

CONTACTOR, AC-3, 11KW/400V, 1NO+1NC, AC(50-60HZ)/DC  
ACTUAT. AC/DC 200...280V, 3-POLE, SZ S0 SPRING-LOADED  
TERMINAL



|                                                     |                           |
|-----------------------------------------------------|---------------------------|
| product brandname                                   | SIRIUS                    |
| Product designation                                 | Power contactor           |
| Product type designation                            | 3RT2                      |
| General technical data                              |                           |
| Size of contactor                                   | S0                        |
| Product extension                                   |                           |
| • function module for communication                 | No                        |
| • Auxiliary switch                                  | Yes                       |
| Insulation voltage                                  |                           |
| • rated value                                       | 690 V                     |
| Surge voltage resistance rated value                | 6 kV                      |
| maximum permissible voltage for safe isolation      |                           |
| • between coil and main contacts acc. to EN 60947-1 | 400 V                     |
| Protection class IP                                 |                           |
| • on the front                                      | IP20                      |
| • of the terminal                                   | IP20                      |
| Shock resistance at rectangular impulse             |                           |
| • at AC                                             | 8,3g / 5 ms, 5,3g / 10 ms |

|                                                                                                                                                                       |                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| <ul style="list-style-type: none"> <li>• at DC</li> </ul>                                                                                                             | 10g / 5 ms, 7,5g / 10 ms   |
| <b>Shock resistance with sine pulse</b>                                                                                                                               |                            |
| <ul style="list-style-type: none"> <li>• at AC</li> </ul>                                                                                                             | 13,5g / 5 ms, 8,3g / 10 ms |
| <ul style="list-style-type: none"> <li>• at DC</li> </ul>                                                                                                             | 15g / 5 ms, 10g / 10 ms    |
| <b>Mechanical service life (switching cycles)</b>                                                                                                                     |                            |
| <ul style="list-style-type: none"> <li>• of contactor typical</li> </ul>                                                                                              | 10 000 000                 |
| <ul style="list-style-type: none"> <li>• of the contactor with added electronics-compatible auxiliary switch block typical</li> </ul>                                 | 5 000 000                  |
| <ul style="list-style-type: none"> <li>• of the contactor with added auxiliary switch block typical</li> </ul>                                                        | 10 000 000                 |
| <b>Ambient conditions</b>                                                                                                                                             |                            |
| <b>Ambient temperature</b>                                                                                                                                            |                            |
| <ul style="list-style-type: none"> <li>• during operation</li> </ul>                                                                                                  | -25 ... +60 °C             |
| <ul style="list-style-type: none"> <li>• during storage</li> </ul>                                                                                                    | -55 ... +80 °C             |
| <b>Main circuit</b>                                                                                                                                                   |                            |
| <b>Number of poles for main current circuit</b>                                                                                                                       | 3                          |
| <b>Number of NO contacts for main contacts</b>                                                                                                                        | 3                          |
| <b>Operating voltage</b>                                                                                                                                              |                            |
| <ul style="list-style-type: none"> <li>• at AC-3 rated value maximum</li> </ul>                                                                                       | 690 V                      |
| <b>Operating current</b>                                                                                                                                              |                            |
| <ul style="list-style-type: none"> <li>• at AC-1 at 400 V <ul style="list-style-type: none"> <li>— at ambient temperature 40 °C rated value</li> </ul> </li> </ul>    | 40 A                       |
| <ul style="list-style-type: none"> <li>• at AC-1 <ul style="list-style-type: none"> <li>— up to 690 V at ambient temperature 40 °C rated value</li> </ul> </li> </ul> | 40 A                       |
| <ul style="list-style-type: none"> <li>— up to 690 V at ambient temperature 60 °C rated value</li> </ul>                                                              | 35 A                       |
| <ul style="list-style-type: none"> <li>• at AC-2 at 400 V rated value</li> </ul>                                                                                      | 25 A                       |
| <ul style="list-style-type: none"> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 400 V rated value</li> </ul> </li> </ul>                                 | 25 A                       |
| <ul style="list-style-type: none"> <li>— at 500 V rated value</li> </ul>                                                                                              | 18 A                       |
| <ul style="list-style-type: none"> <li>— at 690 V rated value</li> </ul>                                                                                              | 13 A                       |
| <b>Connectable conductor cross-section in main circuit at AC-1</b>                                                                                                    |                            |
| <ul style="list-style-type: none"> <li>• at 60 °C minimum permissible</li> </ul>                                                                                      | 10 mm²                     |
| <ul style="list-style-type: none"> <li>• at 40 °C minimum permissible</li> </ul>                                                                                      | 10 mm²                     |
| <b>Operating current for approx. 200000 operating cycles at AC-4</b>                                                                                                  |                            |
| <ul style="list-style-type: none"> <li>• at 400 V rated value</li> </ul>                                                                                              | 9 A                        |
| <ul style="list-style-type: none"> <li>• at 690 V rated value</li> </ul>                                                                                              | 9 A                        |
| <b>Operating current</b>                                                                                                                                              |                            |
| <ul style="list-style-type: none"> <li>• at 1 current path at DC-1</li> </ul>                                                                                         |                            |

