

Failsafe reversing starter High Feature; Incl. fan (3RW4928-8VB00); Electronic switching; Electronic overload protection up to 5.5 kW / 400 V; Adjustment range 4.0 .. 12 A; PROFlenergy; Option: 3DI/LC module



|                          |                   |
|--------------------------|-------------------|
| Product brand name       | SIMATIC           |
| Product category         | Motor starter     |
| Product designation      | Reversing starter |
| Product type designation | ET 200SP          |

| General technical data                                                                         |                               |
|------------------------------------------------------------------------------------------------|-------------------------------|
| Trip class                                                                                     | CLASS OFF / 5 / 10 adjustable |
| Equipment variant acc. to IEC 60947-4-2                                                        | 3                             |
| Product function                                                                               | Fail-safe reversing starter   |
| <ul style="list-style-type: none"> <li>on-site operation</li> </ul>                            | Yes                           |
| <ul style="list-style-type: none"> <li>Intrinsic device protection</li> </ul>                  | Yes                           |
| <ul style="list-style-type: none"> <li>Remote firmware update</li> </ul>                       | Yes                           |
| <ul style="list-style-type: none"> <li>for power supply Reverse polarity protection</li> </ul> | Yes                           |
| Power loss [W] for rated value of the current                                                  |                               |
| <ul style="list-style-type: none"> <li>at AC in hot operating state per pole</li> </ul>        | 3 W                           |
| Insulation voltage                                                                             |                               |
| <ul style="list-style-type: none"> <li>rated value</li> </ul>                                  | 500 V                         |
| Degree of pollution                                                                            | 2                             |
| Overvoltage category                                                                           | III                           |
| Surge voltage resistance rated value                                                           | 6 kV                          |

|                                                                                                                                                             |                              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| <b>maximum permissible voltage for safe isolation</b><br>• between main and auxiliary circuit                                                               | 500 V                        |
| <b>Protection class IP</b>                                                                                                                                  | IP20                         |
| <b>Shock resistance</b>                                                                                                                                     | 6g / 11 ms                   |
| <b>Vibration resistance</b>                                                                                                                                 | 15 mm to 6 Hz; 2g to 500 Hz  |
| <b>Mechanical service life (switching cycles)</b><br>• of the main contacts typical                                                                         | 15 000 000                   |
| <b>Type of assignment</b>                                                                                                                                   | 1                            |
| <b>Usage category</b><br>• acc. to IEC 60947-4-2                                                                                                            | AC-53a: 12 A: (8-0,5: 72-32) |
| <b>Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750</b>                                                                     | Q                            |
| <b>Reference code acc. to DIN EN 81346-2</b>                                                                                                                | Q                            |
| <b>Reference code acc. to DIN EN 61346-2</b>                                                                                                                | A                            |
| <b>Product function</b><br>• direct start<br>• reverse starting                                                                                             | Yes<br>Yes                   |
| <b>Product component Motor brake output</b>                                                                                                                 | No                           |
| <b>Product function Short circuit protection</b>                                                                                                            | Yes                          |
| <b>Design of short-circuit protection</b>                                                                                                                   | fuse                         |
| <b>Maximum short-circuit current breaking capacity (Icu)</b><br>• at 400 V rated value<br>• at 500 V rated value<br>• at 500 V acc. to UL 60947 rated value | 55 kA<br>55 kA<br>100 kA     |
| <b>Maximum short-circuit current breaking capacity (Icu) in the IT network</b><br>• at 400 V rated value<br>• at 500 V rated value                          | 55 kA<br>55 kA               |

#### Electromagnetic compatibility

|                                                                                                                                                                                                                                                      |                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| <b>EMC emitted interference</b><br>• acc. to IEC 60947-1                                                                                                                                                                                             | class A                         |
| <b>EMI immunity acc. to IEC 60947-1</b>                                                                                                                                                                                                              | Class A                         |
| <b>Conducted interference</b><br>• due to burst acc. to IEC 61000-4-4<br>• due to conductor-earth surge acc. to IEC 61000-4-5<br>• due to conductor-conductor surge acc. to IEC 61000-4-5<br>• due to high-frequency radiation acc. to IEC 61000-4-6 | 3 kV<br>4 kV<br>2 kV<br>Class A |
| <b>Field-bound parasitic coupling acc. to IEC 61000-4-3</b>                                                                                                                                                                                          | 20 V/m                          |
| <b>Electrostatic discharge acc. to IEC 61000-4-2</b>                                                                                                                                                                                                 | 8 kV air discharge              |

