



Timing relay, electronic ansprechverzögert 1 change-over contact 24 V AC/DC, 200 to 127 V AC at 50/60 Hz AC 0.05 s to 100 h Overall width 45 mm screw terminal

<b>product brand name</b>	SIRIUS
<b>product designation</b>	timing relay
<b>design of the product</b>	slow-operating
<b>product type designation</b>	3RP20
<b>General technical data</b>	
<b>product component</b>	
• relay output	Yes
• semi-conductor output	No
<b>product extension required remote control</b>	No
<b>product extension optional remote control</b>	No
<b>power loss [W] maximum</b>	2 W
insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value	300 V
<b>test voltage for isolation test</b>	2 kV
<b>degree of pollution</b>	3
<b>surge voltage resistance rated value</b>	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 (switching cycles) typical	10 000 000
electrical endurance (switching cycles) at AC-15 at 230 V typical	100 000
<b>adjustable time</b>	0.05 ... 100 s
<b>relative setting accuracy relating to full-scale value</b>	5 %; +/-
<b>thermal current</b>	5 A
<b>recovery time</b>	150 ms
<b>reference code according to IEC 81346-2</b>	K
<b>relative repeat accuracy</b>	1 %; +/-
influence of the surrounding temperature	±5 %
power supply influence	±1 %
<b>Substance Prohibitance (Date)</b>	05/01/2012
<b>Control circuit/ Control</b>	
<b>type of voltage of the control supply voltage</b>	AC/DC
<b>control supply voltage 1 at AC</b>	
• at 50 Hz rated value	24 V
• at 60 Hz rated value	24 V
<b>control supply voltage 2 at AC</b>	
• at 50 Hz	100 ... 127 V
• at 60 Hz	100 ... 127 V
<b>control supply voltage frequency 1</b>	50 ... 60 Hz
<b>control supply voltage 1</b>	

<ul style="list-style-type: none"> <li>• at DC rated value</li> </ul>	24 V
<b>operating range factor control supply voltage rated value at DC</b> <ul style="list-style-type: none"> <li>• initial value</li> <li>• full-scale value</li> </ul>	0.85 1.1
<b>operating range factor control supply voltage rated value at AC at 50 Hz</b> <ul style="list-style-type: none"> <li>• initial value</li> <li>• full-scale value</li> </ul>	0.85 1.1
<b>operating range factor control supply voltage rated value at AC at 60 Hz</b> <ul style="list-style-type: none"> <li>• initial value</li> <li>• full-scale value</li> </ul>	0.85 1.1

### Switching Function

<b>switching function</b> <ul style="list-style-type: none"> <li>• ON-delay</li> <li>• ON-delay/instantaneous contact</li> <li>• passing make contact</li> <li>• passing make contact/instantaneous contact</li> <li>• OFF delay</li> </ul>	Yes No No No No
<b>switching function</b> <ul style="list-style-type: none"> <li>• flashing symmetrically with interval start/instantaneous</li> <li>• flashing symmetrically with interval start</li> <li>• flashing symmetrically with pulse start/instantaneous</li> <li>• flashing symmetrically with pulse start</li> <li>• flashing asymmetrically with interval start</li> <li>• flashing asymmetrically with pulse start</li> </ul>	No No No No No No
<b>switching function</b> <ul style="list-style-type: none"> <li>• star-delta circuit with delay time</li> <li>• star-delta circuit</li> </ul>	No No
<b>switching function with control signal</b> <ul style="list-style-type: none"> <li>• additive ON-delay</li> <li>• passing break contact</li> <li>• passing break contact/instantaneous</li> <li>• OFF delay</li> <li>• OFF delay/instantaneous</li> <li>• pulse delayed</li> <li>• pulse delayed/instantaneous</li> <li>• pulse-shaping</li> <li>• pulse-shaping/instantaneous</li> <li>• additive ON-delay/instantaneous</li> <li>• ON-delay/OFF-delay/instantaneous</li> <li>• passing make contact</li> <li>• passing make contact/instantaneous contact</li> </ul>	No No No No No No No No No No No No No No
<b>switching function of interval relay with control signal</b> <ul style="list-style-type: none"> <li>• retrotriggerable with deactivated control signal/instantaneous contact</li> <li>• retrotriggerable with switched-on control signal</li> <li>• retrotriggerable with switched-on control signal/instantaneous contact</li> <li>• retriggerable with deactivated control signal</li> </ul>	No No No No

