# **SIEMENS**

Data sheet 3RP2005-1AP30

Timing relay, electronic Multifunction, 8 functions 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 screw 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
<ul> <li>semi-conductor output</li> </ul>	No
Product extension required remote control	No
Product extension optional remote control	No
Insulation voltage	
<ul> <li>for overvoltage category III according to IEC 60664</li> </ul>	
— 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
Protection class IP	IP20
Shock resistance	

Vibration resistance  acc. to IEC 60068-2-6  Mechanical service life (switching cycles)  typical  lectrical endurance (switching cycles)  at AC-15 at 230 V typical  Adjustable time  Relative setting accuracy relating to full-scale value  Thermal current  SA  Minimum ON period  Recovery time  Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750  Reference code acc. to DIN EN 81348-2  Reference code acc. to DIN EN 81348-2  Relative repeat accuracy  1 %  Control surpply voltage 1 at AC  at 50 Hz rated value  at 60 Hz rated value  Control supply voltage 2 at AC  at 50 Hz  at 60 Hz  Control supply voltage frequency 1  control supply voltage frequency 1  control supply voltage 1  at Control supply voltage 1  at Control supply voltage 1  at 60 Hz  Control supply voltage 1  at DC rated value  Control supply voltage frequency 1  Control supply voltage 1  at DC rated value  Control supply voltage 1  at DC rated value  Control supply voltage frequency 1  control supply voltage 1  at DC rated value  Control supply voltage frequency 1  control supply voltage frequency 1	• 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  Minimum ON period 35 ms  Recovery time 150 ms  Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750  Reference code acc. to DIN EN 81346-2 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  • at 60 Hz 200 240 V  Control supply voltage 1 at CC  • at 50 Hz 200 240 V  • at 60 Hz Control supply voltage 1 at CC  • at 50 Hz 200 240 V  • at 60 Hz Control supply voltage 1 at CC  • at 50 Hz 200 240 V  • at 60 Hz Control supply voltage 1 at CC  • at 50 Hz 200 240 V  • at 60 Hz Control supply voltage 1 at CC  • 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 0.85  • Full-scale 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 0.85  • Full-scale value 0.85  • Full-scale value 1.1	Vibration resistance	
e typical 10 000 000  Electrical endurance (switching cycles) e 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  Minimum ON period 35 ms  Recovery time 150 ms  Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750  Reference code acc. to DIN EN 81346-2 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 e at 50 Hz rated value 24 V control supply voltage 2 at AC e at 50 Hz at 60 Hz 2  Control supply voltage frequency 1 50 60 Hz  Control supply voltage 1 e at DC rated value 24 V  Control supply voltage 1 e at DC rated value 24 V  Control supply voltage frequency 1 50 60 Hz  Control supply voltage 1 e at DC rated value 24 V  Operating range factor control supply voltage rated value at AC at 50 Hz e initial value 5. Full-scale value 0.85 e Full-scale value 0.85	• acc. to IEC 60068-2-6	10 55 Hz / 0.35 mm
Electrical endurance (switching cycles)  • at AC-15 at 230 V typical  Adjustable time  Relative setting accuracy relating to full-scale value  Thermal current  5 A  Minimum ON period  35 ms  Recovery time  150 ms  Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750  Reference code acc. to DIN EN 81346-2  Reference code acc. to DIN EN 81346-2  Reference code acc. to DIN EN 81346-2  Reference code acc. to DIN EN 61346-2  Reference code acc. to DIN EN 61346-2  Type of voltage of the control supply voltage  Control circuit/ Control  Type of voltage of the control supply voltage  AC/DC  Control supply voltage 1 at AC  • at 50 Hz rated value  • at 60 Hz rated value  • at 60 Hz  Control supply voltage 2 at AC  • at 50 Hz  • at 60 Hz  Control supply voltage frequency 1  Control supply voltage frequency 1  Control supply voltage 1  • at DC rated value  Operating range factor control supply voltage rated value at DC  • initial value  • Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  • initial value  • Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  • initial value  • Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  • initial value  • Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz	Mechanical service life (switching cycles)	
• at AC-15 at 230 V typical  Adjustable time  Adjustable time  Relative setting accuracy relating to full-scale value  Thermal current  5 A  Minimum ON period  35 ms  Recovery time  150 ms  Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750  Reference code acc. to DIN EN 81346-2  Relative repeat accuracy  1 %  Control circuit/ Control  Type of voltage of the control supply voltage  Control supply voltage 1 at AC  • at 50 Hz rated value  • at 60 Hz rated value  • at 60 Hz  • at 60 Hz  Control supply voltage 2 at AC  • at 50 Hz  • at 60 Hz  Control supply voltage frequency 1  Control supply voltage 1  • at DC rated value  24 V  Control supply voltage 1  • at DC rated value  0 peratting range factor control supply voltage rated value at AC at 50 Hz  • initial value  • Full-scale value  0 peratting range factor control supply voltage rated value at AC at 50 Hz  • initial value  • Full-scale value  Operatting range factor control supply voltage rated value at AC at 50 Hz  • initial value  • Full-scale value  Operating range factor control supply voltage rated value at AC at 60 Hz	• typical	10 000 000
