SIEMENS

Data sheet 3RP2540-2BB30

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, Spring-type terminal (push-in)

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
• — 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 DIN EN 81346-2	K
relative repeat accuracy	1 %

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

• switching function ON-delay/instantaneous contact	No
• switching function passing make contact	No
• switching function passing make contact/instantaneous contact	No
• Switching function OFF delay	Yes
Switching function	
• flashing symmetrically starting with interval/instantaneous	No
• flashing symmetrically starting with interval	No
• flashing symmetrically starting with pulse/instantaneous	No
• flashing symmetrically starting with pulse	No
• flashing asymmetrically starting with interval	No
• flashing asymmetrically starting with pulse	No
Switching function	
• star-delta circuit with delay time	No
• star-delta circuit	No
• Switching function with control signal additive ON delay	No
• Switching function with control signal passing break contact	No
• Switching function with control signal passing break contact/instantaneous	No
• Switching function with control signal OFF delay	No
• Switching function with control signal OFF delay/instantaneous	No
• Switching function with control signal pulse delayed	No
• Switching function with control signal pulse delayed/instantaneous	No
• switching function with control signal pulse-shaping	No
• Switching function with control signal pulse-shaping/instantaneous	No
• Switching function with control signal additive ON delay/instantaneous	No
• Switching function with control signal ON-delay/OFF-delay/instantaneous	No
• Switching function with control signal passing make contact	No
• Switching function with control signal passing make contact/instantaneous contact	No

Switching function of interval relay with control signal	
• retrotriggerable with deactivated control signal/instantaneous contact	No
• retrotriggerable with activated control signal	No
• retrotriggerable with activated 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
Number of NO contacts	
• delayed switching	0
Number of CO contacts	
• delayed switching	2
• operating current of auxiliary contacts at AC-15 at 24 V	3 A
• operating current of auxiliary contacts at AC-15 at 250 V	3 A
• operating current of auxiliary contacts at DC-13 at 24 V	1 A
• operating current of auxiliary contacts at DC-13 at 125 V	0.2 A
• operating current of auxiliary contacts at DC-13 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 delay	No
• Product function non-volatile	Yes

Electromagnetic compatibility

EMI immunity	
• acc. to IEC 61812-1	EN 61000-6-2

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 61000-4-5	1 kV
Field-bound parasitic coupling 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 against electrical shock	finger-safe
Type of insulation	Basic insulation
Category acc. to EN 954-1	none

Connections/ Terminals

Product function	
• removable terminal for auxiliary and control circuit	Yes
• Type of electrical connection for auxiliary and control current circuit	spring-loaded terminals (push-in)
• type of connectable conductor cross-sections solid	0.5 ... 4 mm²
• Type of connectable conductor cross-sections finely stranded with core end processing	0.5 ... 2.5 mm²
• Type of connectable conductor cross-sections finely stranded without core end processing	0.5 ... 4 mm²
• Type of connectable conductor cross-sections at AWG conductors solid	20 ... 12
• Type of connectable conductor cross-sections at AWG conductors stranded	20 ... 12
• connectable conductor cross-section solid	0.5 ... 4 mm²
• connectable conductor cross-section finely stranded with core end processing	0.5 ... 2.5 mm²
• connectable conductor cross-section finely stranded without core end processing	0.5 ... 4 mm²
AWG number as coded connectable conductor cross section	
• solid	20 ... 12
• stranded	20 ... 12

Installation/ mounting/ dimensions

• **mounting position**	any
Mounting type	screw and snap-on mounting onto 35 mm standard mounting 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

General Product Approval				EMC	Declaration of Conformity
CCC	CSA	UL	EAC	RCM	EG-Konf.

Declaration of Conformity	Test Certificates	Marine / Shipping			
Miscellaneous	Type Test Certificates/Test Report	BUREAU VERITAS	LRS	PRS	RINA

Marine / Shipping		other
RMRS	DNV·GL DNVGL.COM/AF	Confirmation

Further information

Information- and Downloadcenter (Catalogs, Brochures,…)
https://www.siemens.com/ic10

