## **DATASHEET - ETR4-11-W**

Part no. Catalog No.

**EL-Nummer** 

(Norway)

No.

Timing relay, 1W, 0.05s-60h, on-delayed, 400VAC

ETR4-11-W 031883 Alternate Catalog XTTR6A100HS11N

4110006



## **Delivery program**

71 0				
Product range			ETR4 timing relays	
Basic function			Timer relays	
Function			On-delayed	
			Fixed timing function	
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 1.5 - 300 min 1.5 - 30 h 5 - 100 h	
Rated operational current				
AC-14				
380 V 400 V 415 V	le	А	3	
			Value applies starting with release 001.	
AC-15				
220 V 230 V 240 V	le	А	3	
380 V 400 V 415 V	l <sub>e</sub>	А	3	
			Value applies starting with release 001.	
Voltage range	U <sub>LN</sub>	V	400 V AC, 50/60 Hz	
Width		mm	22.5	
Terminal marking according to EN 50042 $A2$ $I6$ $I8$				

### **Technical data**

General			
Standards			Standard IEC/EN 61812 VDE 0435
Lifespan, mechanical			
AC operated	Operations	x 10 <sup>6</sup>	30
DC operated	Operations	x 10 <sup>6</sup>	30
Climatic proofing			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Ambient temperature			
Ambient temperature, storage		°C	- 45 - + 85
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			

