












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, 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
<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	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 style="list-style-type: none"> <li>• with contactor 3R.2 of frame size S00</li> <li>• with contactor 3R.2 of frame size S0</li> <li>• with contactor 3R.2 of frame size S2</li> <li>• with contactor 3R.2 of frame size S3</li> </ul>	10 000 000 10 000 000 10 000 000 10 000 000
electrical endurance (operating cycles) at AC-15 at 230 V typical	100 000
electrical endurance (operating cycles) <ul style="list-style-type: none"> <li>• with contactor 3R.2 of frame size S00</li> <li>• with contactor 3R.2 of frame size S0</li> <li>• with contactor 3R.2 of frame size S2</li> <li>• with contactor 3R.2 of frame size S3</li> </ul>	100 000 100 000 100 000 100 000
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
relative repeat accuracy	1 %
influence of the surrounding temperature	±1 %
power supply influence	±1 %
Substance Prohibitance (Date)	10/01/2009
<b>Product Function</b>	
product function star-delta circuit	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</b>	
• at DC	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
• additive ON-delay/instantaneous	No
• ON-delay/OFF-delay	No
• ON-delay/OFF-delay/instantaneous	No
• passing make contact	No
• passing make contact/instantaneous contact	No
<b>switching function of interval relay with control signal</b>	
• retrotriggerable with deactivated control signal/instantaneous contact	No
• retrotriggerable with switched-on control signal	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>	
<b>protection class IP on the front according to IEC 60529</b>	IP20
<b>type of insulation</b>	Basic insulation
<b>category according to EN 954-1</b>	none
<b>Connections/ Terminals</b>	
<b>product component removable terminal for auxiliary and control circuit</b>	Yes
type of electrical connection for auxiliary and control circuit	spring-loaded terminals
<b>type of connectable conductor cross-sections</b>	
<ul style="list-style-type: none"> <li>• solid</li> </ul>	0.5 ... 4 mm <sup>2</sup> , 2x (0.5 ... 2.5 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>• finely stranded with core end processing</li> </ul>	1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>• finely stranded without core end processing</li> </ul>	2x (0.5 ... 1.5 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>• at AWG cables solid</li> </ul>	2x (20 ... 14)
<ul style="list-style-type: none"> <li>• at AWG cables stranded</li> </ul>	2x (20 ... 14)
<b>connectable conductor cross-section</b>	

<ul style="list-style-type: none"><li>• solid</li><li>• finely stranded with core end processing</li><li>• finely stranded without core end processing</li></ul>	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>	
<ul style="list-style-type: none"><li>• solid</li><li>• stranded</li></ul>	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>	
<ul style="list-style-type: none"><li>• with side-by-side mounting<ul style="list-style-type: none"><li>— forwards</li><li>— backwards</li><li>— upwards</li><li>— downwards</li><li>— at the side</li></ul></li><li>• for grounded parts<ul style="list-style-type: none"><li>— forwards</li><li>— backwards</li><li>— upwards</li><li>— at the side</li><li>— downwards</li></ul></li><li>• for live parts<ul style="list-style-type: none"><li>— forwards</li><li>— backwards</li><li>— upwards</li><li>— downwards</li><li>— at the side</li></ul></li></ul>	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>	
<ul style="list-style-type: none"><li>• during operation</li><li>• during storage</li><li>• during transport</li></ul>	-25 ... +60 °C -40 ... +85 °C -40 ... +85 °C
relative humidity during operation	0 ... 95 %
<b>Certificates/ approvals</b>	
General Product Approval	
Declaration of Con- formity	
<div><div> CSA</div><div><a href="#">Confirmation</a></div><div> CCC</div><div> UL</div><div></div><div> EG-Konf.</div></div>	
Declaration of Con- formity	
Test Certificates	
Marine / Shipping	
<div><div></div><div><a href="#">Type Test Certificates/Test Report</a></div><div><a href="#">Special Test Certificate</a></div><div> ABS</div><div> BUREAU VERITAS</div><div> DNV</div></div>	
Marine / Shipping	
other	
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=3RA2813-2FW10>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2813-2FW10>