Adjustable time  Relative setting accuracy relating to full-scale value  Thermal current  5 A  Minimum ON period  Recovery time  Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750  Reference code acc. to DIN EN 81346-2  Reference code acc. to DIN EN 81346-2  Reference code acc. to DIN EN 61348-2  Relative repeat accuracy  1 %  Control circuit/ Control  Type of voltage of the control supply voltage at 60 Hz rated value  24 V  at 60 Hz rated value  24 V  control supply voltage 2 at AC  at 50 Hz  at 60 Hz  at 60 Hz  at 60 Hz  at 0C rated value  Control supply voltage frequency 1  control supply voltage frequency 1  control supply voltage 1  at 0C rated value  24 V  control supply voltage frequency 1  at 0C rated value  0.85  Full-scale value  0.85  initial value  initial value  onumber of the control supply voltage rated value at AC at 50 Hz  initial value  onumber of the control supply voltage rated value at AC at 60 Hz  Coperating range factor control supply voltage rated value at AC at 60 Hz	Electrical endurance (switching cycles)	
Relative setting accuracy relating to full-scale value  Thermal current  5 A  Minimum ON period  Recovery time  Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750  Reference code acc. to DIN EN 81346-2  Relative repeat accuracy  1 %  Control circuit/ Control  Type of voltage of the control supply voltage  Control supply voltage 1 at AC  • at 50 Hz rated value  • at 60 Hz rated value  24 V  • at 60 Hz  Control supply voltage 2 at AC  • at 50 Hz  • at 60 Hz  Control supply voltage frequency 1  Control supply voltage frequency 1  Control supply voltage 1  • at DC rated value  24 V  Operating range factor control supply voltage rated value at AC at 50 Hz  • initial value  • Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  • initial value  • Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  • initial value  • Full-scale value  Operating range factor control supply voltage rated value at AC at 60 Hz	• at AC-15 at 230 V typical	100 000
Thermal current  Minimum ON period  Recovery time  Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750  Reference code acc. to DIN EN 81346-2  Reference code acc. to DIN EN 81346-2  Reference code acc. to DIN EN 81346-2  Relative repeat accuracy  1 %  Control circuit/ Control  Type of voltage of the control supply voltage  Control supply voltage 1 at AC  at 50 Hz rated value  44 V  Control supply voltage 2 at AC  at 60 Hz  at 60 Hz  Control supply voltage frequency 1  Control supply voltage frequency 1  Control supply voltage 1  at Control supply voltage 1  at DC rated value  24 V  Operating range factor control supply voltage rated value at AC at 50 Hz  initial value  Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  initial value  Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  initial value  Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  initial value  Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz	Adjustable time	0.05 s 100 h
Minimum ON period  Recovery time  Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750  Reference code acc. to DIN EN 81346-2  Reference code acc. to DIN EN 81346-2  Reference code acc. to DIN EN 61346-2  Reference code acc. to DIN EN 61346-2  Relative repeat accuracy  1 %  Control circuit/ Control  Type of voltage of the control supply voltage  Control supply voltage 1 at AC  at 50 Hz rated value  24 V  Control supply voltage 2 at AC  at 50 Hz  at 60 Hz  Control supply voltage frequency 1  Control supply voltage frequency 1  Control supply voltage 1  at DC rated value  24 V  Operating range factor control supply voltage rated value at AC at 50 Hz  initial value  Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  initial value  Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  initial value  Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  initial value  Full-scale value  Operating range factor control supply voltage rated value at AC at 60 Hz	Relative setting accuracy relating to full-scale value	5 %
Recovery time  Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750  Reference code acc. to DIN EN 81346-2  Reference code acc. to DIN EN 81346-2  Relative repeat accuracy  1 %  Control circuit/ Control  Type of voltage of the control supply voltage  Control supply voltage 1 at AC  • at 50 Hz rated value  • at 60 Hz  Control supply voltage 2 at AC  • at 50 Hz  • at 60 Hz  Control supply voltage frequency 1  Control supply voltage frequency 1  Control supply voltage frequency 1  Control supply voltage 1  • at DC rated value  Operating range factor control supply voltage rated value at DC  • initial value  • Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  • initial value  • Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  • initial value  • Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  • initial value  • Full-scale value  Operating range factor control supply voltage rated value at AC at 60 Hz	Thermal current	5 A
Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750  Reference code acc. to DIN EN 81346-2  Reference code acc. to DIN EN 61346-2  Relative repeat accuracy  1 %  Control circuit/ Control  Type of voltage of the control supply voltage  Control supply voltage 1 at AC  • at 50 Hz rated value  • at 60 Hz rated value  • at 60 Hz  • at 60 Hz  Control supply voltage frequency 1  • at DC rated value  • at DC rated value  • Full-scale value  0.85  • Full-scale value  0.85  • Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  • initial value  • Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  • initial value  • Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz	Minimum ON period	35 ms
according to IEC 204-2 acc. to IEC 750  Reference code acc. to DIN EN 81346-2  Reference code acc. to DIN EN 61346-2  Relative repeat accuracy  1 %  Control circuit/ Control  Type of voltage of the control supply voltage  Control supply voltage 1 at AC  • at 50 Hz rated value  • at 60 Hz rated value  • at 60 Hz  Control supply voltage 2 at AC  • at 50 Hz  • at 60 Hz  Control supply voltage frequency 1  Control supply voltage frequency 1  Control supply voltage 1  • at DC rated value  24 V  Control supply voltage 1  • at DC rated value  Operating range factor control supply voltage rated value at AC at 50 Hz  • initial value  • Full-scale value  Operating range factor control supply voltage rated value at AC at 60 Hz  Operating range factor control supply voltage rated value at AC at 60 Hz	Recovery time	150 ms
