

**DILE MINI CONTACTOR RELAY**  
**010343**



Overview



Specifications



Resources

How to buy

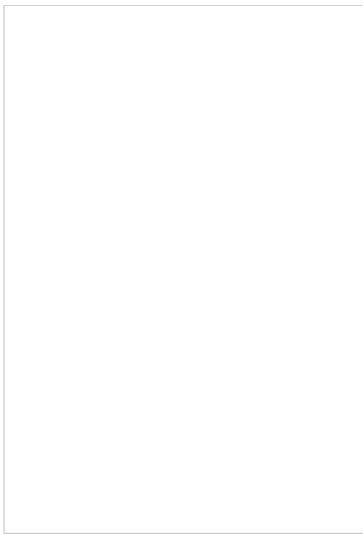


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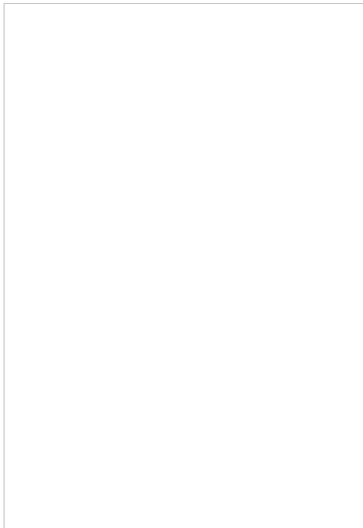


Photo is representative

# 010343

Eaton Moeller® series DILEM Contactor, 24 VDC,  
Contacts N/C = Normally closed = 1 NC, Screw term  
01-G(24VDC)

**How to buy**

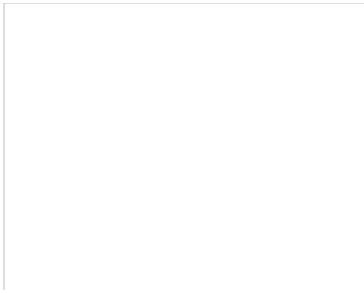


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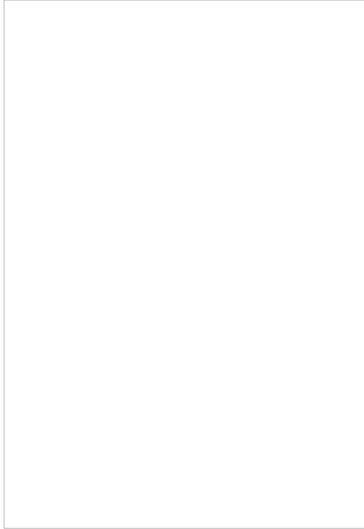


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### 014518

Eaton Moeller® series ZE Overload relay,  
I<sub>r</sub>= 2.4 - 4 A, 1 N/O, 1 N/C, Direct  
mounting

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### 014479

Eaton Moeller® series ZE Overload relay,  
I<sub>r</sub>= 1.6 - 2.4 A, 1 N/O, 1 N/C, Direct  
mounting

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### 014565

Eaton Moeller® series ZE Overload relay,  
I<sub>r</sub>= 4 - 6 A, 1 N/O, 1 N/C, Direct mounting

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### 010288

Eaton Moeller® series DILE Au  
contact module, 4 pole, 2 N/O, 2  
fixing, Screw terminals, DILE(E

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## GENERAL SPECIFICATIONS

General specifications	>	<b>PRODUCT NAME</b>	Eaton Moeller® series DILEM Mini contactor
		<b>CATALOG NUMBER</b>	010343
Product specifications	>	<b>MODEL CODE</b>	DILEM-01-G(24VDC)
		<b>EAN</b>	4015080103431
		<b>PRODUCT LENGTH/DEPTH</b>	54 mm
		<b>PRODUCT HEIGHT</b>	58 mm
		<b>PRODUCT WIDTH</b>	45 mm
		<b>PRODUCT WEIGHT</b>	0.206 kg
		<b>CERTIFICATIONS</b>	CSA-C22.2 No. 14-05 UL File No.: E29096 CSA Class No.: 3211-04 UL IEC/EN 60947-4-1 IEC/EN 60947 CSA File No.: 012528 VDE 0660 UL 508 UL Category Control No.: NLDX CSA CE
		<b>CATALOG NOTES</b>	Also tested according to AC-3e.

