



Timing relay, Multifunction 2 change-over contacts, 27 functions 7 time ranges (0.05 s...100 h) 12-240 V AC/DC at 50/60 Hz AC with LED Spring-type terminal (push-in)

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| product brand name | SIRIUS |
| product designation | timing relay |
| design of the product | 27 functions |
| product type designation | 3RP25 |
| General technical data | |
| product component | |
| • relay output | Yes |
| • semi-conductor output | No |
| product extension required remote control | No |
| product extension optional remote control | No |
| insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value | 300 V |
| test voltage for isolation test | 2.5 kV |
| degree of pollution | 3 |
| surge voltage resistance rated value | 4 000 V |
| protection class IP | IP20 |
| shock resistance acc. to IEC 60068-2-27 | 11g / 15 ms |
| vibration resistance acc. 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 | 0.05 s ... 100 h |
| relative setting accuracy relating to full-scale value | 5 % |
| thermal current | 5 A |
| minimum ON period | 35 ms |
| recovery time | 250 ms |
| reference code acc. to IEC 81346-2 | K |
| relative repeat accuracy | 1 % |
| Control circuit/ Control | |
| type of voltage of the control supply voltage | AC/DC |
| control supply voltage 1 at AC | |
| • at 50 Hz | 12 ... 240 V |
| • at 60 Hz | 12 ... 240 V |
| control supply voltage frequency 1 | 50 ... 60 Hz |
| • control supply voltage 1 at DC | 12 ... 240 V |
| operating range factor control supply voltage rated value at DC | |
| • initial value | 0.8 |

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| <ul style="list-style-type: none"> • full-scale value | 1.1 |
| operating range factor control supply voltage rated value at AC at 50 Hz <ul style="list-style-type: none"> • initial value • full-scale value | 0.8 1.1 |
| operating range factor control supply voltage rated value at AC at 60 Hz <ul style="list-style-type: none"> • initial value • full-scale value | 0.8 1.1 |
| inrush current peak <ul style="list-style-type: none"> • at 24 V • at 240 V | 0.3 A 5 A |
| duration of inrush current peak <ul style="list-style-type: none"> • at 24 V • at 240 V | 0.3 ms 0.5 ms |
| Switching Function | |
| switching function <ul style="list-style-type: none"> • ON-delay • ON-delay/instantaneous contact • passing make contact • passing make contact/instantaneous contact • OFF delay | Yes Yes Yes Yes No |
| switching function <ul style="list-style-type: none"> • flashing symmetrically with interval start/instantaneous • flashing symmetrically with interval start • flashing symmetrically with pulse start/instantaneous • flashing symmetrically with pulse start • flashing asymmetrically with interval start • flashing asymmetrically with pulse start | Yes Yes Yes Yes No No |
| switching function <ul style="list-style-type: none"> • star-delta circuit with delay time • star-delta circuit | No Yes |
| switching function with control signal <ul style="list-style-type: none"> • additive ON-delay • passing break contact • passing break contact/instantaneous • OFF delay • OFF delay/instantaneous • pulse delayed • pulse delayed/instantaneous • pulse-shaping • pulse-shaping/instantaneous • additive ON-delay/instantaneous • ON-delay/OFF-delay/instantaneous • passing make contact • passing make contact/instantaneous contact | Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes |
| switching function of interval relay with control signal <ul style="list-style-type: none"> • retrotriggerable with deactivated control signal/instantaneous contact • retrotriggerable with switched-on control signal • retrotriggerable with switched-on control signal/instantaneous contact • retriggerable with deactivated control signal | Yes Yes Yes Yes |
| 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 | |

