

RS1-X for ET 200S Standard reversing starter expandable Setting range 0.55...0.8 A, AC-3, 0.21 kW / 400 V Electromechanical starter for brake control module



Figure similar

|                       |                   |
|-----------------------|-------------------|
| Product brand name    | SIMATIC           |
| Product designation   | Motor starters    |
| Design of the product | reversing starter |

| General technical data                         |   |
|--|---|
| Product function                               |   |
| • on-site operation                            | Yes   |
| Power loss [W] typical                         | 10 W  |
| Insulation voltage                             |   |
| • rated value                                  | 500 V   |
| Degree of pollution                            | 3 at 400 V, 2 at 500 V according to IEC60664 (IEC61131) |
| Surge voltage resistance rated value           | 6 kV  |
| maximum permissible voltage for safe isolation |   |
| • between main and auxiliary circuit           | 400 V   |
| Protection class IP                            | IP20  |
| Shock resistance                               | 5g / 11 ms  |
| Vibration resistance                           | 2g  |
| Operating frequency maximum                    | 750 1/h   |

|   |                  |
|---|------------------|
| <b>Mechanical service life (switching cycles)</b>                                       |                  |
| <ul style="list-style-type: none"> <li>of the main contacts typical</li> </ul>          | 100 000          |
| <b>Type of assignment</b>   | 2                |
| <b>Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750</b> | A                |
| <b>Reference code</b>   |                  |
| <ul style="list-style-type: none"> <li>acc. to IEC 81346-2:2009</li> </ul>              | Q                |
| <ul style="list-style-type: none"> <li>acc. to DIN EN 61346-2</li> </ul>                | Q                |
| <b>Product function</b>   |                  |
| <ul style="list-style-type: none"> <li>direct start</li> </ul>                          | No               |
| <ul style="list-style-type: none"> <li>reverse starting</li> </ul>                      | Yes              |
| <b>Product component Motor brake output</b>   | Yes              |
| <b>Product feature</b>  |                  |
| <ul style="list-style-type: none"> <li>brake control with 230 V AC</li> </ul>           | No               |
| <ul style="list-style-type: none"> <li>brake control with 24 V DC</li> </ul>            | No               |
| <ul style="list-style-type: none"> <li>brake control with 180 V DC</li> </ul>           | No               |
| <ul style="list-style-type: none"> <li>brake control with 500 V DC</li> </ul>           | No               |
| <b>Product extension braking module for brake control</b>                               | Yes              |
| <b>Product function Short circuit protection</b>  | Yes              |
| <b>Design of short-circuit protection</b>   | circuit-breakers |
| <b>Trip class</b>   | CLASS 10         |
| <b>Maximum short-circuit current breaking capacity (Icu)</b>                            |                  |
| <ul style="list-style-type: none"> <li>at 400 V rated value</li> </ul>                  | 50 kA            |

#### Electromagnetic compatibility

|  |  |
|--|--|
| <b>EMC emitted interference</b>  |  |
| <ul style="list-style-type: none"> <li>acc. to IEC 60947-1</li> </ul>                                    | CISPR11, ambience A (industrial sector)                                  |
| <b>EMI immunity acc. to IEC 60947-1</b>  | corresponds to degree of severity 3, ambience A (industrial sector)      |
| <b>Conducted interference</b>  |  |
| <ul style="list-style-type: none"> <li>due to burst acc. to IEC 61000-4-4</li> </ul>                     | 2 kV on voltage supply, inputs and outputs                               |
| <ul style="list-style-type: none"> <li>due to conductor-earth surge acc. to IEC 61000-4-5</li> </ul>     | 2 kV (U > 24 V DC)   |
| <ul style="list-style-type: none"> <li>due to conductor-conductor surge acc. to IEC 61000-4-5</li> </ul> | 1 kV (U > 24 V DC)   |
| <b>Field-bound parasitic coupling acc. to IEC 61000-4-3</b>  | 80 MHz ... 1 GHz 10 V/m, 1.4 GHz ... 2 Hz 3 V/m, 2 GHz ... 2.7 GHz 1 V/m |