## PRODUCT SPECIFICATIONS

<b>TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)</b>	2 x (0.75 - 1.5) mm <sup>2</sup> 1 x (0.75 - 1.5) mm <sup>2</sup>
<b>RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)</b>	9 A
<b>10.11 SHORT-CIRCUIT RATING</b>	Is the panel builder's responsibility. The specifications must be observed.
<b>RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ</b>	4 kW
<b>CONVENTIONAL THERMAL CURRENT ITH (3-POLE, ENCLOSED)</b>	16 A
<b>RATED OPERATIONAL POWER AT AC-4, 380/400 V, 50 HZ</b>	3 kW
<b>RATED OPERATIONAL CURRENT (IE) AT AC-4, 440 V</b>	6.6 A

<b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN</b>	0 V
<b>10.4 CLEARANCES AND CREEPAGE DISTANCES</b>	Meets the product standard's requirements.
<b>NUMBER OF CONTACTS (NORMALLY CLOSED) AS MAIN CONTACT</b>	0
<b>CONVENTIONAL THERMAL CURRENT I<sub>TH</sub> AT 55°C (3-POLE, OPEN)</b>	19 A
<b>RATED OPERATIONAL POWER (NEMA)</b>	3.7 kW
<b>10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES</b>	Meets the product standard's requirements.
<b>AMBIENT STORAGE TEMPERATURE - MIN</b>	40 °C
<b>FITTED WITH:</b>	Auxiliary contact
<b>RATED BREAKING CAPACITY AT 380/400 V</b>	90 A
<b>SHORT-CIRCUIT CURRENT RATING (BASIC RATING)</b>	45 A, max. Fuse, SCCR (UL/CSA) 5 kA, SCCR (UL/CSA)
<b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX</b>	0 V
<b>RATED BREAKING CAPACITY AT 660/690 V</b>	42 A
<b>RATED OPERATIONAL CURRENT (IE) AT DC-1, 24 V</b>	20 A
<b>CHANGE OVER TIME</b>	40 - 50 ms
<b>RATED OPERATIONAL CURRENT (IE) AT DC-1, 220 V</b>	20 A
<b>AMBIENT OPERATING TEMPERATURE - MAX</b>	50 °C
<b>ASSIGNED MOTOR POWER AT 115/120 V, 60 HZ, 1-PHASE</b>	0.5 HP
<b>FEATURES</b>	Positive operating contacts to EN 60947-5-1 appendix auxiliary contact module
<b>RATED OPERATIONAL POWER AT AC-4, 440 V, 50 HZ</b>	3.3 kW
<b>ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT</b>	Screw connection
<b>NUMBER OF POLES</b>	Three-pole
<b>AMBIENT OPERATING TEMPERATURE - MIN</b>	-25 °C
<b>10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS</b>	Does not apply, since the entire switchgear needs to
<b>10.2.6 MECHANICAL IMPACT</b>	Does not apply, since the entire switchgear needs to
<b>10.3 DEGREE OF PROTECTION OF ASSEMBLIES</b>	Does not apply, since the entire switchgear needs to
<b>APPLICATION</b>	Mini Contactors for Motors and Resistive Loads
<b>RATED OPERATIONAL CURRENT (IE) AT AC-15, 380 V,</b>	3 A