|                                                      |                                    |
|------------------------------------------------------|------------------------------------|
| Conducted HF-interference emissions acc. to CISPR11  | Class A for industrial environment |
| Field-bound HF-interference emission acc. to CISPR11 | Class A for industrial environment |

| Safety related data                                                |                   |
|--------------------------------------------------------------------|-------------------|
| Safety device type acc. to IEC 61508-2                             | Type B            |
| B10d value                                                         | 910 000           |
| Safety Integrity Level (SIL) acc. to IEC 61508                     | 3                 |
| Performance level (PL) acc. to EN ISO 13849-1                      | e                 |
| Category acc. to EN ISO 13849-1                                    | 4                 |
| Stop category acc. to DIN EN 60204-1                               | 0                 |
| Diagnostics test interval by internal test function maximum        | 600 s             |
| PFH acc. to IEC 61508 relating to SIL                              | 0.0000000036 1/h  |
| PFDavg with low demand rate acc. to IEC 61508                      | 0.00000041        |
| Hardware fault tolerance acc. to IEC 61508                         | 1                 |
| T1 value for proof test interval or service life acc. to IEC 61508 | 20 y              |
| Safe state                                                         | Load circuit open |
| Protection against electrical shock                                | finger-safe       |

| Main circuit                                                                                     |                                              |
|--------------------------------------------------------------------------------------------------|----------------------------------------------|
| Number of poles for main current circuit                                                         | 3                                            |
| Design of the switching contact                                                                  | Hybrid                                       |
| Adjustable pick-up value current of the current-dependent overload release                       | 4 ... 12 A                                   |
| Minimum load [%]                                                                                 | 50 %; from smallest adjustable rated current |
| Type of the motor protection                                                                     | solid-state                                  |
| Operating voltage <ul style="list-style-type: none"> <li>• rated value</li> </ul>                | 48 ... 500 V                                 |
| Relative symmetrical tolerance of the operating voltage                                          | 10 %                                         |
| Operating frequency 1 rated value                                                                | 50 Hz                                        |
| Operating frequency 2 rated value                                                                | 60 Hz                                        |
| Relative symmetrical tolerance of the operating frequency                                        | 5 %                                          |
| Relative positive tolerance of the operating frequency                                           | 5 %                                          |
| Relative negative tolerance of the operating frequency                                           | 5 %                                          |
| Operating current <ul style="list-style-type: none"> <li>• at AC at 400 V rated value</li> </ul> | 12 A                                         |
| Ampacity when starting maximum                                                                   | 100 A                                        |
| Operating power for three-phase motors at 400 V at 50 Hz                                         | 2.2 ... 5.5 kW                               |

| Inputs/ Outputs                                                                                                                              |                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| <b>Number of digital inputs</b>                                                                                                              | 5                                    |
| <ul style="list-style-type: none"> <li>Note</li> <li>safety-related</li> </ul>                                                               | 4 via 3DI/LC module<br>1             |
| <b>Type of input characteristic</b>                                                                                                          | Type 1 in accordance with EN 61131-2 |
| <b>Input voltage at digital input</b>                                                                                                        |                                      |
| <ul style="list-style-type: none"> <li>at DC rated value</li> <li>with signal &lt;0&gt; at DC</li> <li>for signal &lt;1&gt; at DC</li> </ul> | 24 V<br>0 ... 5 V<br>15 ... 30       |
| <b>Input current at digital input</b>                                                                                                        |                                      |
| <ul style="list-style-type: none"> <li>for signal &lt;1&gt; typical</li> </ul>                                                               | 0.009 A                              |

| Supply voltage                                                                                                                                  |                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| <b>Type of voltage of the supply voltage</b>                                                                                                    | DC                                               |
| <b>Supply voltage 1 at DC rated value</b>                                                                                                       |                                                  |
| <ul style="list-style-type: none"> <li>minimum permissible</li> <li>maximum permissible</li> </ul>                                              | 20.4 V<br>28.8 V                                 |
| <b>Supply voltage at DC rated value</b>                                                                                                         | 24 V                                             |
| <b>Consumed current for rated value of supply voltage</b>                                                                                       |                                                  |
| <ul style="list-style-type: none"> <li>in standby mode</li> <li>during operation</li> <li>at switching on</li> </ul>                            | 95 mA<br>160 mA<br>250 mA                        |
| <b>Power loss [W] for rated value of supply voltage</b>                                                                                         |                                                  |
| <ul style="list-style-type: none"> <li>in switching state OFF with bypass circuit</li> <li>in switching state ON with bypass circuit</li> </ul> | 2.3 W<br>3.8 W                                   |
| <b>Inrush current peak</b>                                                                                                                      |                                                  |
| <ul style="list-style-type: none"> <li>at 24 V</li> </ul>                                                                                       | 25 A; Observe the manual for group configuration |
| <b>Duration of inrush current peak</b>                                                                                                          |                                                  |
| <ul style="list-style-type: none"> <li>at 24 V</li> </ul>                                                                                       | 0.145 ms                                         |

