# **SIEMENS**

Data sheet 3RA2813-2AW10

0101110



solid-state time-delayed auxiliary switch, ON-delay, relay: 1 CO, time range 0.05-100 s, 24-240 V AC/DC, 50/60 Hz, varistor for attenuation of the contactor coils integrated, spring-loaded terminal, can be snapped on at the front on contactors 3RT2 and auxiliary contactors 3RH2

product brand name	SIRIUS	
product designation	Solid-state time-delay auxiliary switch	
product type designation	3RA28	
General technical data		
size of contactor can be combined company-specific	S00, S0, S2, S3	
product component semi-conductor output	No	
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	
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 (operating cycles) typical	10 000 000	
mechanical service life (operating cycles)		
<ul> <li>with contactor 3R.2 of frame size S00</li> </ul>	10 000 000	
<ul> <li>with contactor 3R.2 of frame size S0</li> </ul>	10 000 000	
<ul> <li>with contactor 3R.2 of frame size S2</li> </ul>	10 000 000	
with contactor 3R.2 of frame size S3	10 000 000	
electrical endurance (operating cycles) at AC-15 at 230 V typical	100 000	
electrical endurance (operating cycles)		
<ul> <li>with contactor 3R.2 of frame size S00</li> </ul>	100 000	
<ul> <li>with contactor 3R.2 of frame size S0</li> </ul>	100 000	
<ul> <li>with contactor 3R.2 of frame size S2</li> </ul>	100 000	
<ul> <li>with contactor 3R.2 of frame size S3</li> </ul>	100 000	
adjustable time	0.05 100 s	
relative setting accuracy relating to full-scale value	15 %	
recovery time	150 ms	
reference code according to IEC 81346-2	К	
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	
Control circuit/ Control		

type of voltage of the control supply voltage	AC/DC
control supply voltage 1 at AC	NO/DO
• at 50 Hz	24 240 V
• at 60 Hz	24 240 V
control supply voltage frequency 1	50 60 Hz
control supply voltage 1	30 00 112
• at DC	24 240 V
operating range factor control supply voltage rated value at	21210 V
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	Von
ON-delay     ON delay/instantaneous contact	Yes
ON-delay/instantaneous contact     passing make contact	No No
<ul> <li>passing make contact</li> <li>passing make contact/instantaneous contact</li> </ul>	No
Passing make contact/instantaneous contact     OFF delay	No
switching function	140
flashing symmetrically with interval start/instantaneous	No
flashing symmetrically with interval start	No
flashing symmetrically with pulse start/instantaneous	No
flashing symmetrically with pulse start	No
flashing asymmetrically with interval start	No
flashing asymmetrically with pulse start	No
switching function	
<ul> <li>constant clock cycle with pulse start</li> </ul>	No
constant clock cycle with interval start	No
switching function	
<ul> <li>variably clocked with pulse start</li> </ul>	No
variably clocked with interval start	No
switching function	
star-delta circuit with delay time	No
star-delta circuit	No
switching function with control signal	No
additive ON-delay     passing break contact	No No
<ul> <li>passing break contact</li> <li>passing break contact/instantaneous</li> </ul>	No
OFF delay	No
OFF delay/instantaneous	No
pulse delayed	No
pulse delayed/instantaneous	No
• pulse-shaping	No
pulse-shaping/instantaneous	No
additive ON-delay/instantaneous	No
ON-delay/OFF-delay	No
ON-delay/OFF-delay/instantaneous	No
passing make contact	No
<ul> <li>passing make contact/instantaneous contact</li> </ul>	No
switching function of interval relay with control signal	
<ul> <li>retrotriggerable with deactivated control signal/instantaneous contact</li> </ul>	No
<ul> <li>retrotriggerable with switched-on control signal</li> </ul>	No