|                                                  |         |
|--------------------------------------------------|---------|
| — at 24 V rated value                            | 35 A    |
| — at 110 V rated value                           | 4.5 A   |
| — at 220 V rated value                           | 1 A     |
| — at 440 V rated value                           | 0.4 A   |
| — at 600 V rated value                           | 0.25 A  |
| • with 2 current paths in series at DC-1         |         |
| — at 24 V rated value                            | 35 A    |
| — at 110 V rated value                           | 35 A    |
| — at 220 V rated value                           | 5 A     |
| — at 440 V rated value                           | 1 A     |
| — at 600 V rated value                           | 0.8 A   |
| • with 3 current paths in series at DC-1         |         |
| — at 24 V rated value                            | 35 A    |
| — at 110 V rated value                           | 35 A    |
| — at 220 V rated value                           | 35 A    |
| — at 440 V rated value                           | 2.9 A   |
| — at 600 V rated value                           | 1.4 A   |
| <b>Operating current</b>                         |         |
| • 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   |
| — at 220 V rated value                           | 1 A     |
| — at 440 V rated value                           | 0.09 A  |
| — at 600 V rated value                           | 0.06 A  |
| • with 2 current paths in series at DC-3 at DC-5 |         |
| — at 24 V rated value                            | 35 A    |
| — at 110 V rated value                           | 15 A    |
| — at 220 V rated value                           | 3 A     |
| — at 440 V rated value                           | 0.27 A  |
| — at 600 V rated value                           | 0.16 A  |
| • with 3 current paths in series at DC-3 at DC-5 |         |
| — at 24 V rated value                            | 35 A    |
| — at 110 V rated value                           | 35 A    |
| — at 220 V rated value                           | 10 A    |
| — at 440 V rated value                           | 0.6 A   |
| — at 600 V rated value                           | 0.6 A   |
| <b>Operating power</b>                           |         |
| • at AC-1                                        |         |
| — at 230 V rated value                           | 13.3 kW |
| — at 230 V at 60 °C rated value                  | 13.3 kW |
| — at 400 V rated value                           | 23 kW   |

|                                                                                               |               |
|-----------------------------------------------------------------------------------------------|---------------|
| — at 400 V at 60 °C rated value                                                               | 23 kW         |
| — at 690 V rated value                                                                        | 40 kW         |
| — at 690 V at 60 °C rated value                                                               | 40 kW         |
| • at AC-2 at 400 V rated value                                                                | 11 kW         |
| • <b>at AC-3</b>                                                                              |               |
| — at 230 V rated value                                                                        | 5.5 kW        |
| — at 400 V rated value                                                                        | 11 kW         |
| — at 690 V rated value                                                                        | 11 kW         |
| <b>Operating power for approx. 200000 operating cycles at AC-4</b>                            |               |
| • at 400 V rated value                                                                        | 4.4 kW        |
| • at 690 V rated value                                                                        | 7.7 kW        |
| <b>Thermal short-time current limited to 10 s</b>                                             | 200 A         |
| <b>Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor</b> | 1.6 W         |
| <b>No-load switching frequency</b>                                                            |               |
| • at AC                                                                                       | 5 000 1/h     |
| • at DC                                                                                       | 1 500 1/h     |
| <b>Operating frequency</b>                                                                    |               |
| • at AC-1 maximum                                                                             | 1 000 1/h     |
| • at AC-2 maximum                                                                             | 750 1/h       |
| • at AC-3 maximum                                                                             | 750 1/h       |
| • at AC-4 maximum                                                                             | 250 1/h       |
| <b>Control circuit/ Control</b>                                                               |               |
| <b>Type of voltage of the control supply voltage</b>                                          | AC/DC         |
| <b>Control supply voltage at AC</b>                                                           |               |
| • at 50 Hz rated value                                                                        | 200 ... 280 V |
| • at 60 Hz rated value                                                                        | 200 ... 280 V |
| <b>Control supply voltage at DC</b>                                                           |               |
| • rated value                                                                                 | 200 ... 280 V |
| <b>Operating range factor control supply voltage rated value of magnet coil at AC</b>         |               |
| • at 50 Hz                                                                                    | 0.7 ... 1.1   |
| • at 60 Hz                                                                                    | 0.7 ... 1.1   |
| <b>Design of the surge suppressor</b>                                                         | with varistor |
| <b>Apparent pick-up power of magnet coil at AC</b>                                            |               |
| • at 50 Hz                                                                                    | 12.7 V·A      |
| • at 60 Hz                                                                                    | 14.7 V·A      |
| <b>Inductive power factor with closing power of the coil</b>                                  |               |
| • at 50 Hz                                                                                    | 0.98          |
| • at 60 Hz                                                                                    | 0.98          |
| <b>Apparent holding power of magnet coil at AC</b>                                            |               |

