

# Eaton 111793

Eaton Moeller® series DILH Contactor, Ith  
=Ie: 2700 A, RAW 250: 230 - 250 V 50 - 60  
Hz/230 - 350 V DC, AC and DC operation,  
Screw connection

<b>PRODUCT NAME</b>	Eaton Moeller® series DILH contactor
<b>CATALOG NUMBER</b>	111793
<b>PRODUCT LENGTH/DEPTH</b>	252 mm
<b>PRODUCT HEIGHT</b>	392 mm
<b>PRODUCT WIDTH</b>	515 mm
<b>PRODUCT WEIGHT</b>	32 kg
<b>CERTIFICATIONS</b>	CSA Class No.: 3211-04 UL 60947-4-1 CE IEC/EN 60947-4-1 CSA-C22.2 No. 60947-4-1- 14 VDE 0660 UL File No.: E29096 IEC/EN 60947 UL Category Control No.: NLDX CCC UL CSA CSA File No.: 012528
<b>CATALOG NOTES</b>	<ul style="list-style-type: none"><li>• Contacts according to EN 50012</li><li>• Conventional thermal current Ith of main contacts (1-pole, open) at 60°</li></ul>

<b>ACCESSORIES</b>	Fitting options auxiliary contacts: on the side: 2 x DILM820-XHI11(V)-SI; 2 x DILM820-XHI11-SA
<b>10.10 TEMPERATURE RISE</b>	The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
<b>10.11 SHORT-CIRCUIT RATING</b>	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
<b>10.12 ELECTROMAGNETIC COMPATIBILITY</b>	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
<b>10.13 MECHANICAL FUNCTION</b>	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.
<b>10.2.2 CORROSION RESISTANCE</b>	Meets the product standard's requirements.
<b>10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES</b>	Meets the product standard's requirements.
<b>10.2.3.2 VERIFICATION OF RESISTANCE OF INSULATING MATERIALS TO NORMAL HEAT</b>	Meets the product standard's requirements.
<b>10.2.3.3 RESIST. OF INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. EFFECTS</b>	Meets the product standard's requirements.
<b>10.2.4 RESISTANCE TO ULTRA-VIOLET (UV) RADIATION</b>	Meets the product standard's requirements.
<b>10.2.5 LIFTING</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.2.6 MECHANICAL IMPACT</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.2.7 INSCRIPTIONS</b>	Meets the product standard's requirements.

<b>CHARACTERISTIC CURVE</b>	<a href="#">eaton-contactors-dilh-characteristic-curve.eps</a>
	<a href="#">IL03406004Z</a>
	<a href="#">eaton-contactors-contact-dilm-wiring-diagram-004.eps</a>
	<a href="#">eaton-contactors-dilh-dimensions-003.eps</a>
	<a href="#">eaton-contactors-dilh-dimensions-002.eps</a>
	<a href="#">eaton-contactors-dilm-3d-drawing-003.eps</a>
	<a href="#">eaton-contactors-mounting-dilm-3d-drawing-002.eps</a>

<b>10.3 DEGREE OF PROTECTION OF ASSEMBLIES</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.4 CLEARANCES AND CREEPAGE DISTANCES</b>	Meets the product standard's requirements.
<b>10.5 PROTECTION AGAINST ELECTRIC SHOCK</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS</b>	Is the panel builder's responsibility.
<b>10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS</b>	Is the panel builder's responsibility.
<b>10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH</b>	Is the panel builder's responsibility.
<b>10.9.3 IMPULSE WITHSTAND VOLTAGE</b>	Is the panel builder's responsibility.
<b>10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL</b>	Is the panel builder's responsibility.
<b>FITTED WITH:</b>	Suppressor circuit in actuating electronics
<b>OPERATING FREQUENCY</b>	1000 mechanical Operations/h (AC operated) 1000 mechanical Operations/h (DC operated)
<b>POLLUTION DEGREE</b>	3
<b>CLIMATIC PROOFING</b>	Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
<b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b>	8000 V AC
<b>UTILIZATION CATEGORY</b>	AC-1: Non-inductive or slightly inductive loads, resistance furnaces
<b>CONNECTION</b>	Screw terminals
<b>AMBIENT OPERATING TEMPERATURE - MAX</b>	60 °C
<b>AMBIENT OPERATING TEMPERATURE - MIN</b>	-40 °C
<b>AMBIENT STORAGE</b>	80 °C