#### Safety related data

|  |           |
|--|-----------|
| <b>B10 value</b>   |           |
| <ul style="list-style-type: none"> <li>with high demand rate acc. to SN 31920</li> </ul> | 1 000 000 |
| <b>Proportion of dangerous failures</b>  |           |
| <ul style="list-style-type: none"> <li>with low demand rate acc. to SN 31920</li> </ul>  | 50 %      |
| <ul style="list-style-type: none"> <li>with high demand rate acc. to SN 31920</li> </ul> | 75 %      |

|   |             |
|---|-------------|
| <b>Failure rate [FIT]</b>   |             |
| <ul style="list-style-type: none"> <li>with low demand rate acc. to SN 31920</li> </ul> | 100 FIT     |
| <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 |

### Inputs/ Outputs

|   |    |
|---|----|
| <b>Product function</b>   |    |
| <ul style="list-style-type: none"> <li>digital inputs parameterizable</li> </ul>  | No |
| <ul style="list-style-type: none"> <li>digital outputs parameterizable</li> </ul> | No |
| <b>Number of digital inputs</b>   | 0  |
| <b>Number of sockets</b>  |    |
| <ul style="list-style-type: none"> <li>for digital output signals</li> </ul>      | 0  |
| <ul style="list-style-type: none"> <li>for digital input signals</li> </ul>       | 0  |

### Main circuit

|   |                   |
|---|-------------------|
| <b>Number of poles for main current circuit</b>   | 3                 |
| <b>Design of the switching contact</b>  | electromechanical |
| <b>Adjustable pick-up value of the current-dependent overload release</b>                 | 0.55 ... 0.8 A    |
| <b>Type of the motor protection</b>   | bimetal           |
| <b>Operating voltage</b>  |                   |
| <ul style="list-style-type: none"> <li>rated value</li> </ul>                             | 200 ... 400 V     |
| <b>Operating frequency 1 rated value</b>  | 50 Hz             |
| <b>Operating frequency 2 rated value</b>  | 60 Hz             |
| <b>Operating range relative to the operating voltage at AC</b>                            |                   |
| <ul style="list-style-type: none"> <li>at 50 Hz</li> </ul>                                | 200 ... 440 V     |
| <b>Operating power</b>  |                   |
| <ul style="list-style-type: none"> <li>at AC-3</li> <li>— at 400 V rated value</li> </ul> | 0.21 kW           |

### Supply voltage

|   |             |
|---|-------------|
| <b>Type of voltage of the supply voltage</b>                          | DC          |
| <b>Supply voltage 1 at DC</b>   | 24 ... 24 V |
| <b>Supply voltage 1 at DC rated value</b>                             |             |
| <ul style="list-style-type: none"> <li>minimum permissible</li> </ul> | 20.4 V      |
| <ul style="list-style-type: none"> <li>maximum permissible</li> </ul> | 28.8 V      |

### Control circuit/ Control

|   |                 |
|---|-----------------|
| <b>Type of voltage of the control supply voltage</b>                | DC              |
| <b>Control supply voltage at DC</b>                                 |                 |
| <ul style="list-style-type: none"> <li>rated value</li> </ul>       | 20.4 ... 28.8 V |
| <b>Control supply voltage 1</b>                                     |                 |
| <ul style="list-style-type: none"> <li>at DC rated value</li> </ul> | 20.4 ... 28.8 V |

|  |             |
|--|-------------|
| • at DC  | 24 ... 24 V |
| <b>Power loss [W] in auxiliary and control circuit</b> |             |
| • in switching state OFF                               |             |
| — with bypass circuit                                  | 0.3744 W    |
| — without bypass circuit                               | 0.374 W     |
| • in switching state ON                                |             |
| — with bypass circuit                                  | 4.1184 W    |
| — without bypass circuit                               | 4.118 W     |

#### Power Electronics

|   |      |
|---|------|
| <b>Relative negative tolerance of the operating frequency</b> | 10 % |
| <b>Relative positive tolerance of the operating frequency</b> | 10 % |

#### Installation/ mounting/ dimensions

|                          |                              |
|--------------------------|------------------------------|
| <b>Mounting position</b> | vertical, horizontal         |
| <b>Mounting type</b>     | pluggable on terminal module |
| <b>Height</b>            | 265 mm                       |
| <b>Width</b>             | 90 mm                        |
| <b>Depth</b>             | 120 mm                       |

