Specifications



Photo is representative

Eaton 191730

Eaton Moeller® series DILMS Safety contactor, 380 V 400 V: 55 kW, 2 N/O, 2 NC, 110 V 50 Hz, 120 V 60 Hz, AC operation, Screw terminals, with mirror contact.

General specification	ons
PRODUCT NAME	Eaton Moeller® series DILMS Safety contactor
CATALOG NUMBER	191730
MODEL CODE	DILMS115-22(RAC120)
EAN	4015081922437
PRODUCT LENGTH/DEPTH	175 mm
PRODUCT HEIGHT	170 mm
PRODUCT WIDTH	90 mm
PRODUCT WEIGHT	2.31 kg
CERTIFICATIONS	CE CSA Class No.: 2411-03, 3211-04 CSA-C22.2 No. 60947-4-1- 14 UL Category Control No.: NLDX VDE 0660 IEC/EN 60947-4-1 UL UL 60947-4-1 CSA File No.: 012528 IEC/EN 60947 CSA UL File No.: E29096
CATALOG NOTES	Contacts according to EN 50012
GLOBAL CATALOG	191730
	-



Three-pole The panel builder is
•
responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
Is the panel builder's responsibility. The specifications for the switchgear must be observed.
Is the panel builder's responsibility. The specifications for the switchgear must be observed.
The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.
Meets the product standard's requirements.
Does not apply, since the entire switchgear needs to be evaluated.
Does not apply, since the entire switchgear needs to
be evaluated.
Meets the product standard's requirements.

Resources	
CATALOGS	Product Range Catalog Switching and protecting motors
	eaton-dilms-safety- contactor-flyer- fl034004en-en-us.pdf
	eaton-contactors-short- time-loading-dilm- characteristic-curve.eps
	eaton-contactors- component-dilm- characteristic-curve- 003.eps
CHARACTERISTIC CURVE	eaton-contactors-switch- dilm-characteristic- curve.eps
	eaton-contactors-short- time-loading-dilm- characteristic-curve- 002.eps
	eaton-contactors-switch-dilm-characteristic-curve-002.eps
DECLARATIONS OF CONFORMITY	DA-DC-00004779.pdf
	DA-DC-00004820.pdf
	eaton-contactors-dilm- dimensions-003.eps
	eaton-contactors- mounting-dilm- dimensions-002.eps
	eaton-contactors- mounting-dilm- dimensions.eps
DRAWINGS	eaton-contactors-dilm- dimensions-011.eps
	eaton-general-ie-ready- dilm-contactor- standards.eps
	eaton-contactors- complete-unit-dilms- safety-3d-drawing.eps
ECAD MODEL	ETN.191730.edz
INSTALLATION INSTRUCTIONS	<u>IL034063ZU</u>

ASSEMBLIES	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	ls the panel builder's responsibility.
10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL	ls the panel builder's responsibility.
FITTED WITH:	Mirror contact
OPERATING FREQUENCY	3600 mechanical Operations/h (AC operated)
POLLUTION DEGREE	3
CLIMATIC PROOFING	Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	8000 V AC
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
CONNECTION	Screw terminals
AMBIENT OPERATING TEMPERATURE - MAX	60 °C
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
AMBIENT OPERATING	40 °C

INSTALLATION VIDEOS	WIN-WIN with push-in technology
MCAD MODEL	dil m80 150 22.dwg
WICAD WIODEL	dil m80 150 22.stp
WIRING DIAGRAMS	2100SWI-125

TEMPERATURE (ENCLOSED) - MAX	
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN	25 °C
AMBIENT STORAGE TEMPERATURE - MAX	80 °C
AMBIENT STORAGE TEMPERATURE - MIN	40 °C
ASSIGNED MOTOR POWER AT 115/120 V, 60 HZ, 1-PHASE	10 HP
ASSIGNED MOTOR POWER AT 200/208 V, 60 HZ, 3-PHASE	40 HP
ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 1-PHASE	25 HP
ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 3-PHASE	50 HP
ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE	100 HP
ASSIGNED MOTOR POWER AT 575/600 V, 60 HZ, 3-PHASE	100 HP
CONVENTIONAL THERMAL CURRENT ITH (1-POLE, ENCLOSED)	285 A
CONVENTIONAL THERMAL CURRENT ITH (3-POLE, ENCLOSED)	115 A
CONVENTIONAL THERMAL CURRENT ITH AT 55°C (3-POLE, OPEN)	135 A
CONVENTIONAL THERMAL CURRENT ITH OF MAIN CONTACTS (1- POLE, OPEN)	325 A
EQUIPMENT HEAT DISSIPATION, CURRENT- DEPENDENT PVID	18.9 W
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT- DEPENDENT PVID	6.3 W
APPLICATION	Contactors for Motors

