# **SIEMENS**

Data sheet 3RP1513-1AP30

Timing relay, electronic Phased-out product !!! For further information, please contact our sales department ansprechverzögert 1 change-over contact, 1 time range 5 s...100 s 24 AC, 200...240 V and 24 V DC at 50/60 Hz AC with LED, Screw terminal

product brand nameSIRIUSproduct designationtiming relayproduct type designation3RP15

| General technical data                                                                                        |                    |  |
|---------------------------------------------------------------------------------------------------------------|--------------------|--|
| product component                                                                                             |                    |  |
| <ul> <li>relay output</li> </ul>                                                                              | Yes                |  |
| <ul> <li>semi-conductor output</li> </ul>                                                                     | 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            |  |
| protection class IP                                                                                           | IP20               |  |
| 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 (switching cycles) typical                                                            | 10 000 000         |  |
| electrical endurance (switching cycles) at AC-15 at 230 V typical                                             | 100 000            |  |
| adjustable time                                                                                               | 5 100 s            |  |
| relative setting accuracy relating to full-scale value                                                        | 5 %                |  |
| 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                                                                      | ±5 %               |  |
| power supply influence                                                                                        | ±1 %               |  |
| Substance Prohibitance (Date)                                                                                 | 05/28/2009         |  |

| Substance ( Fate)                                                        | 00/20/2000 |
|--------------------------------------------------------------------------|------------|
| Control circuit/ Control                                                 |            |
| type of voltage of the control supply voltage                            | AC/DC      |
| control supply voltage 1 at AC                                           |            |
| <ul> <li>at 50 Hz rated value</li> </ul>                                 | 24 V       |
| <ul> <li>at 60 Hz rated value</li> </ul>                                 | 24 V       |
| control supply voltage 2 at AC                                           |            |
| ● at 50 Hz                                                               | 200 240 V  |
| ● at 60 Hz                                                               | 200 240 V  |
| control supply voltage frequency 1                                       | 50 60 Hz   |
| control supply voltage 1                                                 |            |
| <ul> <li>at DC rated value</li> </ul>                                    | 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                                                                              | No                                                                        |
| start/instantaneous                                                                                               |                                                                           |
| <ul> <li>flashing symmetrically with interval start</li> </ul>                                                    | No                                                                        |
| flashing symmetrically with pulse                                                                                 | No                                                                        |
| start/instantaneous                                                                                               | No                                                                        |
| flashing symmetrically with pulse start     flashing symmetrically with interval start                            | No<br>No                                                                  |
| <ul> <li>flashing asymmetrically with interval start</li> <li>flashing asymmetrically with pulse start</li> </ul> | No                                                                        |
| switching function                                                                                                | INU                                                                       |
| star-delta circuit with delay time                                                                                | No                                                                        |
| star-delta circuit     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                                                                        |
| <ul> <li>pulse delayed/instantaneous</li> </ul>                                                                   | No                                                                        |
| <ul><li>pulse-shaping</li></ul>                                                                                   | No                                                                        |
| <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                                                                        |
| <ul> <li>passing make contact</li> </ul>                                                                          | 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<br/>signal/instantaneous contact</li> </ul>                    | No                                                                        |
| retrotriggerable with switched-on control signal                                                                  | No                                                                        |
| <ul> <li>retrotriggerable with switched-on control<br/>signal/instantaneous contact</li> </ul>                    | No                                                                        |
| retriggerable with deactivated control signal                                                                     | No                                                                        |
| Short-circuit protection                                                                                          | 110                                                                       |
| design of the fuse link for short-circuit protection of the                                                       | fuse gL/gG: 4 A                                                           |
| auxiliary switch required                                                                                         | 1030 gDgO. 7 A                                                            |
| Auxiliary circuit                                                                                                 |                                                                           |
| material of switching contacts                                                                                    | AgSnO2                                                                    |
| number of NC contacts                                                                                             |                                                                           |
| delayed switching                                                                                                 | 0                                                                         |
| • instantaneous contact                                                                                           | 0                                                                         |
| number of NO contacts                                                                                             | 0                                                                         |
| delayed switching     instantaneous centest                                                                       | 0                                                                         |
| instantaneous contact     number of CO contacts                                                                   | 0                                                                         |
| 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 |
| <u> </u>                                                                                                          |                                                                           |

|                                                                                                                    | 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                                                                                             | 2 kV network connection / 1 kV control connection |
| <ul> <li>due to burst according to IEC 61000-4-4</li> <li>due to conductor-earth surge according to IEC</li> </ul> | 2 kV                                              |
| 61000-4-5                                                                                                          | ZIV                                               |
| <ul> <li>due to conductor-conductor surge according to IEC<br/>61000-4-5</li> </ul>                                | 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                                                                                                |                                                   |
| protection class IP on the front according to IEC 60529                                                            | IP20                                              |
| type of insulation                                                                                                 | Basic insulation                                  |
| category according to EN 954-1                                                                                     | none                                              |
| Connections/ Terminals                                                                                             |                                                   |
| product component removable terminal for auxiliary                                                                 | Yes                                               |
| and control circuit                                                                                                | ecrow type terminals                              |
| type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections       | screw-type terminals                              |
| solid                                                                                                              | 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)                |
| finely stranded with core end processing                                                                           | 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)                |
| at AWG cables solid                                                                                                | 2x (20 14)                                        |
| <ul> <li>at AWG cables stranded</li> </ul>                                                                         | 2x (20 14)                                        |
| connectable conductor cross-section                                                                                |                                                   |
| • solid                                                                                                            | 0.5 4 mm²                                         |
| <ul> <li>finely stranded with core end processing</li> </ul>                                                       | 0.5 2.5 mm <sup>2</sup>                           |
| AWG number as coded connectable conductor cross section                                                            |                                                   |
| • solid                                                                                                            | 20 14                                             |
| stranded                                                                                                           | 20 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                                                                                                             | 83 mm                                             |
| width                                                                                                              | 22.5 mm                                           |
| depth                                                                                                              | 91 mm                                             |
| 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                                              |
| <ul> <li>for grounded parts</li> </ul>                                                                             |                                                   |
| — forwards                                                                                                         | 0 mm                                              |
| — backwards                                                                                                        | 0 mm                                              |
| — upwards<br>— at the side                                                                                         | 0 mm<br>0 mm                                      |
| — at the side<br>— 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

## ambient temperature

- during operation
- during storage
- during transport

relative humidity during operation

2 000 m

-25 ... +60 °C

-40 ... +85 °C

-40 ... +85 °C 10 ... 95 %

#### Certificates/ approvals

#### **General Product Approval**







Confirmation







## **Declaration of Conformity**

**Test Certificates** 

Marine / Shipping





Type Test Certificates/Test Report







Marine / Shipping

other

Railway





**Miscellaneous** 

Confirmation

Special Test Certificate

### **Further information**

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=3RP1513-1AP30

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RP1513-1AP30

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

https://support.industry.siemens.com/cs/ww/en/ps/3RP1513-1AP30

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

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RP1513-1AP30&lang=en

**Characteristic: Derating** 

https://support.industry.siemens.com/cs/ww/en/ps/3RP1513-1AP30/manual

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