

Electronic timing relay OFF delay with control signal and semiconductor output 24...240 V AC/DC Time range 0.05...100 s can be snapped on at the front for contactors 3RT2 S00/S0 and auxiliary contactor 3RH2 S00 Screw terminal Varistor for attenuation of the contactor coil integrated



Product brand name	SIRIUS
Product designation	function module
Product type designation	3RA28
General technical data	
Size of contactor can be combined company-specific	S00, S0
Product component	
• semi-conductor output	Yes
Product extension required remote control	No
Product extension optional remote control	No
Power loss [W] total typical	1 W
Test voltage for isolation test	1.5 kV
Degree of pollution	3
Surge voltage resistance rated value	4 kV
Test voltage for surge voltage test	4 800 V
Protection class IP	
• of the terminal	IP20
Shock resistance	
• acc. to IEC 60068-2-27	15g / 11 ms
Mechanical service life (switching cycles)	

• typical	100 000 000
Electrical endurance (switching cycles)	
• at AC-15 at 230 V typical	10 000 000
Electrical endurance (switching cycles)	
• with contactor 3R.2 of frame size S00	10 000 000
• with contactor 3R.2 of frame size S0	10 000 000
Adjustable time	0.05 ... 100 s
Relative setting accuracy relating to full-scale value	15 %
Minimum ON period	35 ms
Recovery time	50 ms
Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750	K
Reference code acc. to DIN EN 81346-2	K
Reference code acc. to DIN EN 61346-2	K
Relative repeat accuracy	1 %

Product Function

Product function star-delta circuit	No
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Control circuit/ Control

Type of voltage of the control supply voltage	AC/DC
Control supply voltage 1 at AC	
• at 50 Hz	24 ... 240 V
• at 60 Hz	24 ... 240 V
Control supply voltage frequency 1	50 ... 60 Hz
Control supply voltage 1	
• at DC	24 ... 240 V
Operating range factor control supply voltage rated value at DC	
• initial value	0.85
• Full-scale value	1.1
Operating range factor control supply voltage rated value at AC at 50 Hz	
• initial value	0.85
• Full-scale value	1.1
Operating range factor control supply voltage rated value at AC at 60 Hz	
• initial value	0.85
• Full-scale value	1.1
Design of the surge suppressor	with varistor

Switching Function

Switching function	
• ON-delay	No
• ON-delay/instantaneous contact	No

<ul style="list-style-type: none"> • passing make contact 	No
<ul style="list-style-type: none"> • passing make contact/instantaneous contact 	No
<ul style="list-style-type: none"> • OFF delay 	Yes
Switching function	
<ul style="list-style-type: none"> • flashing symmetrically starting with interval/instantaneous 	No
<ul style="list-style-type: none"> • flashing symmetrically starting with interval 	No
<ul style="list-style-type: none"> • flashing symmetrically starting with pulse/instantaneous 	No
<ul style="list-style-type: none"> • flashing symmetrically starting with pulse 	No
<ul style="list-style-type: none"> • flashing asymmetrically starting with interval 	No
<ul style="list-style-type: none"> • flashing asymmetrically starting with pulse 	No
Switching function	
<ul style="list-style-type: none"> • fixed clock cycle beginning with pulse 	No
<ul style="list-style-type: none"> • fixed clock cycle beginning with interval 	No
Switching function	
<ul style="list-style-type: none"> • variably clocked start with impulse 	No
<ul style="list-style-type: none"> • variably clocked start with interval 	No
Switching function	
<ul style="list-style-type: none"> • star-delta circuit with delay time 	No
<ul style="list-style-type: none"> • star-delta circuit 	No
Switching function with control signal	
<ul style="list-style-type: none"> • additive ON delay 	No
<ul style="list-style-type: none"> • passing break contact 	No
<ul style="list-style-type: none"> • passing break contact/instantaneous 	No
<ul style="list-style-type: none"> • OFF delay 	Yes
<ul style="list-style-type: none"> • OFF delay/instantaneous 	No
<ul style="list-style-type: none"> • pulse delayed 	No
<ul style="list-style-type: none"> • pulse delayed/instantaneous 	No
<ul style="list-style-type: none"> • pulse-shaping 	No
<ul style="list-style-type: none"> • pulse-shaping/instantaneous 	No
<ul style="list-style-type: none"> • additive ON delay/instantaneous 	No
<ul style="list-style-type: none"> • ON-delay/OFF-delay 	No
<ul style="list-style-type: none"> • ON-delay/OFF-delay/instantaneous 	No
<ul style="list-style-type: none"> • passing make contact 	No
<ul style="list-style-type: none"> • passing make contact/instantaneous contact 	No
Switching function of interval relay with control signal	
<ul style="list-style-type: none"> • retrotriggerable with deactivated control signal/instantaneous contact 	No
<ul style="list-style-type: none"> • retrotriggerable with activated control signal 	No
<ul style="list-style-type: none"> • retrotriggerable with activated control signal/instantaneous contact 	No

