



ETR4/ETR2 TIMING RELAYS  
031883

  
Overview

  
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How to



031883

Eaton Moeller® series ETR4 Timing relay, 1W, 0.05

How to buy



GENERAL SPECIFICATIONS

General specifications



PRODUCT NAME Eaton Moeller® series ETR4 Timing relay

CATALOG NUMBER 031883

Product specifications



MODEL CODE ETR4-11-W

EAN 4015080318835

PRODUCT LENGTH/DEPTH 103 mm

PRODUCT HEIGHT 83 mm

PRODUCT WIDTH 23 mm

PRODUCT WEIGHT 0.107 kg

CERTIFICATIONS

VDE 0435  
IEC/EN 61000-4-2  
IEC/EN 61000-4-3  
Standard IEC/EN 61812

## 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 specification must be observed.
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN	-25 °C
NUMBER OF OUTPUTS (UNDELAYED, CHANGE-OVER CONTACT)	0
OPERATING VOLTAGE AT AC, 50 HZ - MAX	400 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN	400 V
10.4 CLEARANCES AND CREEPAGE DISTANCES	Meets the product standard's requirements.
10.12 ELECTROMAGNETIC COMPATIBILITY	Is the panel builder's responsibility. The specification must be observed.
10.2.5 LIFTING	Does not apply, since the entire switchgear needs to
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX	45 °C
10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES	Meets the product standard's requirements.
AMBIENT STORAGE TEMPERATURE - MIN	-45 °C
SURGE RATING	According to IEC/EN 61000-4-5, power pulses (Surge), 4 kV, asymmetrical, power pulses (Surge), EMC 2 kV, symmetrical, power pulses (Surge), EMC
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN	0 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX	400 V
NUMBER OF OUTPUTS (DELAYED, CHANGE-OVER CONTACT)	1
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
AMBIENT OPERATING TEMPERATURE - MAX	60 °C
CONTACT CHANGEOVER TIME	4 ms
CLIMATIC PROOFING	Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
NUMBER OF OUTPUTS (DELAYED, NORMALLY	

NUMBER OF OUTPUTS (DELAYED, NORMALLY CLOSED CONTACT)	0
NUMBER OF OUTPUTS (DELAYED, NORMALLY OPEN CONTACT)	0
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	0.5 W
RECOVERY TIME	70 ms (after 100 % time delay)
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX	0 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	1.1 x I <sub>e</sub> (DC-11 L/R - 40 ms) 3 A at AC-15 (cos φ = 0.3 220 V) 3 A at AC-14 (cos φ = 0.3 440 V)
10.5 PROTECTION AGAINST ELECTRIC SHOCK	Does not apply, since the entire switchgear needs to
SAFE ISOLATION	250 V AC, Between coil and auxiliary contacts, According to 250 V AC, Between auxiliary contacts, According to
MOUNTING POSITION	As required
OPERATING VOLTAGE AT AC, 50 HZ - MIN	400 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
NOMINAL CURRENT	3 A
PRODUCT CATEGORY	ETR4 timing relays
RADIO INTERFERENCE CLASS	Class B (EN 55011, radiated)

	Class B (EN 55011, conducted)
<b>TERMINAL CAPACITY</b>	1 x (20 - 14) AWG, solid or stranded 1 x (0.5 - 2.5) mm <sup>2</sup> , solid 1 x (0.5 - 2.5) mm <sup>2</sup> , flexible with ferrule 2 x (0.5 - 1.5) mm <sup>2</sup> , solid 2 x (0.5 - 1.5) mm <sup>2</sup> , flexible with ferrule
<b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID</b>	0 W
<b>HEAT DISSIPATION CAPACITY PDISS</b>	0 W
<b>RATED OPERATIONAL CURRENT (IE)</b>	1.5 A at DC-11, 24 V 3 A at AC-14, 380 V 400 V 415 V 3 A at AC-15, 380 V 400 V 415 V 3 A at AC-15, 220 V 230 V 240 V 3 A at AC-14, 440 V 1.2 A at DC-11, L/R max. 50 ms
<b>PICK-UP VOLTAGE</b>	0.85 - 1.1 V AC x U <sub>c</sub>
<b>SUITABLE FOR</b>	DIN rail (top hat rail) mounting
<b>AIR DISCHARGE</b>	8 kV
<b>RATED MAKING CAPACITY</b>	48 A (AC-14 cos $\phi$ = 0.3 400 V) 1.1 x I <sub>c</sub> (DC-11 L/R - 40 ms) 50 A (AC-15 cos $\phi$ = 0.3 220 V)
<b>POWER CONSUMPTION</b>	0.5 VA at AC (Sealing power) 0.5 VA at AC (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
<b>LIFESPAN, MECHANICAL</b>	30,000,000 Operations (AC operated) 30,000,000 Operations (DC operated)
<b>ELECTROMAGNETIC FIELDS</b>	1 V/m at 2.0 - 2.7 GHz (according to IEC EN 61000-6-3) 10 V/m at 80 - 1000 MHz (according to IEC EN 61000-6-3) 3 V/m at 1.4 - 2 GHz (according to IEC EN 61000-6-3)
<b>CONVENTIONAL THERMAL CURRENT ITH OF AUXILIARY CONTACTS (1-POLE, OPEN)</b>	6 A
<b>OPERATING VOLTAGE AT AC, 60 HZ - MAX</b>	400 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

<b>RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX</b>	440 V
<b>POLLUTION DEGREE</b>	2
<b>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN</b>	400 V
<b>10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS</b>	Is the panel builder's responsibility.
<b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b>	6000 V AC
<b>10.10 TEMPERATURE RISE</b>	The panel builder is responsible for the temperature Eaton will provide heat dissipation data for the device
<b>FUNCTIONS</b>	On-delayed Delay-on energization Fixed timing function
<b>OPERATING VOLTAGE AT AC, 60 HZ - MIN</b>	400 V
<b>MAINS VOLTAGE TOLERANCE</b>	400 V AC (at 50/60 Hz)
<b>BURST IMPULSE</b>	According to IEC/EN 61000-4-4 2 kV, Supply cable 1 kV, Signal cable
<b>DUTY FACTOR</b>	100 %
<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>RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX</b>	400 V
<b>SHORT-CIRCUIT PROTECTION RATING</b>	Max. 6 A gG/gL, fuse, Without welding, Contacts Max. 6 A gG/gL, Fuse, Short-circuit rating without welding
<b>SHOCK RESISTANCE</b>	4 g, Make contact, Mechanical, according to IEC/EN 60068-2-27 sinusoidal shock 20 ms
<b>NUMBER OF CONTACTS (CHANGE-OVER CONTACTS)</b>	1
<b>RATED INSULATION VOLTAGE (UI)</b>	600 V

Brochures

Certification reports

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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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.