



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
insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value	300 V
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
consumed current at 24 V	24 mA
protection class IP of the terminal	IP20
shock resistance according to IEC 60068-2-27	15g / 11 ms
vibration resistance according to IEC 60068-2-6	10 ... 59 Hz: 0.35 mm, 60 ... 150 Hz: 2g
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 according to IEC 81346-2	K
relative repeat accuracy	1 %
influence of the surrounding temperature	±1 %
power supply influence	±1 %
Substance Prohibitance (Date)	10/01/2009

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	

<ul style="list-style-type: none"> • at DC 	24 ... 240 V
operating range factor control supply voltage rated value at DC	
<ul style="list-style-type: none"> • initial value • full-scale value 	0.85 1.1
operating range factor control supply voltage rated value at AC at 50 Hz	
<ul style="list-style-type: none"> • initial value • full-scale value 	0.85 1.1
operating range factor control supply voltage rated value at AC at 60 Hz	
<ul style="list-style-type: none"> • initial value • full-scale value 	0.85 1.1
design of the surge suppressor	with varistor

Switching Function

switching function	
<ul style="list-style-type: none"> • ON-delay • ON-delay/instantaneous contact • passing make contact • passing make contact/instantaneous contact • OFF delay 	No No No No Yes
switching function	
<ul style="list-style-type: none"> • flashing symmetrically with interval start/instantaneous • flashing symmetrically with interval start • flashing symmetrically with pulse start/instantaneous • flashing symmetrically with pulse start • flashing asymmetrically with interval start • flashing asymmetrically with pulse start 	No No No No No No
switching function	
<ul style="list-style-type: none"> • constant clock cycle with pulse start • constant clock cycle with interval start 	No No
switching function	
<ul style="list-style-type: none"> • variably clocked with pulse start • variably clocked with interval start 	No No
switching function	
<ul style="list-style-type: none"> • star-delta circuit with delay time • star-delta circuit 	No No
switching function with control signal	
<ul style="list-style-type: none"> • additive ON-delay • passing break contact • passing break contact/instantaneous • OFF delay • OFF delay/instantaneous • pulse delayed • pulse delayed/instantaneous • pulse-shaping • pulse-shaping/instantaneous • additive ON-delay/instantaneous • ON-delay/OFF-delay • ON-delay/OFF-delay/instantaneous • passing make contact • passing make contact/instantaneous contact 	No No No Yes No No No No No No No No No No No
switching function of interval relay with control signal	
<ul style="list-style-type: none"> • retrotriggerable with deactivated control signal/instantaneous contact • retrotriggerable with switched-on control signal • retrotriggerable with switched-on control signal/instantaneous contact • retriggerable with deactivated control signal 	No No No No
design of the control terminal non-floating	Yes

Auxiliary circuit

number of NO contacts	
<ul style="list-style-type: none"> • delayed switching 	1

operating frequency with 3RT2 contactor maximum	2 500 1/h
Main circuit	
type of voltage	AC/DC
Inputs/ Outputs	
product function	
<ul style="list-style-type: none"> • non-volatile 	No
Electromagnetic compatibility	
EMC immunity according to IEC 61812-1	Environment A (industrial area)
conducted interference	
<ul style="list-style-type: none"> • due to burst according to IEC 61000-4-4 	2 kV network connection / 1 kV control connection
<ul style="list-style-type: none"> • due to conductor-earth surge according to IEC 61000-4-5 	2 kV
<ul style="list-style-type: none"> • due to conductor-conductor surge according to IEC 61000-4-5 	1 kV
field-based interference according to IEC 61000-4-3	10 V/m
electrostatic discharge according to IEC 61000-4-2	8 kV
Safety related data	
protection class IP on the front according to IEC 60529	IP20
type of insulation	Basic insulation
category according to EN 954-1	none
Connections/ Terminals	
product component removable terminal for auxiliary and control circuit	Yes
type of electrical connection for auxiliary and control circuit	screw-type terminals
type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • solid 	0.5 ... 4 mm ² , 2x (0.5 ... 2.5 mm ²)
<ul style="list-style-type: none"> • finely stranded with core end processing 	1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.5 mm ²)
<ul style="list-style-type: none"> • at AWG cables solid 	2x (20 ... 14)
<ul style="list-style-type: none"> • at AWG cables 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)
fastening method	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
<ul style="list-style-type: none"> • for grounded parts <ul style="list-style-type: none"> — forwards — backwards — upwards — at the side — downwards 	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

