



Reversing starter High Feature; Electronic switching; Electronic overload protection up to 4 kW / 400 V; Adjustment range 2.8 .. 9 A; PROFIenergy; Option: 3DI/LC module

|                                                                                                |                                                                                                                                                                                     |
|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| product brand name                                                                             | SIMATIC                                                                                                                                                                             |
| product category                                                                               | Motor starter                                                                                                                                                                       |
| product designation                                                                            | Reversing starter                                                                                                                                                                   |
| product type designation                                                                       | ET 200SP                                                                                                                                                                            |
| General technical data                                                                         |                                                                                                                                                                                     |
| equipment version according to IEC 60947-4-2                                                   | 3                                                                                                                                                                                   |
| product function                                                                               | 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>        | 1.7 W                                                                                                                                                                               |
| insulation voltage rated value                                                                 | 500 V                                                                                                                                                                               |
| degree of pollution                                                                            | 2                                                                                                                                                                                   |
| overvoltage category                                                                           | III                                                                                                                                                                                 |
| surge voltage resistance rated value                                                           | 6 kV                                                                                                                                                                                |
| maximum permissible voltage for protective separation                                          |                                                                                                                                                                                     |
| <ul style="list-style-type: none"> <li>between main and auxiliary circuit</li> </ul>           | 500 V                                                                                                                                                                               |
| consumed current maximum                                                                       | 180 mA                                                                                                                                                                              |
| shock resistance                                                                               | 6g / 11 ms                                                                                                                                                                          |
| vibration resistance                                                                           | 15 mm to 6 Hz; 2g to 500 Hz                                                                                                                                                         |
| operating frequency maximum                                                                    | 1 1/s                                                                                                                                                                               |
| mechanical service life (operating cycles) of the main contacts typical                        | 30 000 000                                                                                                                                                                          |
| type of coordination                                                                           | 1                                                                                                                                                                                   |
| utilization category                                                                           |                                                                                                                                                                                     |
| <ul style="list-style-type: none"> <li>according to IEC 60947-4-2</li> </ul>                   | AC-53a: 9 A: (8-0,7: 70-32)                                                                                                                                                         |
| reference code according to IEC 81346-2                                                        | Q                                                                                                                                                                                   |
| Substance Prohibitance (Date)                                                                  | 04/15/2016                                                                                                                                                                          |
| SVHC substance name                                                                            | Lead - 7439-92-1<br>Lead monoxide (lead oxide) - 1317-36-8<br>2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol - 79-94-7<br>6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol - 119-47-1 |
| Net Weight                                                                                     | 0.444 kg                                                                                                                                                                            |
| product function                                                                               |                                                                                                                                                                                     |
| <ul style="list-style-type: none"> <li>direct start</li> </ul>                                 | Yes                                                                                                                                                                                 |
| <ul style="list-style-type: none"> <li>reverse starting</li> </ul>                             | Yes                                                                                                                                                                                 |
| product component motor brake output                                                           | No                                                                                                                                                                                  |
| product function short circuit protection                                                      | Yes                                                                                                                                                                                 |

