SIEMENS

Data sheet 3RP2540-1AB30



Timing relay, electronic OFF delay without control signal or smooth passing make contact non-volatile 24 V AC/DC, 1 change-over contact 7 time ranges, 0.05...600 s with LED, Screw terminal

product brand name	SIRIUS
product designation	timing relay
design of the product	rückfallverzögert ohne Steuersignal, nullspannungssicher, einschaltwischend
product type designation	3RP25
General technical data	
product component	
 relay output 	Yes
semi-conductor output	No
product extension required remote control	No
product extension optional remote control	No
power loss [W] maximum	2 W
insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value	300 V
test voltage for isolation test	2.5 kV
degree of pollution	3
surge voltage resistance rated value	4 000 V
protection class IP	IP20
shock resistance according to IEC 60068-2-27	11g / 15 ms
vibration resistance according to IEC 60068-2-6	10 55 Hz / 0.35 mm
mechanical service life (operating cycles) typical	10 000 000
electrical endurance (operating cycles) at AC-15 at 230 V typical	100 000
adjustable time	0.05 600 s
adjustable time note	minimum value at function N = 0.5 s
relative setting accuracy relating to full-scale value	5 %; +/-
thermal current	5 A
minimum ON period	250 ms
recovery time	250 ms
reference code according to IEC 81346-2	К
relative repeat accuracy	1 %; +/-
influence of the surrounding temperature	1% in the whole temperature range to the set runtime
power supply influence	1% in the whole voltage range to the set runtime
Substance Prohibitance (Date)	09/12/2014
Control circuit/ Control	
type of voltage of the control supply voltage	AC/DC
control supply voltage 1 at AC	
• at 50 Hz rated value	24 V
at 60 Hz rated value	24 V
control supply voltage frequency 1	50 60 Hz
control supply voltage 1	
at DC rated value	24 V