Reference code acc. to DIN EN 81346-2  Reference code acc. to DIN EN 61346-2  Relative repeat accuracy  1 %  Control circuit/ Control  Type of voltage of the control supply voltage  Control supply voltage 1 at AC  • at 50 Hz rated value  • at 60 Hz rated value  • at 60 Hz  Control supply voltage 2 at AC  • at 50 Hz  • at 60 Hz  Control supply voltage frequency 1  Control supply voltage frequency 1  Control supply voltage 1  • at DC rated value  Operating range factor control supply voltage rated value at AC at 50 Hz  • initial value  • Full-scale value  Operating range factor control supply voltage rated value at AC at 60 Hz  Operating range factor control supply voltage rated value at AC at 60 Hz		К
Reference code acc. to DIN EN 61346-2  Relative repeat accuracy  1 %  Control circuit/ Control  Type of voltage of the control supply voltage  Control supply voltage 1 at AC  • at 50 Hz rated value • at 60 Hz rated value  24 V  Control supply voltage 2 at AC  • at 50 Hz • at 60 Hz  Control supply voltage frequency 1  Control supply voltage frequency 1  Control supply voltage 1 • at DC rated value  Operating range factor control supply voltage rated value at AC at 50 Hz  • initial value • Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  • initial value • Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  • initial value • Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  • initial value • Full-scale value  Operating range factor control supply voltage rated value at AC at 60 Hz		
Relative repeat accuracy  Control circuit/ Control  Type of voltage of the control supply voltage  Control supply voltage 1 at AC  • at 50 Hz rated value  • at 60 Hz at 50 Hz  • at 60 Hz  Control supply voltage 2 at AC  • at 50 Hz  • at 60 Hz  Control supply voltage frequency 1  Control supply voltage frequency 1  • at DC rated value  Operating range factor control supply voltage rated value at AC at 50 Hz  • initial value  • Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  • initial value  • Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  • initial value  • Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  • initial value  • Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  • initial value  • Full-scale value  Operating range factor control supply voltage rated value at AC at 60 Hz		
Control circuit/ Control  Type of voltage of the control supply voltage  Control supply voltage 1 at AC  • at 50 Hz rated value  • at 60 Hz rated value  24 V  Control supply voltage 2 at AC  • at 50 Hz  • at 60 Hz  Control supply voltage frequency 1  Control supply voltage frequency 1  • at DC rated value  Control supply voltage 1  • at DC rated value  Coperating range factor control supply voltage rated value at DC  • initial value  • Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  • initial value  • Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  • initial value  • Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  • initial value  • Full-scale value  Operating range factor control supply voltage rated value at AC at 60 Hz		
Type of voltage of the control supply voltage  Control supply voltage 1 at AC  at 50 Hz rated value  at 60 Hz rated value  Control supply voltage 2 at AC  at 50 Hz  at 60 Hz  Control supply voltage 2 at AC  at 50 Hz  at 60 Hz  Control supply voltage frequency 1  Control supply voltage frequency 1  control supply voltage 1  at DC rated value  Coperating range factor control supply voltage rated value at DC  initial value  Full-scale value  Coperating range factor control supply voltage rated value at AC at 50 Hz  initial value  Full-scale value  Coperating range factor control supply voltage rated value at AC at 50 Hz  initial value  Coperating range factor control supply voltage rated value at AC at 50 Hz  initial value  Coperating range factor control supply voltage rated value at AC at 60 Hz	Relative repeat accuracy	1 %
Control supply voltage 1 at AC  • at 50 Hz rated value  • at 60 Hz rated value  Control supply voltage 2 at AC  • at 50 Hz  • at 60 Hz  • at 60 Hz  Control supply voltage 2 at AC  • at 50 Hz  • at 60 Hz  Control supply voltage frequency 1  Control supply voltage frequency 1  • at DC rated value  Coperating range factor control supply voltage rated value at DC  • initial value  • Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  • initial value  • Full-scale value  Onesting range factor control supply voltage rated value at AC at 50 Hz  • initial value  • Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  • initial value  • Full-scale value  Operating range factor control supply voltage rated value at AC at 60 Hz	Control circuit/ Control	
<ul> <li>at 50 Hz rated value</li> <li>at 60 Hz rated value</li> <li>24 V</li> <li>Control supply voltage 2 at AC</li> <li>at 50 Hz</li> <li>at 60 Hz</li> <li>200 240 V</li> <li>Control supply voltage frequency 1</li> <li>50 60 Hz</li> <li>Control supply voltage 1</li> <li>at DC rated value</li> <li>24 V</li> <li>Operating range factor control supply voltage rated value at DC</li> <li>initial value</li> <li>Full-scale value</li> <li>Operating range factor control supply voltage rated value at AC at 50 Hz</li> <li>initial value</li> <li>Full-scale value</li> <li>Operating range factor control supply voltage rated value at AC at 50 Hz</li> <li>initial value</li> <li>Operating range factor control supply voltage rated value at AC at 50 Hz</li> </ul>	Type of voltage of the control supply voltage	AC/DC