#### Ambient conditions

|  |                |
|--|----------------|
| <b>Installation altitude at height above sea level</b> |                |
| • maximum  | 2 000 m        |
| <b>Ambient temperature</b>                             |                |
| • during operation                                     | 0 ... 60 °C    |
| • during storage                                       | -40 ... +70 °C |
| • during transport                                     | -40 ... +70 °C |
| <b>Relative humidity during operation</b>              | 5 ... 95 %     |

#### Communication/ Protocol

|  |        |
|--|--------|
| <b>Protocol is supported</b>                 |        |
| • PROFIBUS DP protocol                       | Yes    |
| • PROFINET protocol                          | Yes    |
| <b>Design of the interface</b>               |        |
| • 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       | No     |
| • supports PROFIenergy shutdown              | No     |
| <b>address range memory of address range</b> |        |
| • of the inputs                              | 1 byte |
| • of the outputs                             | 1 byte |

|  |   |
|--|---|
| <b>Type of electrical connection</b>   |   |
| <ul style="list-style-type: none"> <li>• of the communication interface</li> <li>• for communication transmission</li> </ul> | <p>via backplane bus</p> <p>via backplane bus</p> |

### Connections/Terminals

|   |   |
|---|---|
| <b>Type of electrical connection</b>  |   |
| <ul style="list-style-type: none"> <li>• for main current circuit</li> </ul>  | screw-type terminals  |
| <b>Type of electrical connection</b>  |   |
| <ul style="list-style-type: none"> <li>• 1 for digital input signals</li> <li>• 2 for digital input signals</li> </ul>  | <p>using control module</p> <p>using control module</p>   |
| <b>Type of electrical connection</b>  |   |
| <ul style="list-style-type: none"> <li>• at the manufacturer-specific device interface</li> <li>• for main energy infeed</li> <li>• for load-side outgoing feeder</li> <li>• for main energy transmission</li> <li>• for supply voltage line-side</li> <li>• for supply voltage transmission</li> </ul> | <p>plug</p> <p>screw-type terminals</p> <p>Screw-type terminals</p> <p>via energy bus</p> <p>via backplane bus</p> <p>via backplane bus</p> |

### UL/CSA ratings

|   |       |
|---|-------|
| <b>Operating voltage</b>  |       |
| <ul style="list-style-type: none"> <li>• at AC at 60 Hz acc. to CSA and UL rated value</li> </ul> | 600 V |

### Certificates/approvals

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



|                                  |                          |              |
|----------------------------------|--------------------------|--------------|
| <b>Declaration of Conformity</b> | <b>Test Certificates</b> | <b>other</b> |
|----------------------------------|--------------------------|--------------|



[Type Test Certificates/Test Report](#)

[Confirmation](#)

### 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=3RK1301-0HB00-1AA2>

**Cax online generator**

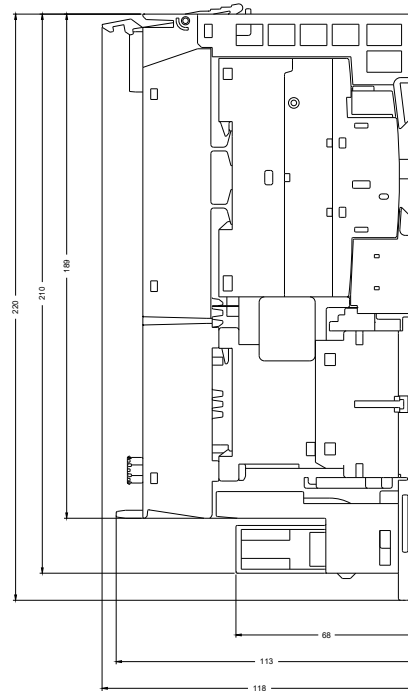
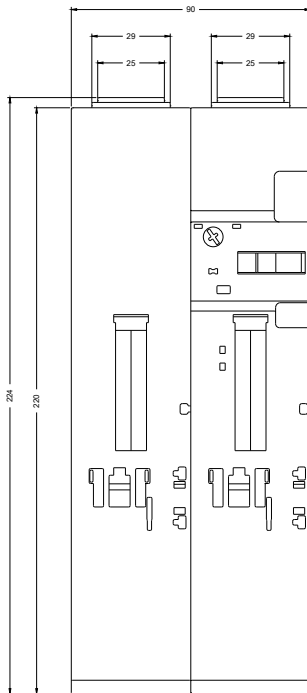
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RK1301-0HB00-1AA2>