|                                                                                                                                     |                              |
|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>                                                    | 3.9 V·A<br>4.3 V·A           |
| <b>Inductive power factor with the holding power of the coil</b>                                                                    |                              |
| <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>                                                    | 0.51<br>0.56                 |
| <b>Closing power of magnet coil at DC</b>                                                                                           | 14.3 W                       |
| <b>Holding power of magnet coil at DC</b>                                                                                           | 1.9 W                        |
| <b>Closing delay</b>                                                                                                                |                              |
| <ul style="list-style-type: none"> <li>• at AC</li> <li>• at DC</li> </ul>                                                          | 60 ... 80 ms<br>50 ... 75 ms |
| <b>Opening delay</b>                                                                                                                |                              |
| <ul style="list-style-type: none"> <li>• at AC</li> <li>• at DC</li> </ul>                                                          | 35 ... 45 ms<br>40 ... 50 ms |
| <b>Arcing time</b>                                                                                                                  | 10 ... 10 ms                 |
| <b>Residual current of the electronics for control with signal &lt;0&gt;</b>                                                        |                              |
| <ul style="list-style-type: none"> <li>• at AC at 230 V maximum permissible</li> <li>• at DC at 24 V maximum permissible</li> </ul> | 7 mA<br>16 mA                |

#### Auxiliary circuit

|                                                                                                                                                                                                                                                                       |                                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| <b>Number of NC contacts</b>                                                                                                                                                                                                                                          |                                                   |
| <ul style="list-style-type: none"> <li>• for auxiliary contacts</li> <li>— instantaneous contact</li> </ul>                                                                                                                                                           | 1                                                 |
| <b>Number of NO contacts</b>                                                                                                                                                                                                                                          |                                                   |
| <ul style="list-style-type: none"> <li>• for auxiliary contacts</li> <li>— instantaneous contact</li> </ul>                                                                                                                                                           | 1                                                 |
| <b>Operating current at AC-12 maximum</b>                                                                                                                                                                                                                             | 10 A                                              |
| <b>Operating current at AC-15</b>                                                                                                                                                                                                                                     |                                                   |
| <ul style="list-style-type: none"> <li>• at 230 V rated value</li> <li>• at 400 V rated value</li> <li>• at 500 V rated value</li> <li>• at 690 V rated value</li> </ul>                                                                                              | 10 A<br>3 A<br>2 A<br>1 A                         |
| <b>Operating current at DC-12</b>                                                                                                                                                                                                                                     |                                                   |
| <ul style="list-style-type: none"> <li>• at 24 V rated value</li> <li>• at 48 V rated value</li> <li>• at 60 V rated value</li> <li>• at 110 V rated value</li> <li>• at 125 V rated value</li> <li>• at 220 V rated value</li> <li>• at 600 V rated value</li> </ul> | 10 A<br>6 A<br>6 A<br>3 A<br>2 A<br>1 A<br>0.15 A |
| <b>Operating current at DC-13</b>                                                                                                                                                                                                                                     |                                                   |
| <ul style="list-style-type: none"> <li>• at 24 V rated value</li> </ul>                                                                                                                                                                                               | 10 A                                              |

|                                                  |                                                 |
|--------------------------------------------------|-------------------------------------------------|
| • at 48 V rated value                            | 2 A                                             |
| • at 60 V rated value                            | 2 A                                             |
| • at 110 V rated value                           | 1 A                                             |
| • at 125 V rated value                           | 0.9 A                                           |
| • at 220 V rated value                           | 0.3 A                                           |
| • at 600 V rated value                           | 0.1 A                                           |
| <b>Contact reliability of auxiliary contacts</b> | 1 faulty switching per 100 million (17 V, 1 mA) |

