

Reference: 3RT1024-3BB40

CONTACTOR, AC-3 5.5 KW/400 V, DC 24 V, 3-POLE, SIZE S0, CAGE CLAMP

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|   |                 |
|---|-----------------|
| product brand name                                      | SIRIUS          |
| Product designation                                     | power contactor |
| General technical data:                                 |                 |
| Size of contactor                                       | S0              |
| Degree of pollution                                     | 3               |
| Protection class IP                                     |                 |
| on the front  | IP20            |
| of the terminal   | IP20            |
| Mechanical service life (switching cycles)              |                 |
| of contactor typical                                    | 10 000 000      |
| of the contactor with atd>                              | 5 000 000       |
| of the contactor with atd>                              | 10 000 000      |
| Ambient conditions:                                     |                 |
| Installation altitude at height above sea level maximum | 2 000 m         |
| Ambient temperature                                     |                 |
| during operation  | -25 ... +60 °C  |
| Main circuit:   |                 |
| Number of NO contacts for main contacts                 | 3               |
| Number of NC contacts for main contacts                 | 0               |
| Operating current                                       |                 |
| at AC-1 at 400 V  |                 |

|  |        |
|--|--------|
| — at ambient temperature 40 °C rated value   | 40 A   |
| at AC-1  |        |
| — up to 690 V at ambient temperature 40 °C rated value                                 | 40 A   |
| — up to 690 V at ambient temperature 60 °C rated value                                 | 35 A   |
| at AC-3  |        |
| — at 400 V rated value   | 12 A   |
| Operating current  |        |
| at 1 current path at DC-1  |        |
| — at 24 V rated value  | 35 A   |
| — at 110 V rated value   | 4.5 A  |
| with 2 current paths in series at DC-1   |        |
| — at 24 V rated value  | 35 A   |
| — at 110 V rated value   | 35 A   |
| with 3 current paths in series at DC-1   |        |
| — at 24 V rated value  | 35 A   |
| — at 110 V rated value   | 35 A   |
| Operating current  |        |
| at 1 current path at DC-3 at DC-5  |        |
| — at 24 V rated value  | 20 A   |
| — at 110 V rated value   | 2.5 A  |
| with 2 current paths in series at DC-3 at DC-5   |        |
| — at 110 V rated value   | 15 A   |
| — at 24 V rated value  | 35 A   |
| with 3 current paths in series at DC-3 at DC-5   |        |
| — at 110 V rated value   | 35 A   |
| — at 24 V rated value  | 35 A   |
| Operating power  |        |
| at AC-1  |        |
| — at 400 V rated value   | 23 kW  |
| at AC-2 at 400 V rated value   | 5.5 kW |
| at AC-3  |        |
| — at 400 V rated value   | 5.5 kW |
| — at 500 V rated value   | 7.5 kW |
| — at 690 V rated value   | 7.5 kW |
| Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor | 0.5 W  |
| Control circuit/ Control:  |        |

|  |  |
|--|--|
| Type of voltage of the control supply voltage                                  | DC   |
| Control supply voltage at DC   |  |
| rated value  | 24 V   |
| Operating range factor control supply voltage rated value of magnet coil at DC | 0.8 ... 1.1  |
| Closing power of magnet coil at DC   | 5.4 W  |
| Holding power of magnet coil at DC   | 5.4 W  |
| Auxiliary circuit:   |  |
| Number of NC contacts  |  |
| for auxiliary contacts   |  |
| — instantaneous contact  | 0  |
| Number of NO contacts  |  |
| for auxiliary contacts   |  |
| — instantaneous contact  | 0  |
| Operating current at AC-12 maximum   | 10 A   |
| Operating current at AC-15   |  |
| at 230 V rated value   | 6 A  |
| at 400 V rated value   | 3 A  |
| Operating current at DC-12   |  |
| at 60 V rated value  | 6 A  |
| at 110 V rated value   | 3 A  |
| at 220 V rated value   | 1 A  |
| Operating current at DC-13   |  |
| at 24 V rated value  | 10 A   |
| at 60 V rated value  | 2 A  |
| at 110 V rated value   | 1 A  |
| at 220 V rated value   | 0.3 A  |
| Contact reliability of auxiliary contacts                                      | 1 faulty switching per 100 million (17 V, 1 mA)  |
| Short-circuit protection   |  |
| Design of the fuse link  |  |
| for short-circuit protection of the main circuit                               |  |
| — with type of coordination 1 required   | fuse gL/gG: 63 A   |
| — with type of assignment 2 required   | fuse gL/gG: 25 A   |
| for short-circuit protection of the auxiliary switch required                  | fuse gL/gG: 10 A   |
| Installation/ mounting/ dimensions:  |  |
| Mounting type  | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 |
| Side-by-side mounting  | Yes  |

|   |  |
|---|--|
| Height  | 85 mm  |
| Width   | 45 mm  |
| Depth   | 100 mm   |
| Required spacing                              |  |
| for grounded parts                            |  |
| — at the side                                 | 6 mm   |
| Connections/Terminals:                        |  |
| Type of electrical connection                 |  |
| for main current circuit                      | screw-type terminals   |
| for auxiliary and control current circuit     | spring-loaded terminals  |
| Type of connectable conductor cross-sections  |  |
| for main contacts                             |  |
| — solid                                       | 2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> ), max. 2x 10 mm <sup>2</sup> |
| — single or multi-stranded                    | 2x (1 ... 2,5 mm <sup>2</sup> ), 2x (2,5 ... 6 mm <sup>2</sup> ), max. 2x 10 mm <sup>2</sup> |
| — finely stranded with core end processing    | 2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> )                             |
| at AWG conductors for main contacts           | 2x (16 ... 12), 2x (14 ... 10), 1x 8   |
| Type of connectable conductor cross-sections  |  |
| for auxiliary contacts                        |  |
| — solid                                       | 2x (0.25 ... 2.5 mm <sup>2</sup> )   |
| — finely stranded with core end processing    | 2x (0.25 ... 1.5 mm <sup>2</sup> )   |
| — finely stranded without core end processing | 2x (0.25 ... 2.5 mm <sup>2</sup> )   |
| at AWG conductors for auxiliary contacts      | 2x (24 ... 14)   |