# **SIEMENS**

Product data sheet 3RT1024-1AP00

CONTACTOR, AC-3 5.5 KW/400 V, AC 230 V, 50 HZ, 3-POLE, SIZE S0, SCREW CONNECTION

| product brand name  |    | SIRIUS          |
|---|----|-----------------|
| product designation   |    | power contactor |
| Size of the contactor   |    | SO              |
| Protection class IP / on the front  |    | IP20            |
| Degree of pollution   |    | 3               |
| Installation altitude / at a height over sea level / maximum  | m  | 2,000           |
| Ambient temperature / during operating  | °C | -25 +60         |
| Active power loss / per conductor / typical   | W  | 0.5             |
| Item designation  |    |                 |
| • according to DIN EN 61346-2   |    | Q               |
| <ul> <li>according to DIN 40719 extendable after IEC 204-2 / according<br/>to IEC 750</li> </ul>            |    | К               |
| Mechanical operating cycles as operating time   |    |                 |
| of the contactor / typical  |    | 10,000,000      |
| • of the contactor with added auxiliary switch block / typical  |    | 10,000,000      |
| <ul> <li>of the contactor with added electronics-compatible auxiliary<br/>switch block / typical</li> </ul> |    | 5,000,000       |

| 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 current / at AC-1 / at 400 V / at 40 °C ambient temperature / rated value | А | 40  |
| Operating current / at AC-1 / at 400 V / at 60 °C ambient temperature / rated value | А | 35  |
| Operating current   |   |     |
| • at AC-3 / at 400 V / rated value  | Α | 12  |
| with 1 current path   |   |     |
| • at DC-1   |   |     |
| • at 24 V / rated value   | Α | 35  |
| • at 110 V / rated value  | Α | 4.5 |
| • at DC-3 / at DC-5   |   |     |