| Response times                                                                                                                                       |                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| <b>Switch-on delay time</b>                                                                                                                          | 35 ms           |
| <b>Off-delay time</b>                                                                                                                                | 35 ... 50 ms    |
| <b>Off-delay time with safety-related request</b>                                                                                                    |                 |
| <ul style="list-style-type: none"> <li>when switched off via control inputs maximum</li> <li>when switched off via supply voltage maximum</li> </ul> | 55 ms<br>120 ms |

| Installation/ mounting/ dimensions |                                         |
|------------------------------------|-----------------------------------------|
| <b>Mounting position</b>           | Vertical, horizontal (observe derating) |
| <b>Mounting type</b>               | pluggable in BaseUnit                   |
| <b>Height</b>                      | 142 mm                                  |
| <b>Width</b>                       | 30 mm                                   |
| <b>Depth</b>                       | 150 mm                                  |
| <b>Required spacing</b>            |                                         |

- with side-by-side mounting
  - upwards
  - downwards

50 mm  
50 mm

#### Ambient conditions

|                                                           |                                                                                                          |
|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| <b>Installation altitude at height above sea level</b>    |                                                                                                          |
| • maximum                                                 | 2 000 m; For derating see manual                                                                         |
| <b>Ambient temperature</b>                                |                                                                                                          |
| • during operation                                        | -25 ... +60 °C; For derating see manual                                                                  |
| • during storage                                          | -40 ... +70 °C                                                                                           |
| • during transport                                        | -40 ... +70 °C                                                                                           |
| Environmental category during operation acc. to IEC 60721 | 3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices) |
| Relative humidity during operation                        | 10 ... 95 %                                                                                              |
| <b>Air pressure</b>                                       |                                                                                                          |
| • acc. to SN 31205                                        | 900 ... 1 060 hPa                                                                                        |

#### Communication/ Protocol

|                                              |                           |
|----------------------------------------------|---------------------------|
| <b>Protocol is supported</b>                 |                           |
| • PROFIBUS DP protocol                       | Yes                       |
| • PROFINET protocol                          | Yes                       |
| <b>Product function Bus communication</b>    | Yes                       |
| <b>Protocol is supported</b>                 |                           |
| • AS-Interface protocol                      | No                        |
| <b>Product function</b>                      |                           |
| • supports PROFIenergy measured values       | Yes                       |
| • supports PROFIenergy shutdown              | Yes                       |
| <b>address range memory of address range</b> |                           |
| • of the inputs                              | 4 byte                    |
| • of the outputs                             | 2 byte                    |
| <b>Type of electrical connection</b>         |                           |
| • of the communication interface             | Plug contact to Base Unit |

#### Connections/ Terminals

|                                                 |                              |
|-------------------------------------------------|------------------------------|
| <b>Type of electrical connection</b>            |                              |
| • 1 for digital input signals                   | Pluggable module - accessory |
| • 2 for digital input signals                   | Plug contact to Base Unit    |
| <b>Type of electrical connection</b>            |                              |
| • for main energy infeed                        | Plug contact to Base Unit    |
| • for load-side outgoing feeder                 | Plug contact to Base Unit    |
| • for supply voltage line-side                  | Plug contact to Base Unit    |
| <b>Wire length for motor unshielded maximum</b> | 200 m                        |

#### UL/CSA ratings

|                                                         |  |
|---------------------------------------------------------|--|
| <b>Full-load current (FLA) for three-phase AC motor</b> |  |
|---------------------------------------------------------|--|

|                                                                                      |        |
|--------------------------------------------------------------------------------------|--------|
| • at 480 V rated value                                                               | 12 A   |
| <b>Current with locked rotor (LRA) for three-phase AC motor at 480 V rated value</b> | 72 A   |
| <b>Yielded mechanical performance [hp]</b>                                           |        |
| • for single-phase AC motor                                                          |        |
| — at 110/120 V rated value                                                           | 0.5 hp |
| — at 230 V rated value                                                               | 2 hp   |
| • for three-phase AC motor                                                           |        |
| — at 200/208 V rated value                                                           | 2 hp   |
| — at 220/230 V rated value                                                           | 3 hp   |
| — at 460/480 V rated value                                                           | 7.5 hp |
| <b>Operating voltage</b>                                                             |        |
| • at AC at 60 Hz acc. to CSA and UL rated value                                      | 480 V  |

