SIEMENS

Data sheet 3RP20 25-1AP30



SOLID-STATE TIME-DELAY RELAY ON-DELAY 1 CHANGEOVER CONTACT AC/DC 24V, AC 200 TO 240V 0.05 S TO 100H WIDTH 45MM SCREW TERMINALS

General technical data:			
product brand name		SIRIUS	
Product designation	-	timing relay	
mounting position		any	
Product function non-volatile		No	
Product component			
Relay output		Yes	
 semi-conductor output 		No	
Installation altitude at height above sea level maximum	m	2 000	
Ambient temperature			
during operation	°C	-25 + 60	
 during storage 	°C	-40 + 85	
 during transport 	°C	-40 + 85	
Relative humidity during operation	%	10 95	
EMC emitted interference acc. to IEC 61812-1		EN 61000-6-4(3)	
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	
Electrostatic discharge acc. to IEC 61000-4-2		4 kV contact discharge / 8 kV air discharge	
Field-bound parasitic coupling acc. to IEC 61000-4-3		10 V/m	
Surge voltage resistance Rated value	V	4 000	

Active power loss total typical	W	2
Equipment marking acc. to DIN 40719 extended		K
according to IEC 204-2 acc. to IEC 750		
Equipment marking acc. to DIN EN 81346-2		К
Category acc. to EN 954-1		none
Protection against electrical shock		finger-safe
Protection class IP		IP20
Mechanical service life (switching cycles) typical		10 000 000
Electrical endurance (switching cycles) at AC-15 at		100 000
230 V typical		
Operating frequency with 3RT2 contactor maximum	1/h	5 000
Shock resistance acc. to IEC 60068-2-27		11g / 15 ms
Relative repeat accuracy	%	1
Recovery time	ms	150
Degree of pollution		3
Insulation voltage for overvoltage category III	V	300
according to IEC 60664 with degree of pollution 3		
Rated value		
Relative setting accuracy relating to full-scale value	%	5

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		
 flashing asymmetrically starting with interval 	No		
 flashing asymmetrically starting with pulse 	No		
 flashing symmetrically starting with pulse 	No		
 flashing symmetrically starting with pulse/instantaneous 	No		
 flashing symmetrically starting with interval 	No		
 flashing symmetrically starting with interval/instantaneous 	No		
• star-delta circuit	No		
 star-delta circuit with delay time 	No		
Switching function with control signal			
 additive ON delay 	No		
 passing break contact 	No		
OFF delay	No		
• pulse-shaping	No		
 OFF delay/instantaneous 	No		
 ON-delay/OFF-delay/instantaneous 	No		

Adjustable time	s	0.05 360 000
Control circuit/ Control:		
 retriggerable with deactivated control signal 		No
signal/instantaneous contact		
 retrotriggerable with activated control 		No
retrotriggerable with activated control signal		No
signal/instantaneous contact		
retrotriggerable with deactivated control		No
Switching function of interval relay with control signal		
pulse-shaping/instantaneous		No
pulse delayed/instantaneous		No
pulse delayed		No
passing make contact/instantaneous contact		No
passing make contact		No
ON-delay/OFF-delay		No
 additive ON delay/instantaneous 		No
 passing break contact/instantaneous 		No

Control circuit/ Control:		
Adjustable time	S	0.05 360 000
Type of voltage of the control supply voltage		AC/DC
Control supply voltage frequency 1	Hz	50 60
Control supply voltage frequency 2	Hz	50 60
Control supply voltage 2 with AC		
● at 50 Hz	V	200 240
● at 60 Hz	V	200 240
Operating range factor control supply voltage rated		
value		
• with AC		
— at 50 Hz		0.85 1.1
— at 60 Hz		0.85 1.1
• for DC		0.85 1.1

Auxiliary circuit:		
Contact reliability of the auxiliary contacts		one incorrect switching operation of 100 million
		switching operations (17 V, 5 mA)
Material of switching contacts		AgSnO2
Operating current of the auxiliary contacts		
● at AC-15		
— at 24 V	Α	3
— at 250 V	Α	3
• at DC-13		
— at 24 V	Α	1
— at 125 V	Α	0.2
— at 250 V	Α	0.1

Design of the fuse link for short-circuit protection of the auxiliary switch required		fuse gL/gG: 4 A
Thermal current	Α	5
Number of NC contacts		
delayed switching		0
• instantaneous contact		0
Number of NO contacts		
delayed switching		0
• instantaneous contact		0
Number of CO contacts		
delayed switching		1
• instantaneous contact		0

Mounting type		scrow and snap on mounting onto 35 mm standard
Mounting type		screw and snap-on mounting onto 35 mm standard mounting rail
Vidth	mm	45
-leight	mm	57
Depth	mm	73
Required spacing with side-by-side mounting		
• upwards	mm	0
• forwards	mm	0
• at the side	mm	0
Backwards	mm	0
• downwards	mm	0
Required spacing for grounded parts		
Backwards	mm	0
• at the side	mm	0
• upwards	mm	0
• forwards	mm	0
• downwards	mm	0
Required spacing for live parts		
• downwards	mm	0
Backwards	mm	0
• at the side	mm	0
• forwards	mm	0
• upwards	mm	0

Connections/ Terminals:	
Type of electrical connection for auxiliary and control	screw-type terminals
current circuit	
Type of connectable conductor cross-section	
• solid	2x (0,51,5 mm²), 2x (0,75 2,5 mm²)
• finely stranded	

 — with core end processing 		2x (0,51,5 mm²), 2x (0,75 2,5 mm²)
• for AWG conductors		
— stranded		2x (18 14)
— solid		2x (18 14)
Tightening torque	N·m	0.8 1.2

Certificates/ approvals:

General Product Approval

EMC

Declaration of Conformity

Certificates

Special Test Certificate

Certificate

Shipping Approval







GL







Shipping other Approval



Environmental Confirmations

Further information

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

http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system)

http://www.siemens.com/industrymall

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RP20251AP30

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

http://support.automation.siemens.com/WW/view/en/3RP20251AP30/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/index.aspx?attID9=3RP20251AP30&lang=en