PRODUCT CATEGORY	Safety contactors
PROTECTION	Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274)
ARCING TIME	15 ms
ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Screw connection
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
VOLTAGE TYPE	AC
DEGREE OF PROTECTION	IP00
NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)	2
NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)	2
NUMBER OF CONTACTS (NORMALLY CLOSED CONTACTS)	2
NUMBER OF CONTACTS (NORMALLY CLOSED) AS MAIN CONTACT	0
NUMBER OF CONTACTS (NORMALLY OPEN CONTACTS)	2
NUMBER OF MAIN CONTACTS (NORMALLY OPEN CONTACT)	3
RATED BREAKING CAPACITY AT 220/230 V	1150 A
RATED BREAKING CAPACITY AT 380/400 V	1150 A
RATED BREAKING CAPACITY AT 500 V	1150 A
RATED BREAKING CAPACITY AT 660/690 V	1100 A
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX	110 V
RATED CONTROL SUPPLY	110 V

VOLTAGE (US) AT AC, 50 HZ - MIN	
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX	120 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN	120 V
DROP-OUT VOLTAGE	AC operated: 0.6 - 0.25 x UC, AC operated
OVERVOLTAGE CATEGORY	Ш
DUTY FACTOR	100 %
EMITTED INTERFERENCE	According to EN 60947-1
INTERFERENCE IMMUNITY	According to EN 60947-1
LIFESPAN, MECHANICAL	10,000,000 Operations (AC operated)
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
SAFE ISOLATION	690 V AC, Between coil and contacts, According to EN 61140 690 V AC, Between the contacts, According to EN 61140
POWER CONSUMPTION, PICK-UP, 60 HZ	170 VA, Dual-frequency coil in a cold state and 1.0 x Us, at 60 Hz
RESIDUAL CURRENT	1 mA (with actuation of A1 - A2 by the electronics with "0" signal)
SCREW SIZE	M3.5, Terminal screw, Control circuit cables M10, Terminal screw, Main cables 5 mm AF, Hexagon socket- head spanner, Terminal screw, Main cables
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
TERMINAL CAPACITY (STRANDED)	1 x (16 - 95) mm², Main cables 2 x (16 - 70) mm², Main cables
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)
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)	1 x (10 - 95) mm², Main cables 2 x (10 - 70) mm², Main cables 1 x (0.75 - 2.5) mm², Control circuit cables 2 x (0.75 - 2.5) mm², Control circuit cables
SHOCK RESISTANCE	5 g, N/C auxiliary contact, Mechanical, according to IEC/EN 60068-2-27, 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 7 g, N/O auxiliary contact, Mechanical, according to IEC/EN 60068-2-27 when tabletop-mounted, 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 7 g, N/O auxiliary 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, Half-
	sinusoidal shock 10 ms 10 g, N/O main contact, Mechanical, according to IEC/EN 60068-2-27, Half- sinusoidal shock 10 ms

(SOLID)	Control circuit cables 1 x (0.75 - 2.5) mm², Control circuit cables
TERMINAL CAPACITY (SOLID/STRANDED AWG)	18 - 14, Control circuit cables Single 83/0, double 82/0, Main cables
SWITCHING CAPACITY (MAIN CONTACTS, GENERAL USE)	180 A, Maximum motor rating (UL/CSA)
TIGHTENING TORQUE	1.2 Nm, Screw terminals,Control circuit cables14 Nm, Screw terminals,Main cables
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX	0 V
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN	0 V
RATED INSULATION VOLTAGE (UI)	690 V
RATED MAKING CAPACITY UP TO 690 V (COS PHI TO IEC/EN 60947)	1610 A
RATED OPERATIONAL CURRENT (IE) AT AC-1, 380 V, 400 V, 415 V	160 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 220 V, 230 V, 240 V	115 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 380 V, 400 V, 415 V	115 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 440 V	115 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 500 V	115 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 660 V, 690 V	93 A
RATED OPERATIONAL CURRENT (IE) AT AC-4, 220 V, 230 V, 240 V	55 A
RATED OPERATIONAL CURRENT (IE) AT AC-4, 400 V	55 A

