



solid-state time-delayed auxiliary switch, ON-delay, relay 1 NC + 1 NO, time range 0.05-100 s, 24-240 V AC/DC, 50/60 Hz, varistor for attenuation of the contactor coils integrated, screw terminal, can be snapped onto the front on contactors 3RT20 and contactor relays 3RH2

product brand name	SIRIUS
product designation	Solid-state time-delay auxiliary switch
product type designation	3RA28
<b>General technical data</b>	
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	15 g / 11 ms
vibration resistance according to IEC 60068-2-6	10 ... 59 Hz: 0.35 mm, 60 ... 150 Hz: 2 g
mechanical service life (operating cycles) typical	10 000 000
mechanical service life (operating cycles)	
• with contactor 3R.2 of frame size S00	10 000 000
• with contactor 3R.2 of frame size S0	10 000 000
• with contactor 3R.2 of frame size S2	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)	
• with contactor 3R.2 of frame size S00	100 000
• with contactor 3R.2 of frame size S0	100 000
• with contactor 3R.2 of frame size S2	100 000
• with contactor 3R.2 of frame size S3	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	K
active principle	electronic
relative repeat accuracy	1 %
influence of the surrounding temperature	±1 %
power supply influence	±1 %
Substance Prohibitance (Date)	10/01/2009
SVHC substance name	Lead CAS-No. 7439-92-1 Lead monoxide (lead oxide) CAS-No. 1317-36-8

	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one CAS-No. 71868-10-5 Melamine CAS-No. 108-78-1 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol CAS-No. 119-47-1
<b>Net Weight</b>	0.096 kg
<b>Product Function</b>	
<b>product function star-delta circuit</b>	No
<b>Control circuit/ Control</b>	
<b>type of voltage of the control supply voltage</b>	AC/DC
<b>control supply voltage 1 at AC</b>	
• at 50 Hz	24 ... 240 V
• at 60 Hz	24 ... 240 V
<b>control supply voltage frequency 1</b>	50 ... 60 Hz
<b>control supply voltage 1 at DC</b>	24 ... 240 V
<b>operating range factor control supply voltage rated value at DC</b>	
• initial value	0.85
• full-scale value	1.1
<b>operating range factor control supply voltage rated value at AC at 50 Hz</b>	
• initial value	0.85
• full-scale value	1.1
<b>operating range factor control supply voltage rated value at AC at 60 Hz</b>	
• initial value	0.85
• full-scale value	1.1
<b>design of the surge suppressor</b>	with varistor
<b>Switching Function</b>	
<b>switching function</b>	
• ON-delay	Yes
• ON-delay/instantaneous contact	No
• passing make contact	No
• passing make contact/instantaneous contact	No
• OFF delay	No
<b>switching function</b>	
• 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
<b>switching function</b>	
• constant clock cycle with pulse start	No
• constant clock cycle with interval start	No
<b>switching function</b>	
• variably clocked with pulse start	No
• variably clocked with interval start	No
<b>switching function</b>	
• star-delta circuit with delay time	No
• star-delta circuit	No
<b>switching function with control signal</b>	
• additive ON-delay	No
• passing break contact	No
• passing break contact/instantaneous	No
• OFF delay	No
• OFF delay/instantaneous	No
• pulse delayed	No
• pulse delayed/instantaneous	No
• pulse-shaping	No
• pulse-shaping/instantaneous	No