|                                                                                            |                                              |
|--------------------------------------------------------------------------------------------|----------------------------------------------|
| <b>design of short-circuit protection</b>                                                  | fuse                                         |
| <b>maximum short-circuit current breaking capacity (Icu)</b>                               |                                              |
| • at 400 V rated value                                                                     | 55 kA                                        |
| • at 500 V rated value                                                                     | 55 kA                                        |
| • at 500 V according to UL 60947 rated value                                               | 100 kA                                       |
| <b>maximum short-circuit current breaking capacity (Icu) in the IT network</b>             |                                              |
| • at 400 V rated value                                                                     | 55 kA                                        |
| • at 500 V rated value                                                                     | 55 kA                                        |
| <b>Electromagnetic compatibility</b>                                                       |                                              |
| EMC emitted interference according to IEC 60947-1                                          | class A                                      |
| EMC immunity according to IEC 60947-1                                                      | Class A                                      |
| <b>conducted interference</b>                                                              |                                              |
| • due to burst according to IEC 61000-4-4                                                  | 2 kV                                         |
| • due to conductor-earth surge according to IEC 61000-4-5                                  | 2 kV                                         |
| • due to conductor-conductor surge according to IEC 61000-4-5                              | 1 kV                                         |
| • due to high-frequency radiation according to IEC 61000-4-6                               | Class A                                      |
| <b>field-based interference according to IEC 61000-4-3</b>                                 | 10 V/m                                       |
| <b>electrostatic discharge according to IEC 61000-4-2</b>                                  | 8 kV air discharge                           |
| <b>conducted HF interference emissions according to CISPR11</b>                            | Class A for industrial environment           |
| <b>field-bound HF interference emission according to CISPR11</b>                           | Class A for industrial environment           |
| <b>Safety related data</b>                                                                 |                                              |
| <b>MTBF</b>                                                                                | 46 a                                         |
| <b>Electrical Safety</b>                                                                   |                                              |
| <b>touch protection against electrical shock</b>                                           | finger-safe                                  |
| <b>protection class IP on the front according to IEC 60529</b>                             | IP20                                         |
| <b>touch protection on the front according to IEC 60529</b>                                | finger-safe                                  |
| <b>Main circuit</b>                                                                        |                                              |
| <b>number of poles for main current circuit</b>                                            | 3                                            |
| <b>design of the switching contact</b>                                                     | Hybrid                                       |
| <b>adjustable current response value current of the current-dependent overload release</b> | 2.8 ... 9 A                                  |
| <b>minimum load [%]</b>                                                                    | 50 %; from smallest adjustable rated current |
| <b>type of the motor protection</b>                                                        | solid-state                                  |
| <b>operating voltage rated value</b>                                                       | 48 ... 500 V                                 |
| <b>relative symmetrical tolerance of the operating voltage</b>                             | 10 %                                         |
| <b>operating frequency 1 rated value</b>                                                   | 50 Hz                                        |
| <b>operating frequency 2 rated value</b>                                                   | 60 Hz                                        |
| <b>relative symmetrical tolerance of the operating frequency</b>                           | 5 %                                          |
| <b>relative positive tolerance of the operating frequency</b>                              | 5 %                                          |
| <b>relative negative tolerance of the operating frequency</b>                              | 5 %                                          |
| <b>operational current at AC at 400 V rated value</b>                                      | 9 A                                          |
| <b>ampacity when starting maximum</b>                                                      | 90 A                                         |
| <b>operating power for 3-phase motors at 400 V at 50 Hz</b>                                | 1.5 ... 4 kW                                 |
| <b>Inputs/ Outputs</b>                                                                     |                                              |
| <b>number of digital inputs</b>                                                            | 4                                            |
| • note                                                                                     | 4 via 3DI/LC module                          |
| <b>address space memory of address range</b>                                               |                                              |
| • of the inputs                                                                            | 4 byte                                       |
| • of the outputs                                                                           | 2 byte                                       |
| <b>Supply voltage</b>                                                                      |                                              |
| <b>type of voltage of the supply voltage</b>                                               | DC                                           |
| <b>supply voltage 1 at DC rated value</b>                                                  |                                              |
| • minimum permissible                                                                      | 20.4 V                                       |
| • maximum permissible                                                                      | 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 of operation</li> <li>• during operation</li> <li>• at switching on of motor</li> </ul>                         | 85 mA<br>90 mA<br>180 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>                      | 2.2 W<br>4.32 W                                                                                          |
| inrush current peak at 24 V                                                                                                                                              | 25 A; Observe the manual for group configuration                                                         |
| duration of inrush current peak at 24 V                                                                                                                                  | 0.14 ms                                                                                                  |
| <b>Response times</b>                                                                                                                                                    |                                                                                                          |
| <b>ON-delay time</b>                                                                                                                                                     | 20 ms                                                                                                    |
| <b>OFF-delay time</b>                                                                                                                                                    | 35 ... 50 ms                                                                                             |
| <b>Power Electronics</b>                                                                                                                                                 |                                                                                                          |
| <b>operational current</b>                                                                                                                                               |                                                                                                          |
| <ul style="list-style-type: none"> <li>• at 40 °C rated value</li> <li>• at 50 °C rated value</li> <li>• at 55 °C rated value</li> <li>• at 60 °C rated value</li> </ul> | 9 A<br>9 A<br>9 A<br>7 A                                                                                 |
| <b>Installation/ mounting/ dimensions</b>                                                                                                                                |                                                                                                          |
| <b>mounting position</b>                                                                                                                                                 | Vertical, horizontal (observe derating)                                                                  |
| <b>fastening method</b>                                                                                                                                                  | pluggable in BaseUnit                                                                                    |
| <b>height</b>                                                                                                                                                            | 142 mm                                                                                                   |
| <b>width</b>                                                                                                                                                             | 30 mm                                                                                                    |
| <b>depth</b>                                                                                                                                                             | 150 mm                                                                                                   |
| required spacing with side-by-side mounting                                                                                                                              |                                                                                                          |
| <ul style="list-style-type: none"> <li>• upwards</li> <li>• downwards</li> </ul>                                                                                         | 50 mm<br>50 mm                                                                                           |
| <b>Ambient conditions</b>                                                                                                                                                |                                                                                                          |
| installation altitude at height above sea level maximum                                                                                                                  | 4 000 m                                                                                                  |
| <b>ambient temperature</b>                                                                                                                                               |                                                                                                          |
| <ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> </ul>                                               | -25 ... +60 °C; For derating see manual<br>-40 ... +70 °C<br>-40 ... +70 °C                              |
| environmental category during operation according 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 %                                                                                              |
| air pressure according to SN 31205                                                                                                                                       | 900 ... 1 060 hPa                                                                                        |
| <b>Communication/ Protocol</b>                                                                                                                                           |                                                                                                          |
| <b>protocol is supported</b>                                                                                                                                             |                                                                                                          |
| <ul style="list-style-type: none"> <li>• PROFIBUS DP protocol</li> <li>• PROFINET protocol</li> </ul>                                                                    | Yes<br>Yes                                                                                               |
| <b>product function bus communication</b>                                                                                                                                | Yes                                                                                                      |
| protocol is supported AS-Interface protocol                                                                                                                              | No                                                                                                       |
| <b>product function</b>                                                                                                                                                  |                                                                                                          |
| <ul style="list-style-type: none"> <li>• supports PROFInergy measured values</li> <li>• supports PROFInergy shutdown</li> </ul>                                          | Yes<br>Yes                                                                                               |
| type of electrical connection of the communication interface                                                                                                             | Plug contact to Base Unit                                                                                |
| <b>Connections/ Terminals</b>                                                                                                                                            |                                                                                                          |
| <b>type of electrical connection</b>                                                                                                                                     |                                                                                                          |
| <ul style="list-style-type: none"> <li>• 1 for digital input signals</li> </ul>                                                                                          | Pluggable module - accessory                                                                             |
| <b>type of electrical connection</b>                                                                                                                                     |                                                                                                          |
| <ul style="list-style-type: none"> <li>• for main energy infeed</li> <li>• for load-side outgoing feeder</li> <li>• for supply voltage line-side</li> </ul>              | Plug contact to Base Unit<br>Plug contact to Base Unit<br>Plug contact to Base Unit                      |
| <b>wire length for motor unshielded maximum</b>                                                                                                                          | 200 m                                                                                                    |
| <b>UL/CSA ratings</b>                                                                                                                                                    |                                                                                                          |
| full-load current (FLA) for 3-phase AC motor at 480 V rated value                                                                                                        | 9 A                                                                                                      |
| current with locked rotor (LRA) for 3-phase AC motor at 480 V rated value                                                                                                | 72 A                                                                                                     |

