



COUPLING RELAY, AC-3, 5.5KW/ 400V , 1NC, DC 24V, 0.85...1.85*US, W. INTEGRATED DIODE 3-POLE SZ S00, SPRING-LOADED TERMINAL

| | | |
|---------------------|--|----------------|
| product brand name | | SIRIUS |
| Product designation | | Coupling relay |

General technical data:

| | | |
|--|----|------------|
| Insulation voltage | | |
| • Rated value | V | 690 |
| Degree of pollution | | 3 |
| Surge voltage resistance Rated value | kV | 6 |
| Mechanical service life (switching cycles) | | |
| • of the contactor typical | | 30 000 000 |
| Thermal short-time current restricted to 10 s | A | 90 |
| Protection class IP | | |
| • on the front | | IP20 |
| • of the terminal | | IP20 |
| Equipment marking | | |
| • acc. to DIN EN 61346-2 | | Q |
| • acc. to DIN EN 81346-2 | | Q |

Main circuit:

| | | |
|---|---|-----|
| Number of poles for main current circuit | | 3 |
| Number of NC contacts for main contacts | | 0 |
| Number of NO contacts for main contacts | | 3 |
| Operating voltage | | |
| • at AC-3 Rated value maximum | V | 690 |
| Operating current | | |
| • at AC-1 | | |

| | | |
|---|---|------|
| — at 400 V at ambient temperature 40 °C Rated value | A | 22 |
| — up to 690 V at ambient temperature 40 °C Rated value | A | 22 |
| — up to 690 V at ambient temperature 60 °C Rated value | A | 20 |
| • at AC-2 at 400 V Rated value | A | 12 |
| • at AC-3 | | |
| — at 400 V Rated value | A | 12 |
| — at 500 V Rated value | A | 9.2 |
| — at 690 V Rated value | A | 6.7 |
| • at AC-4 at 400 V Rated value | A | 8.5 |
| Operating current with 1 current path | | |
| • at DC-1 | | |
| — at 24 V Rated value | A | 20 |
| — at 110 V Rated value | A | 2.1 |
| — at 220 V Rated value | A | 0.8 |
| — at 440 V Rated value | A | 0.6 |
| — at 600 V Rated value | A | 0.6 |
| • at DC-3 at DC-5 | | |
| — at 24 V Rated value | A | 20 |
| — at 110 V Rated value | A | 0.1 |
| Operating current with 2 current paths in series | | |
| • at DC-1 | | |
| — at 24 V Rated value | A | 20 |
| — at 110 V Rated value | A | 12 |
| — at 220 V Rated value | A | 1.6 |
| — at 440 V Rated value | A | 0.8 |
| — at 600 V Rated value | A | 0.7 |
| • at DC-3 at DC-5 | | |
| — at 110 V Rated value | A | 0.35 |
| — at 24 V Rated value | A | 20 |
| Operating current with 3 current paths in series | | |
| • at DC-1 | | |
| — at 24 V Rated value | A | 20 |
| — at 110 V Rated value | A | 20 |
| — at 220 V Rated value | A | 20 |
| — at 440 V Rated value | A | 1.3 |
| — at 600 V Rated value | A | 1 |
| • at DC-3 at DC-5 | | |
| — at 110 V Rated value | A | 20 |
| — at 220 V Rated value | A | 1.5 |

| | | |
|--|-----|-----|
| — at 24 V Rated value | A | 20 |
| — at 440 V Rated value | A | 0.2 |
| — at 600 V Rated value | A | 0.2 |
| Operating power | | |
| • at AC-1 at 400 V Rated value | kW | 13 |
| • at AC-2 at 400 V Rated value | kW | 5.5 |
| • at AC-4 at 400 V Rated value | kW | 4 |
| Operating power | | |
| • at AC-1 | | |
| — at 230 V at 60 °C Rated value | kW | 7.5 |
| — at 230 V Rated value | kW | 7.5 |
| — at 400 V at 60 °C Rated value | kW | 13 |
| — at 690 V at 60 °C Rated value | kW | 22 |
| — at 690 V Rated value | kW | 22 |
| • at AC-3 | | |
| — at 230 V Rated value | kW | 3 |
| — at 400 V Rated value | kW | 5.5 |
| — at 690 V Rated value | kW | 5.5 |
| Operating power for ≥ 200000 operating cycles at AC-4 | | |
| • at 400 V Rated value | kW | 2 |
| • at 690 V Rated value | kW | 2.5 |
| Operating frequency | | |
| • at AC-3 maximum | 1/h | 750 |

