Specifications

Eaton 109797

Eaton Moeller® series DILMP Contactor, 4 pole, AC operation, AC-1: 32 A, 1 N/O, 230 V 50 Hz, 240 V 60 Hz, Screw terminals

General specifications	
PRODUCT NAME	Eaton Moeller® series DILMP 4-pole contactor
CATALOG NUMBER	109797
MODEL CODE	DILMP32-10(230V50HZ,240V60HZ)
EAN	4015081093694
PRODUCT LENGTH/DEPTH	97 mm
PRODUCT HEIGHT	85 mm
PRODUCT WIDTH	58 mm
PRODUCT WEIGHT	0.49 kg
CERTIFICATIONS	CSA CSA File No.: 012528 UL 60947-4-1 VDE 0660 CE IEC/EN 60947-4-1 UL File No.: E29096 UL Category Control No.: NLDX UL IEC/EN 60947 CSA-C22.2 No. 60947-4-1-14 CSA Class No.: 2411-03, 3211-04
CATALOG NOTES	Contacts according to EN 50012
GLOBAL CATALOG	109797

Powering Business Worldwide

Product specifications

USED WITH	DILM32-XHI(C), DILA-XHI(V)(C)
AMPERAGE RATING	200A
HP RATING - MAX	2, 5/ 7.5, 10, 15 20 hp (1/3PH @120, 240/ 208, 240, 480, 600 V)
NUMBER OF POLES	Four-pole
TYPE	Full voltage non-reversing small contactor
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.
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

Resources

CATALOGS	SmartWire-DT Catalog eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf Product Range Catalog Switching and protecting motors
DECLARATIONS OF CONFORMITY	DA-DC-00004816.pdf DA-DC-00004783.pdf
DRAWINGS	eaton-contactors-dimensions-2110dim-10.eps eaton-contactors-dimensions-2110dim-11.eps eaton-contactors-mounting-dilm-dimensions-002.eps eaton-contactors-mounting-dilm-dimensions.eps eaton-contactors-characteristic-curve-2110dia-3.eps
ECAD MODEL	ETN.109797.edz
INSTALLATION INSTRUCTIONS	IL03407049Z
INSTALLATION VIDEOS	WIN-WIN with push-in technology
MCAD MODEL	DA-CD-dil_mp32_45 DA-CS-dil_mp32_45
PEP ECO-PASSPORT	EATO-00016-V01.01-EN
SPECIFICATIONS AND DATASHEETS	Eaton Specification Sheet - 109797
WIRING DIAGRAMS	eaton-contactors-dilmp-wiring-diagram.eps

	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.
FREQUENCY RATING	50-60 Hz
OPERATING FREQUENCY	5000 mechanical Operations/h (DC operated) 5000 mechanical Operations/h (AC operated)
POLLUTION DEGREE	3
CLIMATIC PROOFING	Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-3
CONNECTION TO SMARTWIRE-DT	No
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
CONNECTION	Screw terminals
AMBIENT OPERATING TEMPERATURE - MAX	60 °C
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX	40 °C
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	2 HP
ASSIGNED MOTOR POWER AT 200/208 V, 60 HZ, 3-PHASE	7.5 HP
ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 1-PHASE	5 HP
ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 3-PHASE	10 HP
ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE	15 HP
ASSIGNED MOTOR POWER AT 575/600 V, 60 HZ, 3-PHASE	20 HP
CONVENTIONAL THERMAL CURRENT ITH (1-POLE, ENCLOSED)	76 A
CONVENTIONAL THERMAL CURRENT ITH (3-POLE, ENCLOSED)	27 A
CONVENTIONAL THERMAL CURRENT ITH AT 55°C (3-POLE, OPEN)	29 A
CONVENTIONAL THERMAL CURRENT ITH OF MAIN CONTACTS (1-POLE, OPEN)	84 A

EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	6.6 W
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	2.2 W
APPLICATION	Contactors for 4 pole electric consumers
PRODUCT CATEGORY	Contactors
PROTECTION	Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274)
TERMINALS	Screw terminals
ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Screw connection
SCREWDRIVER SIZE	0.8 x 5.5/1 x 6 mm, Terminal screw, Standard screwdriver 2, Terminal screw, Pozidriv screwdriver
VOLTAGE TYPE	AC
DEGREE OF PROTECTION	IP00
NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)	1
NUMBER OF CONTACTS (NORMALLY CLOSED) AS MAIN CONTACT	0
NUMBER OF CONTACTS (NORMALLY OPEN CONTACTS)	1
NUMBER OF MAIN CONTACTS (NORMALLY OPEN CONTACT)	4
OPERATING TEMPERATURE - MAX	60 °C
OPERATING TEMPERATURE - MIN	-25 °C
RATED BREAKING CAPACITY AT 220/230 V	180 A
RATED BREAKING	180 A