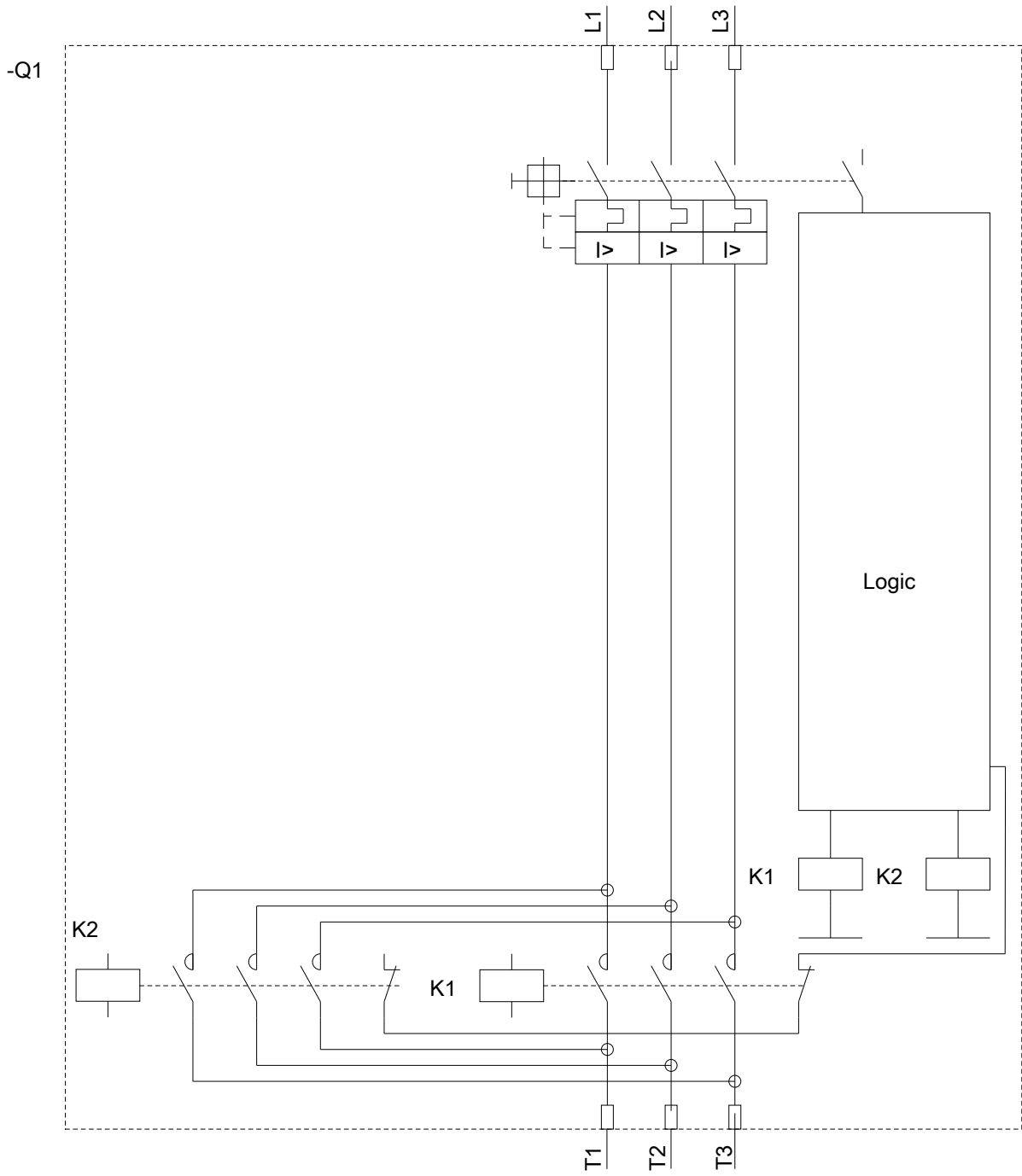
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<https://support.industry.siemens.com/cs/ww/en/ps/3RK1301-0HB00-1AA2>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RK1301-0HB00-1AA2&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RK1301-0HB00-1AA2&lang=en)





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