400 V, 415 V

<b>OPERATING FREQUENCY</b>	9000 mechanical Operations/h
<b>VOLTAGE TYPE</b>	DC
<b>PRODUCT CATEGORY</b>	Contactors
<b>RATED OPERATIONAL CURRENT (IE) AT AC-4, 220 V, 230 V, 240 V</b>	6.6 A
<b>RATED OPERATIONAL POWER AT AC-3, 690 V, 50 HZ</b>	4 kW
<b>HEAT DISSIPATION CAPACITY PDISS</b>	0 W
<b>ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE</b>	5 HP
<b>RATED OPERATIONAL CURRENT (IE) AT AC-4, 500 V</b>	5 A
<b>RATED OPERATIONAL POWER AT AC-3, 240 V, 50 HZ</b>	2.5 kW
<b>CONVENTIONAL THERMAL CURRENT ITH OF AUXILIARY CONTACTS (1-POLE, OPEN)</b>	10 A
<b>OPERATING VOLTAGE AT AC, 60 HZ - MAX</b>	690 V
<b>TERMINAL CAPACITY (SOLID/STRANDED AWG)</b>	18 - 14
<b>10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH</b>	Is the panel builder's responsibility.
<b>DEGREE OF PROTECTION</b>	IP20
<b>OVERVOLTAGE CATEGORY</b>	III
<b>AMBIENT STORAGE TEMPERATURE - MAX</b>	80 °C
<b>POLLUTION DEGREE</b>	3
<b>RATED OPERATIONAL CURRENT (IE) AT AC-1, 380 V, 400 V, 415 V</b>	22 A
<b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b>	6000 V AC
<b>CONNECTION</b>	Screw terminals
<b>OPERATING VOLTAGE AT AC, 60 HZ - MIN</b>	24 V
<b>TIGHTENING TORQUE</b>	1.2 Nm, Screw terminals
<b>SWITCHING TIME (AC OPERATED, N/O, WITH AUXILIARY CONTACT MODULE, CLOSING DELAY)</b>	70 ms
<b>RATED OPERATIONAL POWER AT AC-4, 660/690 V, 50 HZ</b>	3 kW
<b>CONVENTIONAL THERMAL CURRENT ITH (1-POLE, ENCLOSED)</b>	40 A
<b>RATED OPERATIONAL CURRENT (IE) AT AC-3, 660 V, 690 V</b>	4.8 A
<b>10.2.2 CORROSION RESISTANCE</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>10.2.7 INSCRIPTIONS</b>	Meets the product standard's requirements.
<b>RATED OPERATIONAL CURRENT (IE) AT AC-3, 380 V, 400 V, 415 V</b>	9 A
<b>NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)</b>	0
<b>RATED OPERATIONAL POWER AT AC-3, 500 V, 50 HZ</b>	4 kW
<b>SHOCK RESISTANCE</b>	20 g, N/C auxiliary contact, Basic unit with auxiliary contact Mechanical, according to IEC/EN 60068-2-27, Half sine wave ms 20 g, N/O auxiliary contact, Basic unit with auxiliary contact Mechanical, according to IEC/EN 60068-2-27, Half sine wave ms 10 g, N/C auxiliary contact, Basic unit without auxiliary contact Mechanical, according to IEC/EN 60068-2-27, Half sine wave ms 10 g, N/O main contact, Basic unit with auxiliary contact Mechanical, according to IEC/EN 60068-2-27, Half sine wave ms 10 g, N/O main contact, Basic unit without auxiliary contact Mechanical, according to IEC/EN 60068-2-27, Half sine wave ms
<b>RATED OPERATIONAL CURRENT (IE) AT DC-1, 110 V</b>	20 A
<b>ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 3-PHASE</b>	3 HP
<b>RATED OPERATIONAL CURRENT (IE) AT DC-1, 12 V</b>	20 A
<b>SWITCHING TIME (DC OPERATED, MAKE CONTACTS, OPENING DELAY) - MIN</b>	15 ms
<b>RESISTANCE PER POLE</b>	7.86 mΩ
<b>AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN</b>	25 °C
<b>OPERATING VOLTAGE AT AC, 50 HZ - MAX</b>	690 V
<b>10.12 ELECTROMAGNETIC COMPATIBILITY</b>	Is the panel builder's responsibility. The specifications must be observed.
<b>10.2.5 LIFTING</b>	Does not apply, since the entire switchgear needs to be lifted.
<b>STRIPPING LENGTH (MAIN CABLE)</b>	8 mm
<b>AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX</b>	40 °C
<b>RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN</b>	24 V
<b>10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS</b>	Is the panel builder's responsibility.
<b>NUMBER OF MAIN CONTACTS (NORMALLY OPEN CONTACT)</b>	3
<b>RATED BREAKING CAPACITY AT 220/230 V</b>	90 A

