

Solid-state time-delayed auxiliary switch ON delay Relay 1
changeover contact 24...240 V AC/DC Time range 0.05...100 s Can
be snapped on at the front For 3RT2 S00-S3 contactors and 3RH2
S00 contactor relays Screw terminal Varistor for attenuation of the
contactor coils integrated



Product brand name	SIRIUS
Product designation	Solid-state time-delay auxiliary switch
Product type designation	3RA28

General technical data	
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	

<ul style="list-style-type: none"> • acc. to IEC 60068-2-27 	15g / 11 ms
Vibration resistance	
<ul style="list-style-type: none"> • acc. to IEC 60068-2-6 	10 ... 59 Hz: 0.35 mm, 60 ... 150 Hz: 2g
Mechanical service life (switching cycles)	
<ul style="list-style-type: none"> • typical 	10 000 000
Mechanical service life (switching cycles)	
<ul style="list-style-type: none"> • with contactor 3R.2 of frame size S00 • with contactor 3R.2 of frame size S0 • with contactor 3R.2 of frame size S2 • with contactor 3R.2 of frame size S3 	10 000 000 10 000 000 10 000 000 10 000 000
Electrical endurance (switching cycles)	
<ul style="list-style-type: none"> • at AC-15 at 230 V typical 	10 000 000
Electrical endurance (switching cycles)	
<ul style="list-style-type: none"> • with contactor 3R.2 of frame size S00 • with contactor 3R.2 of frame size S0 • with contactor 3R.2 of frame size S2 • with contactor 3R.2 of frame size S3 	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 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	
<ul style="list-style-type: none"> • at 50 Hz • at 60 Hz 	24 ... 240 V 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 	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	Yes
• ON-delay/instantaneous contact	No
• passing make contact	No
• passing make contact/instantaneous contact	No
• OFF delay	No
Switching function	
• flashing symmetrically starting with interval/instantaneous	No
• flashing symmetrically starting with interval	No
• flashing symmetrically starting with pulse/instantaneous	No
• flashing symmetrically starting with pulse	No
• flashing asymmetrically starting with interval	No
• flashing asymmetrically starting with pulse	No
Switching function	
• fixed clock cycle beginning with pulse	No
• fixed clock cycle beginning with interval	No
Switching function	
• variably clocked start with impulse	No
• variably clocked start with interval	No
Switching function	
• star-delta circuit with delay time	No
• star-delta circuit	No
Switching function with control signal	
• 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
Switching function of interval relay with control signal	
• retrotriggerable with deactivated control signal/instantaneous contact	No
• retrotriggerable with activated control signal	No
• retrotriggerable with activated control signal/instantaneous contact	No
• retriggerable with deactivated control signal	No
Design of the control terminal non-floating	Yes

Short-circuit protection

Design of the fuse link	
• for short-circuit protection of the auxiliary switch required	fuse gL/gG: 4 A

Auxiliary circuit

Material of switching contacts	AgNi
Number of CO contacts	
• delayed switching	1
Operating current of auxiliary contacts at AC-15	
• maximum	3 A
• at 24 V	3 A
• at 250 V	3 A
Operating current of auxiliary contacts as NC contact at AC-15	
• at 24 V	3 A
• at 250 V	3 A
Operating current of auxiliary contacts as NO contact at AC-15	
• at 24 V	3 A
• at 250 V	3 A
Operating current of auxiliary contacts at DC-13	1 ... 0.1
Operating 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
Influence of the surrounding temperature	±1 %
Power supply influence	±1 %

Main circuit

Type of voltage	AC/DC
Inputs/ Outputs	
Product function	
<ul style="list-style-type: none"> • at the relay outputs Switchover delayed/without delay 	No
<ul style="list-style-type: none"> • non-volatile 	No
Electromagnetic compatibility	
EMI immunity	
<ul style="list-style-type: none"> • acc. to IEC 61812-1 	Environment A (industrial area)
Conducted interference	
<ul style="list-style-type: none"> • due to burst acc. to IEC 61000-4-4 	2 kV network connection / 1 kV control connection
<ul style="list-style-type: none"> • due to conductor-earth surge acc. to IEC 61000-4-5 	2 kV
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • removable terminal for auxiliary and control circuit 	Yes
Type of electrical connection	
<ul style="list-style-type: none"> • for auxiliary and control current 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 conductors solid 	2x (20 ... 14)
<ul style="list-style-type: none"> • 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 0 mm — Backwards 0 mm — upwards 0 mm — downwards 0 mm — at the side 0 mm • for grounded parts <ul style="list-style-type: none"> — forwards 0 mm — Backwards 0 mm — upwards 0 mm — at the side 0 mm — downwards 0 mm • for live parts <ul style="list-style-type: none"> — 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	
<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
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[Miscellaneous](#)

Test Certificates	Marine / Shipping
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[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



Marine / Shipping	other	Railway
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[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=3RA2813-1AW10>

