



F-DS1E-X FOR ET 200S FAILSAFE DIRECT STARTER  
SETTING RANGE 2.4...16A,  
MECHANICAL SWITCHING,  
ELECTRONIC PROTECTION, AC-3,  
TO 7.5KW/400V, CAN BE EXPANDED,  
FOR BRAKE CONTROL MODULE FOR 2DI CONTROL  
MODUL

### General technical data:

|                                                             |  |                            |
|-------------------------------------------------------------|--|----------------------------|
| <b>product brand name</b>                                   |  | Sirius                     |
| <b>Product designation</b>                                  |  | motor starter ET 200S      |
| <b>Design of the product</b>                                |  | direct starter             |
| <b>Product function</b>                                     |  |                            |
| • bus-communication                                         |  | Yes                        |
| • direct start                                              |  | Yes                        |
| • reverse starting                                          |  | No                         |
| • on-site operation                                         |  | Yes                        |
| • short circuit protection                                  |  | Yes                        |
| <b>Design of the switching contact</b>                      |  | electromechanical          |
| <b>Product component / outlet for enine brake</b>           |  | Yes                        |
| <b>Trip class</b>                                           |  | CLASS 10 and 20 adjustable |
| <b>Type of assignment</b>                                   |  | 2                          |
| <b>Product equipment</b>                                    |  |                            |
| • brake control with 230 V AC                               |  | No                         |
| • brake control with 24 V DC                                |  | No                         |
| • brake control with 180 V DC                               |  | No                         |
| • brake control with 500 V DC                               |  | No                         |
| <b>Product extension / braking module for brake control</b> |  | Yes                        |

|                                                                                                                                                                                                |    |                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-------------------------------------|
| <b>Impulse voltage resistance / rated value</b>                                                                                                                                                | kV | 6                                   |
| <b>Insulation voltage / rated value</b>                                                                                                                                                        | V  | 500                                 |
| <b>Active power loss / typical</b>                                                                                                                                                             | W  | 18                                  |
| <b>Maximum permissible voltage for safe disconnection / between main circuit and auxiliary circuit</b>                                                                                         | V  | 400                                 |
| <b>Reference code</b> <ul style="list-style-type: none"> <li>• according to DIN EN 61346-2</li> <li>• according to DIN 40719 extended according to IEC 204-2 / according to IEC 750</li> </ul> |    | Q<br>A                              |
| <b>Mounting type</b>                                                                                                                                                                           |    | Can be plugged into terminal module |
| <b>Depth</b>                                                                                                                                                                                   | mm | 150                                 |
| <b>Height</b>                                                                                                                                                                                  | mm | 290                                 |
| <b>Width</b>                                                                                                                                                                                   | mm | 65                                  |

#### Main circuit:

|                                                                                                                                                                                           |              |                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------------------|
| <b>Operating voltage</b> <ul style="list-style-type: none"> <li>• rated value</li> </ul>                                                                                                  | V            | 400 ... 500            |
| <b>Adjustable response current</b> <ul style="list-style-type: none"> <li>• of the current-dependent overload release</li> </ul>                                                          | A            | 2.4 ... 16             |
| <b>Service power</b> <ul style="list-style-type: none"> <li>• at AC-3 / at 400 V / rated value</li> <li>• for three-phase servomotors / at 400 V / at 50 Hz</li> <li>• minimum</li> </ul> | kW<br><br>kW | 7.5<br><br>1.1 ... 7.5 |
| <b>Breaking capacity limit short-circuit current (I<sub>cu</sub>) / at 400 V / rated value</b>                                                                                            | kA           | 50                     |
| <b>Design of the short-circuit protection</b>                                                                                                                                             |              | circuit-breakers       |
| <b>Number of poles / for main current circuit</b>                                                                                                                                         |              | 3                      |
| <b>Type of the motor protection</b>                                                                                                                                                       |              | solid-state            |
| <b>Mechanical operating cycles as operating time / of the main contacts / typical</b>                                                                                                     |              | 100,000                |

#### Control circuit:

|                                                                                                            |   |               |
|------------------------------------------------------------------------------------------------------------|---|---------------|
| <b>Voltage type / of control feed voltage</b>                                                              |   | DC            |
| <b>Control supply voltage / 1</b> <ul style="list-style-type: none"> <li>• for DC</li> </ul>               | V | 24 ... 24     |
| <b>Control supply voltage / 1 / for DC</b> <ul style="list-style-type: none"> <li>• rated value</li> </ul> | V | 21.6 ... 26.4 |