|                                                                                                                                                                                                                                                                                                                                                                                                                              |                                             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| <b>yielded mechanical performance [hp]</b> <ul style="list-style-type: none"> <li>• for single-phase AC motor <ul style="list-style-type: none"> <li>— at 110/120 V rated value</li> <li>— at 230 V rated value</li> </ul> </li> <li>• for 3-phase AC motor <ul style="list-style-type: none"> <li>— at 200/208 V rated value</li> <li>— at 220/230 V rated value</li> <li>— at 460/480 V rated value</li> </ul> </li> </ul> | 0.33 hp<br>1 hp<br><br>2 hp<br>2 hp<br>5 hp |
| operating voltage at AC at 60 Hz according to CSA and UL rated value                                                                                                                                                                                                                                                                                                                                                         | 480 V                                       |

#### Approvals Certificates

|                          |     |
|--------------------------|-----|
| General Product Approval | EMV |
|--------------------------|-----|



|     |                   |                      |
|-----|-------------------|----------------------|
| EMV | Test Certificates | Maritime application |
|-----|-------------------|----------------------|

[KC](#)

[Type Test Certificates/Test Report](#)



|       |                 |             |                          |
|-------|-----------------|-------------|--------------------------|
| other | Dangerous goods | Environment | Industrial Communication |
|-------|-----------------|-------------|--------------------------|



[Confirmation](#)

[Transport Information](#)

[Environmental Confirmations](#)



#### Further information

##### Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

##### Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

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

<https://www.siemens.com/ic10>

##### Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RK1308-0BD00-0CP0>

##### Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RK1308-0BD00-0CP0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RK1308-0BD00-0CP0>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RK1308-0BD00-0CP0&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RK1308-0BD00-0CP0&lang=en)

##### Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp\\_prod\\_noCOMP='HAUPT'></mmp\\_prod\\_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP='HAUPT'></mmp_prod_no>)