interactioninteractio	Terminals			IP20
interactioninteractio	Weight		kg	0.1
SoldNote SoldNote SoldNote SoldFalse sold reactionNote SoldNote SoldSold reactionNote SoldNote SoldReaction sold reaction whether s	Terminal capacities		mm <sup>2</sup>	
networkNote of the sector of the				1 x (0.5 - 2.5)
Side arcs of the second seco			mm	
Chance SimpleNote Sim	Flexible with ferrule		mm <sup>2</sup>	
Back unitation unitageHere and and an analysis of the sector of the sec			AWG	1 x (20 - 14)
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Number of the sector of the	Rated impulse withstand voltage	U <sub>imp</sub>	V AC	
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Making upaging index and set of the se				
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Braking capacity     Image: status     Image			A	50
AC-14 cos q = 0.3 40VImage: A cos q = 0.3 220VImage: A cos q = 0.3 220V </td <td>DC-11 L/R - 40 ms</td> <td></td> <td>x I<sub>e</sub></td> <td>1.1</td>	DC-11 L/R - 40 ms		x I <sub>e</sub>	1.1
ACIS constraintsImage: Section of Sectin of Section	Breaking capacity			
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300 400 V415VA M <br< td=""><td>Rated operational current</td><td>l<sub>e</sub></td><td>Α</td><td></td></br<>	Rated operational current	l <sub>e</sub>	Α	
AC-14   اس   Auapplestarting with release 001.     440 V   Im   Auapplestarting with release 001.     440 V   Im   Auapplestarting with release 001.     440 V   Im   Auapplestarting with release 001.     200 V 200 V   Im   Auapplestarting with release 001.     200 V 200 V   Im   Auapplestarting with release 001.     DC-11   Im   Auapplestarting with release 001.     Note   Im   Auapplestarting with release 001.     Note   Im   Auapplestarting with release 001.     Value 200 V 200 V 200 V   Im   Auapplestarting with release 001.     Note   Im   Auapplestarting with release 001.     Value 200 V 200 V 200 V   Im   Auapplestarting with release 001.     Value 200 V 200 V 200 V   Im   Auapplestarting with release 001.     Value 200 V 200 V 200 V   Im   Auapplestarting with release 001.     Value 200 V 200 V 200 V 200 V   Im   Auapplestarting with release 001.     Value 200 V 200	AC-14	l <sub>e</sub>		
AC-14Image: Part of the sector of	380 V 400 V 415 V	I <sub>e</sub>	А	3
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AC-15     I <td>AC14</td> <td></td> <td></td> <td></td>	AC14			
20 V20 V40 VIAAADC-1MainMainMainMainNoteNoteMainMainMain2 VNoteA5Main2 VNoteA10Main1 Max StoraNoteA6MainNoteNoteA6MainNoteNoteA6MainNoteNoteAAMainNoteNoteAAMainNoteNoteAAANoteNoteAAANoteNoteAAANoteNoteAAANoteNoteAAANoteNoteAAANoteNoteAAANoteNoteAAANoteNoteAAANoteNoteAAANoteNoteAAANoteNoteAAANoteNoteAAANoteNoteNoteAANoteNoteNoteAANoteNoteNoteAANoteNoteNoteNoteANoteNoteNoteNoteANoteNoteNoteNoteANoteNoteNoteNoteA<	440 V	l <sub>e</sub>	Α	3
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NoteImage: Some set of the set	220 V 230 V 240 V	l <sub>e</sub>	A	3
LR max. 15 msImage:	DC-11			
24VAAAL/R max.50 msMaAAConv.thermal currentMaAAShort-circuit rating without weldingMaAAMax.fuse, make contactsMaAAMax.fuse, break contactsMaAAMax.fuse, break contactsMaxAAMax.fuse, break contactsMaxABMax.fuse, break contactsMaxBBMax.fuse, break contactsMaxBBMax.fuse, break contactsMaxBBMax.fuse, break contactsMaxMaxBMax.fuse, break contactsMaxM	Note			Making and breaking conditions to DC13, time constant as stated
L/R max. 50 ms A A   L/R max. 50 ms An A   Conv. thermal current An A   Short-circuit rating without welding An A   Note A Max. fuse, make contacts A   Max. fuse, break contacts A A B   Max. fuse, break contacts A A A   Max. fuse, break contacts Yem A B   Max. fuse, break contacts Yem A B   Max. fuse, break contacts Yem B A   Max. fuse, break contacts Yem B A   Max. fuse, break contacts Yem A B   Max. fuse, break contacts Yem M A   Ac Yem Yem S   Ac Yem Yem S   Posend Yem <	L/R max. 15 ms		A	
And     And     And     And       Note-circuit rating without welding     Image: And State St	24 V	l <sub>e</sub>	А	1.5
Arrow     Arrow       Short-circuit rating without welding     image: space of the	L/R max. 50 ms		А	1.2
Short- circuit rating without welding     Image: state	Conv. thermal current	I <sub>th</sub>	А	6
NoteMen supplied directly from mains or transformer > 1000 VAMax. fuse, make contactsA gG/aA gG/aMax. fuse, break contactsA gG/aA gG/aMax. overcurrent protective device, 220/230 VTypeFA2-B4/1-H1Magnet systemsMagnet systemsMagnet systemsMater doperational voltageMagnet systemsMagnet systemsA CMagnet systemsMagnet systemsProver consumptionMagnet systemsMagnet systemsPick-up A CMagnet systemsMagnet systemsPick-up A CMagnet systemsMagnet systemsDuty factorMagnet systemsMagnet systemsDuty factorMagnet systemsMagnet systemsMater doperational voltageMagnet systemsMagnet syste	Short-circuit rating without welding			
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Max. overcurrent protective device, 220/230 V Type FAZ-B4/1-HI   Magnet systems Name FAZ-B4/1-HI   Rated operational voltage Name Name   AC Name Name   Power consumption Name Name   Pick-up AC Name Name   Saling AC Name Name   Duty factor Name Name   Maximum operating frequency Name Name	Max. fuse, break contacts			
Rated operational voltage Ue Vel   AC AC 40   Power consumption Freedow Freedow   Pick-up AC VA 5   Sealing AC VA 5   Duty factor Freedow VA 50   Maximum operating frequency Freedow Freedow 60	Max. overcurrent protective device, 220/230 V			
ACModelModelPower consumptionCCPick-up ACVA0.5Sealing ACVA0.5Duty factorModelModelAddition of the provided	Magnet systems			
Power consumptionPowerPick-up ACVA0.5Sealing ACVA0.5Duty factorM% DFMaximum operating frequencyOps/m400	Rated operational voltage	U <sub>e</sub>	V	
Pick-up ACVA0.5Sealing ACVA0.5Duty factor% DF0.0Maximum operating frequencyOps/m400	AC			400
Sealing ACVA0.5Duty factor% DF100Maximum operating frequencyOps/h400	Power consumption			
Duty factor% DF100Maximum operating frequencyOps/h4000	Pick-up AC		VA	0.5
Maximum operating frequency Ops/h 4000	Sealing AC		VA	0.5
	Duty factor		% DF	100
Minimum command time	Maximum operating frequency		Ops/h	4000
	Minimum command time			

