

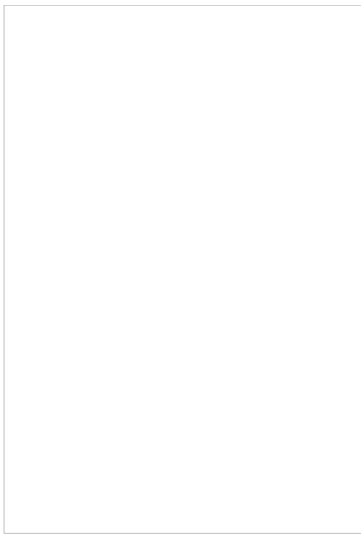
ETR4/ETR2 TIMING RELAYS
031888


Overview


Specifications


Resources

How to buy



031888

Eaton Moeller® series ETR4 Timing relay, 2W, 0.05
240VAC/DC, potentiometer connection

How to buy

GENERAL SPECIFICATIONS

General specifications >

PRODUCT NAME Eaton Moeller® series ETR4 Timing relay

CATALOG NUMBER 031888

Product specifications >

MODEL CODE ETR4-70-A

EAN 4015080318880

PRODUCT LENGTH/DEPTH 103 mm

PRODUCT HEIGHT 83 mm

PRODUCT WIDTH 23 mm

PRODUCT WEIGHT 0.141 kg

VDE 0435
CSA-22.2 No. 14
CE
UL File No.: E29184
UL Category Control No.: NKCR

CERTIFICATIONS

CSA File No.: 012528
UL 508
IEC/EN 61812-1
Standard IEC/EN 61812
UL
IEC/EN 60947-5-1
CSA
CSA Class No.: 3211-03
IEC/EN 61000-4-3
IEC/EN 61000-4-2

PRODUCT SPECIFICATIONS

REPEITION ACCURACY	≤ 0.5 % (deviation)
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	6 A
10.11 SHORT-CIRCUIT RATING	Is the panel builder's responsibility. The specifications must be observed.
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN	25 °C
NUMBER OF OUTPUTS (UNDELAYED, CHANGE-OVER CONTACT)	2
OPERATING VOLTAGE AT AC, 50 HZ - MAX	240 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN	24 V
10.4 CLEARANCES AND CREEPAGE DISTANCES	Meets the product standard's requirements.
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.
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX	45 °C
OPERATING VOLTAGE AT DC - MAX	240 V
10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES	Meets the product standard's requirements.
AMBIENT STORAGE TEMPERATURE - MIN	45 °C
SURGE RATING	2 kV, symmetrical, power pulses (Surge), EMC According to IEC/EN 61000-4-5, power pulses (Surge) 4 kV, asymmetrical, power pulses (Surge), EMC
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN	24 V
FITTED WITH:	Connection for potentiometer (4,7 kΩ)
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX	240 V

NUMBER OF OUTPUTS (DELAYED, CHANGE-OVER CONTACT)	2
10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS	Is the panel builder's responsibility.
IMMUNITY TO LINE-CONDUCTED INTERFERENCE	10 V (according to IEC/EN 61000-4-6)
TIME RANGE - MAX	360000 s
CONTACT DISCHARGE	6 kV
OPERATING VOLTAGE AT DC - MIN	24 V
AMBIENT OPERATING TEMPERATURE - MAX	60 °C
CONTACT CHANGE OVER TIME	4 ms
CLIMATIC PROOFING	Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78
NUMBER OF OUTPUTS (DELAYED, NORMALLY CLOSED CONTACT)	0
NUMBER OF OUTPUTS (DELAYED, NORMALLY OPEN CONTACT)	0
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	1.8 W
RECOVERY TIME	70 ms (after 100 % time delay)
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX	240 V
10.9.3 IMPULSE WITHSTAND VOLTAGE	Is the panel builder's responsibility.
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS	Does not apply, since the entire switchgear needs to
RATED BREAKING CAPACITY	3 A at AC-15 (cos ϕ = 0.3 220 V) 3 A at AC-14 (cos ϕ = 0.3 440 V) 1.1 x I _e (DC-11 L/R - 40 ms)
10.5 PROTECTION AGAINST ELECTRIC SHOCK	Does not apply, since the entire switchgear needs to
SAFE ISOLATION	250 V AC, Between auxiliary contacts, According to 250 V AC, Between coil and auxiliary contacts, According to
MOUNTING POSITION	As required
OPERATING VOLTAGE AT AC, 50 HZ - MIN	24 V
ELECTRIC CONNECTION TYPE	Screw connection
10.13 MECHANICAL FUNCTION	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.
NUMBER OF OUTPUTS (UNDELAYED, NORMALLY CLOSED CONTACT)	0
NUMBER OF OUTPUTS (UNDELAYED, NORMALLY OPEN CONTACT)	0