Control circuit/ Control:

| | | |
|--|---|---------------|
| Type of voltage of the control supply voltage | | DC |
| Control supply voltage for DC | | |
| • Rated value | V | 24 |
| Operating range factor control supply voltage rated value of the magnet coil for DC | | 0.85 ... 1.85 |
| Design of the surge suppressor | | with diode |
| Closing power of the magnet coil for DC | W | 1.6 |
| Holding power of the magnet coil for DC | W | 1.6 |

Auxiliary circuit:

| | | |
|---|--|----|
| Number of NC contacts | | |
| • for auxiliary contacts | | |
| — instantaneous contact | | 1 |
| Number of NO contacts | | |
| • for auxiliary contacts | | |
| — instantaneous contact | | 0 |
| Product expansion Auxiliary switch | | No |

| | | |
|--|---|---|
| Operating current at AC-15 | | |
| • at 230 V Rated value | A | 10 |
| • at 400 V Rated value | A | 3 |
| • at 690 V Rated value | A | 1 |
| Operating current | | |
| • at DC-12 at 125 V Rated value | A | 2 |
| • at DC-12 at 220 V Rated value | A | 1 |
| • at DC-12 at 600 V Rated value | A | 0.15 |
| • at DC-13 at 125 V Rated value | A | 0.9 |
| • at DC-13 at 220 V Rated value | A | 0.3 |
| • at DC-13 at 600 V Rated value | A | 0.1 |
| Operating current | | |
| • at DC-12 | | |
| — at 60 V Rated value | A | 6 |
| — at 110 V Rated value | A | 3 |
| • at DC-13 | | |
| — at 24 V Rated value | A | 10 |
| — at 60 V Rated value | A | 2 |
| — at 110 V Rated value | A | 1 |
| Contact reliability of the auxiliary contacts | | 1 faulty switching per 100 million (17 V, 1 mA) |

UL/CSA ratings:

| | | |
|--|--------------|-------------|
| Full-load current (FLA) for three-phase AC motor | | |
| • at 480 V Rated value | A | 11 |
| • at 600 V Rated value | A | 11 |
| yielded mechanical performance [hp] | | |
| • for single-phase AC motor at 110/120 V Rated value | metric hp | 0.5 |
| • for single-phase AC motor at 230 V Rated value | metric hp | 2 |
| • for three-phase AC motor at 200/208 V Rated value | metric hp | 3 |
| • for three-phase AC motor at 220/230 V Rated value | metric hp | 3 |
| • for three-phase AC motor at 460/480 V Rated value | metric hp | 7.5 |
| • for three-phase AC motor at 575/600 V Rated value | metric hp | 10 |
| Contact rating of the auxiliary contacts acc. to UL | | A600 / Q600 |

Short-circuit:

| | | |
|--|--|--|
| Design of the fuse link | | |
| • for short-circuit protection of the main circuit | | |

- with type of assignment 1 required
- with type of assignment 2 required
- for short-circuit protection of the auxiliary switch required

gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE:
35 A

gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE:
20 A

fuse gL/gG: 10 A

Installation/ mounting/ dimensions:

| | | |
|------------------------------|----|--|
| mounting position | | +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface |
| Mounting type | | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 |
| • Side-by-side mounting | | Yes |
| Height | mm | 69.5 |
| Width | mm | 45 |
| Depth | mm | 73 |
| Required spacing | | |
| • with side-by-side mounting | | |
| — forwards | mm | 0 |
| — Backwards | mm | 0 |
| — upwards | mm | 0 |
| — downwards | mm | 0 |
| — at the side | mm | 0 |
| • for grounded parts | | |
| — forwards | mm | 0 |
| — Backwards | mm | 0 |
| — upwards | mm | 0 |
| — at the side | mm | 6 |
| — downwards | mm | 0 |
| • for live parts | | |
| — forwards | mm | 0 |
| — Backwards | mm | 0 |
| — upwards | mm | 0 |
| — downwards | mm | 0 |
| — at the side | mm | 6 |

Connections/ Terminals:

| | | |
|--|--|---------------------------------|
| Type of electrical connection | | |
| • for main current circuit | | spring-loaded terminals |
| • for auxiliary and control current circuit | | spring-loaded terminals |
| Type of connectable conductor cross-section | | |
| • for main contacts | | |
| — single or multi-stranded | | 2x (0,5 ... 4 mm ²) |

| | |
|---|-----------------------------------|
| — finely stranded with core end processing | 2x (0.5 ... 2.5 mm ²) |
| — finely stranded without core end processing | 2x (0.5 ... 2.5 mm ²) |
| • for AWG conductors for main contacts | 2x (20 ... 12) |
| • for auxiliary contacts | |
| — single or multi-stranded | 2x (0,5 ... 4 mm ²) |
| — finely stranded with core end processing | 2x (0.5 ... 2.5 mm ²) |
| — finely stranded without core end processing | 2x (0.5 ... 2.5 mm ²) |
| • for AWG conductors for auxiliary contacts | 2x (20 ... 12) |