certaing range factor control supply voltage rated value at DC inital value		
	• initial value	0.85
AC at 50 Hz - Initial value -	• full-scale value	1.1
suits cale value of the substance of the		
Caperating range factor control supply voltage rated value at A cal 46 Hz. Initial value 0.85 1.1 Initial value 2 A Value value 1 ms Value value value 1 ms Value valu	• initial value	0.85
AC at 60 Hz • Initial value • Initial-caile value • at 24 V duration of inrush current peak • at 24 V • at 24 V • Tims Switching Function • ON-delay • ON-delayinstantaneous contact • ON-delayinstantaneous contact • ON-delayinstantaneous contact • Passing make contact/ • passing make contact/ • Passing make contact/ • Initial-make symmetrically with interval startinestantaneous • Initial-make symmetrically with interval startinestantaneous • Initial-make symmetrically with interval startinestantaneous • Initial-make symmetrically with pulse start	full-scale value	1.1
a 12 42 V	initial value	
# at 24 V		1.1
at 24 V	-	
switching Function • ON-delay function • ON-delay instantaneous contact		2 A
switching function No delay (and the properties of the passing make contact) No (and the passing make contact) Yes • passing make contact (and the passing make contact) Yes • CFF delay Yes switching function *** • flashing symmetrically with interval start (instantaneous) No • flashing symmetrically with pulse start (and the shart) No • flashing symmetrically with pulse start (and the shart) No • flashing symmetrically with pulse start (and the shart) No • flashing symmetrically with pulse start (and the shart) No • flashing symmetrically with pulse start (and the shart) No • flashing symmetrically with pulse start (and the shart) No • flashing symmetrically with pulse start (and the shart) No • flashing symmetrically with pulse start (and the shart) No • flashing symmetrically with pulse start (and the shart) No • flashing symmetrically with pulse start (and the shart) No • flashing symmetrically with pulse start (and the shart) No • flashing symmetrically with pulse start (and the shart) No • start-delia circuit No •	·	1 ms
ON-delay/instantaneous contact On-delay/instantaneous contact Operating make contact Operating make contact Operating make contact/instantaneous contact Operating make contact/instantaneous contact Operating make contact/instantaneous contact Operating mustically with interval starting to the file of the starting symmetrically with pulse start on the starting symmetrically with pulse starting symmetrically on the starting symmetrically with pulse starting symmetrically on the starting symmetrically with control signal on the starting symmetrically with switched-on control signal on the starting symmetrically with switched on control signal on the starting symmetrically with switched on tortol signal on the starting symmetrically with switched source signal on the starting symmetrically with control signal on the starting symmetrically with control signal	Switching Function	
ON-defay/instantaneous contact passing make contact passing make contact	switching function	
passing make contact passing make contact not clearly passing symmetrically with interval start not not clearly passing symmetrically with pulse start not not clearly passing asymmetrically with pulse start not not not clearly passing asymmetrically with pulse start not not not not not not not not not no	ON-delay	No
passing make contact/instantaneous contact of F delay Switching function flashing symmetrically with interval start	ON-delay/instantaneous contact	No
• OFF delay • OFF delay symmetrically with interval start/instantaneous • flashing symmetrically with pulse start instantaneous • flashing symmetrically with pulse start instantaneous • flashing asymmetrically with pulse start instantaneous • star-delta circuit with delay time • star-delta circuit with delay time • star-delta circuit • star-delta circuit • star-delta circuit • No • passing break contact • Anditive ON-delay • Passing break contact • No • passing break contact/instantaneous • No • OFF delay • Pulse delayed • pulse delayed • pulse delayed/instantaneous • No • pulse delayed/instantaneous • No • pulse-shaping/instantaneous • No • Dubles-shaping/instantaneous • No • Dubles-shaping/instantaneous • No • passing make contact • passing make contact • retrotrigerable with decalivated control signal • retrigerable with decalivated control		Yes
### Switching function flashing symmetrically with interval start		
• flashing symmetrically with interval start / No • flashing symmetrically with pulse start / No • flashing symmetrically with pulse start / No • flashing symmetrically with pulse start / No • flashing asymmetrically with pulse start / No • star-delta circuit with delay time / No • star-delta circuit / No • switching function with control signal • additive ON-delay / No • passing break contact / No • pulse delayed / No • pulse-shaping make contact / No • passing make contact / No • retrotrigegrable with switched-on control signal •	OFF delay	Yes
• flashing symmetrically with interval start • flashing symmetrically with pulse startinstantaneous • flashing asymmetrically with pulse start • flashing asymmetrically with control signal • retrotriggerable with deactivated control signal • retrotriggerable with deactivated control signal • retrotriggerable with switched-on control signal • retrotriggerable with deactivated	_	
• flashing symmetrically with pulse start in teaching symmetrically with pulse start in the start in teaching symmetrically with pulse start in the		No
• flashing symmetrically with pulse start • flashing asymmetrically with pulse start • flashing asymmetrically with pulse start • flashing asymmetrically with pulse start • flashing symmetrically with pulse start ***star-delta circuit with delay time • star-delta circuit with delay time • star-delta circuit with control signal • additive ON-delay • passing break contact on to start • passing break contact on to start • passing break contact/instantaneous • OFF delay • OFF delay • OFF delay • pulse delayed/instantaneous • pulse delayed/instantaneous • pulse-shaping • pulse-shaping/instantaneous • pulse-shaping/instantaneous • pulse-shaping/instantaneous • ON-delay/OFF-delay/instantaneous • ON-delay/OFF-delay/instantaneous • ON-delay/OFF-delay/instantaneous • ON-delay/OFF-delay/instantaneous • No • passing make contact • passing make contact ontact/instantaneous contact • passing make contact/instantaneous contact • retrotriggerable with deactivated control signal • retrotriggerable with deactivated control signal • retrotriggerable with switched-on control signal • retrotriggerable with switched-on control signal • retrotriggerable with deactivated on control signal • retrotriggerable with switched-on control signal • retrotriggerable with switched so contact • retrotriggerable with switched-on control signal • retrotriggerable with switched-on control signal • retrotriggerable with deactivated control signa		