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| material of switching contacts | AgSnO ₂ |
| number of NC contacts delayed switching | 0 |
| number of NO contacts delayed switching | 0 |
| number of CO contacts delayed switching | 2 |
| 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 |
| influence of the surrounding temperature | 1% in the whole temperature range to the set runtime |
| power supply influence | 1% in the whole voltage range to the set runtime |
| switching capacity current with inductive load | 0.01 ... 3 A |
| Inputs/ Outputs | |
| product function | |
| • at the relay outputs switchover delayed/without delay | Yes |
| • non-volatile | No |
| Electromagnetic compatibility | |
| EMC 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 |
| • due to conductor-earth surge acc. to IEC 61000-4-5 | 2 kV |
| • due to conductor-conductor surge acc. to IEC 61000-4-5 | 1 kV |
| field-based interference acc. to IEC 61000-4-3 | 10 V/m |
| electrostatic discharge acc. to IEC 61000-4-2 | 4 kV contact discharge / 8 kV air discharge |
| Safety related data | |
| touch protection against electrical shock | finger-safe |
| type of insulation | Basic insulation |
| category acc. to EN 954-1 | none |
| Connections/ Terminals | |
| product function removable terminal for auxiliary and control circuit | Yes |
| type of electrical connection for auxiliary and control circuit | spring-loaded terminals (push-in) |
| type of connectable conductor cross-sections | |
| • solid | 0.5 ... 4 mm ² |
| • finely stranded with core end processing | 0.5 ... 2.5 mm ² |
| • finely stranded without core end processing | 0.5 ... 4 mm ² |
| • at AWG cables solid | 20 ... 12 |
| • at AWG cables stranded | 20 ... 12 |
| • connectable conductor cross-section solid | 0.5 ... 4 mm ² |
| • connectable conductor cross-section finely stranded with core end processing | 0.5 ... 2.5 mm ² |
| • connectable conductor cross-section finely stranded without core end processing | 0.5 ... 4 mm ² |
| • AWG number as coded connectable conductor cross section solid | 20 ... 12 |
| • AWG number as coded connectable conductor cross section stranded | 20 ... 12 |
| Installation/ mounting/ dimensions | |
| mounting position | any |
| fastening method | screw and snap-on mounting onto 35 mm standard mounting rail |
| height | 100 mm |

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| width | 22.5 mm |
| depth | 90 mm |
| required spacing | |
| <ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards 0 mm — backwards 0 mm — upwards 0 mm — downwards 0 mm — at the side 0 mm • for grounded parts <ul style="list-style-type: none"> — forwards 0 mm — backwards 0 mm — upwards 0 mm — at the side 0 mm — downwards 0 mm • for live parts <ul style="list-style-type: none"> — forwards 0 mm — backwards 0 mm — upwards 0 mm — downwards 0 mm — at the side 0 mm | |

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| Ambient conditions | |
| installation altitude at height above sea level maximum | 2 000 m |
| <ul style="list-style-type: none"> • ambient temperature during operation -25 ... +60 °C • ambient temperature during storage -40 ... +85 °C • ambient temperature during transport -40 ... +85 °C | |
| relative humidity during operation | 10 ... 95 % |

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| Certificates/ approvals | | |
| General Product Approval | EMC | Declaration of Conformity |



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| Declaration of Conformity | Test Certificates | Marine / Shipping |
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[Miscellaneous](#)

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



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|--------------------------|--------------|
| Marine / Shipping | other |
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[Confirmation](#)

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?mfb=3RP2505-2BW30>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RP2505-2BW30>

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

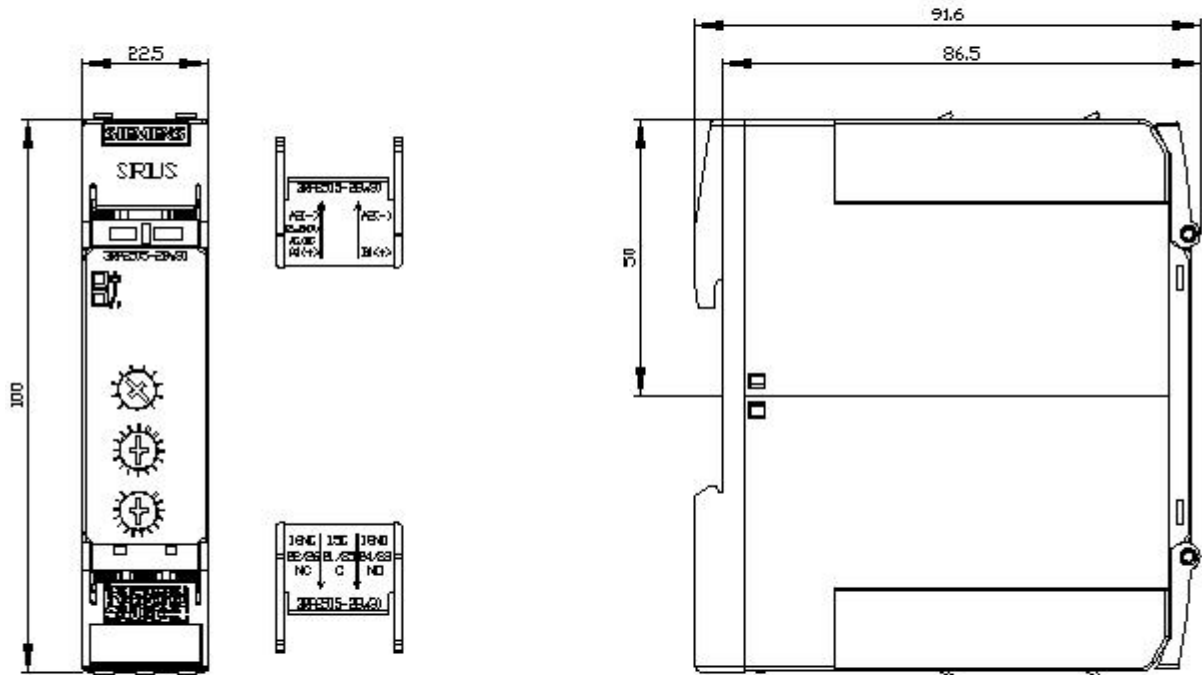
<https://support.industry.siemens.com/cs/ww/en/ps/3RP2505-2BW30>