#### UL/CSA ratings

|                                                             |             |
|-------------------------------------------------------------|-------------|
| <b>Full-load current (FLA) for three-phase AC motor</b>     |             |
| • at 480 V rated value                                      | 21 A        |
| • at 600 V rated value                                      | 22 A        |
| <b>Yielded mechanical performance [hp]</b>                  |             |
| • for single-phase AC motor                                 |             |
| — at 110/120 V rated value                                  | 2 hp        |
| — at 230 V rated value                                      | 3 hp        |
| • for three-phase AC motor                                  |             |
| — at 200/208 V rated value                                  | 5 hp        |
| — at 220/230 V rated value                                  | 7.5 hp      |
| — at 460/480 V rated value                                  | 15 hp       |
| — at 575/600 V rated value                                  | 20 hp       |
| <b>Contact rating of auxiliary contacts according to UL</b> | A600 / Q600 |

#### Short-circuit protection

|                                                                 |                                          |
|-----------------------------------------------------------------|------------------------------------------|
| <b>Design of the fuse link</b>                                  |                                          |
| • for short-circuit protection of the main circuit              |                                          |
| — with type of coordination 1 required                          | gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 100 A |
| — with type of assignment 2 required                            | gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 35 A  |
| • for short-circuit protection of the auxiliary switch required | fuse gG: 10 A                            |

#### Installation/ mounting/ dimensions

|                          |                                                                                                                                      |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <b>Mounting position</b> | +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface |
| <b>Mounting type</b>     | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715                                               |
| • Side-by-side mounting  | Yes                                                                                                                                  |
| <b>Height</b>            | 102 mm                                                                                                                               |
| <b>Width</b>             | 45 mm                                                                                                                                |
| <b>Depth</b>             | 107 mm                                                                                                                               |
| <b>Required spacing</b>  |                                                                                                                                      |
| • for grounded parts     |                                                                                                                                      |
| — at the side            | 6 mm                                                                                                                                 |

- for live parts
  - at the side

6 mm

## Connections/Terminals

|                                                     |                                   |
|-----------------------------------------------------|-----------------------------------|
| <b>Type of electrical connection</b>                |                                   |
| • for main current circuit                          | spring-loaded terminals           |
| • for auxiliary and control current circuit         | spring-loaded terminals           |
| <b>Type of connectable conductor cross-sections</b> |                                   |
| • for main contacts                                 |                                   |
| — solid                                             | 2x (1 ... 10 mm <sup>2</sup> )    |
| — single or multi-stranded                          | 2x (1 ... 10 mm <sup>2</sup> )    |
| — finely stranded with core end processing          | 2x (1 ... 6 mm <sup>2</sup> )     |
| — finely stranded without core end processing       | 2x (1 ... 6 mm <sup>2</sup> )     |
| • at AWG conductors for main contacts               | 2x (18 ... 8)                     |
| <b>Type of connectable conductor cross-sections</b> |                                   |
| • for auxiliary contacts                            |                                   |
| — single or multi-stranded                          | 2x (0,5 ... 2,5 mm <sup>2</sup> ) |
| — finely stranded with core end processing          | 2x (0.5 ... 1.5 mm <sup>2</sup> ) |
| — finely stranded without core end processing       | 2x (0.5 ... 2.5 mm <sup>2</sup> ) |
| • at AWG conductors for auxiliary contacts          | 2x (20 ... 14)                    |

## Safety related data

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

## Certificates/approvals

| General Product Approval | EMC |
|--------------------------|-----|
|--------------------------|-----|



[KC](#)



| Functional Safety/Safety of Machinery | Declaration of Conformity | Test Certificates | Shipping Approval |
|---------------------------------------|---------------------------|-------------------|-------------------|
|---------------------------------------|---------------------------|-------------------|-------------------|

[Type Examination](#)



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



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



[Confirmation](#)

| other |
|-------|
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[Environmental Confirmations](#)