flashing asymmetrically with interval start No flashing asymmetrically with pulse start No switching function start-delta circuit with delay time No switching function with control signal additive ON-delay No opassing break contact No opassing break contact No opassing break contact/instantaneous No oFF delay No oFF delay No opuise delayed No opuise delayed No opuise-shaping No		
switching function • star-delta circuit with delay time • star-delta circuit with delay time • star-delta circuit with control signal • additive ON-delay • passing break contact • passing break contact • passing break contact/instantaneous • OFF delay • OFF delay • OFF delay • OFF delayinstantaneous • pulse delayed • pulse delayed • pulse delayed/instantaneous • pulse-shaping • pulse-shaping • pulse-shapinginstantaneous • Aciditive ON-delay/instantaneous • Aciditive ON-delay/instantaneous • Aciditive ON-delay/instantaneous • Passing make contact • passing make contact • passing make contact • retrotriggerable with deactivated control signal • retrotriggerable with switched-on control signal • retrotriggerable		
star-delta circuit with delay time star-delta circuit switching function with control signal additive ON-delay passing break contact passing break contact of Edelay OFF delay OFF delay OFF delay OFF delay opulse delayed pulse shaping opulse-shaping opulse-shaping opulse-shaping ON-delay/instantaneous ON-delay/OFF-delay/instantaneous onditive ON-delay/instantaneous No ondelay/OFF-delay/instantaneous No ossing make contact No ossing make contact No ossing make contact No oretrotriggerable with deactivated control signal oretrotriggerable with deactivated control signal oretrotriggerable with switched-on control signal oretrotriggerable with switched-on control signal No Short-circuit protection design of the fuse link for short-circuit protection of the auxiliary switch required Auxiliary circuit material of switching contacts of elayed switching O delayed switching O		No .
switching function with control signal additive ON-delay passing break contact passing break contact OFF delay OFF delay OFF delay/instantaneous pulse delayed/instantaneous pulse shaping pulse-shaping puls	_	No
exitching function with control signal e additive ON-delay passing break contact passing break contact/instantaneous OFF delay OFF delay OFF delay/instantaneous pulse delayed pulse delayed pulse delayed/instantaneous pulse-shaping No pulse-shaping No outse-shaping/instantaneous No switching function of interval relay with control signal outselved outse	•	
additive ON-delay passing break contact passing break contact/instantaneous OFF delay OFF delay OFF delay/instantaneous pulse delayed pulse delayed pulse delayed/instantaneous pulse-shaping pulse-shaping No outse-shaping/instantaneous outsething function of interval relay with control signal No switching function of interval relay with control signal No outsething function of interval relay with control signal No outsething function of interval relay with control signal No signal/instantaneous contact outsething function of the auxiliary switch required Auxiliary circuit material of switching contacts outsething function of NC contacts No Outsething function of NC contacts Outsething function of NC contacts Outsething function of NC contacts No Outsething function of NC con		INU
passing break contact passing break contact/instantaneous OFF delay OFF del		No
passing break contact/instantaneous OFF delay OFF delay OFF delay OFF delay/instantaneous pulse delayed No pulse delayed No pulse delayed/instantaneous No pulse-shaping No pulse-shaping/instantaneous No additive ON-delay/instantaneous 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 retrotriggerable with switched-on control signal retrotriggerable with deactivated control signal/instantaneous contact retrotriggerable with deactivated control signal/instantaneous contact retrotriggerable with deactivated control signal retrotriggerable with deactivated control signal/instantaneous contact retrotriggerable with deactivated control signal retrotriggerable with deactivated control signal/instantaneous contact retrotriggerable with deactivated control signal No Short-circuit protection design of the fuse link for short-circuit protection of the auxiliary switch required Auxiliary circuit material of switching contacts delayed switching delayed switching O No delayed switching O O O O O O O O O O O O O	•	
OFF delay OFF delay/instantaneous OFF delay/instantan		
OFF delay/instantaneous pulse delayed pulse delayed/instantaneous pulse-shaping pulse-shaping/instantaneous No additive ON-delay/instantaneous No ON-delay/OFF-delay/instantaneous No ON-delay/OFF-delay/instantaneous Passing make contact passing make contact passing make contact/instantaneous contact No switching function of interval relay with control signal retrotriggerable with deactivated control signal retrotriggerable with switched-on control signal No retrotriggerable with switched-on control signal No signal/instantaneous contact retriggerable with deactivated control signal/instantaneous contact retriggerable with fuse link for short-circuit protection of the auxiliary switch required Auxiliary circuit material of switching contacts delayed switching O O O O O O O O O O O O O		
 pulse delayed pulse delayed/instantaneous No pulse-shaping No pulse-shaping/instantaneous No additive ON-delay/instantaneous No ON-delay/OFF-delay/instantaneous No passing make contact passing make contact/instantaneous contact No switching function of interval relay with control signal retrotriggerable with deactivated control signal/instantaneous contact retrotriggerable with switched-on control signal retrotriggerable with switched-on control signal retrotriggerable with switched-on control signal/instantaneous contact retriggerable with deactivated control signal retrotriggerable with deactivated control signal No retrotriggerable with deactivated control signal No signal/instantaneous contact fuse gL/gG: 4 A Auxiliary circuit material of switching contacts design of the fuse link for short-circuit protection of the auxiliary switch required Auxiliary circuit material of switching contacts delayed switching 0 	· ·	
 pulse delayed/instantaneous pulse-shaping pulse-shaping/instantaneous No additive ON-delay/instantaneous No ON-delay/OFF-delay/instantaneous No passing make contact passing make contact/instantaneous contact No switching function of interval relay with control signal retrotriggerable with deactivated control signal retrotriggerable with switched-on control signal retrotriggerable with switched-on control signal retrotriggerable with deactivated control signal/instantaneous contact retriggerable with deactivated control signal No signal/instantaneous contact retriggerable with deactivated control signal No Short-circuit protection design of the fuse link for short-circuit protection of the auxiliary switch required Auxiliary circuit material of switching contacts delayed switching 0 	•	
