SIEMENS

Data sheet 3RP2025-1AQ30



Timing relay, electronic slow-operating 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

product designation timing relay design of the product slow-operating product type designation 3RP20 General technical data product feature protective coating on printed-circuit board 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 60064 with degree of pollution 3 rated value 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 typical adjustable time 0.05 s 100 h relative setting accuracy relating to full-scale value 5 %; +/-
product type designation General technical data product feature protective coating on printed-circuit board 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 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 100 000 electrical endurance (operating cycles) at AC-15 at 230 V typical adjustable time 0.05 s 100 h
Product feature protective coating on printed-circuit board No
product feature protective coating on printed-circuit board product component • relay output • semi-conductor output Product extension required remote control product extension optional remote control power loss [W] maximum 2 W insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value test voltage for isolation test degree of pollution 3 surge voltage resistance rated value shock resistance according to IEC 60068-2-27 vibration resistance according to IEC 60068-2-6 mechanical service life (operating cycles) typical electrical endurance (operating cycles) at AC-15 at 230 V typical adjustable time
product component • relay output • semi-conductor output No product extension required remote control product extension optional remote control power loss [W] maximum insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value test voltage for isolation test degree of pollution surge voltage resistance rated value shock resistance according to IEC 60068-2-27 vibration resistance according to IEC 60068-2-6 mechanical service life (operating cycles) typical adjustable time Yes No No No No 2 W 300 V 400 V 400 V 11g / 15 ms 11g / 15 ms 11g / 15 ms 10 000 000 100 000 100 000 100 000 100 000 100 000 100 000
relay output 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 test voltage for isolation test 2 kV degree of pollution 3 surge voltage resistance rated value shock resistance according to IEC 60068-2-27 vibration resistance according to IEC 60068-2-6 in 55 Hz / 0.35 mm mechanical service life (operating cycles) typical adjustable time vibration resistance (operating cycles) at AC-15 at 230 V typical adjustable time vibration resistance according to IEC 60068-2-100.005 s 100 h
● semi-conductor output product extension required remote control product extension optional remote control No power loss [W] maximum insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value test voltage for isolation test degree of pollution surge voltage resistance rated value shock resistance according to IEC 60068-2-27 vibration resistance according to IEC 60068-2-6 mechanical service life (operating cycles) typical electrical endurance (operating cycles) at AC-15 at 230 V typical adjustable time
product extension required remote control product extension optional remote control power loss [W] maximum insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value test voltage for isolation test degree of pollution surge voltage resistance rated value shock resistance according to IEC 60068-2-27 vibration resistance according to IEC 60068-2-6 mechanical service life (operating cycles) typical electrical endurance (operating cycles) at AC-15 at 230 V typical adjustable time
product extension optional remote control power loss [W] maximum insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value test voltage for isolation test degree of pollution 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 electrical endurance (operating cycles) at AC-15 at 230 V typical adjustable time 0.05 s 100 h
power loss [W] maximum insulation voltage for overvoltage category III according to IEC 6064 with degree of pollution 3 rated value test voltage for isolation test degree of pollution surge voltage resistance rated value 4 000 V shock resistance according to IEC 60068-2-27 tig / 15 ms vibration resistance according to IEC 60068-2-6 to 55 Hz / 0.35 mm mechanical service life (operating cycles) typical electrical endurance (operating cycles) at AC-15 at 230 V typical adjustable time 2 W 300 V 300 V 100 00 V 100 00 V 100 000 V 100 000 100 000 100 000
insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value test voltage for isolation test degree of pollution surge voltage resistance rated value shock resistance according to IEC 60068-2-27 vibration resistance according to IEC 60068-2-6 mechanical service life (operating cycles) typical electrical endurance (operating cycles) at AC-15 at 230 V typical adjustable time 300 V 300 V 300 V 300 V 100 00 V 100 00 V 100 00 V 100 000 100 000 100 000 100 000 100 000 100 000
test voltage for isolation test degree of pollution surge voltage resistance rated value shock resistance according to IEC 60068-2-27 vibration resistance according to IEC 60068-2-6 mechanical service life (operating cycles) typical electrical endurance (operating cycles) at AC-15 at 230 V typical adjustable time 2 kV 4 000 V 11g / 15 ms 10 000 000 10 000 000 10 000 000 10 000 00
degree of pollution 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 electrical endurance (operating cycles) at AC-15 at 230 V typical adjustable time 0.05 s 100 h
surge voltage resistance rated value shock resistance according to IEC 60068-2-27 vibration resistance according to IEC 60068-2-6 10 55 Hz / 0.35 mm mechanical service life (operating cycles) typical electrical endurance (operating cycles) at AC-15 at 230 V typical adjustable time 4 000 V 11g / 15 ms 10 55 Hz / 0.35 mm 10 000 000 100 000 100 000 100 000
shock resistance according to IEC 60068-2-27 vibration resistance according to IEC 60068-2-6 mechanical service life (operating cycles) typical electrical endurance (operating cycles) at AC-15 at 230 V typical adjustable time 11g / 15 ms 10 55 Hz / 0.35 mm 10 000 000 100 000 100 000 100 000
vibration resistance according to IEC 60068-2-6 10 55 Hz / 0.35 mm mechanical service life (operating cycles) typical electrical endurance (operating cycles) at AC-15 at 230 V typical adjustable time 10 55 Hz / 0.35 mm 10 000 000 100 000 100 000
mechanical service life (operating cycles) typical electrical endurance (operating cycles) at AC-15 at 230 V typical adjustable time 10 000 000 100 000 0.05 s 100 h
electrical endurance (operating cycles) at AC-15 at 230 V typical adjustable time 100 000 0.05 s 100 h
typical adjustable time 0.05 s 100 h
relative setting accuracy relating to full-scale value 5 % +/-
Total To Solaring account of Total Ing to Tall Total E Value
thermal current 5 A
recovery time 150 ms
reference code according to IEC 81346-2 K
relative repeat accuracy 1 %; +/-
influence of the surrounding temperature $\pm 5~\%$
power supply influence ±1 %
Substance Prohibitance (Date) 05/01/2012
SVHC substance name Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8
Weight 0.11 kg
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