CAPACITY AT 380/400 V	
RATED BREAKING CAPACITY AT 500 V	180 A
RATED BREAKING CAPACITY AT 660/690 V	120 A
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX	230 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN	230 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX	240 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN	240 V
COIL VOLTAGE	230-240 Vac, 50/60 Hz
CONTACT CONFIGURATION	1 NO
CONTINUOUS AMPERE RATING	32 A
DROP-OUT VOLTAGE	AC operated: 0.6 - 0.4 x UC, AC operated
OVERVOLTAGE CATEGORY	III
DUTY FACTOR	100 %
NUMBER OF CONTACTS	1 NO
OPERATION	Non-reversing
INTERFERENCE IMMUNITY	According to EN 60947-1
LIFESPAN, MECHANICAL	10,000,000 Operations (AC operated) 10,000,000 Operations (DC operated)
PICK-UP VOLTAGE	0.8 - 1.1 V AC x Uc 0.85 - 1.1 V AC/DC x Us
POWER CONSUMPTION, PICK-UP, 50 HZ	50 VA, Dual-frequency coil in a cold state and 1.0 x Us
SAFE ISOLATION	440 V AC, Between coil and contacts, According to EN 61140 440 V AC, Between the contacts, According to EN 61140
POWER CONSUMPTION, PICK-UP, 60 HZ	40 W, Dual-frequency coil in a cold state and 1.0 x Us, at 60 Hz

	50 VA, Dual-frequency coil in a cold state and 1.0 x Us
RESIDUAL CURRENT	1 mA (with actuation of A1 - A2 by the electronics with "0" signal)
SCREW SIZE	M5, Terminal screw, Main cables M3.5, Terminal screw, Control circuit cables
POWER CONSUMPTION, SEALING, 50 HZ	2.1 W, Dual-frequency coil in a cold state and 1.0 x Us
POWER CONSUMPTION, SEALING, 60 HZ	2.1 W, Dual-frequency coil in a cold state and 1.0 x Us 8 VA, Dual-frequency coil in a cold state and 1.0 x Us, at 60 Hz
TERMINAL CAPACITY (STRANDED)	1 x 16 mm^2, Main cables
SWITCHING CAPACITY (AUXILIARY CONTACTS, GENERAL USE)	10 A, 600 V AC, (UL/CSA) 1 A, 250 V DC, (UL/CSA)
SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY)	P300, DC operated (UL/CSA) A600, AC operated (UL/CSA)
TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)	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 2 x (0.75 - 2.5) mm^2, Control circuit cables
SHOCK RESISTANCE	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 5 g, N/C auxiliary contact, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms
TERMINAL CAPACITY (SOLID)	1 x (0.75 - 4) mm^2, Control circuit cables 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
TERMINAL CAPACITY (SOLID/STRANDED AWG)	18 - 6, Main cables 18 - 14, Control circuit cables
SWITCHING CAPACITY (MAIN CONTACTS, GENERAL USE)	40 A, Maximum motor rating (UL/CSA)
POWER CONSUMPTION	7.5 kW
TIGHTENING TORQUE	3 Nm, Screw terminals, Main cables 1.2 Nm, Screw terminals, Control circuit 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)	238 A
RATED OPERATIONAL CURRENT (IE) AT AC-1, 380 V, 400 V, 415 V	32 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 220 V, 230 V, 240 V	18 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 380 V, 400 V, 415 V	18 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 440 V	18 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 500 V	18 A
RATED OPERATIONAL CURRENT (IE) AT AC-3, 660 V, 690 V	12 A
RATED OPERATIONAL CURRENT (IE) AT AC-4, 400 V	15 A
RATED OPERATIONAL CURRENT (IE) AT DC-1, 110 V	32 A
RATED OPERATIONAL CURRENT (IE) AT DC-1,	32 A

220 V	
RATED OPERATIONAL CURRENT (IE) AT DC-1, 60 V	32 A
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	32 A
RATED OPERATIONAL POWER AT AC-1, 220/230 V, 50 HZ	12 kW
RATED OPERATIONAL POWER AT AC-1, 240 V, 50 HZ	13 kW
RATED OPERATIONAL POWER AT AC-1, 380/400 V, 50 HZ	20 kW
RATED OPERATIONAL POWER AT AC-1, 415 V, 50 HZ	22 kW
RATED OPERATIONAL POWER AT AC-1, 440 V, 50 HZ	23 kW
RATED OPERATIONAL POWER AT AC-1, 500 V, 50 HZ	26 kW
RATED OPERATIONAL POWER AT AC-1, 690 V, 50 HZ	35 kW
RATED OPERATIONAL POWER AT AC-3, 240 V, 50 HZ	5.5 kW
RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ	7.5 kW
RATED OPERATIONAL POWER AT AC-3, 415 V, 50 HZ	10 kW
RATED OPERATIONAL POWER AT AC-4, 380/400 V, 50 HZ	7 kW
RATED OPERATIONAL POWER (NEMA)	11 kW
RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX	690 V
RESISTANCE PER POLE	2.7 mΩ
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	2.1 W