| • at 110 V / rated value • with 2 current paths in series • at DC-1 • at 24 V / rated value • at 110 V / rated value • at 110 V / rated value • at 24 V / rated value • at DC-3 / at DC-5 • at 24 V / rated value • at 110 V / rated value • at 24 V / rated value • at 110 V / rated value • at 110 V / rated value • at AC-3 / at DC-5 • at 24 V / rated value • at AC-2 / at 400 V / rated value • at AC-2 / at 400 V / rated value • at AC-3 • at 400 V / rated value • at 500 V / rated value • at 690 V / rated value | • at 24 V / rated value            | Α  | 20  |
|---|------------------------------------|----|-----|
| • at DC-1  • at 24 V / rated value  • at 110 V / rated value  • at 110 V / rated value  • at DC-3 / at DC-5  • at 24 V / rated value  • at 110 V / rated value  • with 3 current paths in series  • at DC-1  • at 24 V / rated value  • at 110 V / rated value  • at DC-3 / at DC-5  • at 24 V / rated value  • at DC-3 / at DC-5  • at 24 V / rated value  • at AC-3 / at DC-5  • at 24 V / rated value  • at AC-1 / at 400 V / rated value  • at AC-2 / at 400 V / rated value  • at AC-3  • at 400 V / rated value  • at AC-3  • at 400 V / rated value  • at 500 V / rated value  • kW  5.5  • at 400 V / rated value  • kW  7.5  | • at 110 V / rated value           | Α  | 2.5 |
| <ul> <li>at 24 V / rated value</li> <li>at 110 V / rated value</li> <li>at DC-3 / at DC-5</li> <li>at 24 V / rated value</li> <li>at 110 V / rated value</li> <li>at 110 V / rated value</li> <li>with 3 current paths in series</li> <li>at DC-1</li> <li>at 24 V / rated value</li> <li>at 110 V / rated value</li> <li>at 35</li> <li>at DC-3 / at DC-5</li> <li>at 24 V / rated value</li> <li>at 35</li> <li>at DC-3 / at DC-5</li> <li>at 24 V / rated value</li> <li>at 35</li> <li>at AC 110 V / rated value</li> <li>at 35</li> <li>at 110 V / rated value</li> <li>at 35</li> <li>at 400 V / rated value</li> <li>kW 23</li> <li>at 400 V / rated value</li> <li>kW 5.5</li> <li>at 400 V / rated value</li> <li>kW 5.5</li> <li>at 400 V / rated value</li> <li>kW 5.5</li> <li>at 400 V / rated value</li> <li>kW 7.5</li> </ul>  | with 2 current paths in series     |    |     |
| <ul> <li>at 110 V / rated value</li> <li>at DC-3 / at DC-5</li> <li>at 24 V / rated value</li> <li>at 110 V / rated value</li> <li>with 3 current paths in series</li> <li>at DC-1</li> <li>at 24 V / rated value</li> <li>at 110 V / rated value</li> <li>at 110 V / rated value</li> <li>at 110 V / rated value</li> <li>at DC-3 / at DC-5</li> <li>at 24 V / rated value</li> <li>at 35</li> <li>at 110 V / rated value</li> <li>at 35</li> <li>at AC-1 / at 400 V / rated value</li> <li>at AC-2 / at 400 V / rated value</li> <li>at 500 V / rated value</li> <li>kW 5.5</li> <li>at 500 V / rated value</li> <li>kW 7.5</li> </ul>  | • at DC-1                          |    |     |
| • at DC-3 / at DC-5  • at 24 V / rated value  • at 110 V / rated value  • at 110 V / rated value  • with 3 current paths in series  • at DC-1  • at 24 V / rated value  • at 110 V / rated value  • at 24 V / rated value  • at DC-3 / at DC-5  • at 24 V / rated value  • at 110 V / rated value  • at AC-1 / at 400 V / rated value  • at AC-2 / at 400 V / rated value  • at 400 V / rated value  • at 500 V / rated value  • kW  5.5  • at 500 V / rated value  kW  7.5   | • at 24 V / rated value            | Α  | 35  |
| • at 24 V / rated value  • at 110 V / rated value  • with 3 current paths in series  • at DC-1  • at 24 V / rated value  • at 110 V / rated value  • at 24 V / rated value  • at 24 V / rated value  • at 110 V / rated value  • at 24 V / rated value  • at 35  Service power  • at AC-1 / at 400 V / rated value  • at AC-2 / at 400 V / rated value  • at 400 V / rated value  • at 400 V / rated value  • at 55  • at 400 V / rated value  • at 500 V / rated value  • www 5.5   | • at 110 V / rated value           | Α  | 35  |
| <ul> <li>at 110 V / rated value</li> <li>with 3 current paths in series</li> <li>at DC-1</li> <li>at 24 V / rated value</li> <li>at 110 V / rated value</li> <li>at DC-3 / at DC-5</li> <li>at 24 V / rated value</li> <li>at 24 V / rated value</li> <li>at 35</li> <li>at 110 V / rated value</li> <li>A 35</li> <li>at 110 V / rated value</li> <li>A 35</li> <li>Service power</li> <li>at AC-1 / at 400 V / rated value</li> <li>at AC-2 / at 400 V / rated value</li> <li>at AC-3</li> <li>at 400 V / rated value</li> <li>kW 5.5</li> <li>at 500 V / rated value</li> <li>kW 7.5</li> </ul>  | • at DC-3 / at DC-5                |    |     |
| • with 3 current paths in series  • at DC-1  • at 24 V / rated value  • at 110 V / rated value  • at DC-3 / at DC-5  • at 24 V / rated value  • at 110 V / rated value  A 35  • at 110 V / rated value  A 35  Service power  • at AC-1 / at 400 V / rated value  • at AC-2 / at 400 V / rated value  • at AC-3  • at 400 V / rated value  kW 5.5  • at 500 V / rated value  kW 7.5  | • at 24 V / rated value            | Α  | 35  |
| • at DC-1  • at 24 V / rated value  • at 110 V / rated value  • at DC-3 / at DC-5  • at 24 V / rated value  • at 110 V / rated value  • at 110 V / rated value  • at AC-1 / at 400 V / rated value  • at AC-3  • at 400 V / rated value  • at 500 V / rated value  • KW 7.5   | • at 110 V / rated value           | Α  | 15  |
| <ul> <li>at 24 V / rated value</li> <li>at 110 V / rated value</li> <li>at DC-3 / at DC-5</li> <li>at 24 V / rated value</li> <li>at 110 V / rated value</li> <li>at 110 V / rated value</li> <li>at AC-1 / at 400 V / rated value</li> <li>at AC-2 / at 400 V / rated value</li> <li>at AC-3</li> <li>at 400 V / rated value</li> <li>at 500 V / rated value</li> </ul>  | with 3 current paths in series     |    |     |
| • at 110 V / rated value  • at DC-3 / at DC-5  • at 24 V / rated value  • at 110 V / rated value  A 35  • at 110 V / rated value  A 35  Service power  • at AC-1 / at 400 V / rated value  • at AC-2 / at 400 V / rated value  • at AC-3  • at 400 V / rated value  kW 5.5  • at 500 V / rated value  kW 7.5  | • at DC-1                          |    |     |
| • at DC-3 / at DC-5  • at 24 V / rated value  • at 110 V / rated value  A 35  Service power  • at AC-1 / at 400 V / rated value  • at AC-2 / at 400 V / rated value  • at AC-3  • at 400 V / rated value  kW 5.5  • at 500 V / rated value  kW 7.5  | • at 24 V / rated value            | Α  | 35  |
| • at 24 V / rated value  • at 110 V / rated value  A 35  Service power  • at AC-1 / at 400 V / rated value  • at AC-2 / at 400 V / rated value  • at AC-3  • at 400 V / rated value  kW 5.5  • at 500 V / rated value  kW 7.5   | • at 110 V / rated value           | Α  | 35  |
| • at 110 V / rated value  Service power  • at AC-1 / at 400 V / rated value  • at AC-2 / at 400 V / rated value  • at AC-3  • at 400 V / rated value  kW 5.5  • at 500 V / rated value  kW 7.5  | • at DC-3 / at DC-5                |    |     |
| Service power       kW       23         • at AC-1 / at 400 V / rated value       kW       5.5         • at AC-3       kW       5.5         • at 400 V / rated value       kW       5.5         • at 500 V / rated value       kW       7.5  | • at 24 V / rated value            | Α  | 35  |
| • at AC-1 / at 400 V / rated value  | • at 110 V / rated value           | Α  | 35  |
| • at AC-2 / at 400 V / rated value  | Service power                      |    |     |
| • at AC-3  • at 400 V / rated value   | • at AC-1 / at 400 V / rated value | kW | 23  |
| <ul> <li>at 400 V / rated value</li> <li>at 500 V / rated value</li> <li>kW 7.5</li> </ul>  | • at AC-2 / at 400 V / rated value | kW | 5.5 |
| • at 500 V / rated value kW 7.5   | • at AC-3                          |    |     |
|   | • at 400 V / rated value           | kW | 5.5 |
| • at 690 V / rated value kW 7.5   | • at 500 V / rated value           | kW | 7.5 |
|   | • at 690 V / rated value           | kW | 7.5 |

