Non-inductive or slightly inductive loads, resistance furnaces AC-3: Normal AC induction motors: starting, switch off during running AC-4: Normal AC induction motors: starting, plugging, reversing, inching
Voltage type	AC
Shock resistance	7 g, N/O auxiliary contact, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms 5 g, N/C auxiliary contact, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms 5 g, N/C auxiliary contact, Mechanical, according to IEC/EN 60068-2-27 when tabletop-mounted, Half-sinusoidal shock 10 ms 10 g, N/O main contact, Mechanical, according to IEC/EN 60068-2-27 when tabletop-mounted, 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 when tabletop-mounted, Half-sinusoidal shock 10 ms

Altitude	Max. 2000 m
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
Emitted interference	According to EN 60947-1
Interference immunity	According to EN 60947-1
Terminal capacity (copper band)	2 x (6 x 16 x 0.8) mm (Number of segments x width x thickness), Main cables
Terminal capacity (flexible with ferrule)	2 x (0.75 - 2.5) mm ² , Control circuit cables 1 x (10 - 95) mm ² , Main cables 2 x (10 - 70) mm ² , Main cables 1 x (0.75 - 2.5) mm ² , Control circuit cables
Terminal capacity (solid)	1 x (0.75 - 4) mm ² , Control circuit cables 2 x (0.75 - 2.5) mm ² , Control circuit cables
Terminal capacity (solid/stranded AWG)	18 - 14, Control circuit cables Single 8...3/0, double 8...2/0, Main cables
Terminal capacity (stranded)	1 x (16 - 95) mm ² , Main cables 2 x (16 - 70) mm ² , Main cables
Stripping length (main cable)	24 mm
Stripping length (control circuit cable)	10 mm
Screw size	M10, Terminal screw, Main cables M3.5, Terminal screw, Control circuit cables 5 mm AF, Hexagon socket-head spanner, Terminal screw, Main cables
Screwdriver size	2, Terminal screw, Control circuit cables, Pozidriv screwdriver 0.8 x 5.5/1 x 6 mm, Terminal screw, Control circuit cables, Standard screwdriver
Tightening torque	14 Nm, Screw terminals, Main cables 1.2 Nm, Screw terminals, Control circuit cables
Rated breaking capacity at 220/230 V	1500 A
Rated breaking capacity at 380/400 V	1500 A
Rated breaking capacity at 500 V	1500 A
Rated breaking capacity at 660/690 V	1200 A
Rated operational current (Ie) at AC-1, 380 V, 400 V, 415 V	190 A
Rated operational current (Ie) at AC-3, 220 V, 230 V, 240 V	150 A
Rated operational current (Ie) at AC-3, 380 V, 400 V, 415 V	150 A
Rated operational current (Ie) at AC-3, 440 V	150 A
Rated operational current (Ie) at AC-3, 500 V	150 A
Rated operational current (Ie) at AC-3, 660 V, 690 V	100 A
Rated operational current (Ie) at AC-4, 220 V, 230 V, 240 V	65 A
Rated operational current (Ie) at AC-4, 440 V	65 A
Rated operational current (Ie) at AC-4, 500 V	65 A
Rated operational current (Ie) at AC-4, 660 V, 690 V	50 A
Rated operational current (Ie) at DC-1, 60 V	160 A
Rated operational current (Ie) at DC-1, 110 V	160 A
Rated operational current (Ie) at DC-1, 220 V	90 A
Rated insulation voltage (Ui)	690 V
Rated making capacity up to 690 V (cos phi to IEC/EN 60947)	2100 A
Rated operational power at AC-3, 240 V, 50 Hz	52 kW
Rated operational power at AC-3, 380/400 V, 50 Hz	75 kW
Rated operational power at AC-3, 415 V, 50 Hz	91 kW
Rated operational power at AC-3, 440 V, 50 Hz	95 kW
Rated operational power at AC-3, 500 V, 50 Hz	110 kW
Rated operational power at AC-3, 690 V, 50 Hz	96 kW