10.2.6 MECHANICAL IMPACT	Does not apply, since the entire switchgear needs to
10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL	Is the panel builder's responsibility.
10.3 DEGREE OF PROTECTION OF ASSEMBLIES	Does not apply, since the entire switchgear needs to
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	1.4 W
OPERATING FREQUENCY	4000 Operations/h
VOLTAGE TYPE	AC/DC
NOMINAL CURRENT	3 A
PRODUCT CATEGORY	ETR4 timing relays
RADIO INTERFERENCE CLASS	Class B (EN 55011, radiated) Class B (EN 55011, conducted)
TERMINAL CAPACITY	1 x (20 - 14) AWG, solid or stranded 1 x (0.5 - 2.5) mm ² , flexible with ferrule 1 x (0.5 - 2.5) mm ² , solid 2 x (0.5 - 1.5) mm ² , solid 2 x (0.5 - 1.5) mm ² , flexible with ferrule
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	0 W
HEAT DISSIPATION CAPACITY PDISS	0 W
RATED OPERATIONAL CURRENT (IE)	3 A at AC-14, 380 V 400 V 415 V 3 A at AC-15, 220 V 230 V 240 V 1.2 A at DC-11, L/R max. 50 ms 3 A at AC-15, 380 V 400 V 415 V 1.5 A at DC-11, 24 V 3 A at AC-14, 440 V 3 A at AC-14, 300 V (NC) 3 A at AC-15, 300 V
PICK-UP VOLTAGE	0.85 - 1.1 V AC x U _c 0.7 - 1.1 V DC x U _c
SUITABLE FOR	DIN rail (top hat rail) mounting
AIR DISCHARGE	8 kV
RATED MAKING CAPACITY	48 A (AC-14 cos ϕ = 0.3 400 V) 50 A (AC-15 cos ϕ = 0.3 220 V) 1.1 x I _e (DC-11 L/R - 40 ms)
POWER CONSUMPTION	2 VA at AC (Pick-up power) 2 VA at AC (Sealing power) 1.8 W at DC (Sealing power) 1.8 W at DC (Pick-up power)
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.

COMMAND TIME	50 ms, AC 30 ms, DC
LIFESPAN, MECHANICAL	30,000,000 Operations (DC operated) 30,000,000 Operations (AC operated)
ELECTROMAGNETIC FIELDS	3 V/m at 1.4 - 2 GHz (according to IEC EN 61000- 10 V/m at 80 - 1000 MHz (according to IEC EN 61 1 V/m at 2.0 - 2.7 GHz (according to IEC EN 6100
CONVENTIONAL THERMAL CURRENT ITH OF AUXILIARY CONTACTS (1-POLE, OPEN)	6 A
OPERATING VOLTAGE AT AC, 60 HZ - MAX	240 V
10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH	Is the panel builder's responsibility.
DEGREE OF PROTECTION	Terminals: IP20 IP20
OVERVOLTAGE CATEGORY	III
AMBIENT STORAGE TEMPERATURE - MAX	85 °C
VOLTAGE TYPE OF OPERATING VOLTAGE	AC/DC
RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX	440 V
POLLUTION DEGREE	2
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN	24 V
10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS	Is the panel builder's responsibility.
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	4000 V AC 6000 V AC
10.10 TEMPERATURE RISE	The panel builder is responsible for the temperature Eaton will provide heat dissipation data for the devi
FUNCTIONS	Remote operation possible Fleeting contact on energization Delay on de-energization Delay-on energization Flashing, starting with pause, fixed time Pulse shaping Flashing, pulse initiating Flashing, starting with pulse, fixed time Fleeting contact on de-energization Clock function, starting with pulse, variable On- and Off-delayed Pulse generating Multi-functional Adjustable timing function Clock function, starting with pause, variable On-delayed Outputs, reversible delayed/undelayed Off-delayed Pulse forming
OPERATING VOLTAGE AT AC, 60 HZ - MIN	24 V

MAINS VOLTAGE TOLERANCE	24 - 240 V AC (at 50/60 Hz) 24 – 240 V DC
BURSTIMPULSE	According to IEC/EN 61000-4-4 2 kV, Supply cable 1 kV, Signal cable
DUTY FACTOR	100 %
TYPE	Timer relay
10.2.2 CORROSION RESISTANCE	Meets the product standard's requirements.
TIME RANGE - MIN	0.05 s
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.
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX	240 V
SHORT-CIRCUIT PROTECTION RATING	Max. 6 A gG/gL, Fuse, Short-circuit rating without Max. 6 A gG/gL, fuse, Without welding, Contacts
SHOCK RESISTANCE	4 g, Make contact, Mechanical, according to IEC/EN sinusoidal shock 20 ms
NUMBER OF CONTACTS (CHANGE-OVER CONTACTS)	2

Brochures

Certification reports

Characteristic curve

Drawings

eCAD model

Installation instructions

mCAD model

Wiring diagrams



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