<ul style="list-style-type: none"> <li>• additive ON-delay/instantaneous</li> </ul>	No
<ul style="list-style-type: none"> <li>• ON-delay/OFF-delay</li> </ul>	No
<ul style="list-style-type: none"> <li>• ON-delay/OFF-delay/instantaneous</li> </ul>	No
<ul style="list-style-type: none"> <li>• passing make contact</li> </ul>	No
<ul style="list-style-type: none"> <li>• passing make contact/instantaneous contact</li> </ul>	No
<b>switching function of interval relay with control signal</b>	
<ul style="list-style-type: none"> <li>• retrotriggerable with deactivated control signal/instantaneous contact</li> </ul>	No
<ul style="list-style-type: none"> <li>• retrotriggerable with switched-on control signal</li> </ul>	No
<ul style="list-style-type: none"> <li>• retrotriggerable with switched-on control signal/instantaneous contact</li> </ul>	No
<ul style="list-style-type: none"> <li>• retriggerable with deactivated control signal</li> </ul>	No
<b>design of the control terminal non-floating</b>	Yes
<b>Short-circuit protection</b>	
design of the fuse link for short-circuit protection of the auxiliary switch required	fuse gL/gG: 4 A
<b>Auxiliary circuit</b>	
<b>material of switching contacts</b>	AgNi
<b>number of NC contacts</b>	
<ul style="list-style-type: none"> <li>• delayed switching</li> </ul>	1
<b>number of NO contacts</b>	
<ul style="list-style-type: none"> <li>• delayed switching</li> </ul>	1
<b>operational current of auxiliary contacts at AC-15</b>	
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	3 A
<ul style="list-style-type: none"> <li>• at 24 V</li> </ul>	3 A
<ul style="list-style-type: none"> <li>• at 250 V</li> </ul>	3 A
<b>operational current of auxiliary contacts as NC contact at AC-15</b>	
<ul style="list-style-type: none"> <li>• at 24 V</li> </ul>	3 A
<ul style="list-style-type: none"> <li>• at 250 V</li> </ul>	3 A
<b>operational current of auxiliary contacts as NO contact at AC-15</b>	
<ul style="list-style-type: none"> <li>• at 24 V</li> </ul>	3 A
<ul style="list-style-type: none"> <li>• at 250 V</li> </ul>	3 A
<b>operational current of auxiliary contacts at DC-13</b>	1 ... 0.1
<b>operational current of auxiliary contacts at DC-13</b>	
<ul style="list-style-type: none"> <li>• at 24 V</li> </ul>	1 A
<ul style="list-style-type: none"> <li>• at 125 V</li> </ul>	0.2 A
<ul style="list-style-type: none"> <li>• at 250 V</li> </ul>	0.1 A
<b>operating frequency with 3RT2 contactor maximum</b>	2 500 1/h
<b>contact rating of auxiliary contacts according to UL</b>	B300 / R300
<b>Main circuit</b>	
<b>type of voltage</b>	AC/DC
<b>Inputs/ Outputs</b>	
<b>product function</b>	
<ul style="list-style-type: none"> <li>• at the relay outputs switchover delayed/without delay</li> </ul>	No
<ul style="list-style-type: none"> <li>• non-volatile</li> </ul>	No
<b>Electromagnetic compatibility</b>	
EMC immunity according to IEC 61812-1	Environment A (industrial area)
<b>conducted interference</b>	
<ul style="list-style-type: none"> <li>• due to burst according to IEC 61000-4-4</li> </ul>	2 kV network connection / 1 kV control connection
<ul style="list-style-type: none"> <li>• due to conductor-earth surge according to IEC 61000-4-5</li> </ul>	2 kV
<ul style="list-style-type: none"> <li>• due to conductor-conductor surge according to IEC 61000-4-5</li> </ul>	1 kV
<b>field-based interference according to IEC 61000-4-3</b>	10 V/m
<b>electrostatic discharge according to IEC 61000-4-2</b>	8 kV
<b>Safety related data</b>	
category according to EN 954-1	none
<b>Electrical Safety</b>	
<b>protection class IP on the front according to IEC 60529</b>	IP20

<b>touch protection on the front according to IEC 60529</b>	finger-safe, for vertical contact from the front
<b>type of insulation</b>	Basic insulation
<b>Connections/ Terminals</b>	
<b>product component removable terminal for auxiliary and control circuit</b>	Yes
<b>type of electrical connection</b> • for auxiliary and control circuit	screw-type terminals
<b>type of connectable conductor cross-sections</b> • solid • finely stranded with core end processing • for AWG cables solid • for AWG cables stranded	0.5 ... 4 mm <sup>2</sup> , 2x (0.5 ... 2.5 mm <sup>2</sup> ) 1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> ) 2x (20 ... 14) 2x (20 ... 14)
<b>connectable conductor cross-section</b> • solid • finely stranded with core end processing • finely stranded without core end processing	0.5 ... 4 mm <sup>2</sup> 0.5 ... 2.5 mm <sup>2</sup> 0.25 ... 1.5 mm <sup>2</sup>
<b>AWG number as coded connectable conductor cross section</b> • solid • stranded	20 ... 14 20 ... 14
<b>Installation/ mounting/ dimensions</b>	
<b>mounting position</b>	any (like contactor)
<b>fastening method</b>	clip-on
<b>height</b>	38 mm
<b>width</b>	45 mm
<b>depth</b>	74 mm
<b>required spacing</b> • with side-by-side mounting — forwards — backwards — upwards — downwards — at the side • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — downwards — at the side	0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm
<b>Ambient conditions</b>	
installation altitude at height above sea level maximum	2 000 m
<b>ambient temperature</b> • during operation • during storage • during transport	-25 ... +60 °C -40 ... +85 °C -40 ... +85 °C
relative humidity during operation	0 ... 95 %
<b>Approvals Certificates</b>	
<b>Environment</b>	<b>General Product Approval</b>

