

ETR4/ETR2 TIMING RELAYS

031882



Overview

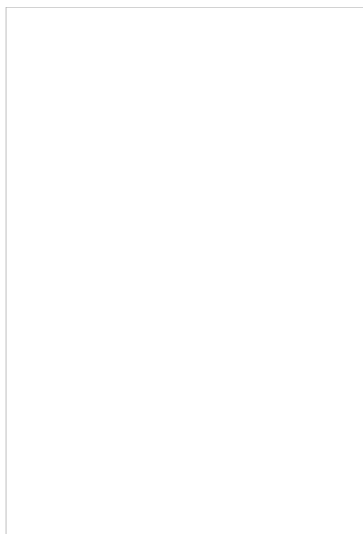


Specifications



Resources

How to buy



031882

Eaton Moeller® series ETR4 Timing relay, 1W, 0.05  
240VDC, on-delayed

How to buy



GENERAL SPECIFICATIONS

General specifications



**PRODUCT NAME** Eaton Moeller® series ETR4 Timing relay

**CATALOG NUMBER** 031882

Product specifications



**MODEL CODE** ETR4-11-A

**EAN** 4015080318828

**PRODUCT LENGTH/DEPTH** 103 mm

**PRODUCT HEIGHT** 82 mm

**PRODUCT WIDTH** 23 mm

**PRODUCT WEIGHT** 0.109 kg

UL File No.: E29184  
Standard IEC/EN 61812  
CSA  
CSA-22.2 No. 14  
UL

## CERTIFICATIONS

VDE 0435  
CE  
CSA Class No.: 3211-03  
UL Category Control No.: NKCR  
CSA File No.: 012528  
IEC/EN 61000-4-2  
UL 508  
IEC/EN 60947-5-1  
IEC/EN 61000-4-3  
IEC/EN 61812-1

## PRODUCT SPECIFICATIONS

<b>RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)</b>	6 A
<b>10.11 SHORT-CIRCUIT RATING</b>	Is the panel builder's responsibility. The specifications must be observed.
<b>NUMBER OF OUTPUTS (UNDELAYED, CHANGE-OVER CONTACT)</b>	0
<b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN</b>	24 V
<b>10.4 CLEARANCES AND CREEPAGE DISTANCES</b>	Meets the product standard's requirements.
<b>OPERATING VOLTAGE AT DC - MAX</b>	240 V
<b>10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES</b>	Meets the product standard's requirements.
<b>AMBIENT STORAGE TEMPERATURE - MIN</b>	45 °C
<b>SURGE RATING</b>	4 kV, asymmetrical, power pulses (Surge), EMC According to IEC/EN 61000-4-5, power pulses (Surge) 2 kV, symmetrical, power pulses (Surge), EMC
<b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX</b>	240 V
<b>TIME RANGE - MAX</b>	360000 s
<b>OPERATING VOLTAGE AT DC - MIN</b>	24 V
<b>AMBIENT OPERATING TEMPERATURE - MAX</b>	60 °C
<b>NUMBER OF OUTPUTS (DELAYED, NORMALLY OPEN CONTACT)</b>	0
<b>RECOVERY TIME</b>	70 ms (after 100 % time delay)
<b>VOLTAGE TOLERANCE</b>	0.85 x U <sub>c</sub> , AC operated min. 1.1 x U <sub>c</sub> , DC operated max. 0.7 x U <sub>c</sub> , DC operated min. 1.1 x U <sub>c</sub> , AC operated max.
<b>AMBIENT OPERATING TEMPERATURE - MIN</b>	-25 °C
<b>10.6 INCORPORATION OF SWITCHING DEVICES AND</b>	Does not apply, since the entire switchgear needs to