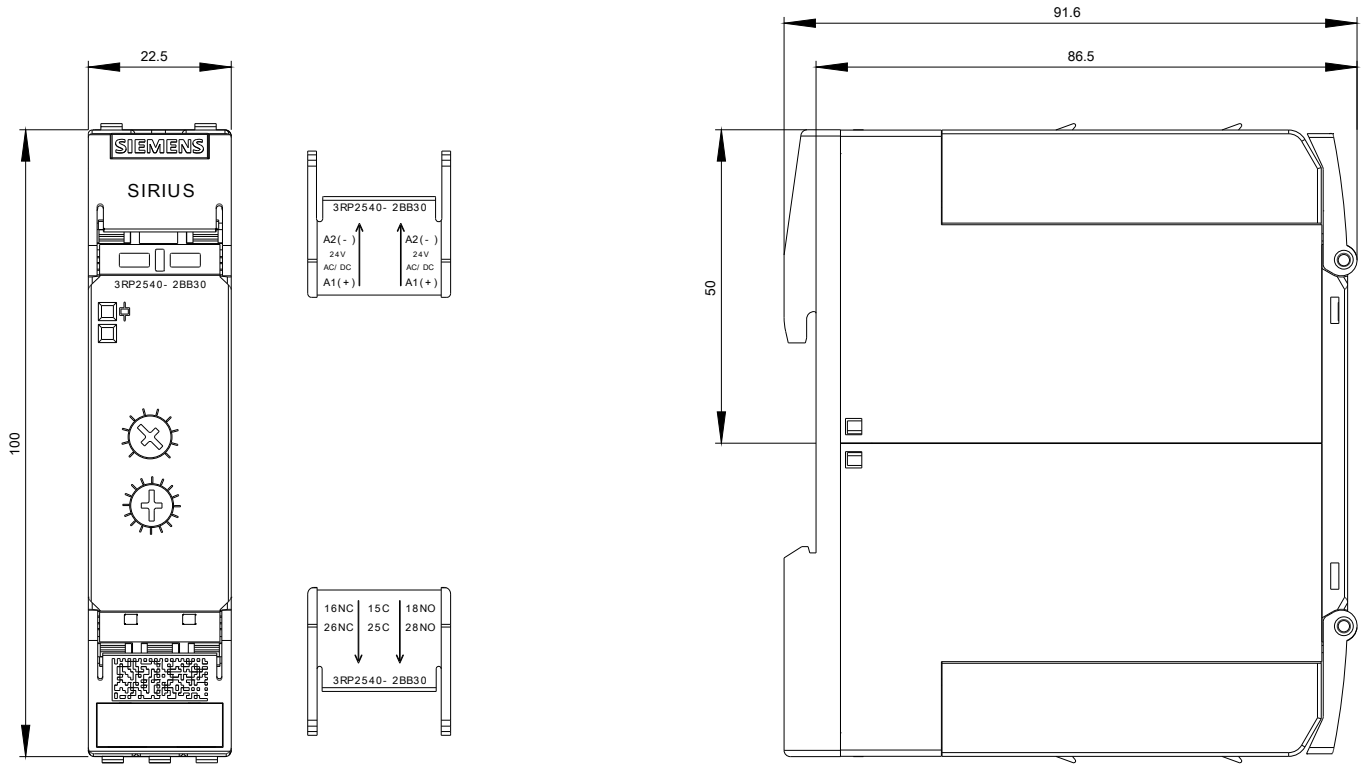
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RP2540-2BB30

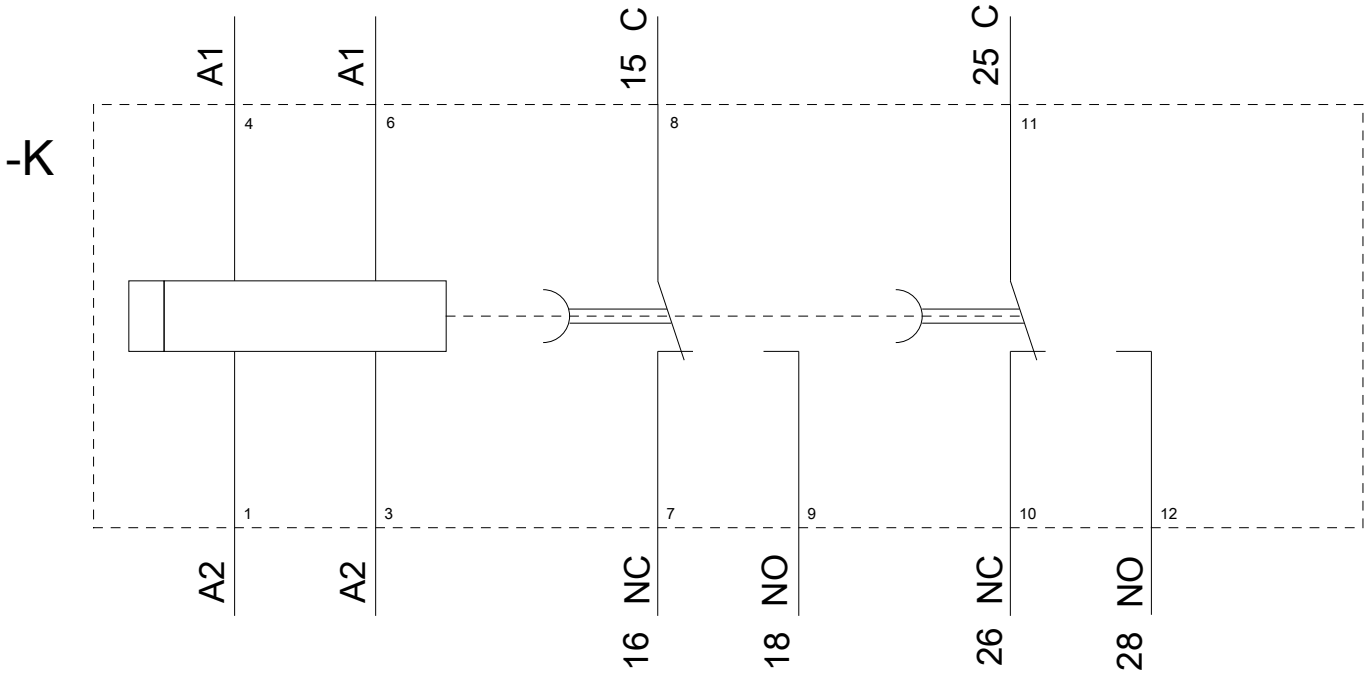
Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RP2540-2BB30

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RP2540-2BB30

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RP2540-2BB30&lang=en

Characteristic: Derating
https://support.industry.siemens.com/cs/ww/en/ps/3RP2540-2BB30/manual





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