 pulse-shaping pulse-shaping/instantaneous No additive ON-delay/instantaneous ON-delay/OFF-delay/instantaneous No passing make contact passing make contact/instantaneous contact No switching function of interval relay with control signal retrotriggerable with deactivated control signal retrotriggerable with switched-on control signal retrotriggerable with switched-on control signal retrotriggerable with switched-on control signal instantaneous contact retriggerable with deactivated control signal retriggerable with feactivated control signal retriggerable with deactivated control signal retriggerable with feactivated control signal No Short-circuit protection design of the fuse link for short-circuit protection of the auxiliary switch required Auxiliary circuit material of switching contacts delayed switching 0 		
pulse-shaping/instantaneous additive ON-delay/instantaneous ON-delay/OFF-delay/instantaneous No passing make contact passing make contact/instantaneous contact No switching function of interval relay with control signal retrotriggerable with deactivated control signal/instantaneous contact retrotriggerable with switched-on control signal retrotriggerable with switched-on control signal retrotriggerable with switched-on control signal retrotriggerable with deactivated control signal retrotriggerable with deactivated control signal No signal/instantaneous contact retrographs with deactivated control signal No Short-circuit protection design of the fuse link for short-circuit protection of the auxiliary switch required Auxiliary circuit material of switching contacts AgSnO2 number of NC contacts delayed switching		
additive ON-delay/instantaneous ON-delay/OFF-delay/instantaneous passing make contact passing make contact passing make contact/instantaneous contact retrotriggerable with deactivated control signal retrotriggerable with switched-on control signal/instantaneous contact retriggerable with deactivated control signal retriggerable with deactivated control signal retriggerable with deactivated control signal retriggerable with feuse link for short-circuit protection design of the fuse link for short-circuit protection of the auxiliary switch required Auxiliary circuit material of switching contacts delayed switching AgSnO2 number of NC contacts delayed switching O		
ON-delay/OFF-delay/instantaneous passing make contact passing make contact passing make contact/instantaneous contact No switching function of interval relay with control signal retrotriggerable with deactivated control signal/instantaneous contact retrotriggerable with switched-on control signal retrotriggerable with switched-on control signal/instantaneous contact retriggerable with deactivated control signal/instantaneous contact retriggerable with deactivated control signal No Short-circuit protection design of the fuse link for short-circuit protection of the auxiliary switch required Auxiliary circuit material of switching contacts delayed switching AgSnO2 number of NC contacts delayed switching O		
 passing make contact passing make contact/instantaneous contact passing make contact/instantaneous contact passing function of interval relay with control signal retrotriggerable with deactivated control signal/instantaneous contact retrotriggerable with switched-on control signal retrotriggerable with switched-on control signal instantaneous contact retriggerable with deactivated control signal retriggerable with deactivated control signal Root-t-circuit protection design of the fuse link for short-circuit protection of the auxiliary switch required Auxiliary circuit material of switching contacts AgSnO2 number of NC contacts delayed switching 0 	•	
 passing make contact/instantaneous contact switching function of interval relay with control signal retrotriggerable with deactivated control signal instantaneous contact retrotriggerable with switched-on control signal instantaneous contact retrotriggerable with switched-on control signal instantaneous contact retriggerable with deactivated control signal instantaneous contact retriggerable with deactivated control signal instantaneous contact retriggerable with deactivated control signal instantaneous contact retriggerable with for short-circuit protection instantaneous contact retrotriggerable with deactivated control signal instantaneous contact retrotriggerable with switched-on control instantaneous contact		
switching function of interval relay with control signal • retrotriggerable with deactivated control signal/instantaneous contact • retrotriggerable with switched-on control signal • retrotriggerable with switched-on control signal/instantaneous contact • retriggerable with deactivated control signal No Short-circuit protection design of the fuse link for short-circuit protection of the auxiliary switch required Auxiliary circuit material of switching contacts • delayed switching 0		
 retrotriggerable with deactivated control signal/instantaneous contact retrotriggerable with switched-on control signal retrotriggerable with switched-on control signal instantaneous contact retriggerable with deactivated control signal instantaneous contact instantaneous cont		
retrotriggerable with switched-on control signal/instantaneous contact retriggerable with deactivated control signal No Short-circuit protection design of the fuse link for short-circuit protection of the auxiliary switch required Auxiliary circuit material of switching contacts number of NC contacts delayed switching 0	retrotriggerable with deactivated control	No
signal/instantaneous contact • retriggerable with deactivated control signal No Short-circuit protection design of the fuse link for short-circuit protection of the auxiliary switch required Auxiliary circuit material of switching contacts number of NC contacts • delayed switching 0	 retrotriggerable with switched-on control signal 	No
design of the fuse link for short-circuit protection of the auxiliary switch required Auxiliary circuit material of switching contacts • delayed switching • delayed switching		No
design of the fuse link for short-circuit protection of the auxiliary switch required Auxiliary circuit material of switching contacts number of NC contacts • delayed switching 0		No
Auxiliary circuit material of switching contacts number of NC contacts • delayed switching 0	Short-circuit protection	
material of switching contacts number of NC contacts ● delayed switching AgSnO2 0	switch required	fuse gL/gG: 4 A
number of NC contacts • delayed switching 0	Auxiliary circuit	
• delayed switching 0	material of switching contacts	AgSnO2
	number of NC contacts	
• instantaneous contact 0	delayed switching	0
	• instantaneous contact	0

