

DILE MINI CONTACTOR RELAY
051769



Overview



Specifications



Resources

How to buy

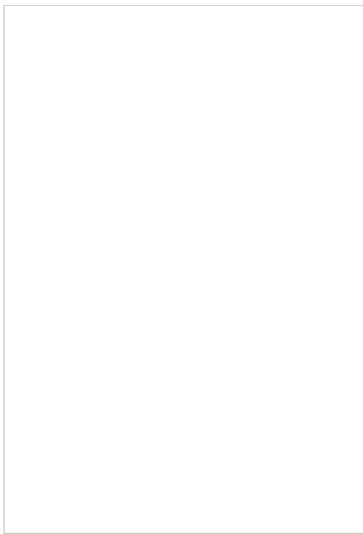


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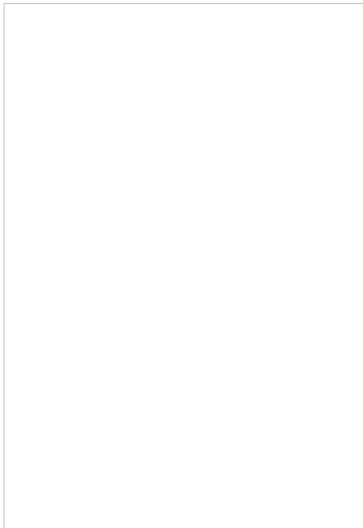


Photo is representative

051769

Eaton Moeller® series DILER Contactor relay, 380V
Normally open: 3 N/O, N/C = Normally closed: 1 N/C
operation

How to buy

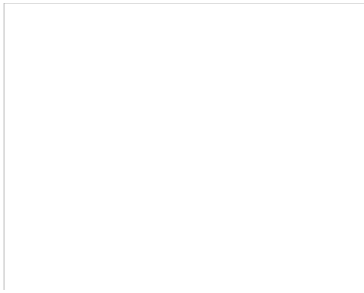


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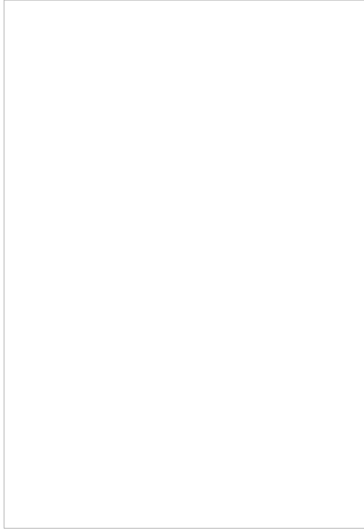


Photo is representative



GENERAL SPECIFICATIONS

General specifications



PRODUCT NAME

Eaton Moeller® series DILER Control Relay

CATALOG NUMBER

051769

Product specifications



MODEL CODE

DILER-31(380V50HZ,440V60HZ)

EAN

4015080517696

PRODUCT LENGTH/DEPTH

52 mm

PRODUCT HEIGHT

58 mm

PRODUCT WIDTH

45 mm

PRODUCT WEIGHT	0.17 kg
CERTIFICATIONS	CSA-C22.2 No. 14-05 IEC/EN 60947-4-1 CE CSA File No.: 012528 UL EN 60947-5-1 CSA CSA Class No.: 3211-03 UL File No.: E29184 IEC/EN 60947 UL 508 UL Category Control No.: NKCR VDE 0660

PRODUCT SPECIFICATIONS

RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	6 A
TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)	2 x (0.75 - 1.5) mm ² 1 x (0.75 - 1.5) mm ²
10.11 SHORT-CIRCUIT RATING	Is the panel builder's responsibility. The specifications must be observed.
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN	380 V
10.4 CLEARANCES AND CREEPAGE DISTANCES	Meets the product standard's requirements.
MOUNTING METHOD	DIN-rail/screw
OPERATING VOLTAGE AT DC - MAX	220 VDC
10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES	Meets the product standard's requirements.
FITTED WITH:	Interlocked opposing contacts
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX	380 V
OPERATING VOLTAGE AT DC - MIN	24 VDC
AMBIENT OPERATING TEMPERATURE - MAX	50 °C
FEATURES	Positive operating contacts to EN 60947-5-1 appendix auxiliary contact module
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS	Does not apply, since the entire switchgear needs to
10.2.6 MECHANICAL IMPACT	Does not apply, since the entire switchgear needs to
10.3 DEGREE OF PROTECTION OF ASSEMBLIES	Does not apply, since the entire switchgear needs to