at 60 Hz rated value  Control supply voltage 2 at AC  at 50 Hz  at 60 Hz  Control supply voltage frequency 1  Control supply voltage frequency 1  at DC rated value  Operating range factor control supply voltage rated value at DC  initial value  Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  initial value  Full-scale value  Operating range factor control supply voltage rated value at AC at 60 Hz  at Control supply voltage rated value at AC at 60 Hz	Control supply voltage 1 at AC	
Control supply voltage 2 at AC  • at 50 Hz  • at 60 Hz  Control supply voltage frequency 1  • at DC rated value  Operating range factor control supply voltage rated value at DC  • initial value  Operating range factor control supply voltage rated value at AC at 50 Hz  • initial value	• at 50 Hz rated value	24 V
at 50 Hz  at 60 Hz  Control supply voltage frequency 1  Control supply voltage 1  at DC rated value  Operating range factor control supply voltage rated value at DC  initial value  Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  initial value  Full-scale value  O.85  Full-scale value  O.85  1.1  Operating range factor control supply voltage rated value at AC at 50 Hz  initial value  O.85  Tull-scale value  O.85  Tull-scale value  O.85  Tull-scale value  O.85	• at 60 Hz rated value	24 V
at 60 Hz  Control supply voltage frequency 1  at DC rated value  Operating range factor control supply voltage rated value at DC  initial value  Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  initial value  Full-scale value  O.85  Full-scale value  Operating range factor control supply voltage rated value at AC at 60 Hz	Control supply voltage 2 at AC	
Control supply voltage frequency 1  Control supply voltage 1  at DC rated value  24 V  Operating range factor control supply voltage rated value at DC  initial value  Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  initial value  Full-scale value  O.85  Full-scale value  O.85  Tull-scale value  O.85  Full-scale value  O.85  Tull-scale value  O.85  Full-scale value  O.85  Tull-scale value  O.85  Full-scale value  O.85	● at 50 Hz	200 240 V
Control supply voltage 1  • at DC rated value  Operating range factor control supply voltage rated value at DC  • initial value  • Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  • initial value  • initial value  • initial value  • on.85  • Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  • provided in the pro	● at 60 Hz	200 240 V
at DC rated value  Operating range factor control supply voltage rated value at DC  initial value  Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  initial value  Full-scale value  Oss5  Full-scale value  1.1  Operating range factor control supply voltage rated value at AC at 60 Hz  Operating range factor control supply voltage rated value at AC at 60 Hz	Control supply voltage frequency 1	50 60 Hz
Operating range factor control supply voltage rated value at DC  initial value  Full-scale value  Operating range factor control supply voltage rated value at AC at 50 Hz  initial value  Full-scale value  Operating range factor control supply voltage rated value at AC at 60 Hz  Operating range factor control supply voltage rated value at AC at 60 Hz	Control supply voltage 1	
value at DC  ● initial value  ● Full-scale value  1.1  Operating range factor control supply voltage rated value at AC at 50 Hz  ● initial value  ● Full-scale value  1.1  Operating range factor control supply voltage rated value at AC at 60 Hz	at DC rated value	24 V
<ul> <li>Full-scale value</li> <li>Operating range factor control supply voltage rated value at AC at 50 Hz</li> <li>initial value</li> <li>Full-scale value</li> <li>Operating range factor control supply voltage rated value at AC at 60 Hz</li> </ul>		
Operating range factor control supply voltage rated value at AC at 50 Hz  • initial value  • Full-scale value  Operating range factor control supply voltage rated value at AC at 60 Hz	• initial value	0.85
value at AC at 50 Hz  ● initial value  ● Full-scale value  Operating range factor control supply voltage rated value at AC at 60 Hz	• Full-scale value	1.1
Full-scale value     Operating range factor control supply voltage rated value at AC at 60 Hz		
Operating range factor control supply voltage rated value at AC at 60 Hz	● initial value	0.85
Operating range factor control supply voltage rated value at AC at 60 Hz	● Full-scale value	1.1
	Operating range factor control supply voltage rated	
		0.85
• Full-scale value 1.1		1.1
Switching Function	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	No
interval/instantaneous	
<ul> <li>flashing symmetrically starting with interval</li> </ul>	Yes
<ul> <li>flashing symmetrically starting with pulse/instantaneous</li> </ul>	No
<ul> <li>flashing symmetrically starting with pulse</li> </ul>	No
<ul> <li>flashing asymmetrically starting with interval</li> </ul>	No
<ul> <li>flashing asymmetrically starting with pulse</li> </ul>	No
Switching function	
<ul> <li>star-delta circuit with delay time</li> </ul>	No
• star-delta circuit	No
Switching function with control signal	
<ul> <li>additive ON delay</li> </ul>	Yes
<ul> <li>passing break contact</li> </ul>	Yes
<ul> <li>passing break contact/instantaneous</li> </ul>	No
OFF delay	Yes
OFF delay/instantaneous	No
• pulse delayed	No
<ul> <li>pulse delayed/instantaneous</li> </ul>	No
• pulse-shaping	Yes
<ul><li>pulse-shaping/instantaneous</li></ul>	No
<ul> <li>additive ON delay/instantaneous</li> </ul>	No
<ul> <li>ON-delay/OFF-delay/instantaneous</li> </ul>	No
passing make contact	No
<ul> <li>passing make contact/instantaneous contact</li> </ul>	No
Switching function of interval relay with control signal	
<ul> <li>retrotriggerable with deactivated control signal/instantaneous contact</li> </ul>	No
<ul> <li>retrotriggerable with activated control signal</li> </ul>	No
<ul> <li>retrotriggerable with activated control signal/instantaneous contact</li> </ul>	No
<ul> <li>retriggerable with deactivated control signal</li> </ul>	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