RATED OPERATIONAL CURRENT (IE) AT AC-4, 440 V	55 A
RATED OPERATIONAL CURRENT (IE) AT AC-4, 500 V	55 A
RATED OPERATIONAL CURRENT (IE) AT AC-4, 660 V, 690 V	45 A
RATED OPERATIONAL CURRENT (IE) AT DC-1, 110 V	160 A
RATED OPERATIONAL CURRENT (IE) AT DC-1, 220 V	90 A
RATED OPERATIONAL CURRENT (IE) AT DC-1, 60 V	160 A
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	115 A
RATED OPERATIONAL POWER AT AC-3, 240 V, 50 HZ	40 kW
RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ	55 kW
RATED OPERATIONAL POWER AT AC-3, 415 V, 50 HZ	70 kW
RATED OPERATIONAL POWER AT AC-4, 220/230 V, 50 HZ	17 kW
RATED OPERATIONAL POWER AT AC-4, 240 V, 50 HZ	19 kW
RATED OPERATIONAL POWER AT AC-4, 380/400 V, 50 HZ	28 kW
RATED OPERATIONAL POWER AT AC-4, 415 V, 50 HZ	33 kW
RATED OPERATIONAL POWER AT AC-4, 440 V, 50 HZ	35 kW
RATED OPERATIONAL POWER AT AC-4, 500 V, 50 HZ	40 kW
RATED OPERATIONAL POWER AT AC-4, 660/690	43 kW

V, 50 HZ	
RATED OPERATIONAL POWER (NEMA)	74.6 kW
RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX	690 V
RESISTANCE PER POLE	0.6 mΩ
STATIC HEAT DISSIPATION, NON- CURRENT-DEPENDENT PVS	2.3 W
STRIPPING LENGTH (CONTROL CIRCUIT CABLE)	10 mm
STRIPPING LENGTH (MAIN CABLE)	24 mm
SWITCHING TIME (AC OPERATED, MAKE CONTACTS, CLOSING DELAY) - MAX	33 ms
SWITCHING TIME (AC OPERATED, MAKE CONTACTS, CLOSING DELAY) - MIN	28 ms
SWITCHING TIME (AC OPERATED, MAKE CONTACTS, OPENING DELAY) - MAX	41 ms
SWITCHING TIME (AC OPERATED, MAKE CONTACTS, OPENING DELAY) - MIN	35 ms
SHORT-CIRCUIT CURRENT RATING (BASIC RATING)	600 A, max. Fuse, SCCR (UL/CSA) 600 A, max. CB, SCCR (UL/CSA) 10 kA, SCCR (UL/CSA)
SHORT-CIRCUIT CURRENT RATING (HIGH FAULT AT 480 V)	250 A, max. CB, SCCR (UL/CSA) 30/100 kA, Fuse, SCCR (UL/CSA) 65 kA, CB, SCCR (UL/CSA) 300/300 A, Class J, max. Fuse, SCCR (UL/CSA)
SHORT-CIRCUIT CURRENT RATING (HIGH FAULT AT 600 V)	30 kA, CB, SCCR (UL/CSA) 30/100 kA, Fuse, SCCR (UL/CSA) 300/300 A, Class J, max. Fuse, SCCR (UL/CSA) 350 A, max. CB, SCCR (UL/CSA)