<b>COMPONENTS</b>	Does not apply, since the entire switchgear needs to
<b>NUMBER OF OUTPUTS (UNDELAYED, NORMALLY CLOSED CONTACT)</b>	0
<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>OPERATING FREQUENCY</b>	4000 Operations/h
<b>VOLTAGE TYPE</b>	AC/DC
<b>NOMINAL CURRENT</b>	3 A
<b>PRODUCT CATEGORY</b>	ETR4 timing relays
<b>RADIO INTERFERENCE CLASS</b>	Class B (EN 55011, conducted) Class B (EN 55011, radiated)
<b>TERMINAL CAPACITY</b>	2 x (0.5 - 1.5) mm <sup>2</sup> , flexible with ferrule 1 x (20 - 14) AWG, solid or stranded 2 x (0.5 - 1.5) mm <sup>2</sup> , solid 1 x (0.5 - 2.5) mm <sup>2</sup> , solid 1 x (0.5 - 2.5) mm <sup>2</sup> , flexible with ferrule
<b>HEAT DISSIPATION CAPACITY PDISS</b>	0 W
<b>RATED MAKING CAPACITY</b>	1.1 x I <sub>e</sub> (DC-11 L/R - 40 ms) 50 A (AC-15 cos φ = 0.3 220 V) 48 A (AC-14 cos φ = 0.3 400 V)
<b>ELECTROMAGNETIC FIELDS</b>	10 V/m at 80 - 1000 MHz (according to IEC EN 61000-4-3) 1 V/m at 2.0 - 2.7 GHz (according to IEC EN 61000-4-3) 3 V/m at 1.4 - 2 GHz (according to IEC EN 61000-4-3)
<b>CONVENTIONAL THERMAL CURRENT I<sub>th</sub> OF AUXILIARY CONTACTS (1-POLE, OPEN)</b>	6 A
<b>OPERATING VOLTAGE AT AC, 60 HZ - MAX</b>	240 V
<b>10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH</b>	Is the panel builder's responsibility.
<b>DEGREE OF PROTECTION</b>	Terminals: IP20 IP20
<b>OVERVOLTAGE CATEGORY</b>	III
<b>AMBIENT STORAGE TEMPERATURE - MAX</b>	85 °C
<b>VOLTAGE TYPE OF OPERATING VOLTAGE</b>	AC/DC
<b>POLLUTION DEGREE</b>	2
<b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b>	6000 V AC 4000 V AC
<b>FUNCTIONS</b>	Fixed timing function On-delayed Delay-on energization
<b>OPERATING VOLTAGE AT AC, 60 HZ - MIN</b>	24 V
<b>MAINS VOLTAGE TOLERANCE</b>	24 - 240 V AC (at 50/60 Hz)

<b>MAINS VOLTAGE TOLERANCE</b>	24 – 240 V DC
<b>TYPE</b>	Timer relay
<b>10.2.2 CORROSION RESISTANCE</b>	Meets the product standard's requirements.
<b>TIME RANGE - MIN</b>	0.05 s
<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>SHOCK RESISTANCE</b>	4 g, Make contact, Mechanical, according to IEC/EN sinusoidal shock 20 ms
<b>NUMBER OF CONTACTS (CHANGE-OVER CONTACTS)</b>	1
<b>REPEITION ACCURACY</b>	≤0.5 % (deviation)
<b>AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN</b>	25 °C
<b>OPERATING VOLTAGE AT AC, 50 HZ - MAX</b>	240 V
<b>10.12 ELECTROMAGNETIC COMPATIBILITY</b>	Is the panel builder's responsibility. The specification must be observed.
<b>10.2.5 LIFTING</b>	Does not apply, since the entire switchgear needs to
<b>AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX</b>	45 °C
<b>RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN</b>	24 V
<b>RATED OPERATIONAL VOLTAGE (UE) AT AC - MIN</b>	24 V
<b>NUMBER OF OUTPUTS (DELAYED, CHANGE-OVER CONTACT)</b>	1
<b>10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS</b>	Is the panel builder's responsibility.
<b>IMMUNITY TO LINE-CONDUCTED INTERFERENCE</b>	10 V (according to IEC/EN 61000-4-6)
<b>CONTACT DISCHARGE</b>	6 kV
<b>CONTACT CHANGEOVER TIME</b>	4 ms
<b>CLIMATIC PROOFING</b>	Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
<b>NUMBER OF OUTPUTS (DELAYED, NORMALLY CLOSED CONTACT)</b>	0
<b>STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS</b>	1.8 W
<b>RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX</b>	240 V
<b>10.9.3 IMPULSE WITHSTAND VOLTAGE</b>	Is the panel builder's responsibility.
<b>RATED BREAKING CAPACITY</b>	3 A at AC-14 (cos φ = 0.3 440 V)