Auxiliary circuit	
Material of switching contacts	AgSnO2
Number of NC contacts	
<ul> <li>delayed switching</li> </ul>	0
Number of NO contacts	
<ul> <li>delayed switching</li> </ul>	0
Number of CO contacts	
<ul> <li>delayed switching</li> </ul>	1
Operating current of auxiliary contacts at AC-15	
● at 24 V	3 A
● at 250 V	3 A
Operating current of auxiliary contacts at DC-13	
● at 24 V	1 A
● at 125 V	0.2 A
● 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	
Product function  ● non-volatile	No
	No
• non-volatile	No
non-volatile  Electromagnetic compatibility	No EN 61000-6-2
non-volatile  Electromagnetic compatibility  EMI immunity	
non-volatile  Electromagnetic compatibility  EMI immunity      acc. to IEC 61812-1	
non-volatile  Electromagnetic compatibility  EMI immunity      acc. to IEC 61812-1  Conducted interference	EN 61000-6-2
non-volatile  Electromagnetic compatibility  EMI immunity     acc. to IEC 61812-1  Conducted interference     due to burst acc. to IEC 61000-4-4     due to conductor-earth surge acc. to IEC	EN 61000-6-2  2 kV network connection / 1 kV control connection
non-volatile  Electromagnetic compatibility  EMI immunity     acc. to IEC 61812-1  Conducted interference      due to burst acc. to IEC 61000-4-4     due to conductor-earth surge acc. to IEC 61000-4-5     due to conductor-conductor surge acc. to IEC	EN 61000-6-2  2 kV network connection / 1 kV control connection 2 kV
non-volatile  Electromagnetic compatibility  EMI immunity     acc. to IEC 61812-1  Conducted interference     due to burst acc. to IEC 61000-4-4     due to conductor-earth surge acc. to IEC 61000-4-5     due to conductor-conductor surge acc. to IEC 61000-4-5	EN 61000-6-2  2 kV network connection / 1 kV control connection 2 kV  1 kV
● non-volatile  Electromagnetic compatibility  EMI immunity  ● acc. to IEC 61812-1  Conducted interference  ● due to burst acc. to IEC 61000-4-4  ● due to conductor-earth surge acc. to IEC 61000-4-5  ● due to conductor-conductor surge acc. to IEC 61000-4-5  Field-bound parasitic coupling acc. to IEC 61000-4-3	EN 61000-6-2  2 kV network connection / 1 kV control connection 2 kV  1 kV
non-volatile  Electromagnetic compatibility  EMI immunity     acc. to IEC 61812-1  Conducted interference     due to burst acc. to IEC 61000-4-4     due to conductor-earth surge acc. to IEC 61000-4-5     due to conductor-conductor surge acc. to IEC 61000-4-5  Field-bound parasitic coupling acc. to IEC 61000-4-3  Electrostatic discharge acc. to IEC 61000-4-2	EN 61000-6-2  2 kV network connection / 1 kV control connection 2 kV  1 kV
● non-volatile  Electromagnetic compatibility  EMI immunity  ● acc. to IEC 61812-1  Conducted interference  ● due to burst acc. to IEC 61000-4-4  ● due to conductor-earth surge acc. to IEC 61000-4-5  ● due to conductor-conductor surge acc. to IEC 61000-4-5  Field-bound parasitic coupling acc. to IEC 61000-4-3  Electrostatic discharge acc. to IEC 61000-4-2  Safety related data	EN 61000-6-2  2 kV network connection / 1 kV control connection 2 kV  1 kV  10 V/m  4 kV contact discharge / 8 kV air discharge

