

TIME RELAY, STAR-DELTA SINGLE TIME RANGE 20
S AC/DC 24 V, AC 100...127 V, 1...20 US

General technical data:

| | | |
|---|----|---|
| product brand name | | SIRIUS |
| Product designation | | timing relay |
| mounting position | | any |
| Product function non-volatile | | No |
| Product component | | Yes |
| • Relay output | | No |
| • 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 according to IEC 204-2 acc. to IEC 750 | | K |
| Equipment marking 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 230 V typical | | 100 000 |
| 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 according to IEC 60664 with degree of pollution 3 Rated value | V | 300 |
| Relative setting accuracy relating to full-scale value | % | 5 |

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 |
| • 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 | | Yes |
| • 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 |

| | |
|--|----|
| • passing break contact/instantaneous | No |
| • additive ON delay/instantaneous | No |
| • ON-delay/OFF-delay | No |
| • passing make contact | No |
| • passing make contact/instantaneous contact | No |
| • pulse delayed | No |
| • pulse delayed/instantaneous | No |
| • pulse-shaping/instantaneous | No |
| Switching function of interval relay with control signal | |
| • retrotriggerable with deactivated control signal/instantaneous contact | No |
| • retrotriggerable with activated control signal | No |
| • retrotriggerable with activated control signal/instantaneous contact | No |
| • retriggerable with deactivated control signal | No |

Control circuit/ Control:

| | | |
|--|----|--------------|
| Adjustable time | s | 1 ... 20 |
| 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 | 100 ... 127 |
| • at 60 Hz | V | 100 ... 127 |
| 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 | A | 3 |
| — at 250 V | A | 3 |
| • at DC-13 | | |
| — at 24 V | A | 1 |
| — at 125 V | A | 0.2 |
| — at 250 V | A | 0.1 |

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

Installation/ mounting/ dimensions:

| | | |
|--|----|--|
| Mounting type | | screw and snap-on mounting onto 35 mm standard mounting rail |
| Width | mm | 22.5 |
| Height | mm | 83 |
| Depth | mm | 91 |
| 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 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
- for AWG conductors
 - stranded
 - solid

1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.5 mm²)

2x (20 ... 14)

2x (20 ... 14)

Tightening torque

N·m

0.8 ... 1.2

Certificates/ approvals:

General Product Approval

Declaration of Conformity

Test Certificates



CCC



CSA



UL



EG-Konf.

[Special Test
Certificate](#)

Shipping Approval



GL



LRS



PRS



RINA

Shipping Approval

other



RMRS

[other](#)

[Confirmation](#)

[Environmental
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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

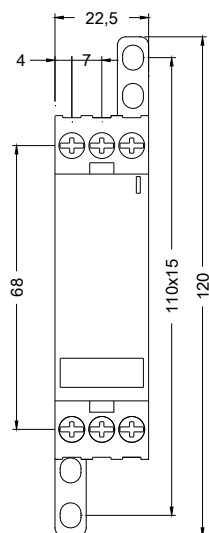
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RP15741NQ30>

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

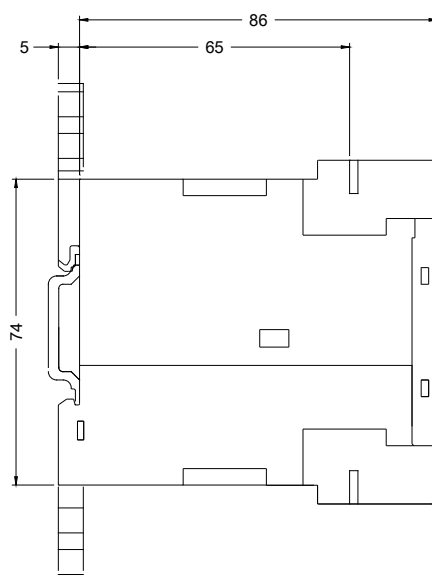
<https://support.industry.siemens.com/cs/ww/en/ps/3RP15741NQ30>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RP15741NQ30&lang=en



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