

Timing relay, electronic ansprechverzögert 1 change-over contact 24 V AC/DC, 200 to 240 V AC at 50/60 Hz AC 0.05 s to 100 h Overall width 45 mm Spring-type terminal



Product brand name	SIRIUS
Product designation	timing relay
Design of the product	slow-operating
Product type designation	3RP20

General technical data	
Product component	
• Relay output	Yes
• semi-conductor output	No
Product extension required remote control	No
Product extension optional remote control	No
Test voltage for isolation test	2 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
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 s ... 100 h
Relative setting accuracy relating to full-scale value	5 %
Thermal current	5 A
Recovery time	150 ms
Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750	K
Reference code acc. to DIN EN 81346-2	K
Reference code acc. to DIN EN 61346-2	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 2 at AC	
• at 50 Hz	200 ... 240 V
• at 60 Hz	200 ... 240 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

Switching Function

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

<ul style="list-style-type: none"> flashing symmetrically starting with interval/instantaneous 	No
<ul style="list-style-type: none"> flashing symmetrically starting with interval 	No
<ul style="list-style-type: none"> flashing symmetrically starting with pulse/instantaneous 	No
<ul style="list-style-type: none"> flashing symmetrically starting with pulse 	No
<ul style="list-style-type: none"> flashing asymmetrically starting with interval 	No
<ul style="list-style-type: none"> flashing asymmetrically starting with pulse 	No
Switching function	
<ul style="list-style-type: none"> star-delta circuit with delay time 	No
<ul style="list-style-type: none"> star-delta circuit 	No
Switching function with control signal	
<ul style="list-style-type: none"> additive ON delay 	No
<ul style="list-style-type: none"> passing break contact 	No
<ul style="list-style-type: none"> passing break contact/instantaneous 	No
<ul style="list-style-type: none"> OFF delay 	No
<ul style="list-style-type: none"> OFF delay/instantaneous 	No
<ul style="list-style-type: none"> pulse delayed 	No
<ul style="list-style-type: none"> pulse delayed/instantaneous 	No
<ul style="list-style-type: none"> pulse-shaping 	No
<ul style="list-style-type: none"> pulse-shaping/instantaneous 	No
<ul style="list-style-type: none"> additive ON delay/instantaneous 	No
<ul style="list-style-type: none"> ON-delay/OFF-delay/instantaneous 	No
<ul style="list-style-type: none"> passing make contact 	No
<ul style="list-style-type: none"> passing make contact/instantaneous contact 	No
Switching function of interval relay with control signal	
<ul style="list-style-type: none"> retrotriggerable with deactivated control signal/instantaneous contact 	No
<ul style="list-style-type: none"> retrotriggerable with activated control signal 	No
<ul style="list-style-type: none"> retrotriggerable with activated control signal/instantaneous contact 	No
<ul style="list-style-type: none"> retriggerable with deactivated control signal 	No
Short-circuit protection	
Design of the fuse link	
<ul style="list-style-type: none"> for short-circuit protection of the auxiliary switch required 	fuse gL/gG: 4 A
Auxiliary circuit	
Material of switching contacts	AgSnO2
Number of CO contacts	
<ul style="list-style-type: none"> delayed switching 	1
Operating current of auxiliary contacts at AC-15	
<ul style="list-style-type: none"> at 24 V 	3 A

<ul style="list-style-type: none"> • at 250 V 	3 A
Operating current of auxiliary contacts at DC-13	
<ul style="list-style-type: none"> • at 24 V 	1 A
<ul style="list-style-type: none"> • at 125 V 	0.2 A
<ul style="list-style-type: none"> • 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)
Contact rating of auxiliary contacts according to UL	R300 / B300
Influence of the surrounding temperature	±5 %
Power supply influence	±1 %

