



Figure similar

Capa 7SR191, capacitor bank protection relay, housing I/O and fascia: 4 CT, 3 VT, 6 binary inputs / 8 binary Outputs, 10 LEDs measuring input: 1/5 A, 50/60 Hz, 40-160 V, auxiliary voltage: 80-250 V DC, binary input threshold 88 V DC, communication interface: standard version: USB front port, RS485 rear port (E4 Case) , IEC 60870-5-103, Modbus RTU and DNP3, standard version - no push buttons

| Product details                                                |                 |
|----------------------------------------------------------------|-----------------|
| number of function keys                                        | 5               |
| product component / keypad                                     | Yes             |
| product component / keypad / note                              | No Push Buttons |
| number of LEDs                                                 | 9               |
| Product Functions                                              |                 |
| switching statistics                                           | Yes             |
| product feature / logic editor                                 | Yes             |
| fault recording for analog and digital signals                 | Yes             |
| sequence-of-events recorder                                    | Yes             |
| monitoring                                                     | Yes             |
| number of parameter sets                                       | 4               |
| parameter set switchover                                       | Yes             |
| Protection Functions                                           |                 |
| three-pole tripping                                            | Yes             |
| undervoltage protection (ANSI 27)                              | Yes             |
| undercurrent protection (ANSI 37)                              | Yes             |
| unbalance protection (ANSI 46)                                 | Yes             |
| overcurrent-time protection negative sequence system (ANSI 46) | Yes             |
| thermal overload protection (ANSI 49)                          | Yes             |
| definite overcurrent-time protection (ANSI 50/50N)             | Yes             |
| circuit breaker failure protection (ANSI 50BF)                 | Yes             |
| dependent overcurrent-time protection (ANSI 51/51N)            | Yes             |
| dynamic response value changeover (ANSI 51C)                   | Yes             |
| overvoltage protection (ANSI 59)                               | Yes             |
| overvoltage protection zero-sequence system (ANSI 59N)         | Yes             |
| directional overcurrent-time protection, phases (ANSI 67)      | Yes             |
| directional ground fault protection (ANSI 67N)                 | Yes             |
| trip-circuit supervision (ANSI 74TC)                           | Yes             |
| frequency variation protection (ANSI 81R)                      | Yes             |
| closing lock-out (ANSI 86)                                     | Yes             |
| ground fault differential protection (ANSI 87N)                | No              |
| Supply voltage                                                 |                 |
| supply voltage / at DC                                         | 80 ... 250 V    |
| type of voltage / of the supply voltage                        | DC              |
| Inputs / Outputs                                               |                 |
| number of digital inputs / maximum                             | 6               |
| number of digital outputs / incl. signaling contact / maximum  | 8               |

|                                    |   |
|------------------------------------|---|
| number of voltage inputs / maximum | 3 |
| number of current inputs / maximum | 4 |

#### Communication

|                                                        |     |
|--------------------------------------------------------|-----|
| product component / operating interface (on the front) | Yes |
| number of interfaces / according to RS 485             | 1   |
| number of interfaces / according to Ethernet           | 0   |
| product component / optical interface                  | No  |
| protocol / is supported / IEC 61850                    | No  |
| protocol / is supported / IEC 60870-5-103              | Yes |
| protocol / is supported / Modbus RTU slave             | Yes |
| protocol / is supported / DNP 3, serial                | Yes |
| protocol / is supported / PRP                          | No  |
| protocol / is supported / RSTP                         | No  |
| protocol / is supported / HSR                          | No  |

#### Time synchronization

|                              |                             |
|------------------------------|-----------------------------|
| type of time synchronization | DNP3/Modbus/103/BinaryInput |
|------------------------------|-----------------------------|

#### Mechanical Design

|                       |                               |
|-----------------------|-------------------------------|
| width                 | 103.5 mm                      |
| height                | 168 mm                        |
| depth                 | 216.5 mm                      |
| design of the display | Text, 4 lines x 20 characters |

#### Environmental conditions

|                                                  |                |
|--------------------------------------------------|----------------|
| ambient temperature / during operation           | -10 ... +55 °C |
| ambient temperature / during operation / maximum | 55 °C          |

#### Further information

**Information- and Downloadcenter (catalogues, leaflets,...)**

<http://www.siemens.com/energy-automation>

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=7SR1916-1HA12-1CA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/7SR1916-1HA12-1CA0>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=7SR1916-1HA12-1CA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=7SR1916-1HA12-1CA0)

**Tender specifications**

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