Ambient conditions

installation altitude at height above sea level maximum	2 000 m
ambient temperature	
• during operation	-25 ... +60 °C
• during storage	-40 ... +85 °C
• during transport	-40 ... +85 °C
relative humidity during operation	0 ... 95 %

Certificates/ approvals

General Product Approval	Declaration of Conformity	Test Certificates
Confirmation     EG-Konf.		Type Test Certificates/Test Report

Test Certificates Marine / Shipping

[Special Test Certificate](#)



Marine / Shipping other Railway



[Confirmation](#)

[Vibration and Shock](#)

Further information

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

<https://www.siemens.com/ic10>

Industry Mall (Online ordering system)

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

Cax online generator

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

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

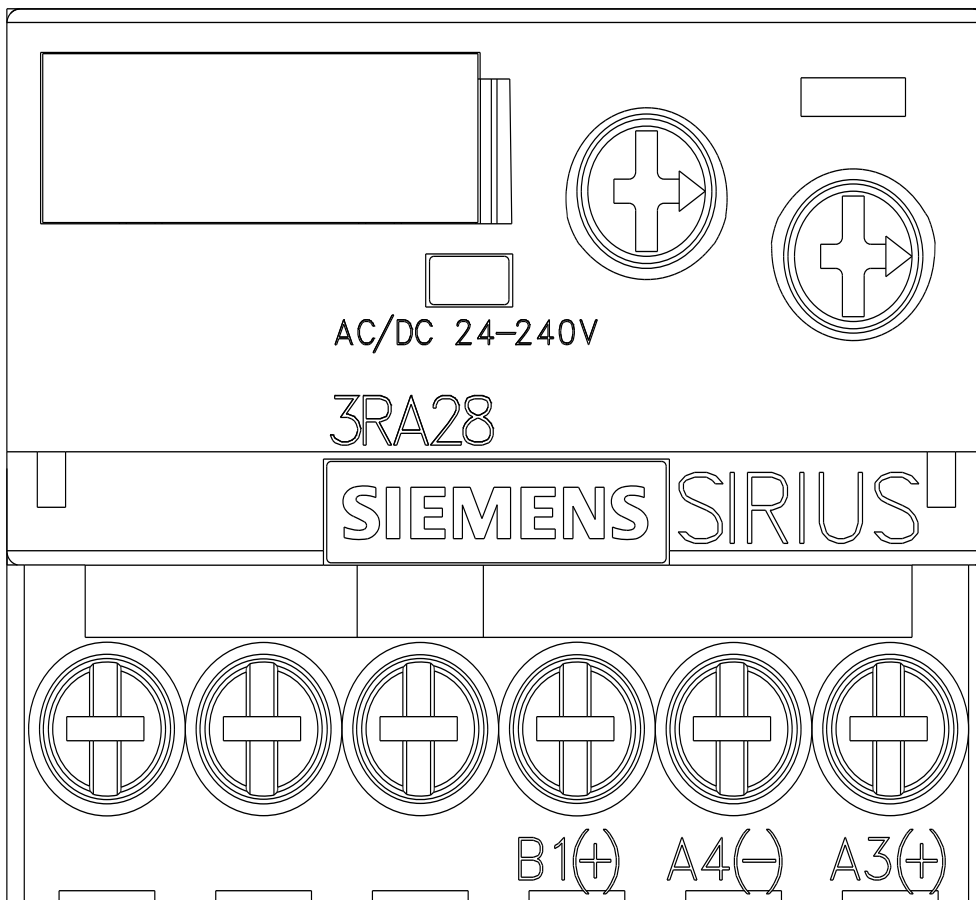
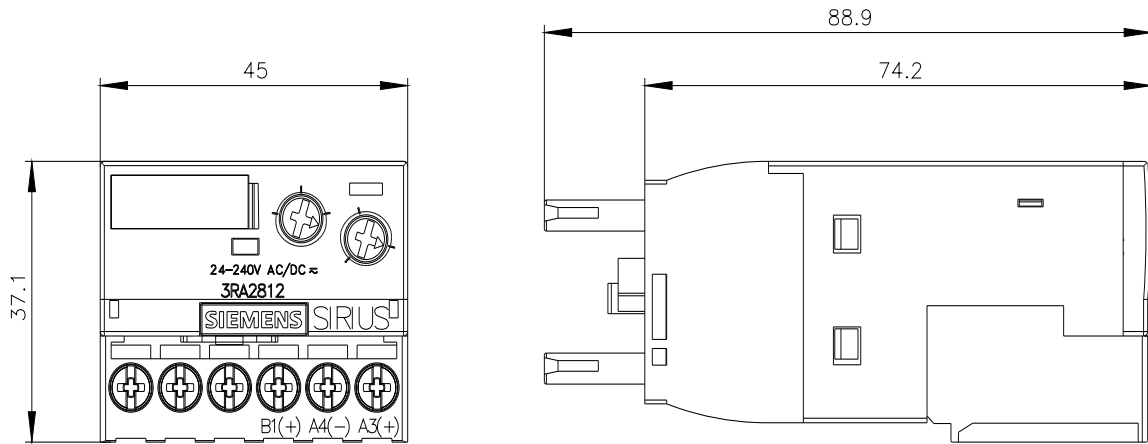
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2812-1DW10>