	AI-
<ul> <li>retrotriggerable with switched-on control signal/instantaneous contact</li> </ul>	No
retriggerable with deactivated control signal	No
design of the control terminal non-floating	Yes
Short-circuit protection	165
design of the fuse link for short-circuit protection of the auxiliary	fuse gL/gG: 4 A
switch required	iuse giligo. 4 A
Auxiliary circuit	
material of switching contacts	AgNi
number of CO contacts	
delayed switching	1
operational current of auxiliary contacts at AC-15	
maximum	3 A
● at 24 V	3 A
● at 250 V	3 A
operational current of auxiliary contacts as NC contact at AC-15	
• at 24 V	3 A
● at 250 V	3 A
operational current of auxiliary contacts as NO contact at AC-15	
• at 24 V	3 A
• at 250 V	3 A
operational current of auxiliary contacts at DC-13	1 0.1
operational current of auxiliary contacts at DC-13	
• at 24 V	1 A
• at 125 V	0.2 A
• at 250 V	0.1 A
operating frequency with 3RT2 contactor maximum	2 500 1/h
contact rating of auxiliary contacts according to UL	B300 / R300
Main circuit	
type of voltage	AC/DC
31	
Inputs/ Outputs	
Inputs/ Outputs	No
Inputs/ Outputs  product function  • at the relay outputs switchover delayed/without delay  • non-volatile	No No
Inputs/ Outputs  product function  • at the relay outputs switchover delayed/without delay	
Inputs/ Outputs  product function  • at the relay outputs switchover delayed/without delay  • non-volatile	
Inputs/ Outputs  product function  • at the relay outputs switchover delayed/without delay • non-volatile  Electromagnetic compatibility	No
Inputs/ Outputs  product function  • at the relay outputs switchover delayed/without delay • non-volatile  Electromagnetic compatibility  EMC immunity according to IEC 61812-1  conducted interference • due to burst according to IEC 61000-4-4	No
Inputs/ Outputs  product function  • at the relay outputs switchover delayed/without delay • non-volatile  Electromagnetic compatibility  EMC immunity according to IEC 61812-1  conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5	No  Environment A (industrial area)
Inputs/ Outputs  product function  • at the relay outputs switchover delayed/without delay • non-volatile  Electromagnetic compatibility  EMC immunity according to IEC 61812-1  conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC	Environment A (industrial area)  2 kV network connection / 1 kV control connection
Inputs/ Outputs  product function  • at the relay outputs switchover delayed/without delay • non-volatile  Electromagnetic compatibility  EMC immunity according to IEC 61812-1  conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5	Environment A (industrial area)  2 kV network connection / 1 kV control connection 2 kV 1 kV
Inputs/ Outputs  product function  • at the relay outputs switchover delayed/without delay • non-volatile  Electromagnetic compatibility  EMC immunity according to IEC 61812-1  conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5  field-based interference according to IEC 61000-4-3	Environment A (industrial area)  2 kV network connection / 1 kV control connection 2 kV 1 kV
Inputs/ Outputs  product function  • at the relay outputs switchover delayed/without delay • non-volatile  Electromagnetic compatibility  EMC immunity according to IEC 61812-1  conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5  field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2	Environment A (industrial area)  2 kV network connection / 1 kV control connection 2 kV 1 kV
Inputs/ Outputs  product function	Environment A (industrial area)  2 kV network connection / 1 kV control connection 2 kV 1 kV  10 V/m 8 kV
Inputs/ Outputs  product function  • at the relay outputs switchover delayed/without delay • non-volatile  Electromagnetic compatibility  EMC immunity according to IEC 61812-1  conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2  Safety related data protection class IP on the front according to IEC 60529	Environment A (industrial area)  2 kV network connection / 1 kV control connection 2 kV 1 kV  10 V/m 8 kV
Inputs/ Outputs  product function  • at the relay outputs switchover delayed/without delay • non-volatile  Electromagnetic compatibility  EMC immunity according to IEC 61812-1  conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2  Safety related data protection class IP on the front according to IEC 60529 type of insulation	Environment A (industrial area)  2 kV network connection / 1 kV control connection 2 kV 1 kV  10 V/m 8 kV  IP20 Basic insulation
Inputs/ Outputs  product function  • at the relay outputs switchover delayed/without delay • non-volatile  Electromagnetic compatibility  EMC immunity according to IEC 61812-1  conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5  field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2  Safety related data protection class IP on the front according to IEC 60529 type of insulation category according to EN 954-1	Environment A (industrial area)  2 kV network connection / 1 kV control connection 2 kV 1 kV  10 V/m 8 kV
Inputs/ Outputs  product function	Environment A (industrial area)  2 kV network connection / 1 kV control connection 2 kV 1 kV  10 V/m 8 kV  IP20 Basic insulation none
Inputs/ Outputs  product function	Environment A (industrial area)  2 kV network connection / 1 kV control connection 2 kV 1 kV  10 V/m 8 kV  IP20 Basic insulation none  Yes
Inputs/ Outputs  product function	Environment A (industrial area)  2 kV network connection / 1 kV control connection 2 kV 1 kV  10 V/m 8 kV  IP20 Basic insulation none
Inputs/ Outputs  product function	Environment A (industrial area)  2 kV network connection / 1 kV control connection 2 kV 1 kV  10 V/m 8 kV  IP20 Basic insulation none  Yes  spring-loaded terminals
Inputs/ Outputs  product function  at the relay outputs switchover delayed/without delay non-volatile  Electromagnetic compatibility  EMC immunity according to IEC 61812-1  conducted interference due to burst according to IEC 61000-4-4 due to conductor-earth surge according to IEC 61000-4-5 due to conductor-conductor surge according to IEC 61000-4-5 field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2  Safety related data protection class IP on the front according to IEC 60529 type of insulation category according to EN 954-1  Connections/ Terminals  product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections solid	Environment A (industrial area)  2 kV network connection / 1 kV control connection 2 kV 1 kV  10 V/m 8 kV  IP20 Basic insulation none  Yes spring-loaded terminals  0.5 4 mm², 2x (0.5 2.5 mm²)
Inputs/ Outputs  product function	Environment A (industrial area)  2 kV network connection / 1 kV control connection 2 kV 1 kV  10 V/m 8 kV  IP20 Basic insulation none  Yes spring-loaded terminals  0.5 4 mm², 2x (0.5 2.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)
Inputs/ Outputs  product function	Environment A (industrial area)  2 kV network connection / 1 kV control connection 2 kV 1 kV  10 V/m 8 kV  IP20 Basic insulation none  Yes  spring-loaded terminals  0.5 4 mm², 2x (0.5 2.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 2x (0.5 1.5 mm²)
Inputs/ Outputs  product function	Environment A (industrial area)  2 kV network connection / 1 kV control connection 2 kV 1 kV  10 V/m 8 kV  IP20 Basic insulation none  Yes  spring-loaded terminals  0.5 4 mm², 2x (0.5 2.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 2x (0.5 1.5 mm²) 2x (20 14)
Inputs/ Outputs  product function	Environment A (industrial area)  2 kV network connection / 1 kV control connection 2 kV 1 kV  10 V/m 8 kV  IP20 Basic insulation none  Yes  spring-loaded terminals  0.5 4 mm², 2x (0.5 2.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 2x (0.5 1.5 mm²)
Inputs/ Outputs  product function	Environment A (industrial area)  2 kV network connection / 1 kV control connection 2 kV 1 kV  10 V/m 8 kV  IP20 Basic insulation none  Yes  spring-loaded terminals  0.5 4 mm², 2x (0.5 2.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 2x (0.5 1.5 mm²) 2x (20 14) 2x (20 14)
Inputs/ Outputs  product function	Environment A (industrial area)  2 kV network connection / 1 kV control connection 2 kV 1 kV  10 V/m 8 kV  IP20 Basic insulation none  Yes  spring-loaded terminals  0.5 4 mm², 2x (0.5 2.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 2x (0.5 1.5 mm²) 2x (20 14)

