SIEMENS

Data sheet 3RP25 05-1BT20



TIME RELAY, MULTI-FUNCTION, 2 CO CONT., 27 FUNCT., 15 TIME SET. RANGES (1, 3, 10, 30, 100) (S/MIN/HR), 400...440 V AC AT AC 50/60HZ, LED, SCREW TERMINAL

Figure similar

Compared to sharing lighter		
General technical data:		CIDILIC
product brand name		SIRIUS
Product designation		timing relay
mounting position		any
Product function at the relay outputs Switchover		Yes
delayed/without delay		
Product function non-volatile		No
Product component		
Relay output		Yes
• semi-conductor output		No
Installation altitude at height above sea level	m	2 000
maximum		
Ambient temperature		
during operation	°C	-25 +60
during storage	°C	-40 +85
during transport	°C	-40 + 85
Relative humidity		
• during operation	%	15 70
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 BURST acc. to IEC 61000-4-		2 kV network connection / 1 kV control connection
4		
Conducted interference conductor-earth SURGE acc.		2 kV
to IEC 61000-4-5		
Conducted interference conductor-conductor SURGE		1 kV
acc. to IEC 61000-4-5		

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
Reference code acc. to DIN 40719 extended		К
according to IEC 204-2 acc. to IEC 750		
Reference code acc. to DIN EN 81346-2		K
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
Minimum ON period	ms	35
Degree of pollution		3
Insulation voltage for overvoltage category III	V	500
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 	Yes	
 passing make contact 	Yes	
 passing make contact/instantaneous contact 	Yes	
OFF delay	Yes	
 flashing asymmetrically starting with interval 	No	
 flashing asymmetrically starting with pulse 	No	
 flashing symmetrically starting with pulse 	Yes	
 flashing symmetrically starting with pulse/instantaneous 	Yes	
 flashing symmetrically starting with interval 	Yes	
 flashing symmetrically starting with interval/instantaneous 	Yes	
• star-delta circuit	Yes	
 star-delta circuit with delay time 	No	
Switching function with control signal		
 additive ON delay 	Yes	
passing break contact	Yes	

 OFF delay 	Yes
• pulse-shaping	Yes
 OFF delay/instantaneous 	Yes
 ON-delay/OFF-delay/instantaneous 	Yes
 passing break contact/instantaneous 	Yes
 additive ON delay/instantaneous 	Yes
ON-delay/OFF-delay	Yes
passing make contact	Yes
 passing make contact/instantaneous contact 	Yes
• pulse delayed	Yes
 pulse delayed/instantaneous 	Yes
 pulse-shaping/instantaneous 	Yes
Switching function of interval relay with control signal	
 retrotriggerable with deactivated control 	Yes
signal/instantaneous contact	
 retrotriggerable with activated control signal 	Yes
 retrotriggerable with activated control 	Yes
signal/instantaneous contact	
retriggerable with deactivated control signal	Yes
Design of the control terminal non-floating	Yes
Control circuit/ Control:	

Control circuit/ Control:		
Adjustable time	S	0.05 360 000
Type of voltage of the control supply voltage		AC
Control supply voltage frequency 1	Hz	50 60
Control supply voltage 1		
• with AC		
— at 50 Hz	V	400 440
— at 60 Hz	V	400 440
Operating range factor control supply voltage rated		
value		
• with AC		
— at 50 Hz		0.85 1.1
— at 60 Hz		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		fuse gL/gG: 4 A
the auxiliary switch required		
Thermal current	Α	5
Switching capacity current		
 with inductive load 	Α	0.01 3
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 		2
• instantaneous contact		0

nstallation/ mounting/ dimensions:		
Mounting type		screw and snap-on mounting onto 35 mm standard
		mounting rail
Width	mm	22.5
Height	mm	100
Depth	mm	90
Spacing required with side-by-side mounting		
• upwards	mm	0
• forwards	mm	0
• at the side	mm	0
Backwards	mm	0
• downwards	mm	0
Spacing required for grounded parts		
Backwards	mm	0
• at the side	mm	0
• upwards	mm	0
• forwards	mm	0
• downwards	mm	0
Spacing required for live parts		
• downwards	mm	0
Backwards	mm	0
• at the side	mm	0
• forwards	mm	0
• upwards	mm	0

Connections/ Terminals:		
Design of the electrical connection for auxiliary and control current circuit		screw-type terminals
Type of connectable conductor cross-section		
• solid		1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)
• finely stranded		
— with core end processing		1x (0.5 4 mm²), 2x (0.5 1.5 mm²)
 for AWG conductors 		
— stranded		1x (20 12), 2x (20 14)
— solid		1x (20 12), 2x (20 14)
Tightening torque	N·m	0.6 0.8

Certificates/ approvals:

other

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

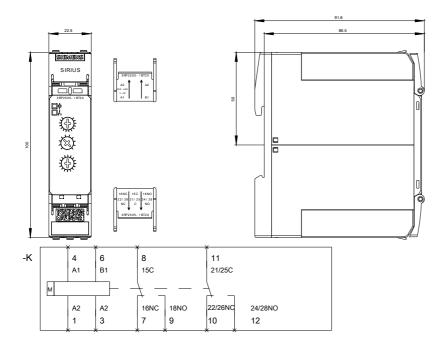
Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RP25051BT20

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

 $\underline{\text{http://support.automation.siemens.com/WW/view/en/3RP25051BT20/all}}$

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/index.aspx?attID9=3RP25051BT20&lang=en



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