[Environmental Con-  
firmations](#)



General Product Approval	Test Certificates	Maritime application
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[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



Maritime application	other
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[Confirmation](#)

Railway
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[Special Test Certificate](#)

Further information
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**Information on the packaging**

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

**Information for data generation and storage**

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

**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=3RA2813-1FW10>

**Cax online generator**

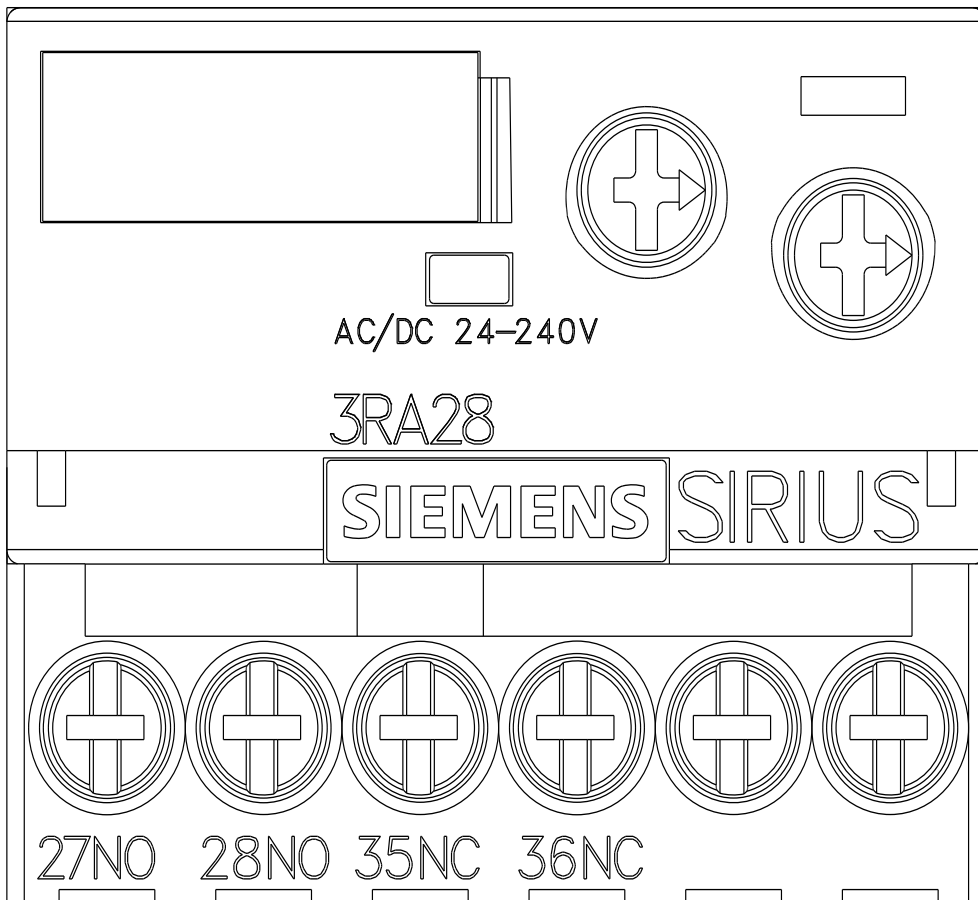
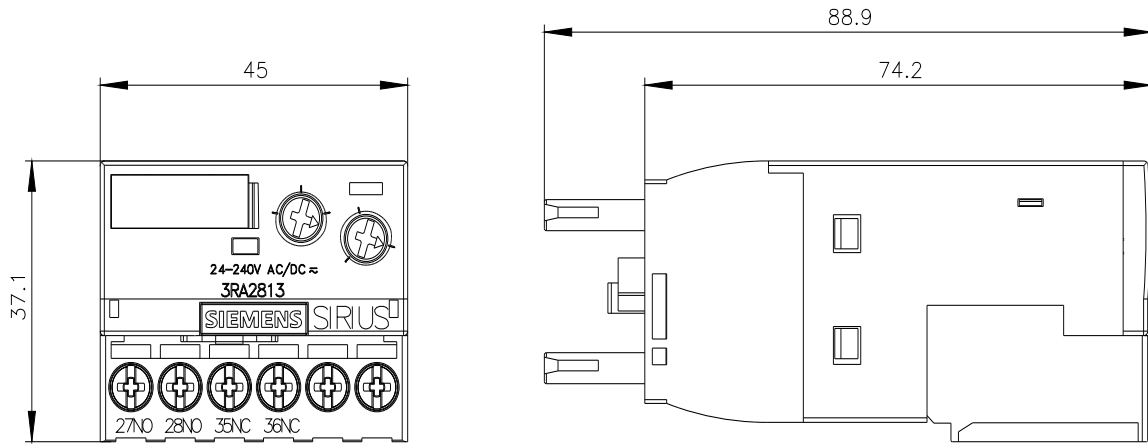
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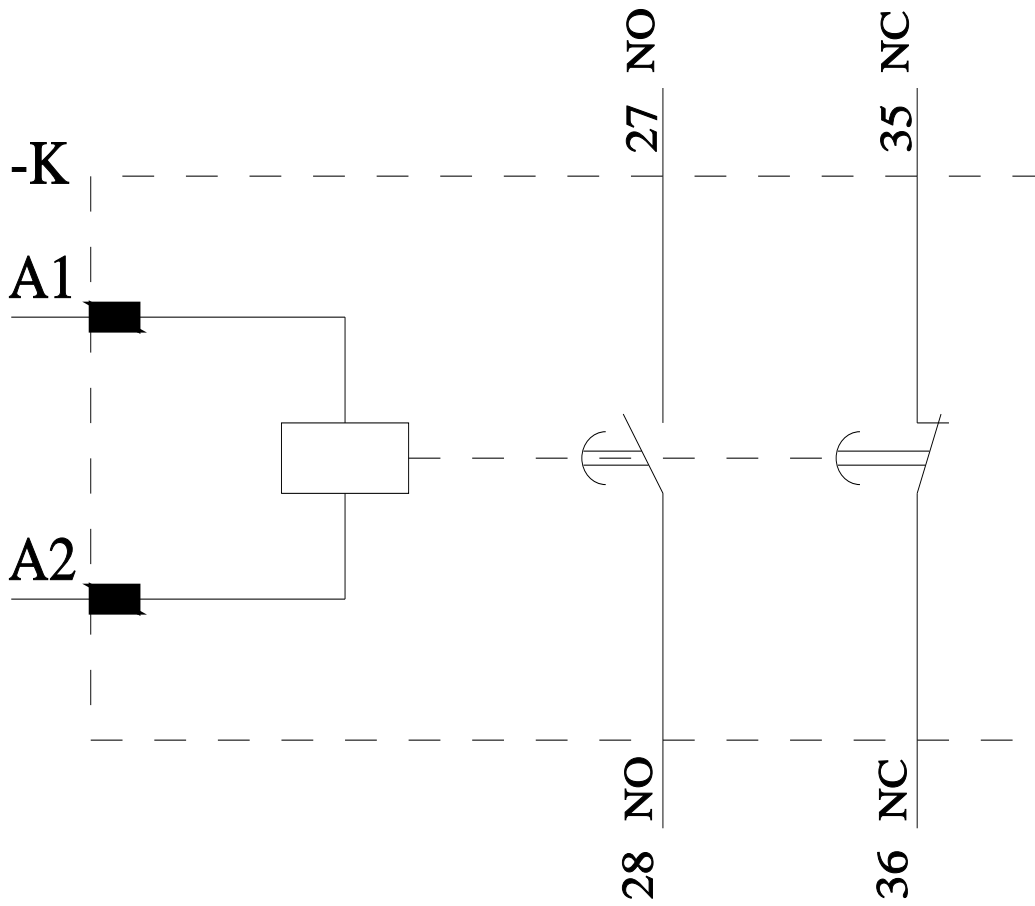
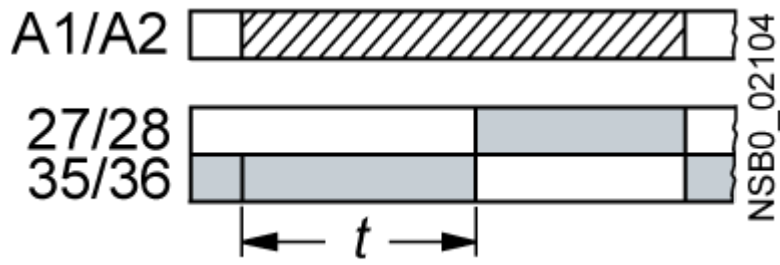
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2813-1FW10>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2813-1FW10&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2813-1FW10&lang=en)





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