<b>TEMPERATURE - MAX</b>	
<b>AMBIENT STORAGE TEMPERATURE - MIN</b>	-40 °C
<b>CONVENTIONAL THERMAL CURRENT ITH AT 55°C (3-POLE, OPEN)</b>	2300 A
<b>CONVENTIONAL THERMAL CURRENT ITH OF MAIN CONTACTS (1-POLE, OPEN)</b>	5500 A
<b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID</b>	0 W
<b>HEAT DISSIPATION CAPACITY PDISS</b>	0 W
<b>HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID</b>	77 W
<b>APPLICATION</b>	Mains contactors for resistive loads from 1000 A
<b>PRODUCT CATEGORY</b>	Contactors
<b>ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT</b>	Rail connection
<b>SCREWDRIVER SIZE</b>	0.8 x 5.5/1 x 6 mm, Terminal screw, Control circuit cables, Standard screwdriver 2, Terminal screw, Control circuit cables, Pozidriv screwdriver
<b>VOLTAGE TYPE</b>	AC/DC
<b>DEGREE OF PROTECTION</b>	IP00
<b>NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)</b>	2
<b>NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)</b>	2
<b>NUMBER OF CONTACTS (NORMALLY CLOSED) AS MAIN CONTACT</b>	0
<b>NUMBER OF MAIN CONTACTS (NORMALLY OPEN CONTACT)</b>	3
<b>RATED BREAKING CAPACITY AT 1000 V</b>	5800 A
<b>RATED BREAKING</b>	8200 A

<b>CAPACITY AT 220/230 V</b>	
<b>RATED BREAKING CAPACITY AT 380/400 V</b>	8200 A
<b>RATED BREAKING CAPACITY AT 500 V</b>	8200 A
<b>RATED BREAKING CAPACITY AT 660/690 V</b>	8200 A
<b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX</b>	250 V
<b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN</b>	230 V
<b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX</b>	250 V
<b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN</b>	230 V
<b>DROP-OUT VOLTAGE</b>	0.2 x US max - 0.6 x US min, DC operated AC operated: 0.2 x US max - 0.6 x US min, AC operated
<b>OVERVOLTAGE CATEGORY</b>	III
<b>BEHAVIOR IN MARGINAL AND TRANSITIONAL CONDITIONS</b>	<p>Sealing - Voltage interruptions 0 - 0.2 x U<sub>c</sub> min) &gt; 10 ms: Drop-out of the contactor</p> <p>Sealing - Pick-up phase (0 - 0.7 x U<sub>c</sub> min: Contactor does not switch on</p> <p>Sealing - Voltage interruptions (0 - 0.2 x U<sub>c</sub> min ≤ 10 ms: Time is bridged successfully</p> <p>Sealing - Pick-up phase (0.7 x U<sub>c</sub> min - 1.15 x U<sub>c</sub> max): Contactor switches on with certainty</p> <p>Sealing - Voltage drops (0.2 - 0.6 x U<sub>c</sub> min ≤ 12 ms: Time is bridged successfully</p> <p>Sealing - Voltage drops (0.6 - 0.7 x U<sub>c</sub> min: Contactor remains switched on</p> <p>Sealing - Excess voltage (1.15 - 1.3 x U<sub>c</sub> max): Contactor remains switched on</p>

	Sealing - Voltage drops (0.2 - 0.6 x U <sub>c min</sub> ) > 12 ms: Drop-out of the contactor
<b>DUTY FACTOR</b>	100 %
<b>ELECTROMAGNETIC COMPATIBILITY</b>	Designed for operation in industrial environments. Its use in residential environments may cause radio-frequency interference, requiring additional noise suppression.
<b>LIFESPAN, MECHANICAL</b>	5,000,000 Operations (DC operated) 5,000,000 Operations (AC operated)
<b>PICK-UP VOLTAGE</b>	0.7 - 1.15 V DC x U <sub>s</sub> 0.7 - 1.15 V AC x U <sub>s</sub>
<b>POWER CONSUMPTION, PICK-UP, 50 HZ</b>	1400 W, Pull-in power, Coil in a cold state and 1.0 x U <sub>s</sub>  1600 VA, Pull-in power, Coil in a cold state and 1.0 x U <sub>s</sub>
<b>SAFE ISOLATION</b>	1000 V AC, Between coil and contacts, According to EN 61140
<b>POWER CONSUMPTION, PICK-UP, 60 HZ</b>	1600 VA, Pull-in power, Coil in a cold state and 1.0 x U <sub>s</sub> 1400 W, Pull-in power, Coil in a cold state and 1.0 x U <sub>s</sub>
<b>SCREW SIZE</b>	M12, Terminal screw, Main connections M3.5, Terminal screw, Control circuit cables
<b>POWER CONSUMPTION, SEALING, 50 HZ</b>	36.5 VA, Coil in a cold state and 1.0 x U <sub>s</sub> 17.3 W, Coil in a cold state and 1.0 x U <sub>s</sub>
<b>POWER CONSUMPTION, SEALING, 60 HZ</b>	17.3 W, Coil in a cold state and 1.0 x U <sub>s</sub> 36.5 VA, Coil in a cold state and 1.0 x U <sub>s</sub>
<b>RESISTANCE</b>	500 mΩ (Admissible transitional contact resistance - of the external control circuit device when actuating A11)
<b>SWITCHING CAPACITY (AUXILIARY CONTACTS,</b>	1 A, 250 V DC, (UL/CSA) 15 A, 600 V AC, (UL/CSA)