Rated operational power at AC-4, 220/230 V, 50 Hz		20 kW
Rated operational power at AC-4, 240 V, 50 Hz		22 kW
Rated operational power at AC-4, 415 V, 50 Hz		39 kW
Rated operational power at AC-4, 440 V, 50 Hz		41 kW
Rated operational power at AC-4, 500 V, 50 Hz		47 kW
Rated operational power at AC-4, 660/690 V, 50 Hz		48 kW
Rated operational voltage (Ue) at AC - max		690 V
Short-circuit current rating (basic rating)		10 kA, SCCR (UL/CSA) 600 A, max. CB, SCCR (UL/CSA) 600 A, max. Fuse, SCCR (UL/CSA)
Short-circuit current rating (high fault at 480 V)		65 kA, CB, SCCR (UL/CSA) 250 A, max. CB, SCCR (UL/CSA) 300/300 A, Class J, max. Fuse, SCCR (UL/CSA) 30/100 kA, Fuse, SCCR (UL/CSA)
Short-circuit current rating (high fault at 600 V)		30/100 kA, Fuse, SCCR (UL/CSA) 300/600 A, Class J, max. Fuse, SCCR (UL/CSA) 30 kA, CB, SCCR (UL/CSA) 350 A, max. CB, SCCR (UL/CSA)
Short-circuit protection rating (type 1 coordination) at 400 V		250 A gG/gL
Short-circuit protection rating (type 1 coordination) at 690 V		250 A gG/gL
Short-circuit protection rating (type 2 coordination) at 400 V		250 A gG/gL
Short-circuit protection rating (type 2 coordination) at 690 V		250 A gG/gL
Conventional thermal current ith (1-pole, enclosed)		360 A
Conventional thermal current ith (3-pole, enclosed)		144 A
Conventional thermal current ith at 55°C (3-pole, open)		170 A
Conventional thermal current ith at 60°C (3-pole, open)		160 A
Conventional thermal current ith of main contacts (1-pole, open)		400 A
Switching capacity (main contacts, general use)		225 A, Maximum motor rating (UL/CSA)
Arcing time		15 ms
Drop-out voltage		AC operated: 0.6 - 0.25 x UC, AC operated
Duty factor		100 %
Pick-up voltage		0.8 - 1.15 V AC x Uc
Power consumption, pick-up, 50 Hz		180 VA, Dual-frequency coil in a cold state and 1.0 x Us, at 50 Hz
Power consumption, pick-up, 60 Hz		170 VA, Dual-frequency coil in a cold state and 1.0 x Us, at 60 Hz
Power consumption, sealing, 50 Hz		2.3 W, Dual-frequency coil in a cold state and 1.0 x Us, at 50 Hz 3.1 VA, Dual-frequency coil in a cold state and 1.0 x Us, at 50 Hz
Power consumption, sealing, 60 Hz		2.3 W, Dual-frequency coil in a cold state and 1.0 x Us, at 60 Hz 3.1 VA, Dual-frequency coil in a cold state and 1.0 x Us, at 60 Hz
Rated control supply voltage (Us) at AC, 50 Hz - min		190 V
Rated control supply voltage (Us) at AC, 50 Hz - max		240 V
Rated control supply voltage (Us) at AC, 60 Hz - min		190 V
Rated control supply voltage (Us) at AC, 60 Hz - max		240 V
Rated control supply voltage (Us) at DC - min		0 V
Rated control supply voltage (Us) at DC - max		0 V
Switching time (AC operated, make contacts, closing delay) - min		28 ms
Switching time (AC operated, make contacts, closing delay) - max		33 ms
Switching time (AC operated, make contacts, opening delay) - min		35 ms
Switching time (AC operated, make contacts, opening delay) - max		41 ms
Assigned motor power at 115/120 V, 60 Hz, 1-phase		10 HP
Assigned motor power at 200/208 V, 60 Hz, 3-phase		50 HP
Assigned motor power at 230/240 V, 60 Hz, 1-phase		30 HP
Assigned motor power at 230/240 V, 60 Hz, 3-phase		60 HP
Assigned motor power at 460/480 V, 60 Hz, 3-phase		125 HP
Assigned motor power at 575/600 V, 60 Hz, 3-phase		125 HP

