## **SIEMENS**

Data sheet 3RP2540-1BB30



Timing relay, electronic OFF delay without control signal or smooth passing make contact non-volatile 7 time ranges 0.05...600 s 24 V AC/DC, 2 change-over contacts with LED, Screw terminal

product brand name	SIRIUS
product designation	timing relay
design of the product	OFF-delay without control signal, non-volatile, passing make contact
product type designation	3RP25
General technical data	
product component	
<ul> <li>relay output</li> </ul>	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
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	K
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
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8
Weight	0.171 kg
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

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control supply voltage 1 at DC rated value	24 V
operating range factor control supply voltage rated value at DC	
• initial value	0.85
full-scale value	1.1
	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
inrush current peak	
• at 24 V	2 A
duration of inrush current peak	
• at 24 V	1 ms
Switching Function	
switching function	
ON-delay	No
ON-delay/instantaneous contact	No
passing make contact	Yes
passing make contact/instantaneous contact	No
OFF delay	Yes
switching function	
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 No
flashing asymmetrically with interval start	No No
flashing asymmetrically with pulse start	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
<ul> <li>passing break contact/instantaneous</li> </ul>	No
OFF delay	No
OFF delay/instantaneous	No
<ul> <li>pulse delayed</li> </ul>	No
<ul> <li>pulse delayed/instantaneous</li> </ul>	No
<ul><li>pulse-shaping</li></ul>	No
<ul><li>pulse-shaping/instantaneous</li></ul>	No
<ul> <li>additive ON-delay/instantaneous</li> </ul>	No
<ul> <li>ON-delay/OFF-delay/instantaneous</li> </ul>	No
passing make contact	No
<ul> <li>passing make contact/instantaneous contact</li> </ul>	No
switching function of interval relay with control signal	
<ul> <li>retrotriggerable with deactivated control signal/instantaneous contact</li> </ul>	No
<ul> <li>retrotriggerable with switched-on control signal</li> </ul>	No
<ul> <li>retrotriggerable with switched-on control signal/instantaneous contact</li> </ul>	No
retriggerable with deactivated control signal	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	AgSnO2
number of NC contacts	
delayed switching	0
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instantaneous contact	0
number of NO contacts	
<ul><li>delayed switching</li></ul>	0
• instantaneous contact	0
number of CO contacts	
<ul> <li>delayed switching</li> </ul>	2
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	
<ul> <li>at the relay outputs switchover delayed/without delay</li> </ul>	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	
<ul> <li>due to burst according to IEC 61000-4-4</li> </ul>	2 kV network connection / 1 kV control connection
<ul> <li>due to conductor-earth surge according to IEC 61000-4-5</li> </ul>	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	
category according to EN 954-1	none
Electrical Safety	
protection class IP on the front according to IEC 60529	IP20
type of insulation	Basic insulation
Connections/ Terminals	
product component removable terminal for auxiliary and control circuit	Yes
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	
• 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	
	any
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	

<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
for grounded parts	
— forwards	0 mm
— backwards	0 mm
— upwards	0 mm
— at the side	0 mm
— downwards	0 mm
<ul> <li>for live parts</li> </ul>	
— 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	
<ul> <li>during operation</li> </ul>	-25 +60 °C
during storage	-40 +85 °C
	-40 +85 °C
during transport	40 100 0
during transport  relative humidity during operation	10 95 %

## **General Product Approval**







Confirmation





EMV Test Certificates Marine / Shipping



<u>KC</u>

Type Test Certificates/Test Report







Marine / Shipping other Environment







Confirmation

Environmental Confirmations

## Further information

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=3RP2540-1BB30

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RP2540-1BB30

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

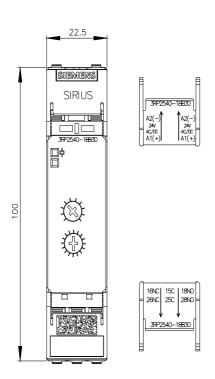
https://support.industry.siemens.com/cs/ww/en/ps/3RP2540-1BB30

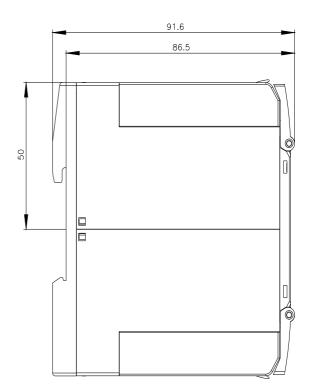
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

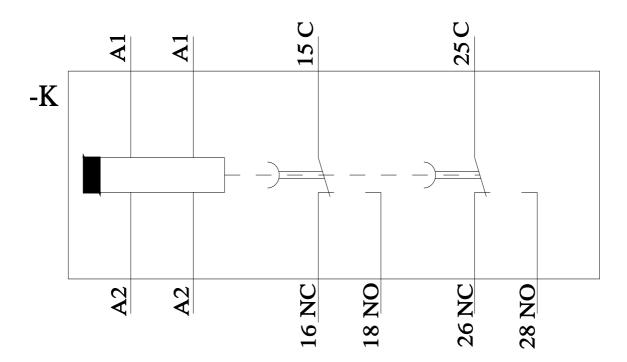
 $\underline{\text{http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RP2540-1BB30\&lang=en}}$ 

Characteristic: Derating

https://support.industry.siemens.com/cs/ww/en/ps/3RP2540-1BB30/manual







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