<ul> <li>finely stranded without core end processing</li> </ul>	0.25 1.5 mm²	
AWG number as coded connectable conductor cross section		
• solid	20 14	
• stranded	20 14	
nstallation/ mounting/ dimensions		
mounting position	any (like contactor)	
fastening method	clip-on	
height	38 mm	
width	45 mm	
depth	74 mm	
required spacing		
<ul> <li>with side-by-side mounting</li> </ul>		
— forwards	0 mm	
— backwards	0 mm	
— upwards	0 mm	
— downwards	0 mm	
— at the side	0 mm	
<ul> <li>for grounded parts</li> </ul>		
— forwards	0 mm	
— backwards	0 mm	
— upwards	0 mm	
— at the side	0 mm	
— downwards	0 mm	
for live parts		
— forwards	0 mm	
— backwards	0 mm	
— upwards	0 mm	
— downwards	0 mm	
— 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 Con-

### **General Product Approval**

Declaration of Conformity





Confirmation







**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping



Type Test Certificates/Test Report

Special Test Certificate







Marine / Shipping









Confirmation

other

Vibration and Shock

Railway

#### **Further information**

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

#### Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

#### Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

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?mlfb=3RA2813-2AW10

#### Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2813-2AW10

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

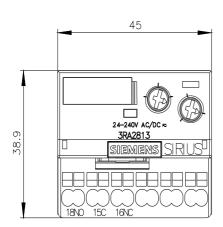
https://support.industry.siemens.com/cs/ww/en/ps/3RA2813-2AW10

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

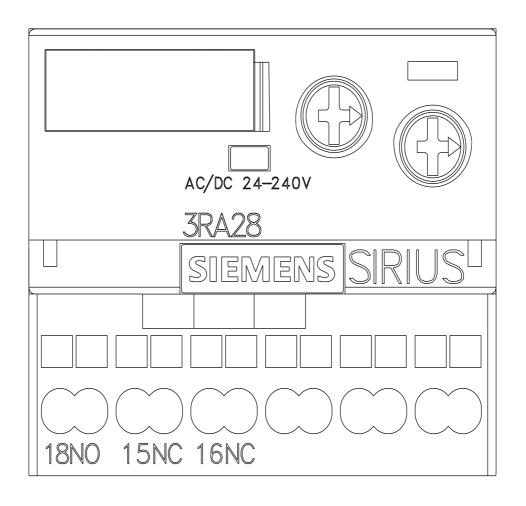
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RA2813-2AW10&lang=en

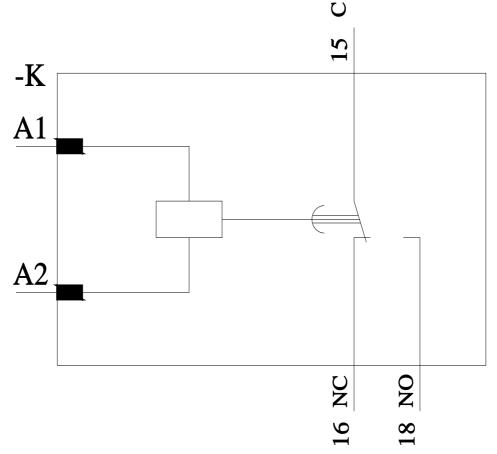
**Characteristic: Derating** 

https://support.industry.siemens.com/cs/ww/en/ps/3RA2813-2AW10/manual









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