



Timing relay, 1W, 0.05s-100h, 24-240V50/60Hz, 24-240VDC, on-delayed

Part no. **ETR4-11-A**
Article no. **031882**
Catalog No. **XTTR6A100HS11B**

EATON[®]

Powering Business Worldwide™

Delivery programme

Product range	ETR4 timing relays					
Basic function	Timer relays					
Function	On-delayed					
Number of changeover contacts	1					
Time range	0.05 s - 100 h					
Time range	0.05 - 1 s 0.15 - 3 s 0.5 - 10 s 1.5 - 30 s 5 - 100 s 15 - 300 s 1.5 - 30 min 15 - 300 min 1.5 - 30 h 5 - 100 h					
Rated operational current						
AC-11						
300 V	I_e	A	3			
AC-15						
220 V 230 V 240 V	I_e	A	3			
300 V	I_e	A	3			
Voltage range	U_{LN}	V	24 - 240 V AC, 50/60 Hz 24 - 240 V DC			
Width	mm 22.5					
Terminal marking according to EN 50042						

Approvals

Product Standards	IEC/EN 61812-1; IEC/EN 60947-5-1; UL 508; CSA-22.2 No. 14-05; CE marking					
UL File No.	E29184					
UL Category Control No.	NKCR					
CSA File No.	12528					
CSA Class No.	3211-03					
North America Certification	UL listed, CSA certified					
Degree of Protection	IEC: IP20, UL/CSA Type: -					
Shipping classification	GL					
Germanischer Lloyd						

General

Standards	Standard IEC/EN 61812 VDE 0435		
Lifespan, mechanical			
AC operated	Operations	$\times 10^6$	30
DC operated	Operations	$\times 10^6$	30
Climatic proofing			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Ambient temperature			°C

Ambient temperature, storage	°C	- 45 - + 60
Open	°C	- 25 - + 60
Enclosed	°C	- 25 - + 45
Mounting position	As required	
Mechanical shock resistance (IEC/EN 60068-2-27)		
Half-sinusoidal shock, 20 ms	g	
Make contact	g	4
Degree of protection		
Terminals	IP20	
Weight	kg	0.1
Terminal capacities	mm ²	
Solid	mm ²	1 x (0.75 - 2.5) 2 x (0.75 - 1.5)
Flexible with ferrule	mm ²	1 x (0.75 - 2.5) 2 x (0.75 - 1.5)
Solid or stranded	AWG	1 x (20 - 14)

Contacts

Rated impulse withstand voltage	U _{imp}	V AC	4000
Overvoltage category/pollution degree	III/2		
Rated insulation voltage	U _i	V AC	400
Rated operational voltage	U _e	V AC	300
Safe isolation to EN 61140			
between coil and auxiliary contacts	V AC 250		
between the auxiliary contacts	V AC 250		
Making capacity			
AC-14 cos φ = 0.3 400 V	A	48	
AC-15 cos φ = 0.3 220 V	A	50	
DC-11 L/R - 40 ms	x I _e	1.1	
Breaking capacity			
AC-14 cos φ = 0.3 440 V	A	3	
AC-15 cos φ = 0.3 220 V	A	3	
DC-11 L/R - 40 ms	x I _e	1.1	
Rated operational current	I _e	A	
AC-14			
440 V	I _e	A	3
AC-15			
220 V (230 V)	I _e	A	3
DC-11			
Note	Making and breaking conditions to DC13, time constant as stated		
L/R max. 15 ms	A		
24 V	I _e	A	1.5
L/R max. 50 ms	A	1.2	
Conv. thermal current	I _{th}	A	6
Short-circuit rating without welding			
Note	When supplied directly from mains or transformer > 1000 VA		
Max. fuse, make contacts	A gG/gL	6	
Max. fuse, break contacts	A gG/gL	6	
Max. overcurrent protective device, 220/230 V	Type	FAZ-B4/1-HI	

Magnet systems

Rated operational voltage	U _e	V	
AC		24 - 240	
DC		24 - 240	
Rated frequency AC	Hz	47 - 63	
Tolerance AC operated min.	x U _c	0.85	
Tolerance AC operated max.	x U _c	1.1	

Tolerance DC operated min.	x U _c	0.7
Tolerance DC operated max.	x U _c	1.1
Voltage tolerance	x U _c	
Pick-up voltage	x U _s	
Min. pick-up voltage, AC operated	x U _c	0.85
Pick-up voltage AC operated, max.	x U _c	1.1
Pick-up voltage DC operated, min.	x U _c	0.7
Max. pick-up voltage, DC operated	x U _c	1.1
Power consumption		
Pick-up AC	VA	2
Sealing AC	VA	2
Pick-up DC	W	1.8
Sealing DC	W	1.8
Duty factor	% DF	100
Maximum operating frequency	Ops/h	4000
Minimum command time		
AC	ms	50
DC	ms	30
Repetition accuracy (deviation)	%	 0.5
Recovery time (after 100% time delay)	ms	70
Contact changeover time	t _u	ms
		4

Data for design verification according to IEC/EN 61439

Technical data for design verification			
Static heat dissipation, non-current-dependent	P _{vs}	W	1.8
Heat dissipation capacity	P _{diss}	W	0
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
10.2.2 Corrosion resistance			Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures			Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat			Meets the product standard's requirements.
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects			Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation			Meets the product standard's requirements.
10.2.5 Lifting			Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact			Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions			Meets the product standard's requirements.
10.3 Degree of protection of ASSEMBLIES			Does not apply, since the entire switchgear needs to be evaluated.
10.4 Clearances and creepage distances			Meets the product standard's requirements.
10.5 Protection against electric shock			Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components			Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections			Is the panel builder's responsibility.
10.8 Connections for external conductors			Is the panel builder's responsibility.
10.9 Insulation properties			
10.9.2 Power-frequency electric strength			Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage			Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material			Is the panel builder's responsibility.
10.10 Temperature rise			The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating			Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.12 Electromagnetic compatibility			Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.13 Mechanical function			The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