Cax online generator

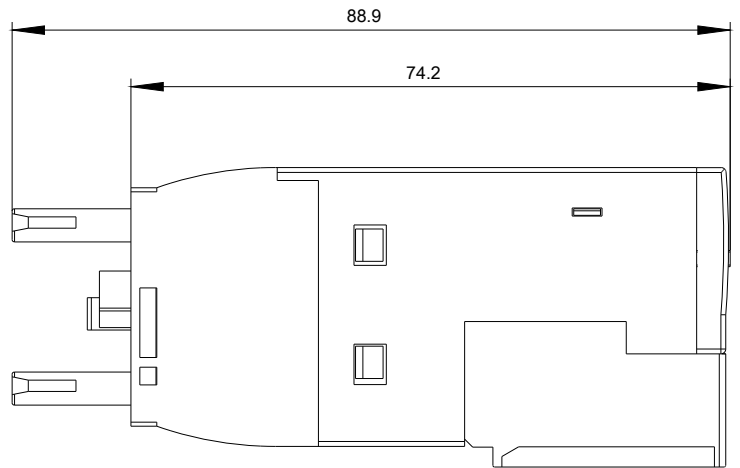
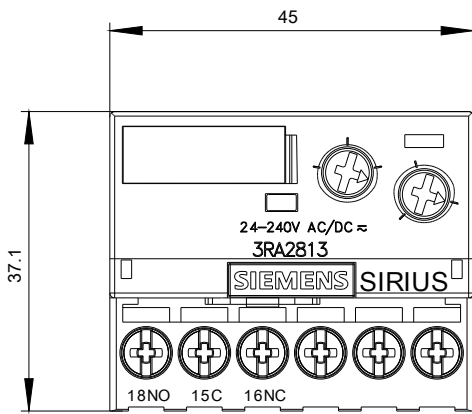
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2813-1AW10>

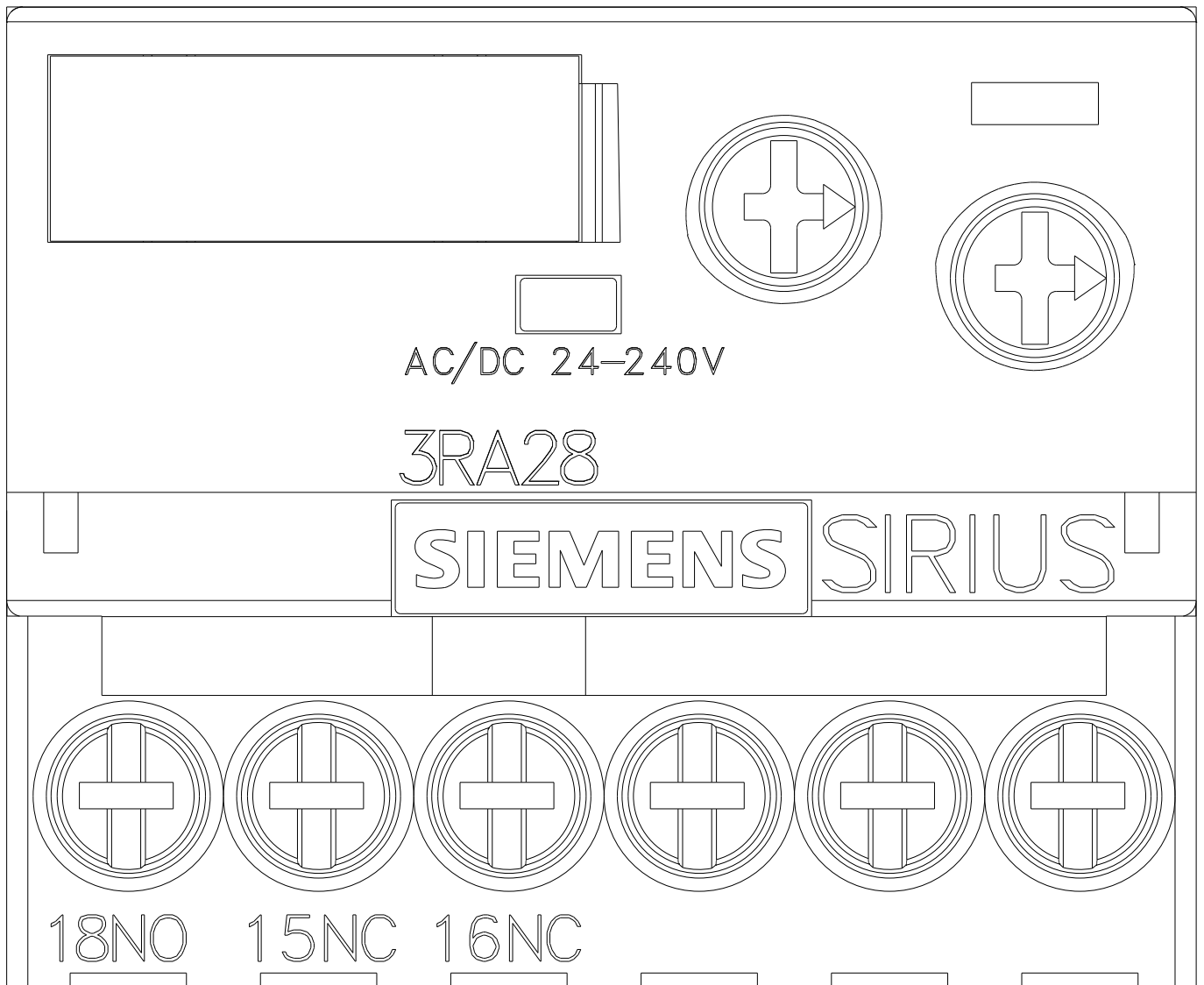
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