Connections/ Terminals	
Product function	
<ul> <li>removable terminal for auxiliary and control</li> </ul>	No
circuit	
Type of electrical connection	
<ul> <li>for auxiliary and control current circuit</li> </ul>	screw-type terminals
Type of connectable conductor cross-sections	
• solid	2x (0,51,5 mm²), 2x (0,75 2,5 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0,51,5 mm²), 2x (0,75 2,5 mm²)
<ul> <li>at AWG conductors solid</li> </ul>	2x (18 14)
<ul> <li>at AWG conductors stranded</li> </ul>	2x (18 14)
Connectable conductor cross-section	
• solid	0.5 2.5 mm²
<ul> <li>finely stranded with core end processing</li> </ul>	0.5 2.5 mm²
AWG number as coded connectable conductor cross	
section	
• solid	18 14
• stranded	18 14
Tightening torque	0.8 1.2 N·m
Design of the thread of the connection screw	M3

nstallation/ 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><li>with side-by-side mounting</li></ul>	
— 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

0 mm - upwards — downwards 0 mm - at the side 0 mm

## Ambient conditions

Installation altitude at height above sea level

2 000 m maximum

Relative humidity

10 ... 95 % • during operation

# Certificates/ approvals

## **General Product Approval**

**EMC** 

**Declaration of Conformity** 











Miscellaneous

**Test Certific-**

Marine / Shipping

ates

Type Test Certificates/Test Report













Marine / Shipother ping



Confirmation

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

www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RP2005-1AP30

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RP2005-1AP30

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

https://support.industry.siemens.com/cs/ww/en/ps/3RP2005-1AP30

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RP2005-1AP30&lang=en