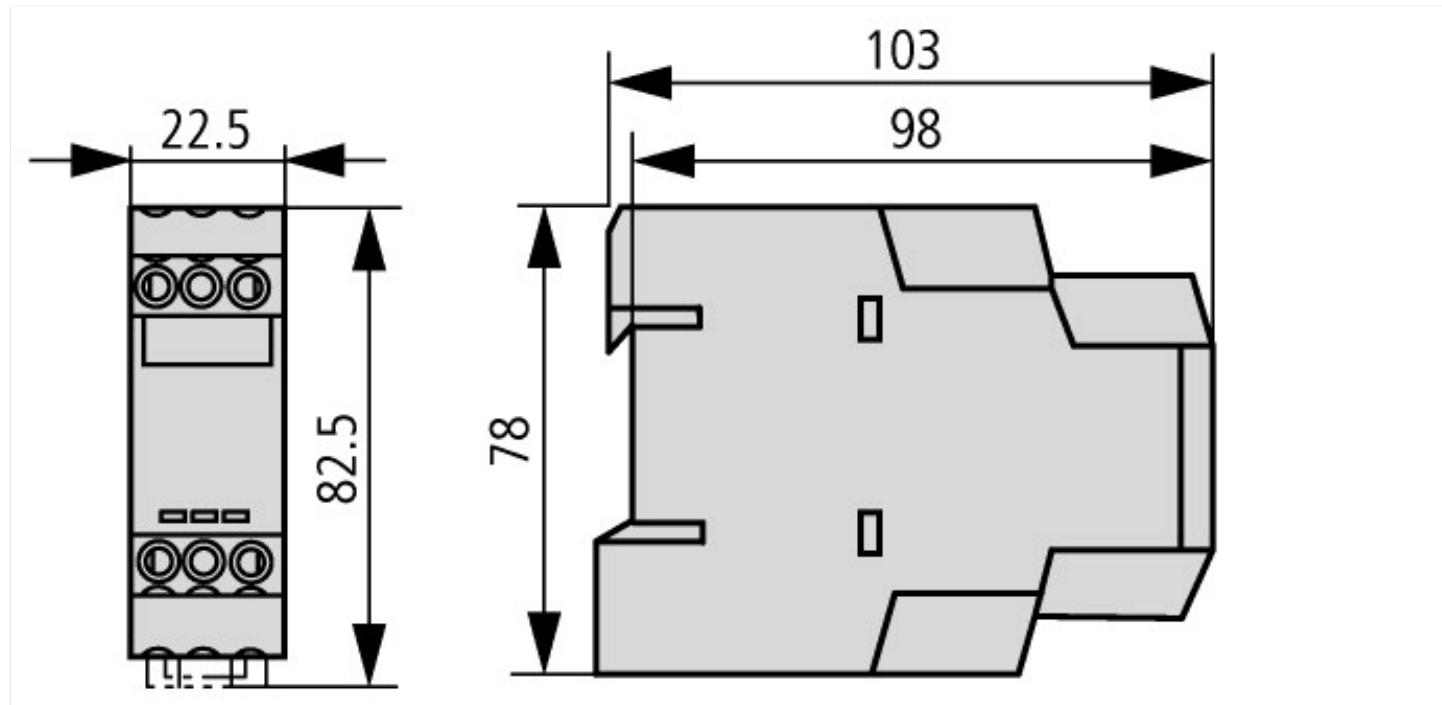
Technical data ETIM 5.0

Relays (EG000019) / Timer relay (EC001439)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Relay and socket / Timed relay (ecl@ss8-27-37-16-05 [AKF092009])

Type of electric connection	Screw connection	
Function delay-on energization	Yes	
Function delay on de-energization	No	
Function floating contact on energization	No	
Function floating contact on de-energization	No	
Function star-delta	No	
Function pulse shaping	No	
Function flashing, starting with pause, fixed time	No	
Function flashing, starting with pulse, fixed time	No	
Clock function, starting with pause, variable	No	
Clock function, starting with pulse, variable	No	
With plug-in socket	No	
Remote operation possible	No	
Suitable only for remote control	No	
Pluggable on auxiliary contact block	No	
Rated control supply voltage Us at AC 50HZ	V	24 - 240
Rated control supply voltage Us at AC 60HZ	V	24 - 240
Rated control supply voltage Us at DC	V	24 - 240
Voltage type for actuating	AC/DC	
Time range	s	0.05 - 360000
Number of outputs, undelayed, normally closed contact	0	
Number of outputs, undelayed, normally open contact	0	
Number of outputs, undelayed, change-over contact	0	
Number of outputs, delayed, normally closed contact	0	
Number of outputs, delayed, normally open contact	0	
Number of outputs, delayed, change-over contact	1	
Outputs, reversible delayed/undelayed	No	
With semiconductor output	No	
Width	mm	23
Height	mm	82
Depth	mm	103

Dimensions



Additional product information (links)

IL04910001Z (AWA2527-1485) Timing relay, star-delta relay, multifunction relay

IL04910001Z (AWA2527-1485) Timing relay, star- ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL04910001Z2011_04.pdf
delta relay, multifunction relay