| Further information |
|---------------------|
|---------------------|

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

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

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2026-2NP30>

**Cax online generator**

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2026-2NP30>

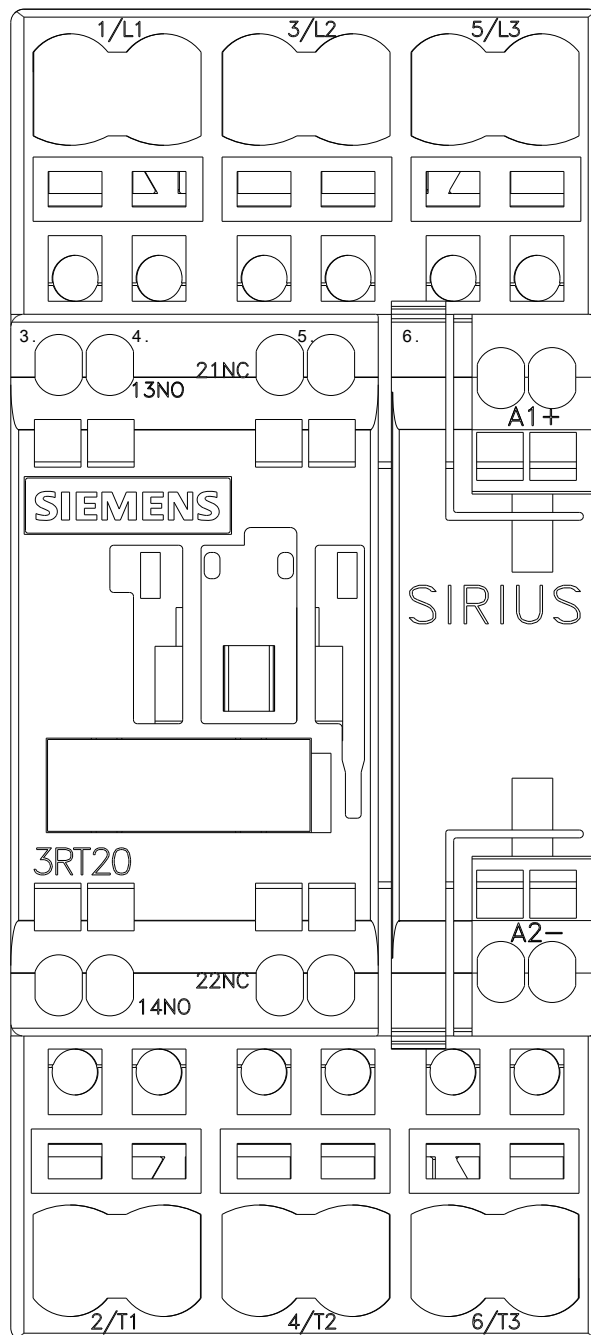
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

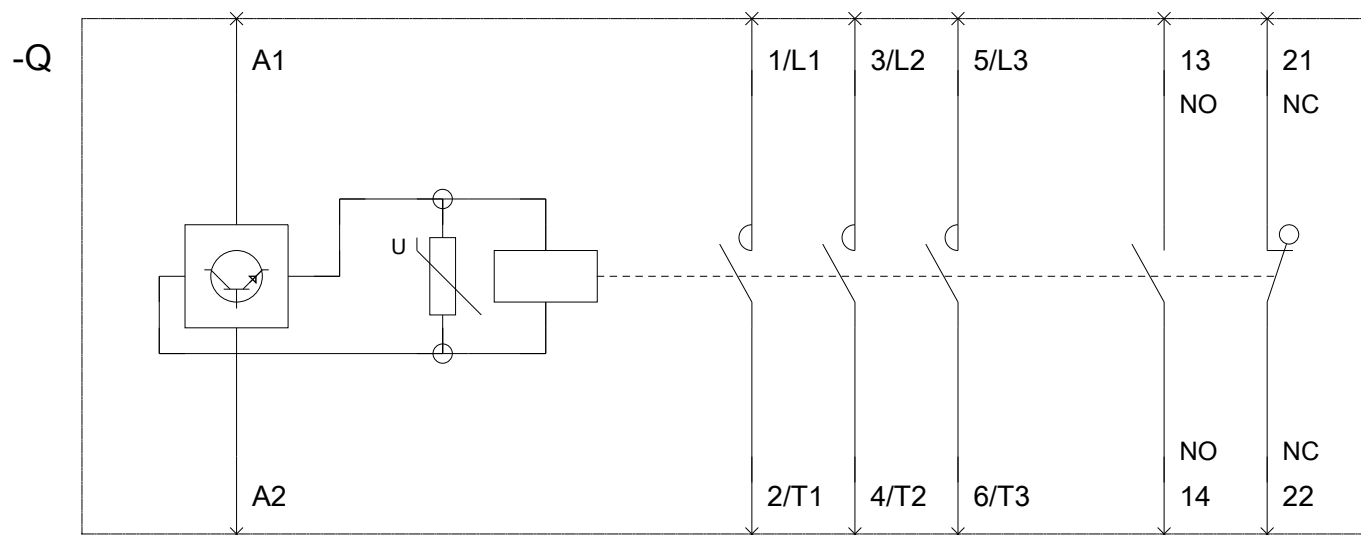
<https://support.industry.siemens.com/cs/ww/en/ps/3RT2026-2NP30>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT2026-2NP30&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2026-2NP30&lang=en)







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