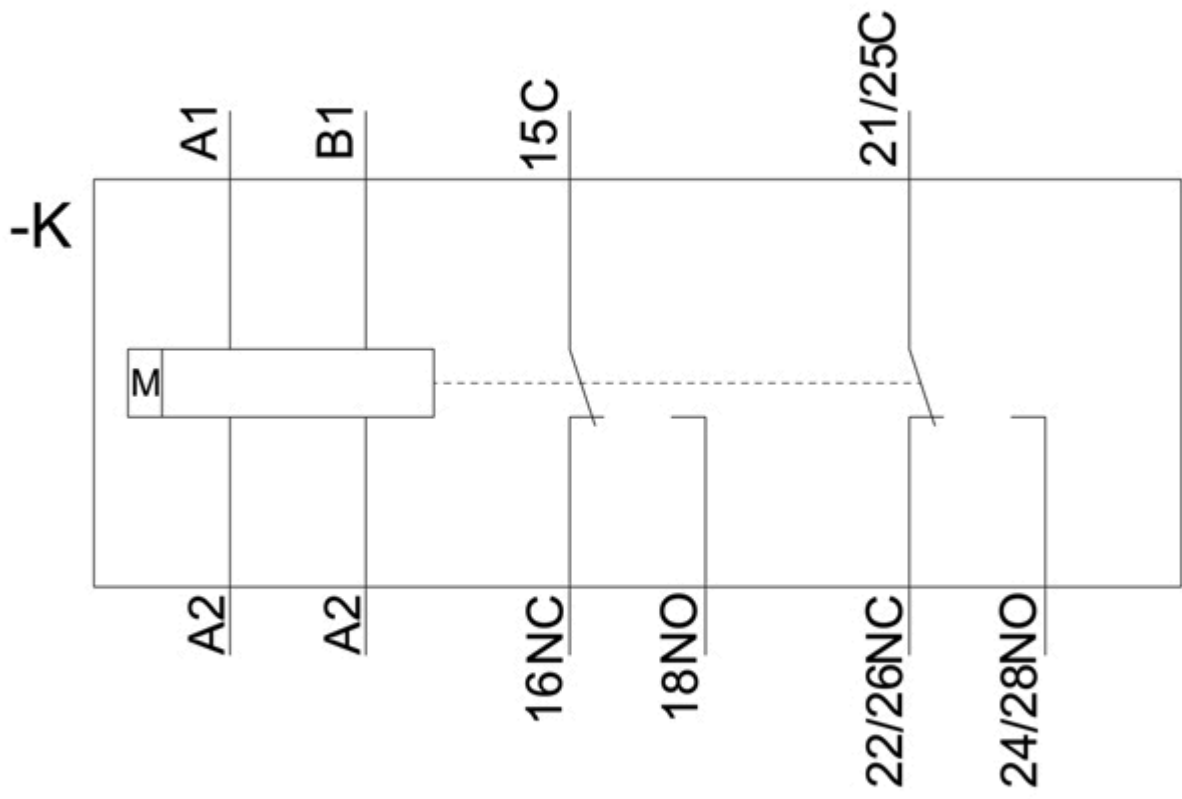
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/blddb/cax_de.aspx?mlfb=3RP2505-2BW30&lang=en

Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3RP2505-2BW30/manual>





last modified:

12/2/2020 