● at 60 Hz	100 127 V
control supply voltage frequency 1	50 60 Hz
control supply voltage 1 at DC rated value	24 V
operating range factor control supply voltage rated value at	
DC	
● 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	1.1
operating range factor control supply voltage rated value at AC at 60 Hz	
• initial value	0.85
• full-scale value	1.1
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
switching function	
flashing symmetrically with interval start/instantaneous	No
flashing symmetrically with interval start	No
flashing symmetrically with pulse start/instantaneous	No
flashing symmetrically with pulse start	No
flashing asymmetrically with interval start	No
flashing asymmetrically with pulse start	No
switching function	
star-delta circuit with delay time	No
star-delta circuit	No
switching function with control signal	
additive ON-delay	No
passing break contact	No
passing break contact/instantaneous	No
OFF delay	No
OFF delay/instantaneous	No
pulse delayed	No
pulse delayed/instantaneous	No
• pulse-shaping	No
pulse-shaping/instantaneous	No
additive ON-delay/instantaneous	No
ON-delay/OFF-delay/instantaneous	No
passing make contact	No
passing make contact/instantaneous contact	No
switching function of interval relay with control signal	
retrotriggerable with deactivated control	No
signal/instantaneous contact	
 retrotriggerable with switched-on control signal 	No
 retrotriggerable with switched-on control signal/instantaneous contact 	No
retriggerable with deactivated control signal	No
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	
delayed switching	0
-	0
 instantaneous contact 	
instantaneous contact number of NO contacts	

delayed switching	0
instantaneous contact	0
number of CO contacts	
delayed switching	1
instantaneous contact	0
operational current of auxiliary contacts at AC-15	
• at 24 V	3 A
● at 250 V	3 A
operational 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
Inputs/ Outputs	
product function	
• 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	
due to burst according to IEC 61000-4-4	2 kV network connection / 1 kV control connection
 due to conductor-earth surge according to IEC 61000-4-5 	2 kV
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	
category according to EN 954-1	none
Electrical Safety	
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
Connections/ Terminals	
product component removable terminal for auxiliary and	No
control circuit	
type of electrical connection for auxiliary and control circuit	screw-type terminals
type of connectable conductor cross-sections	
• 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 cables solid	2x (18 14)
• for AWG cables stranded	2x (18 14)
connectable conductor cross-section	
• solid	0.5 2.5 mm²
finely stranded with core end processing	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
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	
required spacing • with side-by-side mounting	
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	
ambient temperature		
 during operation 	-25 +60 °C	
during storage	-40 +85 °C	
during transport	-40 +85 °C	
relative humidity during operation	10 95 %	
Approvals Certificates		
General Product Approval		EMV













EMV

Test Certificates

Maritime application

<u>KC</u>

Type Test Certificates/Test Report









Maritime application

other

Environment





Confirmation

Environmental Confirmations

Information on the packaging

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

Information for data generation and storage

https://support.industry.siemens.com/cs/ww/en/view/109995012

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

Industry Mall (Online ordering system)

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

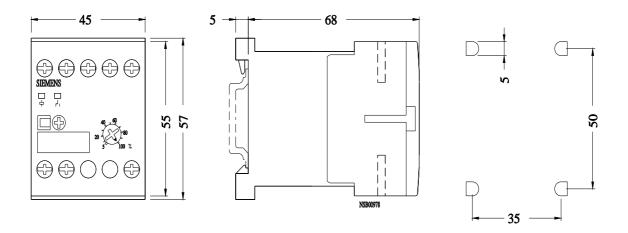
Cax online generator

http://support.automation.siemens.com/WW/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



last modified: 9/5/2025 🖸