Connection		Screw terminals
Connection to SmartWire-DT		No
Number of auxiliary contacts (normally closed contacts)		0
Number of auxiliary contacts (normally open contacts)		0
Safe isolation		690 V AC, Between the contacts, According to EN 61140 690 V AC, Between coil and contacts, According to EN 61140
Special purpose rating of ballast electrical discharge lamps		160 A (600V 60Hz 3phase, 347V 60Hz 1phase) 160 A (480V 60Hz 3phase, 277V 60Hz 1phase)
Special purpose rating of definite purpose rating		150 A, FLA 480 V 60 Hz 3-ph, 100,000 cycles acc. to UL 1995, (UL/CSA) 900 A, LRA 480 V 60 Hz 3-ph, 100,000 cycles acc. to UL 1995, (UL/CSA)
Special purpose rating of elevator control		75 HP, 480 V 60 Hz 3-ph, (UL/CSA) 99 A, 600 V 60 Hz 3-ph, (UL/CSA) 104 A, 240 V 60 Hz 3-ph, (UL/CSA) 40 HP, 240 V 60 Hz 3-ph, (UL/CSA) 30 HP, 200 V 60 Hz 3-ph, (UL/CSA) 96 A, 480 V 60 Hz 3-ph, (UL/CSA) 100 HP, 600 V 60 Hz 3-ph, (UL/CSA) 92 A, 200 V 60 Hz 3-ph, (UL/CSA)
Special purpose rating of refrigeration control (CSA only)		540 A, LRA 600 V 60 Hz 3phase; (CSA) 540 A, LRA 480 V 60 Hz 3phase; (CSA) 90 A, FLA 600 V 60 Hz 3phase; (CSA) 90 A, FLA 480 V 60 Hz 3phase; (CSA)
Special purpose rating of resistance air heating		160 A, 480 V 60 Hz 3phase, 277 V 60 Hz 1phase, (UL/CSA) 160 A, 600 V 60 Hz 3phase, 347 V 60 Hz 1phase, (UL/CSA)
Special purpose rating of tungsten incandescent lamps		160 A, 600 V 60 Hz 3phase, 347 V 60 Hz 1phase, (UL/CSA) 160 A, 480 V 60 Hz 3phase, 277 V 60 Hz 1phase, (UL/CSA)
Equipment heat dissipation, current-dependent Pvid		32.1 W
Heat dissipation capacity Pdiss		0 W
Heat dissipation per pole, current-dependent Pvid		10.7 W
Rated operational current for specified heat dissipation (In)		150 A
Static heat dissipation, non-current-dependent Pvs		2.3 W
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 against electric shock		Does not apply, since the 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.
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.

Technical data ETIM 8.0

Low-voltage industrial components (EG000017) / Power contactor, AC switching (EC000066)		
Electric engineering, automation, process control engineering / Low-voltage switch technology / Contactor (LV) / Power contactor, AC switching (ecl@ss10.0.1-27-37-10-03 [AAB718015])		
Rated control supply voltage Us at AC 50HZ	V	190 - 240
Rated control supply voltage Us at AC 60HZ	V	190 - 240
Rated control supply voltage Us at DC	V	0 - 0
Voltage type for actuating		AC
Rated operation current Ie at AC-1, 400 V	A	190
Rated operation current Ie at AC-3, 400 V	A	150
Rated operation power at AC-3, 400 V	kW	75
Rated operation current Ie at AC-4, 400 V	A	65
Rated operation power at AC-4, 400 V	kW	33
Rated operation power NEMA	kW	93
Modular version		No
Number of auxiliary contacts as normally open contact		0
Number of auxiliary contacts as normally closed contact		0
Type of electrical connection of main circuit		Screw connection
Number of normally closed contacts as main contact		0
Number of normally open contacts as main contact		3