number of NO contacts	
 delayed switching 	0
instantaneous contact	0
number of CO contacts	
 delayed switching 	1
instantaneous contact	0
operational current of auxiliary contacts at AC-15	
• at 24 V	3 A
• at 250 V	3 A
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	5 000 1/h
contact reliability of auxiliary contacts	one incorrect switching operation of 100 million switching operations (17 V, 5
	mA)
switching capacity current with inductive load	0.01 3 A
Inputs/ Outputs	
product function	
• at the relay outputs switchover delayed/without delay	No
• non-volatile	Yes
Electromagnetic compatibility	
EMC emitted interference according to IEC 61812-1	ambience A (industrial sector)
EMC immunity according to IEC 61812-1	corresponds to degree of severity 3
conducted interference	
 due to burst according to IEC 61000-4-4 	2 kV network connection / 1 kV control connection
due to conductor-earth surge according to IEC 61000-4-5	2 kV
due to conductor-conductor surge according to IEC	1 kV
61000-4-5	
field-based interference according to IEC 61000-4-3	10 V/m
electrostatic discharge according to IEC 61000-4-2	4 kV contact discharge / 8 kV air discharge
Safety related data	
protection class IP on the front according to IEC 60529	IP20
type of insulation	Basic insulation
category according to EN 954-1	none
Connections/ Terminals	
product component removable terminal for auxiliary and	Yes
control circuit	
type of electrical connection for auxiliary and control circuit	screw-type terminals
type of connectable conductor cross-sections	
• solid	1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)
 finely stranded with core end processing 	1x (0.5 4 mm²), 2x (0.5 1.5 mm²)
 for AWG cables solid 	1x (20 12), 2x (20 14)
for AWG cables stranded	1x (20 12), 2x (20 14)
connectable conductor cross-section	
• solid	0.5 4 mm²
finely stranded with core end processing	0.5 4 mm²
AWG number as coded connectable conductor cross	
section	20. 40
• solid	20 12
• stranded	20 14
tightening torque	0.6 0.8 N·m
design of the thread of the connection screw	M3
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting onto 35 mm DIN rail
height	100 mm
width	22.5 mm
depth	90 mm
required spacing	
 with side-by-side mounting 	
— forwards	0 mm