• retriggerable with deactivated control signal	No
Design of the control terminal non-floating	Yes
Auxiliary circuit	
Number of NO contacts	
• delayed switching	1
Operating frequency with 3RT2 contactor maximum	2 500 1/h
Influence of the surrounding temperature	±1 %
Power supply influence	±1 %
Main circuit	
Type of voltage	AC/DC
Inputs/ Outputs	
Product function	
• non-volatile	No
Electromagnetic compatibility	
EMI immunity	
• acc. to IEC 61812-1	Environment A (industrial area)
Conducted interference	
• due to burst acc. to IEC 61000-4-4	2 kV network connection / 1 kV control connection
• due to conductor-earth surge acc. to IEC 61000-4-5	2 kV
• due to conductor-conductor surge acc. to IEC 61000-4-5	1 kV
Field-bound parasitic coupling acc. to IEC 61000-4-3	10 V/m
Electrostatic discharge acc. to IEC 61000-4-2	8 kV
Safety related data	
Protection against electrical shock	finger-safe
Type of insulation	Basic insulation
Category acc. to EN 954-1	none
Connections/ Terminals	
Product function	
• removable terminal for auxiliary and control circuit	Yes
Type of electrical connection	
• for auxiliary and control current circuit	screw-type terminals
Type of connectable conductor cross-sections	
• solid	0.5 ... 4 mm ² , 2x (0.5 ... 2.5 mm ²)
• finely stranded with core end processing	1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.5 mm ²)
• at AWG conductors solid	2x (20 ... 14)
• at AWG conductors stranded	2x (20 ... 14)
Connectable conductor cross-section	

<ul style="list-style-type: none"> • solid 	0.5 ... 4 mm ²
<ul style="list-style-type: none"> • finely stranded with core end processing 	0.5 ... 2.5 mm ²
<ul style="list-style-type: none"> • finely stranded without core end processing 	0.25 ... 1.5 mm ²
AWG number as coded connectable conductor cross section	
<ul style="list-style-type: none"> • solid 	20 ... 14
<ul style="list-style-type: none"> • stranded 	20 ... 14




Installation/ mounting/ dimensions

Mounting position	any (like contactor)
Mounting type	clip-on
Height	38 mm
Width	45 mm
Depth	74 mm
Required spacing	
<ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side 	0 mm
	0 mm
	0 mm
	0 mm
	0 mm
<ul style="list-style-type: none"> • for grounded parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — at the side — downwards 	0 mm
	0 mm
	0 mm
	0 mm
	0 mm
<ul style="list-style-type: none"> • for live parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side 	0 mm
	0 mm
	0 mm
	0 mm
	0 mm

Ambient conditions

Installation altitude at height above sea level	
<ul style="list-style-type: none"> • maximum 	2 000 m
Relative humidity	
<ul style="list-style-type: none"> • during operation 	0 ... 95 %

Certificates/ approvals

General Product Approval		Declaration of Conformity		Test Certificates	
 UL		 EG-Konf.	Miscellaneous	Special Test Certificate	Type Test Certificates/Test Report