#### Certificates/ approvals

|                                 |            |                                       |
|---------------------------------|------------|---------------------------------------|
| <b>General Product Approval</b> | <b>EMC</b> | <b>For use in hazardous locations</b> |
|---------------------------------|------------|---------------------------------------|



CCC



CSA



UL



RCM



ATEX

|                                              |                                  |                          |                          |
|----------------------------------------------|----------------------------------|--------------------------|--------------------------|
| <b>Functional Safety/Safety of Machinery</b> | <b>Declaration of Conformity</b> | <b>Test Certificates</b> | <b>Marine / Shipping</b> |
|----------------------------------------------|----------------------------------|--------------------------|--------------------------|

[Type Examination Certificate](#)



EG-Konf.

[Type Test Certificates/Test Report](#)



ABS



BUREAU VERITAS



LRS

|                          |              |
|--------------------------|--------------|
| <b>Marine / Shipping</b> | <b>other</b> |
|--------------------------|--------------|



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Profibus

#### Further information

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

[www.siemens.com/ic10](http://www.siemens.com/ic10)

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RK1308-0DE00-0CP0>

**Cax online generator**

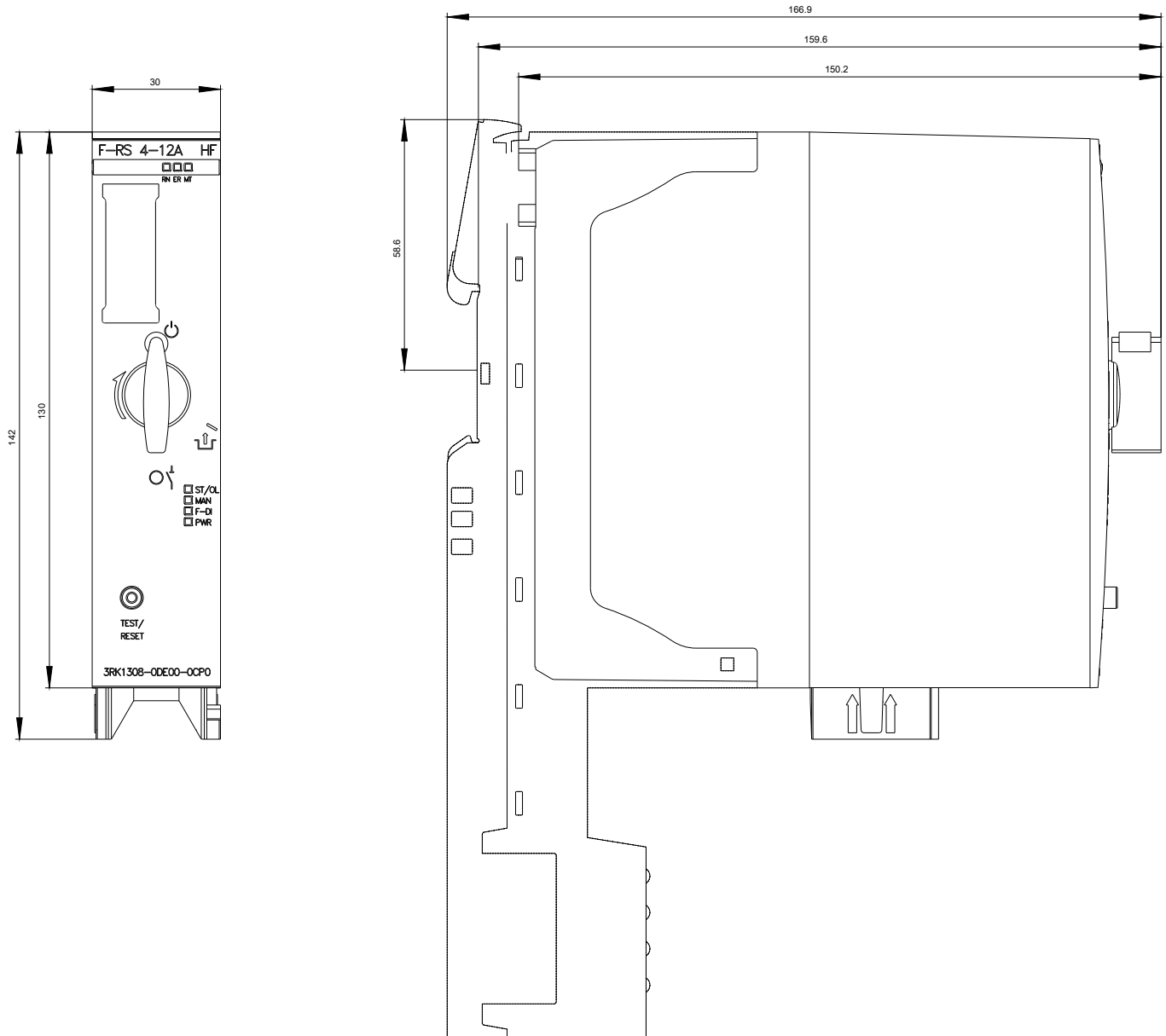
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RK1308-0DE00-0CP0>

