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 brand name			
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 acc. to IEC 60068-2-27	11g / 15 ms		
vibration resistance acc. to IEC 60068-2-6	10 55 Hz / 0.35 mm		
mechanical service life (switching cycles) typical	10 000 000		
electrical endurance (switching cycles) at AC-15 at 230 V typical	100 000		
adjustable time	0.05 600 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 acc. to IEC 81346-2	К		
relative repeat accuracy	1 %		
Substance Prohibitance (Date)	12.09.2014 00:00:00		
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		
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	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
 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 No
 pulse-shaping/instantaneous additive ON-delay/instantaneous 	No
ON-delay/OFF-delay/instantaneous	No
passing make contact	No
 passing make contact passing make contact/instantaneous contact 	No
• passing make contactinistantaneous contact 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
namber of the contacts actayed switching	·

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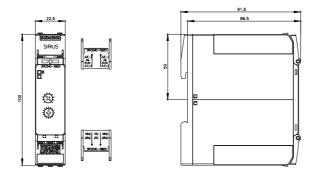
number of NO contacts delayed switching	0			
number of CO contacts delayed switching	2			
operational current of auxiliary contacts at AC-15				
● at 24 V	3 A			
• at 250 V	3 A			
operational current of auxiliary contacts at DC-13				
• at 24 V	1 A			
• at 125 V	0.2 A			
• at 250 V	0.1 A			
operating 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)			
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			
switching capacity current with inductive load	0.01 3 A			
Inputs/ Outputs				
product function				
 at the relay outputs switchover delayed/without 	No			
delay				
non-volatile	Yes			
Electromagnetic compatibility				
EMC emitted interference acc. to IEC 61812-1	ambience A (industrial sector)			
EMC immunity acc. to IEC 61812-1	corresponds to degree of severity 3			
conducted interference				
• due to burst acc. to IEC 61000-4-4	2 kV network connection / 1 kV control connection			
 due to conductor-earth surge acc. to IEC 61000-4-5 	2 kV			
 due to conductor-conductor surge acc. to IEC 	1 kV			
61000-4-5				
field-based interference acc. to IEC 61000-4-3	10 V/m			
electrostatic discharge acc. to IEC 61000-4-2	4 kV contact discharge / 8 kV air discharge			
Safety related data				
protection class IP on the front acc. to IEC 60529	IP20			
	IP20 Basic insulation			
protection class IP on the front acc. to IEC 60529				
protection class IP on the front acc. to IEC 60529 type of insulation	Basic insulation			
protection class IP on the front acc. to IEC 60529 type of insulation category acc. to EN 954-1	Basic insulation			
protection class IP on the front acc. to IEC 60529 type of insulation category acc. to EN 954-1 Connections/ Terminals	Basic insulation none			
protection class IP on the front acc. to IEC 60529 type of insulation category acc. to EN 954-1 Connections/ Terminals product component removable terminal for auxiliary	Basic insulation none			
protection class IP on the front acc. to IEC 60529 type of insulation category acc. to EN 954-1 Connections/ Terminals product component removable terminal for auxiliary and control circuit	Basic insulation none Yes			
protection class IP on the front acc. to IEC 60529 type of insulation category acc. to EN 954-1 Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit	Basic insulation none Yes			
protection class IP on the front acc. to IEC 60529 type of insulation category acc. 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	Basic insulation none Yes screw-type terminals			
protection class IP on the front acc. to IEC 60529 type of insulation category acc. 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	Basic insulation none Yes screw-type terminals 1x (0.5 4.0 mm ²), 2x (0.5 2.5 mm ²)			
protection class IP on the front acc. to IEC 60529 type of insulation category acc. 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 	Basic insulation none Yes screw-type terminals 1x (0.5 4.0 mm ²), 2x (0.5 2.5 mm ²) 1x (0.5 4 mm ²), 2x (0.5 1.5 mm ²)			
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protection class IP on the front acc. to IEC 60529 type of insulation category acc. 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 • at AWG cables stranded	Basic insulation none Yes screw-type terminals 1x (0.5 4.0 mm ²), 2x (0.5 2.5 mm ²) 1x (0.5 4 mm ²), 2x (0.5 1.5 mm ²) 1x (20 12), 2x (20 14)			
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protection class IP on the front acc. to IEC 60529 type of insulation category acc. 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 at AWG cables stranded connectable conductor cross-section solid efinely stranded with core end processing solid bild finely stranded conductor cross-section solid solid bild solid connectable conductor cross-section solid solid solid solid	Basic insulation none Yes screw-type terminals 1x (0.5 4.0 mm ²), 2x (0.5 2.5 mm ²) 1x (0.5 4 mm ²), 2x (0.5 1.5 mm ²) 1x (20 12), 2x (20 14) 1x (20 12), 2x (20 14) 0.5 4 mm ² 0.5 4 mm ²			