| Control circuit:                                   |    |              |
|--|----|--------------|
| Design of activation                               |    | conventional |
| Type of voltage / of the controlled supply voltage |    | AC           |
| Control supply voltage frequency                   |    |              |
| • 1 / rated value                                  | Hz | 50           |
| Control supply voltage / 1                         |    |              |
| • at 50 Hz / for AC                                |    |              |
| • rated value                                      | V  | 230          |

| Auxiliary circuit:                              |   |  |
|---|---|--|
| Contact reliability / of the auxiliary contacts | 1 faulty switching per 100 million (17 V, 1 mA) |  |
| Number of NC contacts / for auxiliary contacts  |   |  |
| instantaneous switching                         | 0   |  |
| lagging switching                               | 0   |  |
| Number of NO contacts / for auxiliary contacts  |   |  |
| instantaneous switching                         | 0   |  |

| • leading switching                           |   | 0   |
|---|---|-----|
| Operating current / of the auxiliary contacts |   |     |
| • at AC-12 / maximum                          | Α | 10  |
| • at AC-15                                    |   |     |
| • at 230 V                                    | Α | 6   |
| • at 400 V                                    | Α | 3   |
| • at DC-12                                    |   |     |
| • at 60 V                                     | Α | 6   |
| • at 110 V                                    | Α | 3   |
| • at 220 V                                    | Α | 1   |
| • at DC-13                                    |   |     |
| • at 24 V                                     | Α | 10  |
| • at 60 V                                     | Α | 2   |
| • at 110 V                                    | Α | 1   |
| • at 220 V                                    | Α | 0.3 |
|   |   |     |

#### Short-circuit:

| Design of the fuse link   |                  |
|---|------------------|
| • for short-circuit protection of the auxiliary switch / required | fuse gL/gG: 10 A |
| • for short-circuit protection of the main circuit                |                  |
| <ul> <li>with type of assignment 1 / required</li> </ul>          | fuse gL/gG: 63 A |
| <ul> <li>at type of coordination 2 / required</li> </ul>          | fuse gL/gG: 25 A |

| Installation/mounting/dimensions:                       |    |  |
|---|----|--|
| Type of mounting  |    | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 |
| series installation                                     |    | Yes  |
| Width   | mm | 45   |
| Height  | mm | 85   |
| Depth   | mm | 91   |
| Distance, to be maintained, to earthed part / sidewards | mm | 6  |

| Connection type:  |                      |  |
|---|----------------------|--|
| Design of the electrical connection                           |                      |  |
| for main current circuit                                      | screw-type terminals |  |
| <ul> <li>for auxiliary and control current circuit</li> </ul> | screw-type terminals |  |

## Certificates/approvals:

#### **General Product Approval**

Functional Safety / Safety of Machinery





KETI

**ROSTEST** 



SUVA

#### **Test Certificates**

#### Manufacturer

#### **Shipping Approval**









GL





**Shipping Approval** 

other



Manufacturer

other

### Further information:

Information- and Downloadcenter (Catalogs, Brochures,...)

http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system)

http://www.siemens.com/industrial-controls/mall

#### **CAx-Online-Generator**

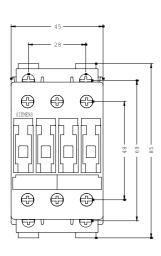
http://www.siemens.com/cax

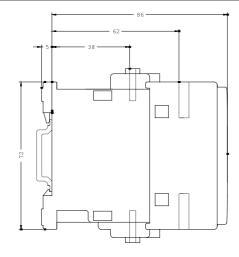
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

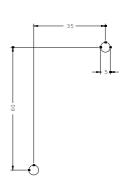
http://support.automation.siemens.com/WW/view/en/3RT1024-1AP00/all

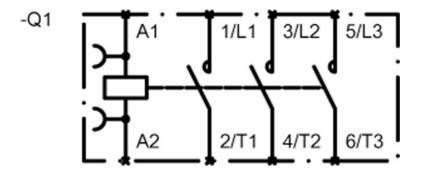
 $Image\ database\ (product\ images,\ 2D\ dimension\ drawings,\ 3D\ models,\ device\ circuit\ diagrams,\ ...)$ 

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RT1024-1AP00









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