



Timing relay, electronic Multifunction, 8 functions 1 change-over contact 24 V AC/DC, 100 AC to 127 V 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	Multifunctional
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
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 kV
degree of pollution	3
surge voltage resistance rated value	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 (operating cycles) typical	10 000 000
electrical endurance (operating cycles) at AC-15 at 230 V typical	100 000
adjustable time	0.05 ... 100 s
relative setting accuracy relating to full-scale value	5 %; +/-
thermal current	5 A
minimum ON period	35 ms
recovery time	150 ms
reference code according to IEC 81346-2	K
relative repeat accuracy	1 %; +/-
influence of the surrounding temperature	±5 %
power supply influence	±1 %
Substance Prohibitance (Date)	05/01/2012
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	100 ... 127 V
• at 60 Hz	100 ... 127 V
control supply voltage frequency 1	50 ... 60 Hz
control supply voltage 1	

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

Switching Function

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

material of switching contacts	AgSnO ₂
number of NC contacts	
<ul style="list-style-type: none"> • delayed switching • instantaneous contact 	0 0
number of NO contacts	
<ul style="list-style-type: none"> • delayed switching 	0

<ul style="list-style-type: none"> instantaneous contact 	0
number of CO contacts	
<ul style="list-style-type: none"> delayed switching 	1
<ul style="list-style-type: none"> instantaneous contact 	0
operational 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
operational 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

Inputs/ Outputs

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

Electromagnetic compatibility

EMC emitted interference according to IEC 61812-1	EN 61000-6-4(3)
EMC immunity according to IEC 61812-1	EN 61000-6-2
conducted interference	
<ul style="list-style-type: none"> due to burst according to IEC 61000-4-4 	2 kV network connection / 1 kV control connection
<ul style="list-style-type: none"> due to conductor-earth surge according to IEC 61000-4-5 	2 kV
<ul style="list-style-type: none"> due to conductor-conductor surge according to IEC 61000-4-5 	1 kV
field-based interference according to IEC 61000-4-3	10 V/m
electrostatic discharge according to IEC 61000-4-2	4 kV contact discharge / 8 kV air discharge

Safety related data

protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
type of insulation	Basic insulation
category according to EN 954-1	none

Connections/ Terminals

product component removable terminal for auxiliary and control circuit	No
type of electrical connection for auxiliary and control 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"> for AWG cables solid 	2x (24 ... 14)
<ul style="list-style-type: none"> for AWG cables stranded 	2x (24 ... 14)
connectable conductor cross-section	
<ul style="list-style-type: none"> solid 	0.3 ... 2.5 mm ²
<ul style="list-style-type: none"> finely stranded with core end processing 	0.3 ... 1.5 mm ²
<ul style="list-style-type: none"> finely stranded without core end processing 	2.5 ... 2.5 mm ²
AWG number as coded connectable conductor cross section	
<ul style="list-style-type: none"> solid 	24 ... 14
<ul style="list-style-type: none"> stranded 	24 ... 14

Installation/ mounting/ dimensions

mounting position	any
fastening method	screw and snap-on mounting onto 35 mm DIN 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 	0 mm
<ul style="list-style-type: none"> with side-by-side mounting <ul style="list-style-type: none"> backwards 	0 mm
<ul style="list-style-type: none"> with side-by-side mounting <ul style="list-style-type: none"> 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
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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

Siemens has decided to exit the Russian market (see here).

<https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business>

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

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=3RP2005-2AQ30>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RP2005-2AQ30>

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

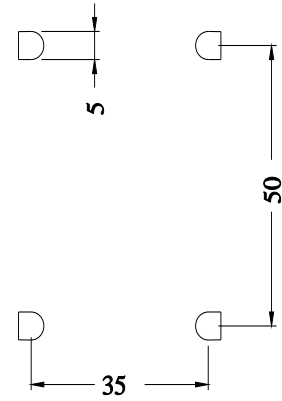
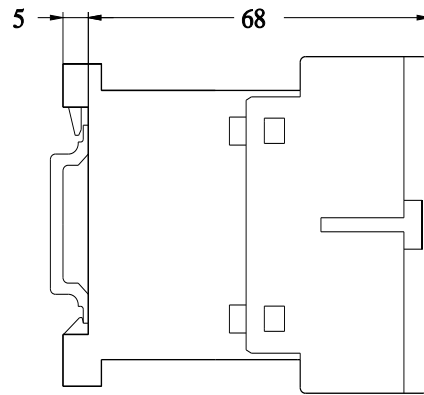
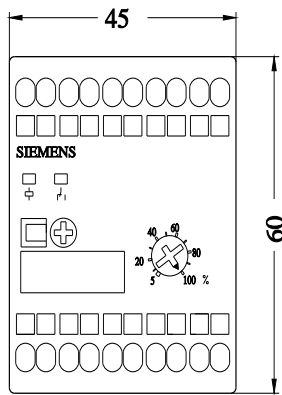
<https://support.industry.siemens.com/cs/ww/en/ps/3RP2005-2AQ30>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RP2005-2AQ30&lang=en

Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3RP2005-2AQ30/manual>



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