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protection class IP on the front acc. to IEC 60529 type of insulation category acc. 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 at AWG cables stranded connectable conductor cross-section solid e at AWG cables stranded connectable conductor cross-section solid finely stranded with core end processing at 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	Basic insulation none Yes screw-type terminals $1x (0.5 4.0 \text{ mm}^2), 2x (0.5 2.5 \text{ mm}^2)$ $1x (0.5 4 \text{ mm}^2), 2x (0.5 1.5 \text{ mm}^2)$ $1x (20 12), 2x (20 14)$ $1x (20 12), 2x (20 14)$ $0.5 4 \text{ mm}^2$ $0.6 0.8 \text{ N·m}$			
protection class IP on the front acc. to IEC 60529 type of insulation category acc. 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 • at AWG cables stranded connectable conductor cross-section • solid • finely stranded with core end processing AWG number as coded connectable conductor cross section • solid • solid • solid • solid • stranded tightening torque design of the thread of the connection screw	Basic insulation none Yes screw-type terminals $1x (0.5 4.0 \text{ mm}^2), 2x (0.5 2.5 \text{ mm}^2)$ $1x (0.5 4 \text{ mm}^2), 2x (0.5 1.5 \text{ mm}^2)$ $1x (20 12), 2x (20 14)$ $1x (20 12), 2x (20 14)$ $0.5 4 \text{ mm}^2$ $0.6 0.8 \text{ N·m}$			
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protection class IP on the front acc. to IEC 60529 type of insulation category acc. 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 at AWG cables stranded connectable conductor cross-section solid e at AWG cables stranded connectable conductor cross-section solid finely stranded with core end processing AWG number as coded connectable conductor cross section e solid stranded e stranded tightening torque design of the thread of the connection screw Installation/ mounting/ dimensions mounting position fastening method	Basic insulation none 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 12 3			
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protection class IP on the front acc. to IEC 60529 type of insulation category acc. 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 • at 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 mounting position fastening method height width	Basic insulation none 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 0.5 4 mm² 0.5 4 mm² 1x (20 12) 20 12 20 14 0.6 0.8 N·m M3 any screw and snap-on mounting onto 35 mm standard mounting rail 100 mm 22.5 mm			
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protection class IP on the front acc. to IEC 60529 type of insulation category acc. 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 at AWG cables stranded connectable conductor cross-section solid at AWG cables stranded connectable conductor cross-section solid at AWG cables stranded dennetable 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 mounting position fastening method height width depth required spacing	Basic insulation none 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 0.5 4 mm² 0.5 4 mm² 1x (20 12) 20 12 20 14 0.6 0.8 N·m M3 any screw and snap-on mounting onto 35 mm standard mounting rail 100 mm 22.5 mm			
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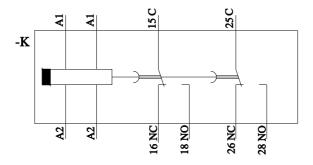
			0			
— backward	S		0 mm			
	— upwards		0 mm			
— downwards		0 mm				
— at the side			0 mm			
 for grounded p 	arts					
— forwards			0 mm			
- backward	S		0 mm			
— upwards			0 mm			
— at the side	9		0 mm			
— downward	Is		0 mm			
 for live parts 						
— forwards			0 mm			
- backward	S		0 mm			
— upwards			0 mm			
— downward	ls		0 mm			
— at the side	9		0 mm			
Ambient conditions						
installation altitude at	height above sea level	maximum	2 000 m			
ambient temperatur	e					
 during operation 	-		-25 +6	60 °C		
 during storage 			-40 +8	85 °C		
 during transport 	t		-40 +8	85 °C		
relative humidity duri			10 95	%		
Certificates/ approva						
						Declaration of
General Product A	oproval				EMC	Conformity
Declaration of		Ŵ		EHL	RCM	CE EG-Konf.
Conformity	Test Certificates	Marine / Ship	ping			
<u>Miscellaneous</u>	<u>Type Test Certific-</u> ates/Test Report	BUREAU		Hoyd's Register urs	PRS	RINA
Marine / Shipping		other				
KMRS	DNV-GL	<u>Confirmatic</u>	<u>)11</u>			
https://www.siemens Industry Mall (Onlin https://mall.industry.s Cax online generate	wnloadcenter (Catalo .com/ic10 e ordering system) .iemens.com/mall/en/en	gs, Brochures,. /Catalog/product) t?mlfb=3R		<u></u>	

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, ...) <u>http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RP2540-1BB30&lang=en</u> Characteristic: Derating

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





last modified:

8/24/2021 🖸