GENERAL USE)	
<b>SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY)</b>	A600, AC operated (UL/CSA) P300, DC operated (UL/CSA)
<b>TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)</b>	1 x (0.75 - 2.5) mm <sup>2</sup> , Control circuit cables 2 x (0.75 - 2.5) mm <sup>2</sup> , Control circuit cables
<b>SHOCK RESISTANCE</b>	10 g, N/O auxiliary contact, Mechanical, according to IEC/EN 60068-2-27, Half- sinusoidal shock 10 ms 8 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, Half- sinusoidal shock 10 ms
<b>TERMINAL CAPACITY (SOLID)</b>	1 x (0.75 - 2.5) mm <sup>2</sup> , Control circuit cables 2 x (0.75 - 2.5) mm <sup>2</sup> , Control circuit cables
<b>TERMINAL CAPACITY (SOLID/STRANDED AWG)</b>	18 - 14, Control circuit cables
<b>SIGNAL LEVEL</b>	5 V - 15 V, PLC signal level (A3 - A4) to IEC/EN 61131-2 (type 2), Magnet systems
<b>TERMINAL CAPACITY (BUSBAR)</b>	100 mm width, Main connection
<b>SWITCHING CAPACITY (MAIN CONTACTS, GENERAL USE)</b>	2200 A, Maximum motor rating (UL/CSA)
<b>POWER CONSUMPTION</b>	Control transformer with $u_k \leq 7\%$
<b>TIGHTENING TORQUE</b>	35 Nm, Main cable connection screw/bolt 1.2 Nm, Screw terminals, Control circuit cables
<b>WIDTH ACROSS FLATS</b>	18 mm
<b>RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX</b>	250 V
<b>RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN</b>	230 V
<b>RATED INSULATION VOLTAGE (UI)</b>	1000 V

<b>RATED MAKING CAPACITY (COS PHI TO IEC/EN 60947)</b>	9840 A
<b>RATED OPERATIONAL CURRENT (IE) AT AC-3, 380 V, 400 V, 415 V</b>	0 A
<b>RATED OPERATIONAL CURRENT (IE) AT AC-4, 400 V</b>	0 A
<b>RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)</b>	2200 A
<b>RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ</b>	0 kW
<b>RATED OPERATIONAL POWER AT AC-4, 380/400 V, 50 HZ</b>	0 kW
<b>RATED OPERATIONAL POWER (NEMA)</b>	0 kW
<b>RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX</b>	1000 V
<b>STATIC HEAT DISSIPATION, NON- CURRENT-DEPENDENT PVS</b>	13 W
<b>STRIPPING LENGTH (CONTROL CIRCUIT CABLE)</b>	10 mm
<b>SWITCHING TIME (AC OPERATED, MAKE CONTACTS, CLOSING DELAY) - MAX</b>	70 ms
<b>SWITCHING TIME (AC OPERATED, MAKE CONTACTS, OPENING DELAY) - MAX</b>	40 ms
<b>SPECIAL PURPOSE RATING OF RESISTANCE AIR HEATING</b>	2200 A, 480 V 60 Hz 3phase, 277 V 60 Hz 1phase, (UL/CSA) 2200 A, 600 V 60 Hz 3phase, 347 V 60 Hz 1phase, (UL/CSA)
<b>CONVENTIONAL THERMAL CURRENT ITH AT 40°C (3-POLE, OPEN)</b>	2700 A
<b>CONVENTIONAL THERMAL CURRENT ITH AT 50°C (3-POLE, OPEN)</b>	2400 A



<b>CONVENTIONAL THERMAL CURRENT ITH AT 60°C (3-POLE, OPEN)</b>	2200 A
<b>ACTUATING VOLTAGE</b>	RAW 250: 230 - 250 V 50 - 60 Hz/230 - 350 V DC
<b>ALTITUDE</b>	Max. 2000 m
<b>OPERATING VOLTAGE AT AC, 50 HZ - MIN</b>	230 V
<b>OPERATING VOLTAGE AT AC, 50 HZ - MAX</b>	250 V
<b>OPERATING VOLTAGE AT AC, 60 HZ - MIN</b>	230 V
<b>OPERATING VOLTAGE AT AC, 60 HZ - MAX</b>	250 V

<b>PROJECT NAME:</b>
<b>PROJECT NUMBER:</b>
<b>PREPARED BY:</b>
:



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