## SIEMENS

## Data sheet

## 3RA2815-1AW10



solid-state time-delayed auxiliary switch, off delayed, without control signal, 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, screw 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		
<ul> <li>with contactor 3R.2 of frame size S3</li> </ul>	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 %		
minimum ON period	200 ms		
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			
• at 50 Hz	24 240 V		
• at 60 Hz	24 240 V		
control supply voltage frequency 1	50 60 Hz		
control supply voltage 1			
• at DC	24 240 V		
operating range factor control supply voltage rated value at			
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			
• ON-delay	No		
<ul> <li>ON-delay/instantaneous contact</li> </ul>	No		
<ul> <li>passing make contact</li> </ul>	No		
<ul> <li>passing make contact/instantaneous contact</li> </ul>	No		
OFF delay	Yes		
switching function			
<ul> <li>flashing symmetrically with interval start/instantaneous</li> </ul>	No		
flashing symmetrically with interval start	No		
<ul> <li>flashing symmetrically with pulse start/instantaneous</li> </ul>	No		
<ul> <li>flashing symmetrically with pulse start</li> </ul>	No		
<ul> <li>flashing asymmetrically with interval start</li> </ul>	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			
variably clocked with pulse start	No		
variably clocked with pulse clart	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			
<ul> <li>retrotriggerable with deactivated control signal/instantaneous contact</li> </ul>	No		
signal/instantaneous contact			

<ul> <li>retrotriggerable with switched-on control signal</li> </ul>	No		
retrotriggerable with switched-on control signal     retrotriggerable with switched-on control	No		
signal/instantaneous contact			
retriggerable with deactivated control signal	No		
design of the control terminal non-floating	No		
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		
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		
	B300 / R300		
contact rating of auxiliary contacts according to UL			
Main circuit			
Main circuit type of voltage	AC/DC		
Main circuit type of voltage Inputs/ Outputs			
Main circuit type of voltage Inputs/ Outputs product function	AC/DC		
Main circuit         type of voltage         Inputs/ Outputs         product function         • at the relay outputs switchover delayed/without delay	AC/DC No		
Main circuit         type of voltage         Inputs/ Outputs         product function         • at the relay outputs switchover delayed/without delay         • non-volatile	AC/DC		
Main circuit type of voltage Inputs/ Outputs product function • at the relay outputs switchover delayed/without delay • non-volatile Electromagnetic compatibility	AC/DC No No		
Main circuit         type of voltage         Inputs/ Outputs         product function         • at the relay outputs switchover delayed/without delay         • non-volatile	AC/DC No		
Main circuit         type of voltage         Inputs/ Outputs         product function         • at the relay outputs switchover delayed/without delay         • non-volatile         Electromagnetic compatibility         EMC immunity according to IEC 61812-1	AC/DC No No		
Main circuit         type of voltage         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	AC/DC No No Environment A (industrial area)		
Main circuit         type of voltage         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	AC/DC No No Environment A (industrial area) 2 kV network connection / 1 kV control connection		
Main circuit         type of voltage         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	AC/DC No No Environment A (industrial area) 2 kV network connection / 1 kV control connection 2 kV		
Main circuit         type of voltage         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	AC/DC No No Environment A (industrial area) 2 kV network connection / 1 kV control connection 2 kV 1 kV		
Main circuit         type of voltage         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	AC/DC No No Environment A (industrial area) 2 kV network connection / 1 kV control connection 2 kV 1 kV 1 kV		
Main circuit         type of voltage         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	AC/DC No No Environment A (industrial area) 2 kV network connection / 1 kV control connection 2 kV 1 kV 1 kV		
Main circuit         type of voltage         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	AC/DC No No Environment A (industrial area) 2 kV network connection / 1 kV control connection 2 kV 1 kV 1 kV 10 V/m 8 kV		
Main circuit         type of voltage         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	AC/DC No No Environment A (industrial area) 2 kV network connection / 1 kV control connection 2 kV 1 kV 1 kV 10 V/m 8 kV		
Main circuit         type of voltage         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	AC/DC No No Environment A (industrial area) 2 kV network connection / 1 kV control connection 2 kV 1 kV 10 V/m 8 kV IP20 Basic insulation		
Main circuit         type of voltage         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         • due to conductor-conductor surge according to IEC 61000-4-5         • due to conductor-conductor surge according to IEC 61000-4-5         • due to conductor-conductor surge according to IEC 61000-4-5         • due to conductor-conductor surge 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	AC/DC No No Environment A (industrial area) 2 kV network connection / 1 kV control connection 2 kV 1 kV 10 V/m 8 kV IP20 Basic insulation		
Main circuit         type of voltage         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         • due to conductor-conductor surge according to IEC 61000-4-5         • due to conductor-conductor surge according to IEC 61000-4-5         • due to conductor-conductor 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	AC/DC No No Environment A (industrial area) 2 kV network connection / 1 kV control connection 2 kV 1 kV 1 kV 10 V/m 8 kV IP20 Basic insulation none		
Main circuit         type of voltage         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	AC/DC No No Environment A (industrial area) 2 kV network connection / 1 kV control connection 2 kV 1 kV 1 kV 10 V/m 8 kV IP20 Basic insulation none Yes		
Main circuit         type of voltage         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         • due to conductor-conductor 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	AC/DC No No Environment A (industrial area) 2 kV network connection / 1 kV control connection 2 kV 1 kV 1 kV 10 V/m 8 kV IP20 Basic insulation none Yes		
Main circuit         type of voltage         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         • 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	AC/DC No No No Environment A (industrial area) 2 kV network connection / 1 kV control connection 2 kV 1 kV 10 V/m 8 kV IIP20 Basic insulation none Yes screw-type terminals		
Main circuit         type of voltage         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         • due to conductor-conductor surge according to IEC 61000-4-5         • due to conductor-conductor surge according to IEC 61000-4-3         electrostatic discharge 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	AC/DC No No No 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 screw-type terminals 0.5 4 mm <sup>2</sup> , 2x (0.5 2.5 mm <sup>2</sup> )		
Main circuit         type of voltage         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         • due to conductor-conductor surge according to IEC 61000-4-5         • due to conductor-conductor surge according to IEC 61000-4-5         • due to conductor-conductor surge according to IEC 61000-4-5         • due to conductor-conductor surge according to IEC 61000-4-5         • due to conductor-conductor surge 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       • finely stranded with core end processing	AC/DC No No No 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 screw-type terminals 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> )		
Main circuit         type of voltage         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         • 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 61000-4-3         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         • finely stranded with core end processing         • at AWG cables solid	AC/DC No No No Environment A (industrial area) 2 kV network connection / 1 kV control connection 2 kV 1 kV 10 V/m 8 kV 10 V/m 8 kV IIP20 Basic insulation none Yes screw-type terminals 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)		
Main circuit         type of voltage         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         • due to conductor-conductor 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 connectable conductor cross-sections         • solid         • finely stranded with core end processing         • at AWG cables solid         • at AWG cables solid	AC/DC No No No Environment A (industrial area) 2 kV network connection / 1 kV control connection 2 kV 1 kV 10 V/m 8 kV 10 V/m 8 kV IIP20 Basic insulation none Yes screw-type terminals 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)		