Marine / Shipping					
 ABS	 BUREAU VERITAS	 LRS	 RINA	 RMRS	 TYPE APPROVED PRODUCT DNV-GL DNVGL.COM/AF

other	Railway
Confirmation	Vibration and Shock

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

www.siemens.com/sirius/catalogs

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA2812-1DW10>

Cax online generator

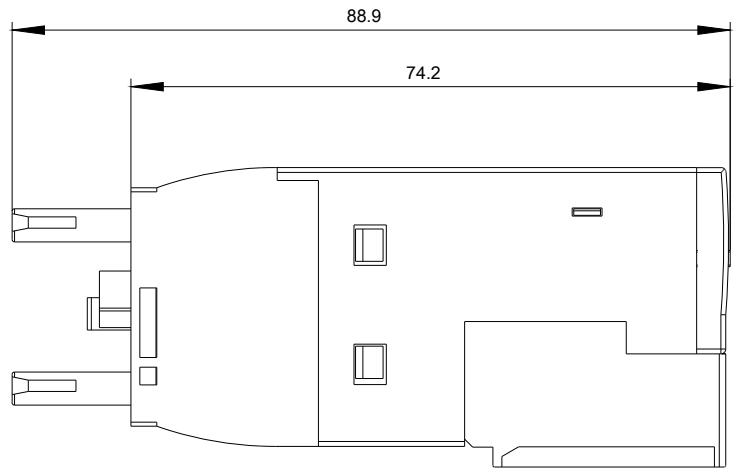
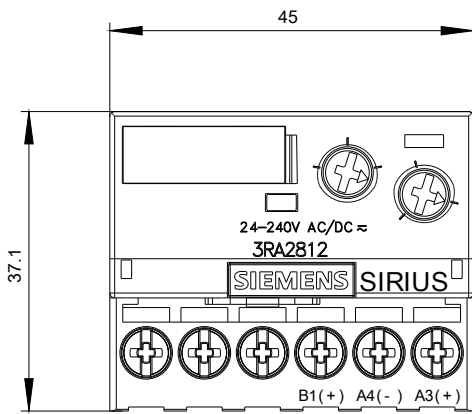
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2812-1DW10>

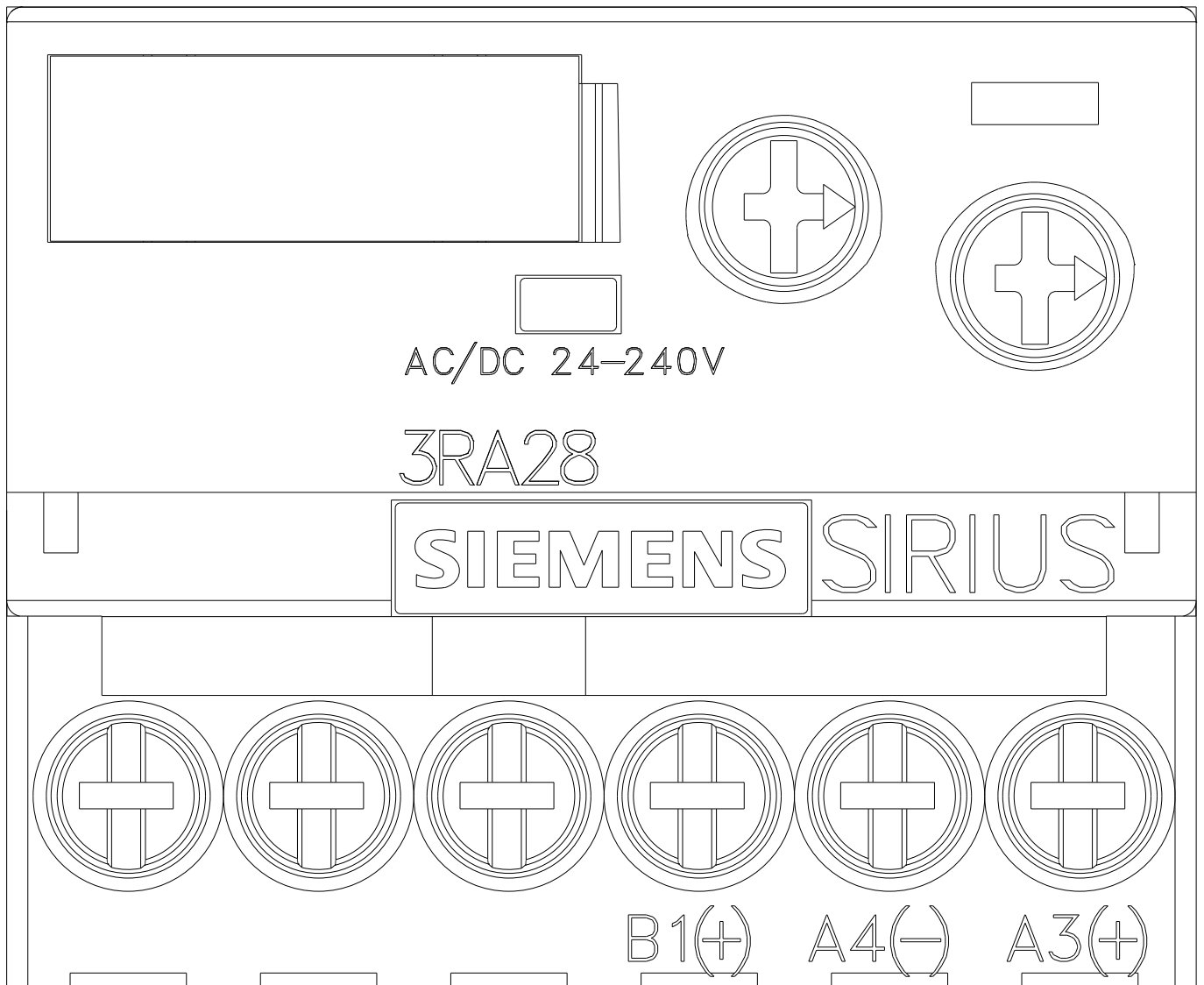
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