<b>RATED BREAKING CAPACITY</b>	1.1 x I <sub>c</sub> (DC-11 L/R - 40 ms) 3 A at AC-15 (cos φ = 0.3 220 V)
<b>10.5 PROTECTION AGAINST ELECTRIC SHOCK</b>	Does not apply, since the entire switchgear needs to
<b>SAFE ISOLATION</b>	250 V AC, Between auxiliary contacts, According to 250 V AC, Between coil and auxiliary contacts, According to
<b>MOUNTING POSITION</b>	As required
<b>OPERATING VOLTAGE AT AC, 50 HZ - MIN</b>	24 V
<b>ELECTRIC CONNECTION TYPE</b>	Screw connection
<b>10.13 MECHANICAL FUNCTION</b>	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.
<b>NUMBER OF OUTPUTS (UNDELAYED, NORMALLY OPEN CONTACT)</b>	0
<b>10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL</b>	Is the panel builder's responsibility.
<b>HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID</b>	1.4 W
<b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID</b>	0 W
<b>RATED OPERATIONAL CURRENT (IE)</b>	3 A at AC-14, 440 V 3 A at AC-14, 380 V 400 V 415 V 1.5 A at DC-11, 24 V 3 A at AC-15, 380 V 400 V 415 V 1.2 A at DC-11, L/R max. 50 ms 3 A at AC-15, 300 V 3 A at AC-15, 220 V 230 V 240 V 3 A at AC-14, 300 V (NC)
<b>PICK-UP VOLTAGE</b>	0.85 - 1.1 V AC x U <sub>c</sub> 0.7 - 1.1 V DC x U <sub>c</sub>
<b>SUITABLE FOR</b>	DIN rail (top hat rail) mounting
<b>AIR DISCHARGE</b>	8 kV
<b>RATED FREQUENCY - MIN</b>	47 Hz
<b>POWER CONSUMPTION</b>	2 VA at AC (Sealing power) 2 VA at AC (Pick-up power) 1.8 W at DC (Sealing power) 1.8 W at DC (Pick-up power)
<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>COMMAND TIME</b>	50 ms, AC 30 ms, DC
<b>LIFESPAN, MECHANICAL</b>	30,000,000 Operations (DC operated) 30,000,000 Operations (AC operated)

<b>RATED OPERATIONAL VOLTAGE (UE) AT DC - MIN</b>	24 V
<b>RATED FREQUENCY - MAX</b>	63 Hz
<b>RATED OPERATIONAL VOLTAGE (UE) AT DC - MAX</b>	240 V
<b>RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX</b>	440 V
<b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN</b>	24 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 Eaton will provide heat dissipation data for the devi
<b>BURST IMPULSE</b>	1 kV, Signal cable According to IEC/EN 61000-4-4 2 kV, Supply cable
<b>DUTY FACTOR</b>	100 %
<b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX</b>	240 V
<b>SHORT-CIRCUIT PROTECTION RATING</b>	Max. 6 A gG/gL, Fuse, Short-circuit rating without Max. 6 A gG/gL, fuse, Without welding, Contacts

Brochures

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Certification reports

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Characteristic curve

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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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Wiring diagrams

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