<b>SCREW SIZE</b>	M3.5, Terminal screw
<b>RATED OPERATIONAL CURRENT (IE) AT AC-4, 400 V</b>	6.6 A
<b>ASSIGNED MOTOR POWER AT 575/600 V, 60 HZ, 3-PHASE</b>	5 HP
<b>PROTECTION</b>	Finger and back-of-hand proof, Protection against dirt actuated from front (EN 50274)
<b>RATED OPERATIONAL POWER AT AC-3, 440 V, 50 HZ</b>	4.6 kW
<b>RATED BREAKING CAPACITY AT 500 V</b>	64 A
<b>RATED OPERATIONAL POWER AT AC-3, 415 V, 50 HZ</b>	4.3 kW
<b>CLIMATIC PROOFING</b>	Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
<b>STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS</b>	2.3 W
<b>RATED OPERATIONAL CURRENT (IE) AT AC-15, 500 V</b>	1.5 A
<b>RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX</b>	24 V
<b>10.9.3 IMPULSE WITHSTAND VOLTAGE</b>	Is the panel builder's responsibility.
<b>UTILIZATION CATEGORY</b>	AC-3: Normal AC induction motors: starting, switching AC-4: Normal AC induction motors: starting, plugging, inching AC-1: Non-inductive or slightly inductive loads, resistive
<b>RATED OPERATIONAL CURRENT (IE) AT AC-3, 440 V</b>	9 A
<b>10.5 PROTECTION AGAINST ELECTRIC SHOCK</b>	Does not apply, since the entire switchgear needs to be de-energized
<b>SAFE ISOLATION</b>	300 V AC, Between coil and contacts, According to IEC 60947-1 300 V AC, Between auxiliary contacts, According to IEC 60947-1 300 V AC, Between the contacts, According to IEC 60947-1 300 V AC, Between coil and auxiliary contacts, According to IEC 60947-1
<b>SHORT-CIRCUIT PROTECTION RATING (TYPE 2 COORDINATION) AT 500 V</b>	10 A gG/gL
<b>MOUNTING POSITION</b>	As required (except vertical with terminals A1/A2 at the top)
<b>OPERATING VOLTAGE AT AC, 50 HZ - MIN</b>	24 V
<b>RATED OPERATIONAL CURRENT (IE) AT AC-15, 220 V, 230 V, 240 V</b>	6 A
<b>10.13 MECHANICAL FUNCTION</b>	The device meets the requirements, provided the instructions in the instruction leaflet (IL) is observed.
<b>10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL</b>	Is the panel builder's responsibility.
<b>NUMBER OF CONTACTS (NORMALLY CLOSED CONTACTS)</b>	1
<b>HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT</b>	...

<b>PVID</b>	0.3 W
<b>ACTUATING VOLTAGE</b>	24 V DC
<b>SWITCHING TIME (DC OPERATED, MAKE CONTACTS, OPENING DELAY) - MAX</b>	25 ms
<b>SWITCHING CAPACITY (AUXILIARY CONTACTS, GENERAL USE)</b>	0.5 A, 250 V DC, (UL/CSA) 10 A, 600 V AC, (UL/CSA)
<b>SHORT-CIRCUIT PROTECTION</b>	PKZM0-4, Maximum overcurrent protective device, protection only, Auxiliary contacts, Short-circuit rating 10 A fast, Max. Fuse 500V, Auxiliary contacts, Short-circuit rating 6 A without welding 6 A gG/gL, Max. Fuse 500V, Auxiliary contacts, Short-circuit rating 6 A without welding
<b>SWITCHING TIME (DC OPERATED, MAKE CONTACTS, CLOSING DELAY) - MAX</b>	35 ms
<b>RATED OPERATIONAL CURRENT (IE) AT AC-4, 660 V, 690 V</b>	3.4 A
<b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID</b>	0.9 W
<b>ASSIGNED MOTOR POWER AT 200/208 V, 60 HZ, 3-PHASE</b>	2 HP
<b>RATED OPERATIONAL CURRENT (IE)</b>	2.5 A at 60 V, DC L/R ≤ 15 ms (with 2 contacts in series) 1.5 A at 100 V, DC L/R ≤ 15 ms (with 3 contacts in series) 0.5 A at 220 V, DC L/R ≤ 15 ms (with 3 contacts in series) 2.5 A at 24 V, DC L/R ≤ 15 ms (with 1 contact in series)
<b>PICK-UP VOLTAGE</b>	0.8 - 1.1 V DC x U <sub>c</sub>
<b>SUITABLE FOR</b>	Also motors with efficiency class IE3
<b>CONVENTIONAL THERMAL CURRENT I<sub>TH</sub> AT 40°C (3-POLE, OPEN)</b>	22 A
<b>TERMINAL CAPACITY (SOLID)</b>	1 x (0.75 - 2.5) mm <sup>2</sup> 2 x (0.75 - 2.5) mm <sup>2</sup>
<b>NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)</b>	1
<b>POWER CONSUMPTION</b>	2.3 VA/W at DC (Pick-up/Sealing power) Smoothed DC voltage or three-phase bridge rectifier
<b>10.2.3.2 VERIFICATION OF RESISTANCE OF INSULATING MATERIALS TO NORMAL HEAT</b>	Meets the product standard's requirements.
<b>SWITCHING TIME (DC OPERATED, MAKE CONTACTS, CLOSING DELAY) - MIN</b>	26 ms
<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>LIFESPAN, MECHANICAL</b>	20,000,000 Operations 200,000 Operations (at 240 V, AC-15) 150,000 Operations (at 240 V, DC, L/R = 50 ms: 20 A, 0.5 A)