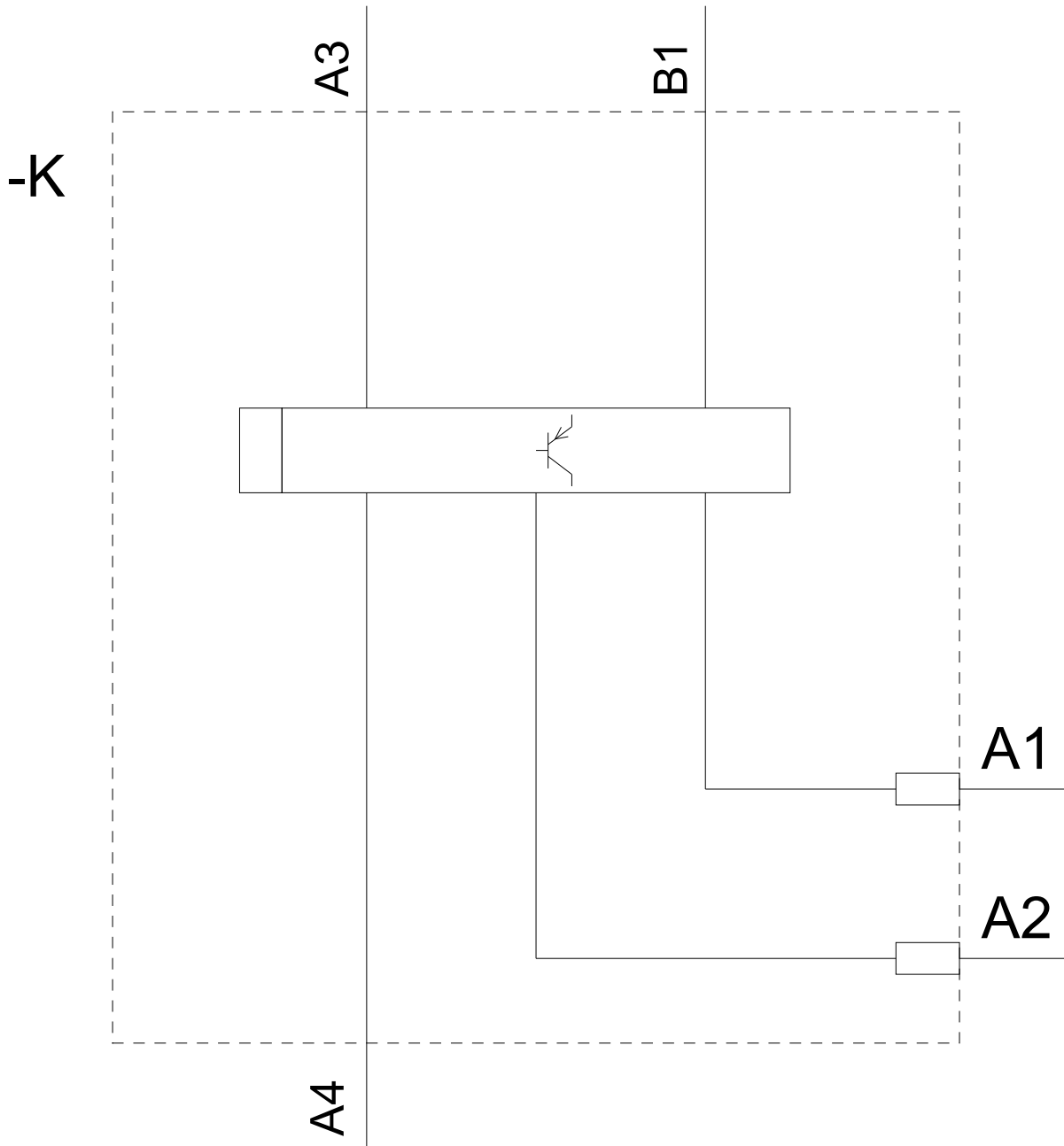
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2812-1DW10>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2812-1DW10&lang=en







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