APPLICATION	Contactor relays
RATED OPERATIONAL CURRENT (IE) AT AC-15, 380 V, 400 V, 415 V	3 A
OPERATING FREQUENCY	9000 Operations/h
VOLTAGE TYPE	AC
PRODUCT CATEGORY	DILER Mini-contactors
POWER CONSUMPTION, PICK-UP, 50 HZ	25 VA, AC, Single-frequency coil 50 Hz and Dual-f Hz
HEAT DISSIPATION CAPACITY PDISS	0 W
CONNECTION TYPE (AUXILIARY CIRCUIT)	Screw connection
SHORT-CIRCUIT PROTECTION RATING WITHOUT WELDING	6 A gG/gL, 500 V, Max. Fuse, Contacts
SWITCHING TIME (AC OPERATED, MAKE CONTACTS, OPENING DELAY) - MIN	8 ms
OPERATING VOLTAGE AT AC, 60 HZ - MAX	500 V
TERMINAL CAPACITY (SOLID/STRANDED AWG)	18 - 14 1 x (18 - 14) 2 x (18 - 14)
10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH	Is the panel builder's responsibility.
DEGREE OF PROTECTION	IP20
OVERVOLTAGE CATEGORY	III
SWITCHING TIME (AC OPERATED, MAKE CONTACTS, OPENING DELAY) - MAX	18 ms
VOLTAGE TYPE OF OPERATING VOLTAGE	AC/DC
POLLUTION DEGREE	3
POWER CONSUMPTION, PICK-UP, 60 HZ	25 VA, AC, Single-frequency coil 50 Hz and Dual-f Hz
SWITCHING TIME (AC OPERATED, MAKE CONTACTS, CLOSING DELAY) - MAX	21 ms
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	6000 V AC
OPERATING VOLTAGE AT AC, 60 HZ - MIN	17 V
TIGHTENING TORQUE	1.2 Nm, Screw terminals
SWITCHING TIME (AC OPERATED, N/O, WITH AUXILIARY CONTACT MODULE, CLOSING DELAY)	45 ms
10.2.2 CORROSION RESISTANCE	Meets the product standard's requirements.
10.2.4 RESISTANCE TO ULTRA-VIOLET (UV) RADIATION	Meets the product standard's requirements.
10.2.7 INSCRIPTIONS	Meets the product standard's requirements.

NUMBER OF CONTACTS (NORMALLY OPEN CONTACTS)	3
SWITCHING TIME (AC OPERATED, MAKE CONTACTS, CLOSING DELAY) - MIN	14 ms
NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)	3
SHOCK RESISTANCE	10 g, N/O auxiliary contact, Basic unit with auxiliary Mechanical, according to IEC/EN 60068-2-27, Half sine wave, 11 ms 8 g, N/C auxiliary contact, Basic unit with auxiliary Mechanical, according to IEC/EN 60068-2-27, Half sine wave, 11 ms
POWER CONSUMPTION, SEALING, 60 HZ	1.3 W, AC, Single-frequency coil 50 Hz and Dual-frequency coil 50 Hz
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN	25 °C
OPERATING VOLTAGE AT AC, 50 HZ - MAX	500 V
10.12 ELECTROMAGNETIC COMPATIBILITY	Is the panel builder's responsibility. The specifications must be observed.
10.2.5 LIFTING	Does not apply, since the entire switchgear needs to be lifted.
NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS, DELAYED SWITCHING)	0
STRIPPING LENGTH (MAIN CABLE)	8 mm
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX	40 °C
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN	0 V
10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS	Is the panel builder's responsibility.
SCREW SIZE	M3.5, Terminal screw
NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS, LEADING)	0
PROTECTION	Finger and back-of-hand proof Protection against dirt actuated from front (EN 50274)
POWER CONSUMPTION, SEALING, 50 HZ	1.3 W, AC, Single-frequency coil 50 Hz and Dual-frequency coil 50 Hz 4.6 VA, AC, Single-frequency coil 50 Hz and Dual-frequency coil 50 Hz
CLIMATIC PROOFING	Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78
CODE NUMBER	31E
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	1.8 W
RATED OPERATIONAL CURRENT (IE) AT AC-15, 500 V	1.5 A

RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX	0 V
10.9.3 IMPULSE WITHSTAND VOLTAGE	Is the panel builder's responsibility.
10.5 PROTECTION AGAINST ELECTRIC SHOCK	Does not apply, since the entire switchgear needs to be grounded.
SAFE ISOLATION	300 V AC, Between coil and auxiliary contacts, According to IEC 60364-4-41 300 V AC, Between auxiliary contacts, According to IEC 60364-4-41
OPERATING VOLTAGE AT AC, 50 HZ - MIN	17 V
MOUNTING POSITION	As required (except vertical with terminals A1/A2 at the top)
RATED OPERATIONAL CURRENT (IE) AT AC-15, 220 V, 230 V, 240 V	6 A
10.13 MECHANICAL FUNCTION	The device meets the requirements, provided the instructions in the instruction leaflet (IL) is observed.
10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL	Is the panel builder's responsibility.
NUMBER OF CONTACTS (NORMALLY CLOSED CONTACTS)	1
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	0.4 W
ACTUATING VOLTAGE	380 V 50 Hz, 440 V 60 Hz
SWITCHING CAPACITY (AUXILIARY CONTACTS, GENERAL USE)	0.5 A, 250 V DC, (UL/CSA) 10 A, 600 V AC, (UL/CSA)
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	0 W
RATED SWITCH CURRENT	10 A
RATED OPERATIONAL CURRENT (IE)	2.5 A at 60 V, DC L/R ≤ 15 ms (with 2 contacts in parallel) 2.5 A at 24 V, DC L/R ≤ 15 ms (with 1 contact in parallel) 1.5 A at 110 V, DC L/R ≤ 15 ms (with 3 contacts in parallel) 0.5 A at 220 V, DC L/R ≤ 15 ms (with 3 contacts in parallel) 10 A
PICK-UP VOLTAGE	0.85 - 1.1 V AC x U _c (voltage tolerance - dual frequency) 0.8 - 1.1 V AC x U _c (voltage tolerance - single-voltage coil) dual-voltage coil 50 Hz, 60 Hz
TERMINAL CAPACITY (SOLID)	1 x (0.75 - 2.5) mm ² 2 x (0.75 - 2.5) mm ²
NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)	1
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.
LIFESPAN, MECHANICAL	10,000,000 Operations (AC operated)

CONTROL CIRCUIT RELIABILITY	< 2 λ, < 1 failure at 100,000,000 Operations (at U _e = 17 V, I _{min} = 5.4 mA)
NUMBER OF AUXILIARY CONTACTS (CHANGE-OVER CONTACTS)	0
RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX	600 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN	440 V
10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS	Is the panel builder's responsibility.
10.10 TEMPERATURE RISE	The panel builder is responsible for the temperature. Eaton will provide heat dissipation data for the device.
CONVENTIONAL THERMAL CURRENT I_{TH} AT 50°C (3-POLE, OPEN)	10 A
SCREWDRIVER SIZE	0.8 x 5.5/1 x 6 mm, Terminal screw, Standard screwdriver 2, Terminal screw, Pozidriv screwdriver
DUTY FACTOR	100 %
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX	440 V
SHORT-CIRCUIT PROTECTION RATING	10 A fast, 500V, Maximum fuse, Short-circuit rating for Contacts
SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY)	A600, AC operated (UL/CSA) P300, DC operated (UL/CSA)
RATED INSULATION VOLTAGE (UI)	690 V

Catalogs

Characteristic curve

Declarations of conformity

Drawings

eCAD model

Installation instructions

mCAD model

System overview

Wiring diagrams

051769



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.