AC		ms	50	
Repetition accuracy (deviation)		%	≦ 0.5	
Recovery time (after 100% time delay)		ms	70	
Contact changeover time	t <sub>u</sub>	ms	4	
Electromagnetic compatibility (EMC)				

Lieuromagnetic compatibility (Linc)		
Electrostatic discharge (ESD)		
applied standard		IEC/EN 61000-4-2
Air discharge	kV	8
Contact discharge	kV	6
Electromagnetic fields (RFI)		
applied standard		IEC/EN 61000-4-3
	V/m	80 - 1000 MHz: 10 1.4 - 2 GHz: 3 2.0 - 2.7 GHz: 1
Radio interference suppression		EN 55011, Class B (conducted) EN 55011, Class B (radiated)
Burst	kV	Supply cables: 2 Signal cables: 1 according to IEC/EN 61000-4-4
power pulses (Surge)		2 kV (symmetrical) 4 kV (asymmetrical) according to IEC/EN 61000-4-5
Immunity to line-conducted interference to (IEC/EN 61000-4-6)	V	10

# Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I <sub>n</sub>	А	6
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	1.4
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	0
Static heat dissipation, non-current-dependent	P <sub>vs</sub>	W	0.5
Heat dissipation capacity	P <sub>diss</sub>	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	60
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.

The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

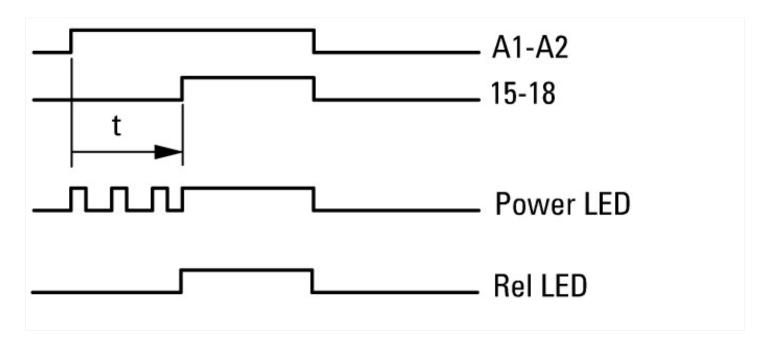
## **Technical data ETIM 7.0**

Relays (EG000019) / Timer relay (EC001439)				
Electric engineering, automation, process control engineering / Low-voltage switch	i technology / Relay and	d socket / Timed relay (ecl@ss10.0.1-27-37-16-05 [AKF092013])		
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 for remote control		No		
Pluggable on auxiliary contact block		No		
Rated control supply voltage Us at AC 50HZ	V	400 - 400		
Rated control supply voltage Us at AC 60HZ	V	400 - 400		
Rated control supply voltage Us at DC	V	0 - 0		
Voltage type for actuating		AC		
Nominal current	А	3		
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		
Suitable for DIN rail (top hat rail) mounting		Yes		
Suitable for front mounting		No		
Width	mm	23		
Height	mm	83		
Depth	mm	103		

### **Characteristics**

#### Flow diagram for timing functions

	LED legend	
		Time not running, contact 15 – 18 closed
		Time running, contact 15 – 18 closed
		Time running, contact 15 – 18 not closed
	 ① A2/A1 linked ② A2/A1 not linked	
	11 On-delayed	



**Dimensions** 

