SIEMENS

Data sheet 3RP1531-1AQ30



Timing relay, electronic Phased-out product !!! For further information, please contact our sales department OFF delay 1 change-over contact, with auxiliary voltage 1 time range 0.5 s...10 s 24 AC, 100...127 V and 24 V DC at 50/60 Hz AC with LED, Screw terminal

product brand name	SIRIUS
product designation	timing relay
product type designation	3RP15
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	0.5 10 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)	05/28/2009
SVHC substance name	Lead monoxide (lead oxide) - 1317-36-8 Lead titanium zirconium oxide - 12626-81-2
Weight	0.14 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	100 127 V
• at 60 Hz	100 127 V

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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	No
 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	No
star-delta circuit with delay time star-delta circuit	No
switching function with control signal	NO
additive ON-delay	No
passing break contact	No
passing break contact/instantaneous	No
OFF delay	Yes
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 signal/instantaneous contact 	No
retrotriggerable with switched-on control signal	No
retrotriggerable with switched-on control retrotriggerable with switched-on control	No
signal/instantaneous contact	
retriggerable with deactivated control signal	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	
delayed switching	0
instantaneous contact	0
number of NO contacts	

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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
contact renability of auxiliary contacts	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
type of insulation	IP20 Basic insulation
type of insulation Connections/ Terminals	Basic insulation
type of insulation Connections/ Terminals product component removable terminal for auxiliary and	
type of insulation Connections/ Terminals product component removable terminal for auxiliary and control circuit	Basic insulation Yes
type of insulation Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit	Basic insulation
type of insulation Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections	Yes screw-type terminals
type of insulation Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • solid	Yes screw-type terminals 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)
type of insulation Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • solid • finely stranded with core end processing	Yes screw-type terminals 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)
type of insulation Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • solid • finely stranded with core end processing • for AWG cables solid	Yes screw-type terminals 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 2x (20 14)
type of insulation Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • solid • finely stranded with core end processing • for AWG cables solid • for AWG cables stranded	Yes screw-type terminals 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)
type of insulation Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • solid • finely stranded with core end processing • for AWG cables solid • for AWG cables stranded connectable conductor cross-section	Yes screw-type terminals 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 2x (20 14) 2x (20 14)
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type of insulation Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • solid • finely stranded with core end processing • for AWG cables solid • for AWG cables stranded connectable conductor cross-section • solid • finely stranded with core end processing AWG number as coded connectable conductor cross section • solid • stranded tightening torque design of the thread of the connection screw	Yes screw-type terminals 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 2x (20 14) 2x (20 14) 0.5 4 mm² 0.5 2.5 mm² 20 14 20 14
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type of insulation Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • solid • finely stranded with core end processing • for AWG cables solid • for AWG cables stranded connectable conductor cross-section • solid • finely stranded with core end processing AWG number as coded connectable conductor cross section • solid • stranded tightening torque design of the thread of the connection screw Installation/ mounting/ dimensions mounting position	Yes screw-type terminals 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 2x (20 14) 2x (20 14) 0.5 4 mm² 0.5 2.5 mm² 20 14 20 14 30 12 N·m M3
type of insulation Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • solid • finely stranded with core end processing • for AWG cables solid • for AWG cables stranded connectable conductor cross-section • solid • finely stranded with core end processing AWG number as coded connectable conductor cross section • solid • stranded tightening torque design of the thread of the connection screw Installation/ mounting/ dimensions mounting position fastening method	Yes screw-type terminals 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 2x (20 14) 2x (20 14) 0.5 4 mm² 0.5 2.5 mm² 20 14 20 14 20 14 o.8 1.2 N·m M3 any screw and snap-on mounting onto 35 mm DIN rail
type of insulation Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • solid • finely stranded with core end processing • for AWG cables solid • for AWG cables stranded connectable conductor cross-section • solid • finely stranded with core end processing AWG number as coded connectable conductor cross section • solid • stranded tightening torque design of the thread of the connection screw Installation/ mounting/ dimensions mounting position fastening method height	Pasic insulation Yes screw-type terminals 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 2x (20 14) 2x (20 14) 0.5 4 mm² 0.5 2.5 mm² 20 14 20 14 20 14 3.8 1.2 N·m M3 any screw and snap-on mounting onto 35 mm DIN rail 102 mm
type of insulation Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • solid • finely stranded with core end processing • for AWG cables solid • for AWG cables stranded connectable conductor cross-section • solid • finely stranded with core end processing AWG number as coded connectable conductor cross section • solid • stranded tightening torque design of the thread of the connection screw Installation/ mounting/ dimensions mounting position fastening method height width	Yes screw-type terminals 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 2x (20 14) 2x (20 14) 0.5 4 mm² 0.5 2.5 mm² 20 14 20 14 20 14 30.8 1.2 N·m M3 any screw and snap-on mounting onto 35 mm DIN rail 102 mm 22.5 mm
type of insulation Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • solid • finely stranded with core end processing • for AWG cables solid • for AWG cables stranded connectable conductor cross-section • solid • finely stranded with core end processing AWG number as coded connectable conductor cross section • solid • stranded tightening torque design of the thread of the connection screw Installation/ mounting/ dimensions mounting position fastening method height width depth	Yes screw-type terminals 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 2x (20 14) 2x (20 14) 0.5 4 mm² 0.5 2.5 mm² 20 14 20 14 20 14 30.8 1.2 N·m M3 any screw and snap-on mounting onto 35 mm DIN rail 102 mm 22.5 mm
type of insulation Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections	Yes screw-type terminals 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 2x (20 14) 2x (20 14) 0.5 4 mm² 0.5 2.5 mm² 20 14 20 14 20 14 30.8 1.2 N·m M3 any screw and snap-on mounting onto 35 mm DIN rail 102 mm 22.5 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	

Approvals Certificates

General Product Approval







Confirmation





EMV Test Certificates Marine / Shipping



<u>KC</u>

Type Test Certificates/Test Report

<u>ate</u>



firmations





 other
 Railway
 Environment

 Confirmation
 Miscellaneous
 Special Test Certific Environmental Con

Further information

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=3RP1531-1AQ30

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RP1531-1AQ30}$

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

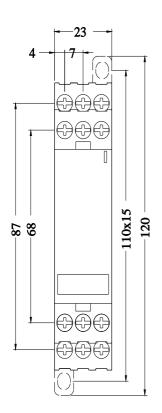
https://support.industry.siemens.com/cs/ww/en/ps/3RP1531-1AQ30

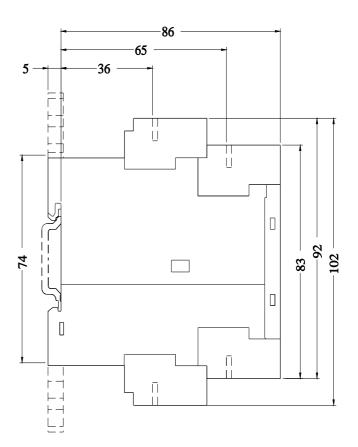
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RP1531-1AQ30&lang=en

Characteristic: Derating

https://support.industry.siemens.com/cs/ww/en/ps/3RP1531-1AQ30/manual





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