— backwards	0 mm	
— upwards	0 mm	
— downwards	0 mm	
— at the side	0 mm	
 for grounded parts 		
— 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	10 95 %	
Certificates/ approvals		

(P)

General Product Approval



Confirmation







EMC

Declaration of Conformity

Test Certificates

Marine / Shipping





Type Test Certificates/Test Report







Marine / Shipping

other







Confirmation

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=3RP2540-1AB30

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RP2540-1AB30

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

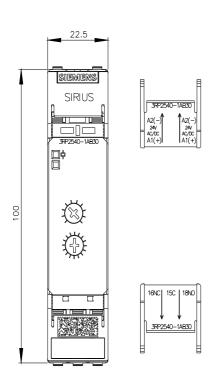
https://support.industry.siemens.com/cs/ww/en/ps/3RP2540-1AB30

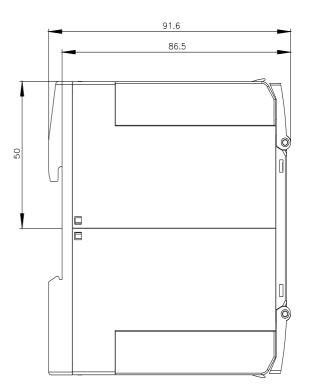
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RP2540-1AB30&lang=en

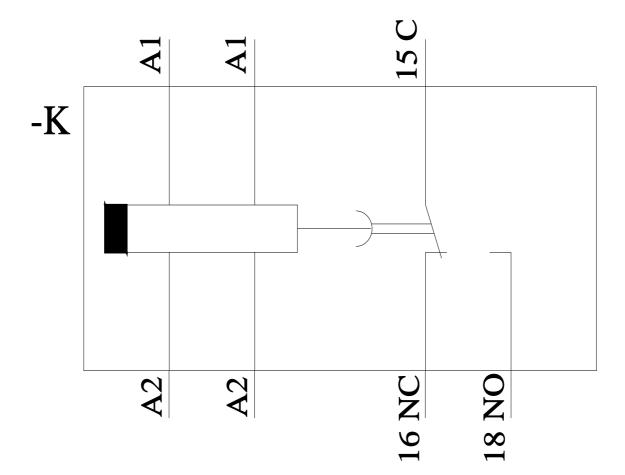
nttp://www.automation.siemens.com/bilddb/cax_de.aspx?milb=skr2540-1Ab50&lang=en

Characteristic: Derating

https://support.industry.siemens.com/cs/ww/en/ps/3RP2540-1AB30/manual







last modified: 11/21/2022 🖸