STRIPPING LENGTH (CONTROL CIRCUIT CABLE)	10 mm
STRIPPING LENGTH (MAIN CABLE)	10 mm
SWITCHING TIME (AC OPERATED, MAKE CONTACTS, CLOSING DELAY) - MAX	22 ms
SWITCHING TIME (AC OPERATED, MAKE CONTACTS, CLOSING DELAY) - MIN	16 ms
SWITCHING TIME (AC OPERATED, MAKE CONTACTS, OPENING DELAY) - MAX	14 ms
SWITCHING TIME (AC OPERATED, MAKE CONTACTS, OPENING DELAY) - MIN	8 ms
SHORT-CIRCUIT CURRENT RATING (BASIC RATING)	125 A, max. CB, SCCR (UL/CSA) 5 kA, SCCR (UL/CSA) 125 A, max. Fuse, SCCR (UL/CSA)
SHORT-CIRCUIT CURRENT RATING (HIGH FAULT AT 480 V)	125/70 A, Class J, max. Fuse, SCCR (UL/CSA) 10/65 kA, CB, SCCR (UL/CSA) 10/100 kA, Fuse, SCCR (UL/CSA) 50/32 A, max. CB, SCCR (UL/CSA)
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)
SHORT-CIRCUIT PROTECTION RATING (TYPE 1 COORDINATION) AT 400 V	63 A gG/gL
SHORT-CIRCUIT PROTECTION RATING (TYPE 1 COORDINATION) AT 690 V	50 A gG/gL
SHORT-CIRCUIT PROTECTION RATING	35 A gG/gL

(TYPE 2 COORDINATION) AT 400 V	
SHORT-CIRCUIT PROTECTION RATING (TYPE 2 COORDINATION) AT 690 V	35 A gG/gL
SPECIAL PURPOSE RATING OF BALLAST ELECTRICAL DISCHARGE LAMPS	40 A (480V 60Hz 3phase, 277V 60Hz 1phase) 40 A (600V 60Hz 3phase, 347V 60Hz 1phase)
SPECIAL PURPOSE RATING OF DEFINITE PURPOSE RATING	25 A, FLA 480 V 60 Hz 3-ph, 100,000 cycles acc. to UL 1995, (UL/CSA) 150 A, LRA 480 V 60 Hz 3-ph, 100,000 cycles acc. to UL 1995, (UL/CSA)
SPECIAL PURPOSE RATING OF ELEVATOR CONTROL	5 HP, 240 V 60 Hz 3-ph, (UL/CSA) 15.2 A, 240 V 60 Hz 3-ph, (UL/CSA) 14 A, 480 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) 10 HP, 480 V 60 Hz 3-ph, (UL/CSA) 11 A, 200 V 60 Hz 3-ph, (UL/CSA) 17 A, 600 V 60 Hz 3-ph, (UL/CSA)
SPECIAL PURPOSE RATING OF REFRIGERATION CONTROL (CSA ONLY)	40 A, FLA 480 V 60 Hz 3phase; (CSA) 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)
SPECIAL PURPOSE RATING OF RESISTANCE AIR HEATING	40 A, 480 V 60 Hz 3phase, 277 V 60 Hz 1phase, (UL/CSA) 40 A, 600 V 60 Hz 3phase, 347 V 60 Hz 1phase, (UL/CSA)
SPECIAL PURPOSE RATING OF TUNGSTEN INCANDESCENT LAMPS	40 A, 480 V 60 Hz 3phase, 277 V 60 Hz 1phase, (UL/CSA) 40 A, 600 V 60 Hz 3phase, 347 V 60 Hz 1phase, (UL/CSA)
OPERATING	-25° to 60°C

TEMPERATURE	
CONVENTIONAL THERMAL CURRENT ITH AT 40°C (3-POLE, OPEN)	32 A
CONVENTIONAL THERMAL CURRENT ITH AT 50°C (3-POLE, OPEN)	30 A
CONVENTIONAL THERMAL CURRENT ITH AT 60°C (3-POLE, OPEN)	28 A
RATED OPERATIONAL POWER AT AC-3, 440 V, 50 HZ	10.5 kW
RATED OPERATIONAL POWER AT AC-3, 500 V, 50 HZ	12 kW
RATED OPERATIONAL POWER AT AC-3, 690 V, 50 HZ	11 kW
ACTUATING VOLTAGE	230 V 50 Hz, 240 V 60 Hz
ALTITUDE	Max. 2000 m
OPERATING VOLTAGE AT AC, 50 HZ - MIN	24 V
OPERATING VOLTAGE AT AC, 50 HZ - MAX	690 V
OPERATING VOLTAGE AT AC, 60 HZ - MIN	24 V
OPERATING VOLTAGE AT AC, 60 HZ - MAX	690 V

PROJECT NAME:	
PROJECT NUMBER:	
PREPARED BY:	
DATE:	

Eaton Corporation plc
Eaton House
30 Pembroke Road
Dublin 4, Ireland
Eaton.com

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