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

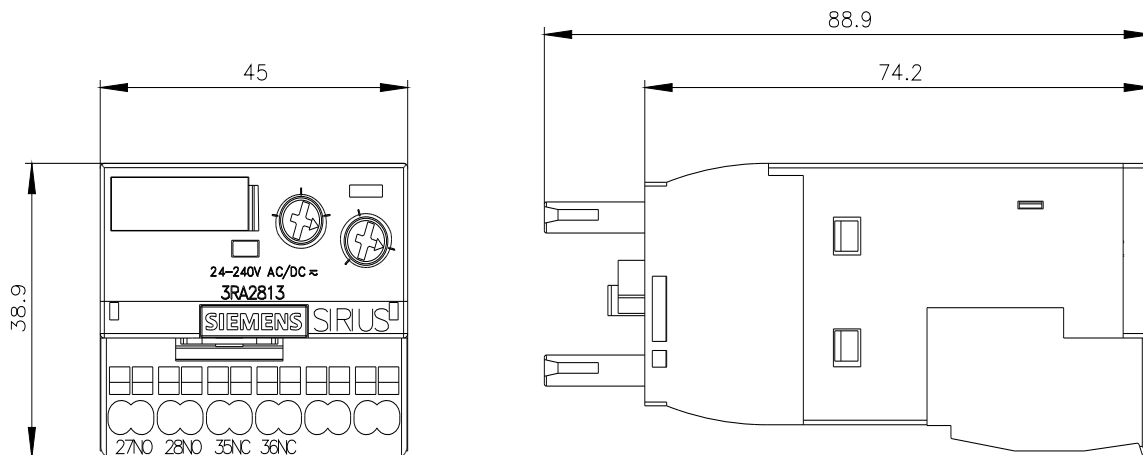
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2813-2FW10>