Safety related data:

| | | |
|---|-----|-------------|
| B10 value with high demand rate acc. to SN 31920 | | 1 000 000 |
| Proportion of dangerous failures | | |
| • with low demand rate acc. to SN 31920 | % | 40 |
| • with high demand rate acc. to SN 31920 | % | 73 |
| Failure rate [FIT] with low demand rate acc. to SN 31920 | FIT | 100 |
| Product function Mirror contact acc. to IEC 60947-4-1 | | Yes |
| T1 value for proof test interval or service life acc. to IEC 61508 | y | 20 |
| Protection against electrical shock | | finger-safe |

Mechanical data:

| | | |
|--------------------------|--|-----|
| Size of contactor | | S00 |
|--------------------------|--|-----|

Ambient conditions:

| | | |
|--|----|-------------|
| Installation altitude at height above sea level maximum | m | 2 000 |
| Ambient temperature | | |
| • during operation | °C | -25 ... +60 |
| • during storage | °C | -55 ... +80 |

Certificates/ approvals:

| | | |
|--------------------------|---------------------------------------|---------------------------|
| General Product Approval | Functional Safety/Safety of Machinery | Declaration of Conformity |
|--------------------------|---------------------------------------|---------------------------|



[Type Examination](#)



| | |
|-------------------|-------------------|
| Test Certificates | Shipping Approval |
|-------------------|-------------------|

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



| | |
|-------------------|-------|
| Shipping Approval | other |
|-------------------|-------|



[Environmental Confirmations](#)

[Confirmation](#)

| |
|-------|
| other |
|-------|



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

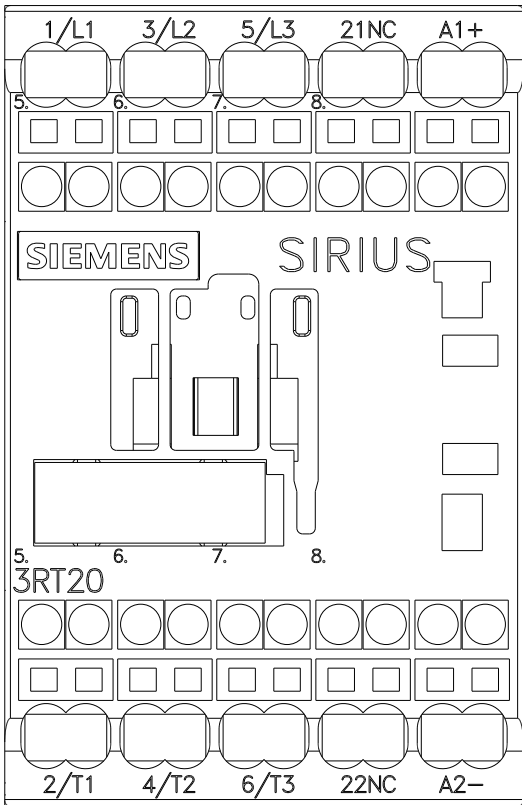
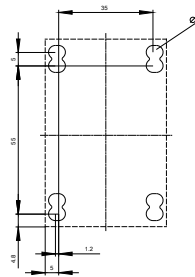
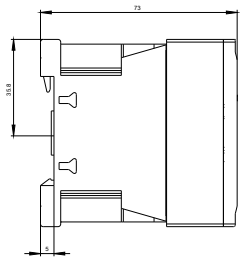
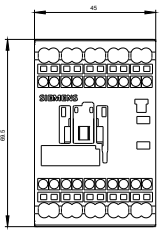
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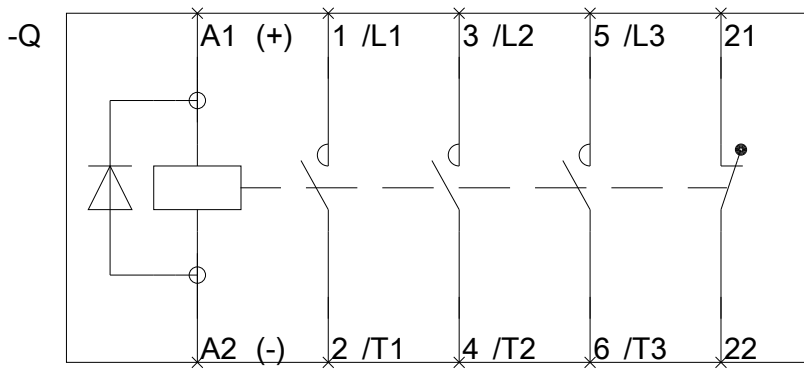
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RT20172VB42/all>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3RT20172VB42&lang=en





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