SIEMENS

Data sheet 3RP2540-1AW30



Timing relay, electronic OFF delay without control signal or smooth passing make contact non-volatile 7 time ranges 0.05...600 s 12-240 V AC/DC, 1 change-over contact at 50/60 Hz AC 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	
 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
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	0.169 kg
Control circuit/ Control	
type of voltage of the control supply voltage	AC/DC
control supply voltage 1 at AC	
• at 50 Hz	12 240 V
• at 60 Hz	12 240 V
control supply voltage frequency 1	50 60 Hz

control cumply voltage 4 of DC	12 240 1/
control supply voltage 1 at DC	12 240 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
inrush current peak	
• at 24 V	0.4 A
• at 240 V	5 A
duration of inrush current peak	
• at 24 V	0.3 ms
• at 240 V	0.5 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
flashing asymmetrically with interval start	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
 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/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 switched-on control signal 	No
 retrotriggerable with switched-on control signal/instantaneous contact 	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
• 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	0
• at 24 V	3 A
• at 250 V	3 A
	JA
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	
	10 V/m
61000-4-5	
61000-4-5 field-based interference according to IEC 61000-4-3	10 V/m
61000-4-5 field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Safety related data	10 V/m 4 kV contact discharge / 8 kV air discharge
61000-4-5 field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Safety related data category according to EN 954-1	10 V/m
field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Safety related data category according to EN 954-1 Electrical Safety	10 V/m 4 kV contact discharge / 8 kV air discharge none
field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Safety related data category according to EN 954-1 Electrical Safety protection class IP on the front according to IEC 60529	10 V/m 4 kV contact discharge / 8 kV air discharge none
61000-4-5 field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Safety related data category according to EN 954-1 Electrical Safety protection class IP on the front according to IEC 60529 type of insulation	10 V/m 4 kV contact discharge / 8 kV air discharge none
field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Safety related data category according to EN 954-1 Electrical Safety protection class IP on the front according to IEC 60529 type of insulation Connections/ Terminals	10 V/m 4 kV contact discharge / 8 kV air discharge none IP20 Basic insulation
field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Safety related data category according to EN 954-1 Electrical Safety protection class IP on the front according to IEC 60529 type of insulation Connections/ Terminals product component removable terminal for auxiliary and	10 V/m 4 kV contact discharge / 8 kV air discharge none
field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Safety related data category according to EN 954-1 Electrical Safety protection class IP on the front according to IEC 60529 type of insulation Connections/ Terminals product component removable terminal for auxiliary and control circuit	10 V/m 4 kV contact discharge / 8 kV air discharge none IP20 Basic insulation Yes
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field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Safety related data category according to EN 954-1 Electrical Safety protection class IP on the front according to IEC 60529 type of insulation 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 • for AWG cables stranded connectable conductor cross-section • solid • finely stranded with core end processing AWG number as coded connectable conductor cross section • solid • stranded tightening torque design of the thread of the connection screw Installation/ mounting/ dimensions	10 V/m 4 kV contact discharge / 8 kV air discharge none IP20 Basic insulation Yes screw-type terminals 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 4 mm²), 2x (0.5 1.5 mm²) 1x (20 12), 2x (20 14) 1x (20 12), 2x (20 14) 0.5 4 mm² 0.5 4 mm² 20 12 20 14 0.6 0.8 N·m M3
field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Safety related data category according to EN 954-1 Electrical Safety protection class IP on the front according to IEC 60529 type of insulation 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	10 V/m 4 kV contact discharge / 8 kV air discharge none IP20 Basic insulation Yes screw-type terminals 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 4 mm²), 2x (0.5 1.5 mm²) 1x (20 12), 2x (20 14) 1x (20 12), 2x (20 14) 0.5 4 mm² 0.5 4 mm² 20 12 20 14 0.6 0.8 N·m M3
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field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Safety related data category according to EN 954-1 Electrical Safety protection class IP on the front according to IEC 60529 type of insulation 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	10 V/m 4 kV contact discharge / 8 kV air discharge none IP20 Basic insulation Yes screw-type terminals 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 4 mm²), 2x (0.5 1.5 mm²) 1x (20 12), 2x (20 14) 1x (20 12), 2x (20 14) 0.5 4 mm² 0.5 4 mm² 20 12 20 14 0.6 0.8 N·m M3

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 %	
Approvals Certificates		
General Product Approval		







Confirmation





EMV Test Certificates Marine / Shipping



<u>KC</u>

Special Test Certificate

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=3RP2540-1AW30

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RP2540-1AW30

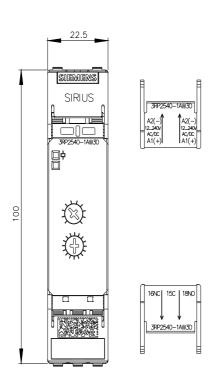
 ${\bf Service \& Support~(Manuals,~Certificates,~Characteristics,~FAQs,...)}$

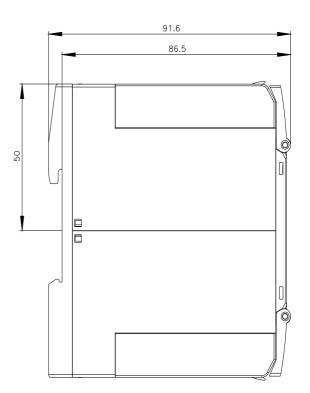
https://support.industry.siemens.com/cs/ww/en/ps/3RP2540-1AW30

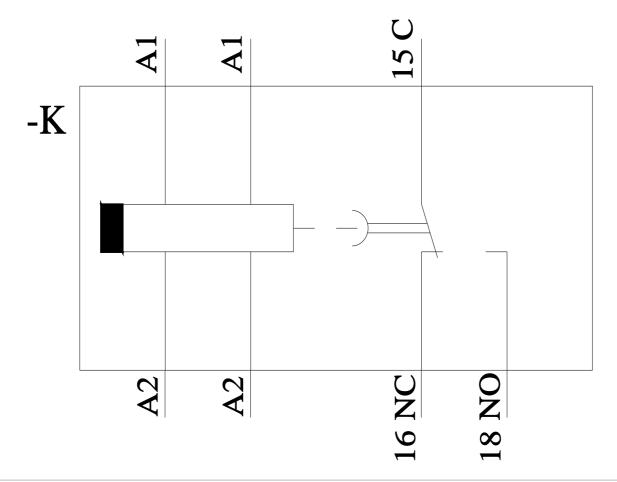
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RP2540-1AW30&lang=en

Characteristic: Derating







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