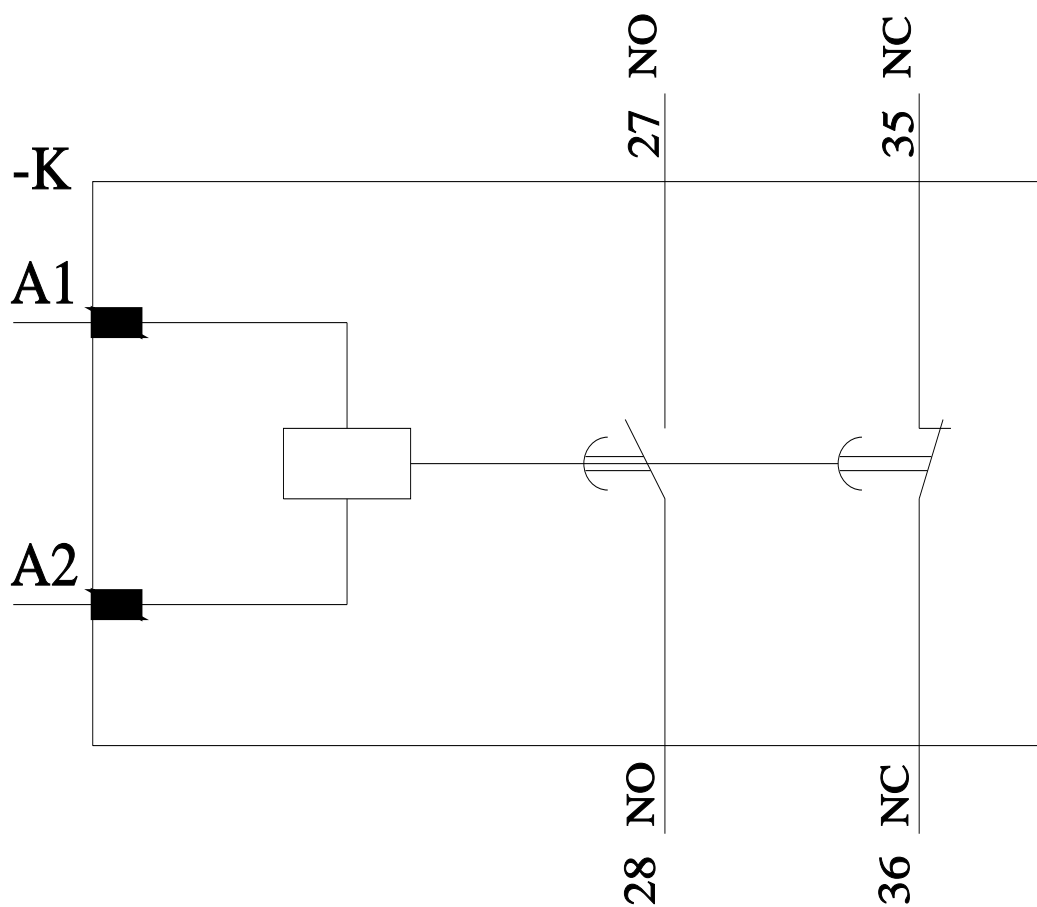
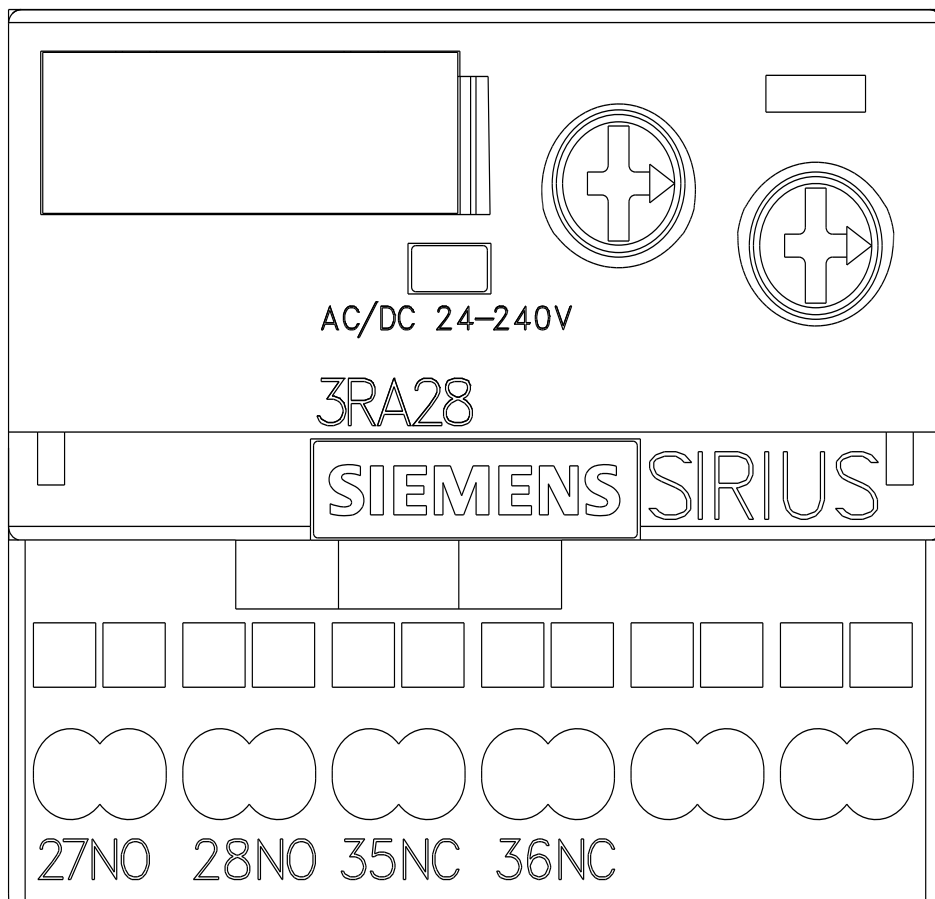
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2813-2FW10&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2813-2FW10&lang=en)

Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2813-2FW10/manual>





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