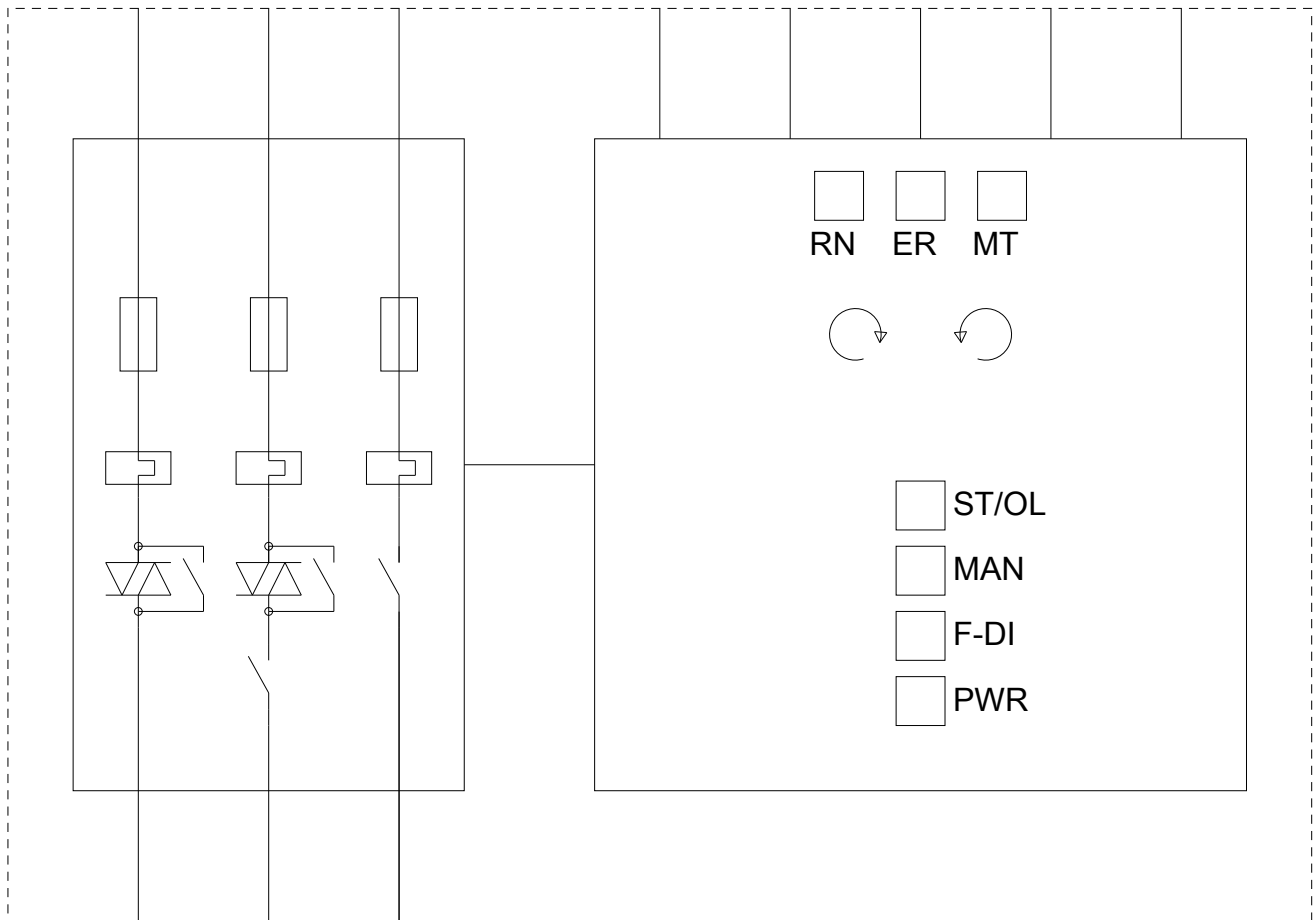
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<https://support.industry.siemens.com/cs/ww/en/ps/3RK1308-0DE00-0CP0>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RK1308-0DE00-0CP0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RK1308-0DE00-0CP0&lang=en)





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