<ul> <li>finely stranded without core end processing</li> </ul>	0.25 1.5 mm <sup>2</sup>			
AWG number as coded connectable conductor cross	0.20 1.0 mm			
section				
• solid	20 14			
• 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> <li>with side-by-side mounting</li> <li>— forwards</li> </ul>	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	05			
during operation	-25 +60 °C			
<ul><li>during storage</li><li>during transport</li></ul>		-40 +85 °C		
relative humidity during operation	-40 +85 °C 0 95 %			
Certificates/ approvals	0			
			Declaration of Con-	
General Product Approval			formity	
		EHC	UK CA	
Declaration of Con- formity Test Certificates	Marine / Shipping			
EG-Konf.	ertific- ABS	BUREAU VERITAS		
Marine / Shipping		other	Railway	
LIRS PRS	KMRS	<u>Confirmation</u>	Vibration and Shock	

## Further information

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

 $\underline{https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business}$ 

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=3RA2815-1AW10

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2815-1AW10

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

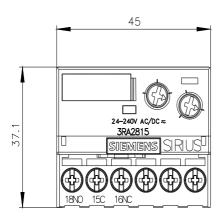
https://support.industry.siemens.com/cs/ww/en/ps/3RA2815-1AW10

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

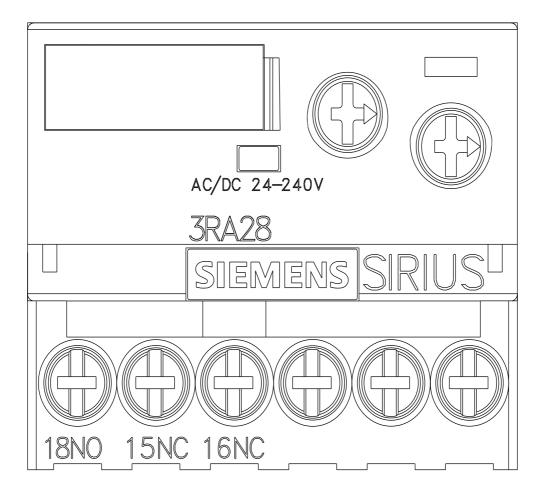
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RA2815-1AW10&lang=en

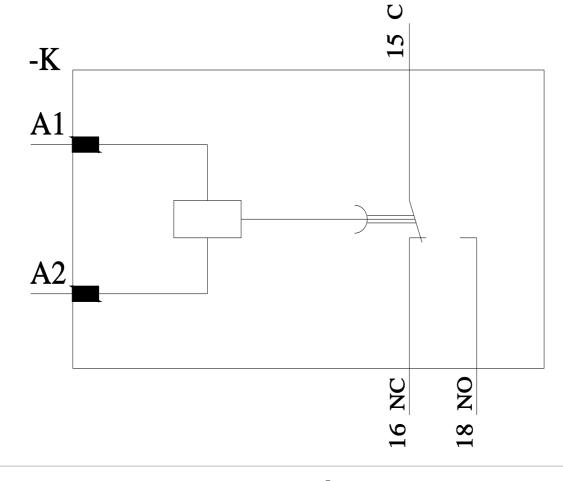
**Characteristic: Derating** 

https://support.industry.siemens.com/cs/ww/en/ps/3RA2815-1AW10/manual









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