### Short-circuit protection

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

<b>material of switching contacts</b>	AgSnO2
<b>number of NC contacts</b> <ul style="list-style-type: none"> <li>• delayed switching</li> <li>• instantaneous contact</li> </ul>	0 0
<b>number of NO contacts</b>	

<ul style="list-style-type: none"> <li>• delayed switching</li> <li>• instantaneous contact</li> </ul>	0
<b>number of CO contacts</b>	
<ul style="list-style-type: none"> <li>• delayed switching</li> <li>• instantaneous contact</li> </ul>	1
<b>operational current of auxiliary contacts at AC-15</b>	
<ul style="list-style-type: none"> <li>• at 24 V</li> <li>• at 250 V</li> </ul>	3 A
<b>operational current of auxiliary contacts at DC-13</b>	
<ul style="list-style-type: none"> <li>• at 24 V</li> <li>• at 125 V</li> <li>• at 250 V</li> </ul>	1 A
<b>operating frequency with 3RT2 contactor maximum</b>	5 000 1/h
<b>contact reliability of auxiliary contacts</b>	one incorrect switching operation of 100 million switching operations (17 V, 5 mA)
<b>contact rating of auxiliary contacts according to UL</b>	R300 / B300
<b>Inputs/ Outputs</b>	
<b>product function</b>	
<ul style="list-style-type: none"> <li>• non-volatile</li> </ul>	No
<b>Electromagnetic compatibility</b>	
EMC emitted interference according to IEC 61812-1	EN 61000-6-4(3)
EMC immunity according to IEC 61812-1	EN 61000-6-2
<b>conducted interference</b>	
<ul style="list-style-type: none"> <li>• due to burst according to IEC 61000-4-4</li> <li>• due to conductor-earth surge according to IEC 61000-4-5</li> <li>• due to conductor-conductor surge according to IEC 61000-4-5</li> </ul>	2 kV network connection / 1 kV control connection
<b>field-based interference according to IEC 61000-4-3</b>	10 V/m
<b>electrostatic discharge according to IEC 61000-4-2</b>	4 kV contact discharge / 8 kV air discharge
<b>Safety related data</b>	
<b>protection class IP on the front according to IEC 60529</b>	IP20
<b>touch protection on the front according to IEC 60529</b>	finger-safe, for vertical contact from the front
<b>type of insulation</b>	Basic insulation
<b>category according to EN 954-1</b>	none
<b>Connections/ Terminals</b>	
<b>product component removable terminal for auxiliary and control circuit</b>	No
type of electrical connection for auxiliary and control circuit	screw-type terminals
<b>type of connectable conductor cross-sections</b>	
<ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded with core end processing</li> <li>• at AWG cables solid</li> <li>• at AWG cables stranded</li> </ul>	2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> )
<b>connectable conductor cross-section</b>	
<ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded with core end processing</li> </ul>	2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> )
<b>AWG number as coded connectable conductor cross section</b>	
<ul style="list-style-type: none"> <li>• solid</li> <li>• stranded</li> </ul>	2x (18 ... 14)
<b>tightening torque</b>	0,8 ... 1,2 N·m
<b>design of the thread of the connection screw</b>	M3
<b>Installation/ mounting/ dimensions</b>	
<b>mounting position</b>	any
<b>fastening method</b>	screw and snap-on mounting onto 35 mm standard mounting rail
<b>height</b>	57 mm
<b>width</b>	45 mm
<b>depth</b>	73 mm
<b>required spacing</b>	

- 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
<b>ambient temperature</b>	
• 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
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[Confirmation](#)



Declaration of Conformity	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,...)

<https://www.siemens.com/ic10>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RP2025-1AQ30>

Cax online generator

<http://support.automation.siemens.com/WWW/CAXorder/default.aspx?lang=en&mlfb=3RP2025-1AQ30>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RP2025-1AQ30>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RP2025-1AQ30&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RP2025-1AQ30&lang=en)

**Characteristic: Derating**

<https://support.industry.siemens.com/cs/ww/en/ps/3RP2025-1AQ30/manual>

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