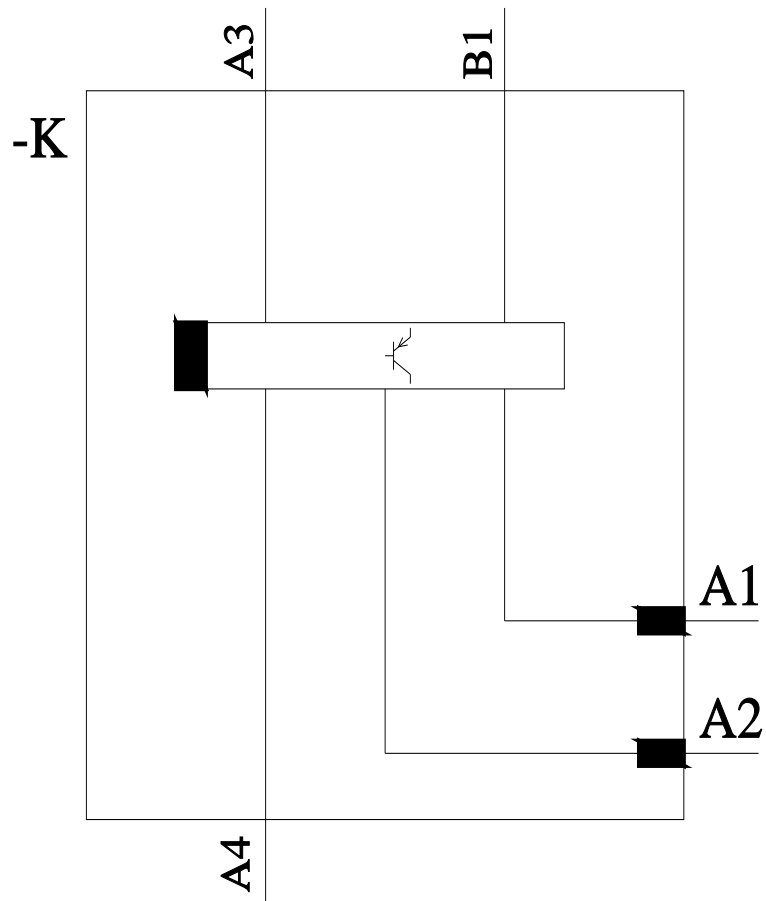
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

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

Characteristic: Derating

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





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