SHORT-CIRCUIT PROTECTION RATING (TYPE 1 COORDINATION) AT 400 V SUITABLE FOR Also motors with efficiency class IE3 SHORT-CIRCUIT PROTECTION RATING (TYPE 1 COORDINATION) AT 690 V SHORT-CIRCUIT PROTECTION RATING (TYPE 2 COORDINATION) AT 400 V SHORT-CIRCUIT PROTECTION RATING (TYPE 3 COORDINATION) AT 400 V SHORT-CIRCUIT PROTECTION RATING (TYPE 3 COORDINATION) 250 A gG/gL 250 A gG/gL
SHORT-CIRCUIT PROTECTION RATING (TYPE 1 COORDINATION) AT 690 V SHORT-CIRCUIT PROTECTION RATING (TYPE 2 COORDINATION) AT 400 V SHORT-CIRCUIT PROTECTION RATING 250 A gG/gL 250 A gG/gL
PROTECTION RATING (TYPE 1 COORDINATION) AT 690 V SHORT-CIRCUIT PROTECTION RATING (TYPE 2 COORDINATION) AT 400 V SHORT-CIRCUIT PROTECTION RATING 250 A gG/gL 250 A gG/gL
PROTECTION RATING (TYPE 2 COORDINATION) AT 400 V SHORT-CIRCUIT PROTECTION RATING 250 A gG/gL
PROTECTION RATING
(TYPE 2 COORDINATION) AT 690 V
SPECIAL PURPOSE160 A (600V 60Hz 3phase,RATING OF BALLAST347V 60Hz 1phase)ELECTRICAL DISCHARGE160 A (480V 60Hz 3phase,LAMPS277V 60Hz 1phase)
SPECIAL PURPOSE RATING OF DEFINITE PURPOSE RATING 115 A, FLA 480 V 60 Hz 3- ph, 100,000 cycles acc. to UL 1995, (UL/CSA) 690 A, LRA 480 V 60 Hz 3- ph, 100,000 cycles acc. to UL 1995, (UL/CSA)
30 HP, 200 V 60 Hz 3-ph, (UL/CSA) 96 A, 480 V 60 Hz 3-ph, (UL/CSA) 99 A, 600 V 60 Hz 3-ph, (UL/CSA) 92 A, 200 V 60 Hz 3-ph, (UL/CSA) 92 A, 200 V 60 Hz 3-ph, (UL/CSA)
100 HP, 600 V 60 Hz 3-ph, (UL/CSA) 104 A, 240 V 60 Hz 3-ph, (UL/CSA) 75 HP, 480 V 60 Hz 3-ph, (UL/CSA) 40 HP, 240 V 60 Hz 3-ph, (UL/CSA)
100 HP, 600 V 60 Hz 3-ph, (UL/CSA) 104 A, 240 V 60 Hz 3-ph, (UL/CSA) 75 HP, 480 V 60 Hz 3-ph, (UL/CSA) 40 HP, 240 V 60 Hz 3-ph,

RATING OF RESISTANCE AIR HEATING	347 V 60 Hz 1phase, (UL/CSA) 160 A, 480 V 60 Hz 3phase, 277 V 60 Hz 1phase, (UL/CSA)
SPECIAL PURPOSE RATING OF TUNGSTEN INCANDESCENT LAMPS	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)
CONVENTIONAL THERMAL CURRENT ITH AT 40°C (3-POLE, OPEN)	160 A
CONVENTIONAL THERMAL CURRENT ITH AT 50°C (3-POLE, OPEN)	142 A
CONVENTIONAL THERMAL CURRENT ITH AT 60°C (3-POLE, OPEN)	130 A
RATED OPERATIONAL POWER AT AC-3, 440 V, 50 HZ	75 kW
RATED OPERATIONAL POWER AT AC-3, 500 V, 50 HZ	85 kW
RATED OPERATIONAL POWER AT AC-3, 690 V, 50 HZ	90 kW
ACTUATING VOLTAGE	110 V 50 Hz, 120 V 60 Hz
ALTITUDE	Max. 2000 m
OPERATING VOLTAGE AT AC, 50 HZ - MIN	230 V
OPERATING VOLTAGE AT AC, 50 HZ - MAX	690 V
OPERATING VOLTAGE AT AC, 60 HZ - MIN	230 V
OPERATING VOLTAGE AT AC, 60 HZ - MAX	690 V

PROJECT NAME:	
PROJECT NUMBER:	
PREPARED BY:	
DATE:	



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