SIEMENS

Data sheet 3RP2505-2CW30

Timing relay, Multifunction 1 NO semiconductor 13 functions 7 time ranges (0.05 s...100 h) 12-240 V AC/DC at 50/60 Hz AC with LED, Spring-type terminal (push-in)

product brand name	SIRIUS
product designation	timing relay
design of the product	13 functions
product type designation	3RP25

General technical data	
• product component relay output	No
• product component semi-conductor output	Yes
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	300 000
adjustable time	0.05 s ... 100 h
Relative setting accuracy relating to full-scale value	5 %
thermal current	1 A
minimum ON period	35 ms
• **recovery time**	400 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	12 ... 240 V
• at 60 Hz	12 ... 240 V
control supply voltage frequency 1	50 ... 60 Hz
Control supply voltage 1	
• at DC	12 ... 240 V
operating range factor control supply voltage rated value at DC	
• initial value	0.8
• full-scale value	1.1
operating range factor control supply voltage rated value at AC at 50 Hz	
• initial value	0.8
• full-scale value	1.1
operating range factor control supply voltage rated value at AC at 60 Hz	
• initial value	0.8
• full-scale value	1.1
Inrush current peak	
• at 24 V	0.5 A
• at 240 V	5 A
Duration of inrush current peak	
• at 24 V	0.4 ms
• at 240 V	0.5 ms

Switching Function

switching function	
• ON-delay	Yes
• ON-delay/instantaneous contact	No
• passing make contact	Yes

• passing make contact/instantaneous contact	No
• OFF delay	No
Switching function	
• flashing symmetrically starting with interval/instantaneous	No
• flashing symmetrically starting with interval	Yes
• flashing symmetrically starting with pulse/instantaneous	No
• flashing symmetrically starting with pulse	Yes
• 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	Yes
• switching function with control signal passing break contact	Yes
• Switching function with control signal passing break contact/instantaneous	No
• Switching function with control signal OFF delay	Yes
• Switching function with control signal OFF delay/instantaneous	No
• Switching function with control signal pulse delayed	Yes
• Switching function with control signal pulse delayed/instantaneous	No
• switching function with control signal pulse-shaping	Yes
• 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	Yes
• 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	Yes

• retrotriggerable with activated control signal/instantaneous contact	No
• retriggerable with deactivated control signal	Yes
Design of the control terminal non-floating	Yes

Short-circuit protection	
• design of the fuse link for short-circuit protection of the auxiliary switch required	fuse gL/gG: 4 A

Auxiliary circuit	
• number of NC contacts delayed switching	0
• number of NO contacts delayed switching	1
• number of CO contacts delayed switching	0
operating current of auxiliary contacts at AC-15	
• at 24 V	1 A
• at 250 V	1 A
• operating current of auxiliary contacts at DC-12 at 24 V	1 A
• Operating current of auxiliary contacts at DC-12 at 125 V	1 A
• Operating current of auxiliary contacts at DC-12 at 250 V	1 A
operating frequency with 3RT2 contactor maximum	5 000 1/h
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 ... 1 A

Inputs/ Outputs	
• product function at the relay outputs switchover delayed/without delay	No
• Product function non-volatile	No
residual current	
• maximum	0.5 mA

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
• Conducted interference due to conductor-earth surge acc. to IEC 61000-4-5	2 kV
• Conducted interference 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
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	17.5 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
• ambient temperature during storage	-40 ... +85 °C
• ambient temperature 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	DNVGL.COM/AF	Confirmation

Further information

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

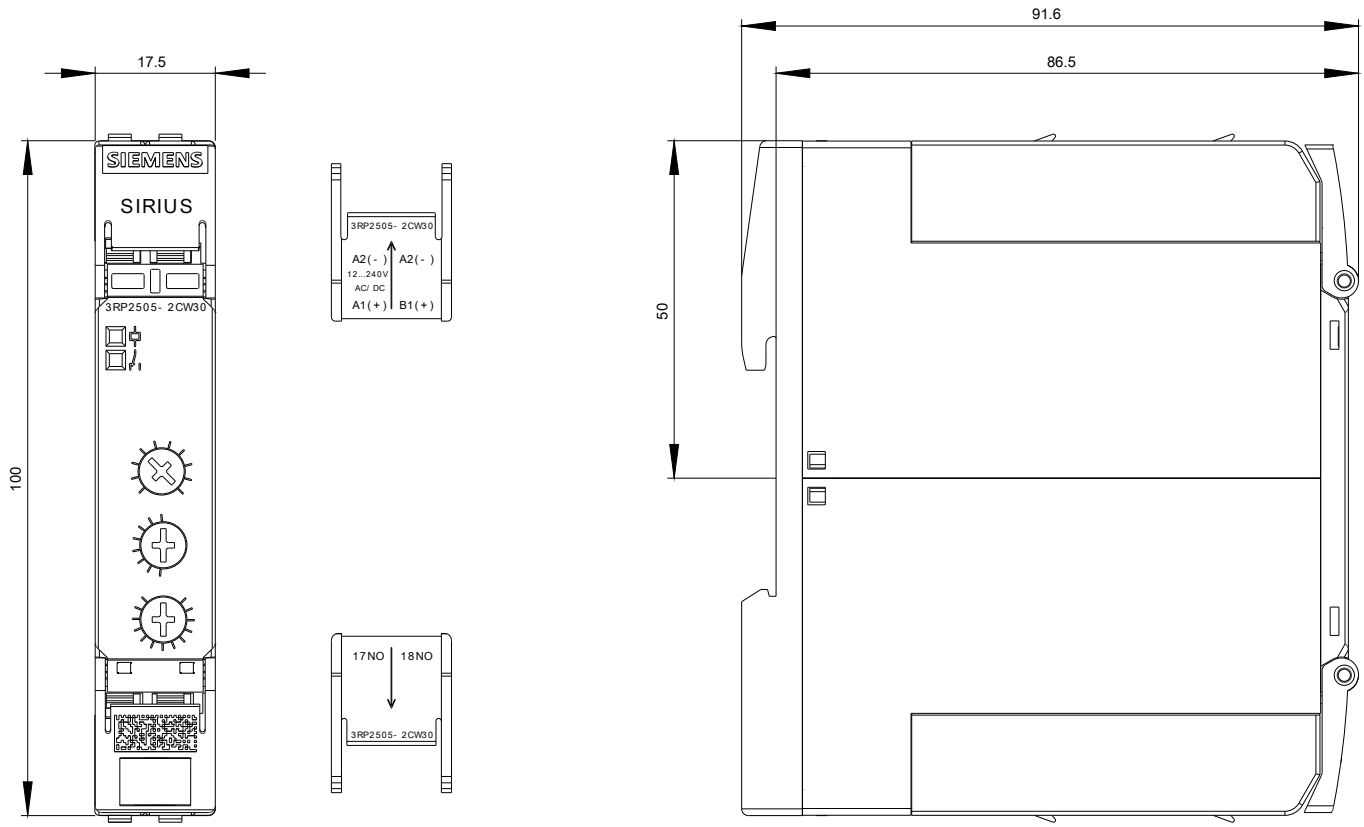
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RP2505-2CW30