#### Supply voltage:

|                                                                                      |   |           |
|--------------------------------------------------------------------------------------|---|-----------|
| <b>Type of / supply voltage</b>                                                      |   | DC        |
| <b>Supply voltage / 1</b> <ul style="list-style-type: none"> <li>• for DC</li> </ul> | V | 24 ... 24 |

|                                                                     |    |                                                         |
|---------------------------------------------------------------------|----|---------------------------------------------------------|
| <b>Supply voltage / 1 / for DC</b>                                  |    |                                                         |
| • rated value                                                       | V  | 20.4 ... 28.8                                           |
| <b>Ambient conditions:</b>                                          |    |                                                         |
| <b>Protection class IP</b>                                          |    | IP20                                                    |
| <b>Ambient temperature</b>                                          |    |                                                         |
| • during operating                                                  | °C | 0 ... 60                                                |
| • during storage                                                    | °C | -40 ... +70                                             |
| • during transport                                                  | °C | -40 ... +70                                             |
| <b>Relative humidity</b>                                            |    |                                                         |
| • during operating phase                                            | %  | 5 ... 95                                                |
| <b>Resistance against vibration</b>                                 |    | 2g                                                      |
| <b>Resistance against shock</b>                                     |    | 5g / 11 ms                                              |
| <b>Degree of pollution</b>                                          |    | 3 at 400 V, 2 at 500 V according to IEC60664 (IEC61131) |
| <b>Installation altitude / at a height over sea level / maximum</b> | m  | 2,000                                                   |
| <b>mounting position</b>                                            |    | vertical, horizontal                                    |
| <b>Communication:</b>                                               |    |                                                         |
| <b>Protocol / is supported</b>                                      |    |                                                         |
| • PROFIBUS DP protocol                                              |    | Yes                                                     |
| • PROFINET protocol                                                 |    | Yes                                                     |
| • AS interface protocol                                             |    | No                                                      |
| <b>Design of the interface / PROFINET protocol</b>                  |    | Yes                                                     |
| <b>Design of the electrical connection</b>                          |    |                                                         |
| • of the communication interface                                    |    | via backplane bus                                       |
| • for communication transmission                                    |    | via backplane bus                                       |
| <b>Connections:</b>                                                 |    |                                                         |
| <b>Number of digital inputs</b>                                     |    | 2                                                       |
| <b>Number of sockets</b>                                            |    |                                                         |
| • for digital input signals                                         |    | 0                                                       |
| • for digital output signals                                        |    | 0                                                       |
| <b>Product function</b>                                             |    |                                                         |
| • digital inputs parameterizable                                    |    | Yes                                                     |
| • digital outputs parameterizable                                   |    | No                                                      |
| <b>Design of the electrical connection</b>                          |    |                                                         |
| • 1 / for digital input signals                                     |    | using control module                                    |
| • 2 / for digital input signals                                     |    | using control module                                    |
| • at the manufacturer-specific device interface                     |    | plug                                                    |
| • for main energy infeed                                            |    | screw-type terminals                                    |

- for motor outgoing line
- for main energy transmission
- for supply voltage infeed
- for supply voltage transmission
- for main current circuit

screw-type terminals  
via energy bus  
via backplane bus  
via backplane bus  
screw-type terminals

#### EMC:

**Conductor-bound parasitic coupling BURST / according to IEC 61000-4-4**

2 kV on voltage supply, inputs and outputs

**Conductor-bound parasitic coupling conductor-earth SURGE / according to IEC 61000-4-5**

2 kV (U > 24 V DC)

**Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5**

1 kV (U > 24 V DC)

**Field-bound parasitic coupling / according to IEC 61000-4-3**

80 MHz ... 1 GHz 10 V/m, 1.4 GHz ... 2 Hz 3 V/m, 2 GHz ... 2.7 GHz 1 V/m

**Verification of suitability**

CE / UL / CSA / CCC

**Protection against electrical shock**

finger-safe

#### Certificates/approvals:

**General Product Approval**

**Declaration of  
Conformity**



CCC



CSA



GOST



UL



EG-Konf.

**Test Certificates**

**other**

[Type Test  
Certificates/Test  
Report](#)

[Environmental  
Confirmations](#)

#### Further information:

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

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

**Industry Mall (Online ordering system)**

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

**CAX-Online-Generator**

<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RK1301-0CB13-0AA2/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RK1301-0CB13-0AA2](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RK1301-0CB13-0AA2)

**last change:**

Jul 21, 2014