Inputs/ Outputs

Product function	
<ul style="list-style-type: none"> • non-volatile 	No

Electromagnetic compatibility

EMI immunity	
<ul style="list-style-type: none"> • acc. to IEC 61812-1 	EN 61000-6-2
Conducted interference	
<ul style="list-style-type: none"> • due to burst acc. to IEC 61000-4-4 	2 kV network connection / 1 kV control connection
<ul style="list-style-type: none"> • due to conductor-earth surge acc. to IEC 61000-4-5 	2 kV
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • removable terminal for auxiliary and control circuit 	No
Type of electrical connection	
<ul style="list-style-type: none"> • for auxiliary and control current circuit 	spring-loaded terminals
Type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • solid 	2x (0,25 ... 2,5 mm ²)
<ul style="list-style-type: none"> • finely stranded with core end processing 	2 x (0.25 ... 1.5 mm ²)
<ul style="list-style-type: none"> • finely stranded without core end processing 	2x (0.25 ... 2.5 mm ²)
<ul style="list-style-type: none"> • at AWG conductors solid 	2x (24 ... 14)
<ul style="list-style-type: none"> • at AWG conductors stranded 	2x (24 ... 14)

Connectable conductor cross-section	
<ul style="list-style-type: none"> • solid • finely stranded with core end processing • finely stranded without core end processing 	<p>0.25 ... 2.5 mm²</p> <p>0.25 ... 1.5 mm²</p> <p>2.5 ... 2.5 mm²</p>
AWG number as coded connectable conductor cross section	
<ul style="list-style-type: none"> • solid • stranded 	<p>24 ... 14</p> <p>24 ... 14</p>

Installation/ mounting/ dimensions

Mounting position	any
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail
Height	57 mm
Width	45 mm
Depth	73 mm
Required spacing	
<ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side • for grounded parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — at the side — downwards • for live parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side 	<p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p>

Ambient conditions

Installation altitude at height above sea level	
<ul style="list-style-type: none"> • maximum 	2 000 m
Relative humidity	
<ul style="list-style-type: none"> • during operation 	10 ... 95 %

Certificates/ approvals

General Product Approval	EMC	Declaration of Conformity
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[Miscellaneous](#)

Test Certificates	Marine / Shipping
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[Type Test Certificates/Test Report](#)



Marine / Shipping	other
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[Confirmation](#)



Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

www.siemens.com/sirius/catalogs

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RP2025-2AP30>

Cax online generator

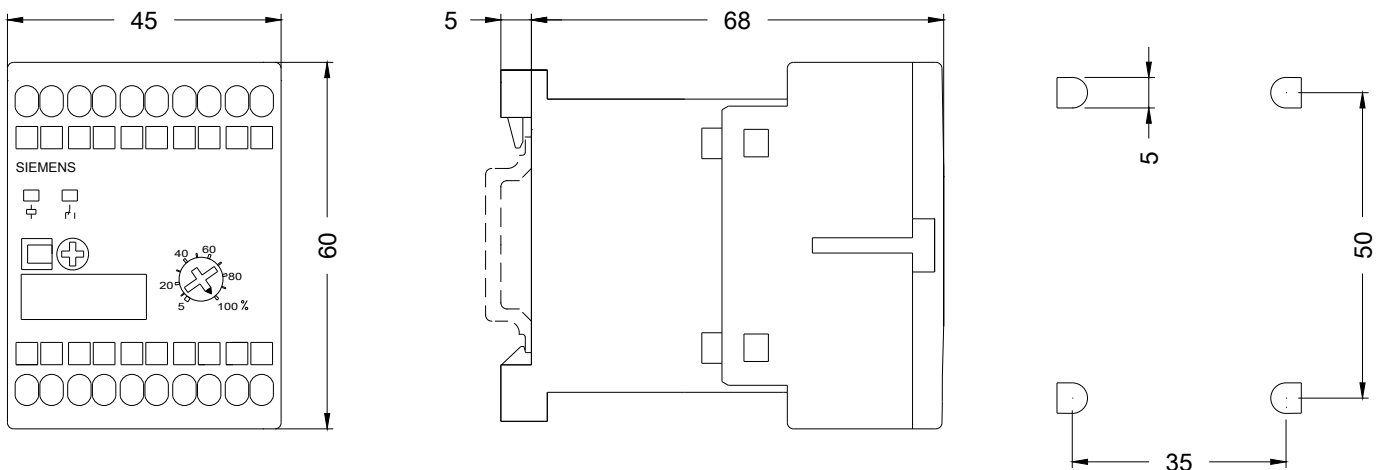
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RP2025-2AP30>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RP2025-2AP30>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RP2025-2AP30&lang=en



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