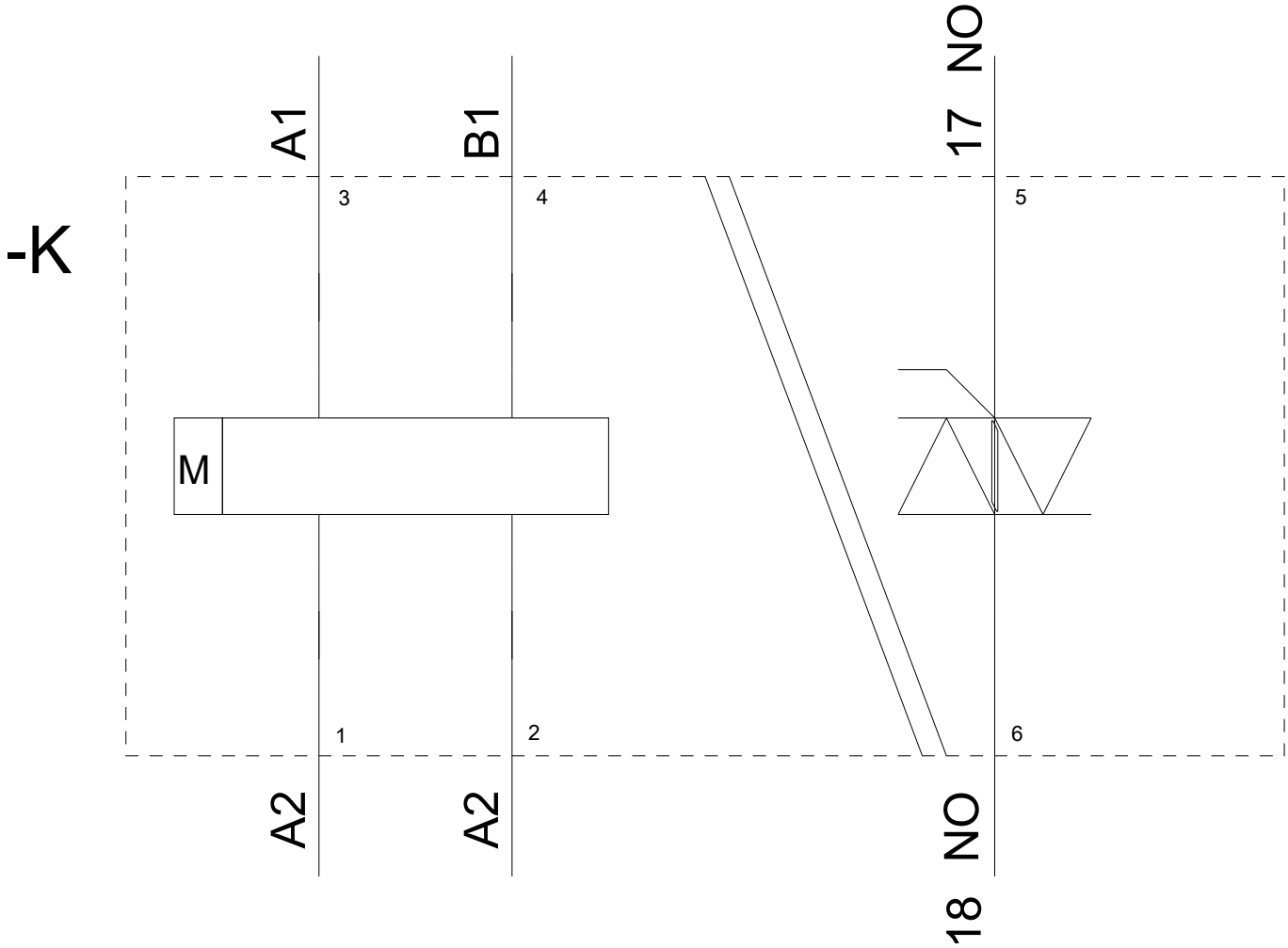
Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RP2505-2CW30

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RP2505-2CW30

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RP2505-2CW30&lang=en

Characteristic: Derating
https://support.industry.siemens.com/cs/ww/en/ps/3RP2505-2CW30/manual





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