DILE MINI CONTACTOR RELAY
051768

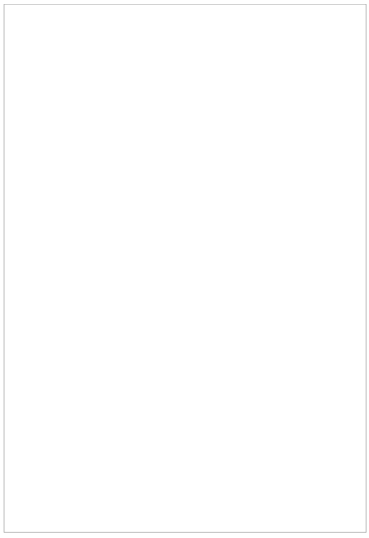

Photo is representative

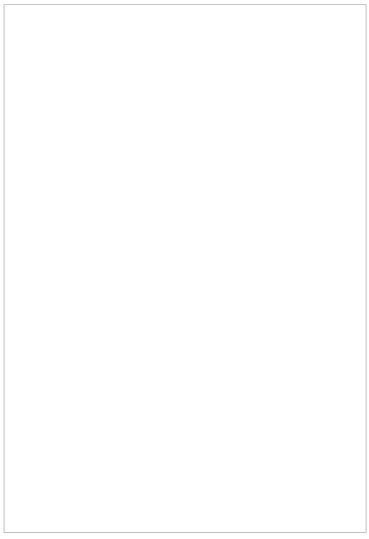

Photo is representative

051768

Eaton Moeller® series DILER Contactor relay, 230
Normally open: 3 N/O, N/C = Normally closed: 1 NC
operation DILER-31(230V50HZ,240V60HZ)

How to buy

Photo is representative

Photo is representative

General specifications

Product specifications

GENERAL SPECIFICATIONS

PRODUCT NAME	Eaton Moeller® series DILER Control Relay
CATALOG NUMBER	051768
MODEL CODE	DILER-31(230V50HZ,240V60HZ)
EAN	4015080517689
PRODUCT LENGTH/DEPTH	52 mm
PRODUCT HEIGHT	58 mm
PRODUCT WIDTH	45 mm

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

PRODUCT SPECIFICATIONS

RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	6 A
TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)	1 x (0.75 - 1.5) mm² 2 x (0.75 - 1.5) mm²
10.11 SHORT-CIRCUIT RATING	Is the panel builder's responsibility. The specificatio must be observed.
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN	230 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	230 V
OPERATING VOLTAGE AT DC - MIN	24 VDC
AMBIENT OPERATING TEMPERATURE - MAX	50 °C
FEATURES	Positive operating contacts to EN 60947-5-1 append 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)	1 x (18 - 14) 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
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 auxilia Mechanical, according to IEC/EN 60068-2-27, Half ms 8 g, N/C auxiliary contact, Basic unit with auxiliary Mechanical, according to IEC/EN 60068-2-27, Half ms
POWER CONSUMPTION, SEALING, 60 HZ	1.3 W, AC, Single-frequency coil 50 Hz and Dual-f 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 specificatio must be observed.
10.2.5 LIFTING	Does not apply, since the entire switchgear needs to
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 di actuated from front (EN 50274)
POWER CONSUMPTION, SEALING, 50 HZ	1.3 W, AC, Single-frequency coil 50 Hz and Dual-f Hz 4.6 VA, AC, Single-frequency coil 50 Hz and Dual- 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
SAFE ISOLATION	300 V AC, Between coil and auxiliary contacts, Acc 300 V AC, Between auxiliary contacts, According t
OPERATING VOLTAGE AT AC, 50 HZ - MIN	17 V
MOUNTING POSITION	As required (except vertical with terminals A1/A2 at
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 inf 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	230 V 50 Hz, 240 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 24 V, DC L/R ≤ 15 ms (with 1 contact in 0.5 A at 220 V, DC L/R ≤ 15 ms (with 3 contacts i 2.5 A at 60 V, DC L/R ≤ 15 ms (with 2 contacts in 1.5 A at 110 V, DC L/R ≤ 15 ms (with 3 contacts i 10 A
PICK-UP VOLTAGE	0.85 - 1.1 V AC x Uc (voltage tolerance - dual frequ 0.8 - 1.1 V AC x Uc (voltage tolerance - single-volt dual-voltage coil 50 Hz, 60 Hz)
TERMINAL CAPACITY (SOLID)	2 x (0.75 - 2.5) mm² 1 x (0.75 - 2.5) mm²
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_c = 17 V, Imin = 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	240 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 devi
CONVENTIONAL THERMAL CURRENT ITH AT 50°C (3-POLE, OPEN)	10 A
SCREWDRIVER SIZE	0.8 x 5.5/1 x 6 mm, Terminal screw, Standard scre 2, Terminal screw, Pozidriv screwdriver
DUTY FACTOR	100 %
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX	240 V
SHORT-CIRCUIT PROTECTION RATING	10 A fast, 500V, Maximum fuse, Short-circuit ratin Contacts
SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY)	P300, DC operated (UL/CSA) A600, AC 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

051768

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.