<b>RATED OPERATIONAL POWER AT AC-4, 240 V, 50 HZ</b>	1.8 kW
<b>RATED MAKING CAPACITY UP TO 440 V (COS PHI TO IEC/EN 60947)</b>	110 A
<b>RATED OPERATIONAL POWER AT AC-4, 500 V, 50 HZ</b>	3 kW
<b>CONTROL CIRCUIT RELIABILITY</b>	< 2 λ, < 1 failure at 100,000,000 Operations (at U <sub>c</sub> = 17 V, I <sub>min</sub> = 5.4 mA)
<b>RATED OPERATIONAL CURRENT (IE) AT DC-1, 60 V</b>	20 A
<b>RATED OPERATIONAL POWER AT AC-4, 220/230 V, 50 HZ</b>	1.5 kW
<b>RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX</b>	690 V
<b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN</b>	0 V
<b>10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS</b>	Is the panel builder's responsibility.
<b>10.10 TEMPERATURE RISE</b>	The panel builder is responsible for the temperature rise. Eaton will provide heat dissipation data for the device.
<b>SWITCHING CAPACITY (MAIN CONTACTS, GENERAL USE)</b>	15 A, Maximum motor rating (UL/CSA)
<b>CONVENTIONAL THERMAL CURRENT I<sub>TH</sub> AT 50°C (3-POLE, OPEN)</b>	20 A
<b>RATED OPERATIONAL CURRENT (IE) AT AC-3, 500 V</b>	6.4 A
<b>ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 1-PHASE</b>	1.5 HP
<b>SCREWDRIVER SIZE</b>	0.8 x 5.5/1 x 6 mm, Terminal screw, Standard screwdriver 2, Terminal screw, Pozidriv screwdriver
<b>SHORT-CIRCUIT PROTECTION RATING (TYPE 1 COORDINATION) AT 500 V</b>	20 A gG/gL
<b>DUTY FACTOR</b>	100 %
<b>RATED OPERATIONAL CURRENT (IE) AT AC-3, 220 V, 230 V, 240 V</b>	9 A
<b>CONVENTIONAL THERMAL CURRENT I<sub>TH</sub> OF MAIN CONTACTS (1-POLE, OPEN)</b>	50 A
<b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX</b>	0 V
<b>ARCING TIME</b>	12 ms at 690 V AC
<b>RATED OPERATIONAL POWER AT AC-4, 415 V, 50 HZ</b>	3.1 kW
<b>SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY)</b>	P300, DC operated (UL/CSA) A600, AC operated (UL/CSA)
<b>RATED INSULATION VOLTAGE (UI)</b>	690 V
<b>ALTITUDE</b>	Max. 2000 m

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Catalogs

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Characteristic curve

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Declarations of conformity

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Drawings

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eCAD model

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Installation instructions

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mCAD model

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System overview

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Wiring diagrams

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010343



Eaton is an intelligent power management company dedicated to improving the quality of life and protecting the environment for people everywhere. We are guided by our commitment to do business right, to operate sustainably and to help our customers manage power — today and well into the future. By capitalizing on the global growth trends of electrification and digitalization, we're accelerating the planet's transition to renewable energy and helping to solve the world's most urgent power management challenges.