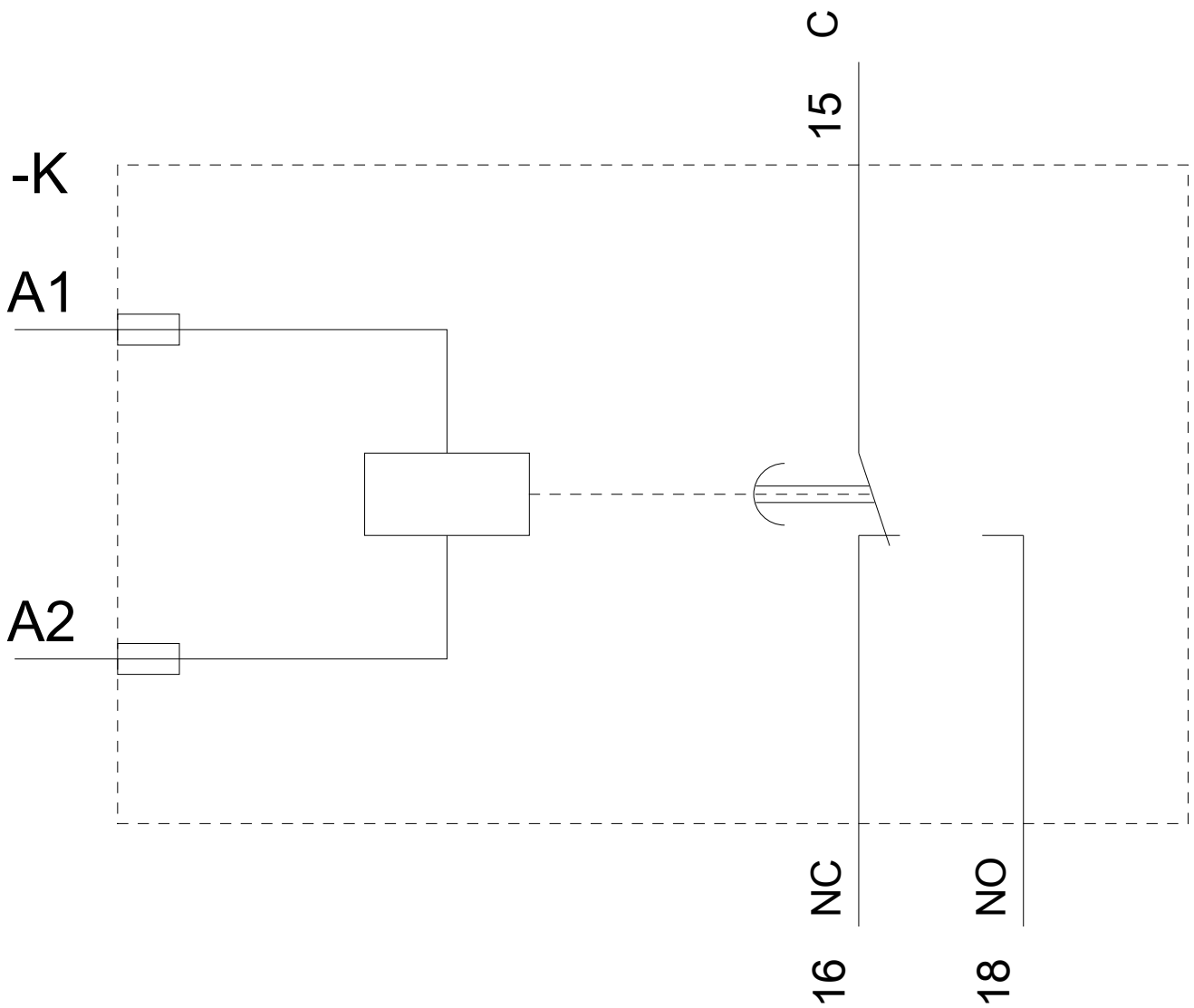
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2813-1AW10>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2813-1AW10&lang=en







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