



AFDD-MCB-Combination Measuring, Communication AC 230V 6kA, 1+N pole, B, 6A Please consider Radio approval! List of countries: see Certificates

| Model                                                                               |                                                                                                                                                                                 |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| product brand name                                                                  | SENTRON                                                                                                                                                                         |
| product designation                                                                 | AFDD-MCB combination                                                                                                                                                            |
| design of the product                                                               | Compact unit                                                                                                                                                                    |
| type of measured value detection                                                    | seamless                                                                                                                                                                        |
| General technical data                                                              |                                                                                                                                                                                 |
| number of poles                                                                     | 2                                                                                                                                                                               |
| design of pole                                                                      | 1P+N                                                                                                                                                                            |
| apparent power consumption of the power supply                                      | 0.4 VA                                                                                                                                                                          |
| tripping characteristic class                                                       | B                                                                                                                                                                               |
| size of installation devices according to DIN 43880                                 | 1                                                                                                                                                                               |
| touch protection against electrical shock according to EN 50274                     | finger and back-of-hand safe                                                                                                                                                    |
| mechanical service life (operating cycles) typical                                  | 10 000                                                                                                                                                                          |
| measurable line frequency initial value                                             | 45 Hz                                                                                                                                                                           |
| measurable line frequency full-scale value                                          | 60 Hz                                                                                                                                                                           |
| switching function short-term delayed                                               | No                                                                                                                                                                              |
| overvoltage category                                                                | III                                                                                                                                                                             |
| degree of pollution                                                                 | 2                                                                                                                                                                               |
| status display of the measured data                                                 | voltage, current, active power, apparent power, reactive power, active energy, line frequency, power factor, temperature, switching cycles, operating hours, tripping, warnings |
| type of voltage of the operating voltage                                            | AC                                                                                                                                                                              |
| Supply voltage                                                                      |                                                                                                                                                                                 |
| supply voltage                                                                      |                                                                                                                                                                                 |
| • at AC                                                                             | 230 V                                                                                                                                                                           |
| • for testing equipment minimum                                                     | 195 V                                                                                                                                                                           |
| value range of the supply voltage frequency                                         | 50Hz                                                                                                                                                                            |
| Protection class                                                                    |                                                                                                                                                                                 |
| protection class IP                                                                 | IP20, with connected protective device and conductors                                                                                                                           |
| protection class IP                                                                 |                                                                                                                                                                                 |
| • on the front                                                                      | IP40                                                                                                                                                                            |
| • rear side                                                                         | IP20                                                                                                                                                                            |
| Breaking Capacity                                                                   |                                                                                                                                                                                 |
| switching capacity current                                                          |                                                                                                                                                                                 |
| • according to EN 60898-1 rated value                                               | 6 000 A                                                                                                                                                                         |
| • according to IEC 60947-2 rated value                                              | 6 000 A                                                                                                                                                                         |
| Dissipation                                                                         |                                                                                                                                                                                 |
| power loss [W] for rated value of the current at AC in hot operating state per pole | 1.1 W                                                                                                                                                                           |
| suitability for use                                                                 |                                                                                                                                                                                 |

|                                                                                     |                                                |
|-------------------------------------------------------------------------------------|------------------------------------------------|
| • ammeter                                                                           | Yes                                            |
| • reactive power meter                                                              | Yes                                            |
| • frequency meter                                                                   | Yes                                            |
| • voltmeter                                                                         | Yes                                            |
| • wattmeter                                                                         | Yes                                            |
| <b>Product details</b>                                                              |                                                |
| <b>product feature</b>                                                              |                                                |
| • halogen-free                                                                      | Yes                                            |
| • silicon-free                                                                      | Yes                                            |
| product extension installable supplementary devices                                 | Yes                                            |
| <b>Communication</b>                                                                |                                                |
| <b>guideline via radio-controlled system</b>                                        | 2014/53/EU                                     |
| <b>frequency with radio transmission minimum</b>                                    | 2 400 MHz                                      |
| <b>frequency with radio transmission maximum</b>                                    | 2 483.5 MHz                                    |
| protocol is supported                                                               | wireless protocol                              |
| <b>Fault limits</b>                                                                 |                                                |
| <b>standards for error limits</b>                                                   | based on IEC61557-12, IEC62053-22, IEC62053-23 |
| <b>relative symmetrical measurement uncertainty [%]</b>                             |                                                |
| • for measured variable current                                                     | 0.5 %                                          |
| • for measured variable voltage                                                     | 0.5 %                                          |
| • for measured variable electrical energy                                           | 1 %                                            |
| • for measured variable reactive power                                              | 1 %                                            |
| • for measured variable apparent power                                              | 1 %                                            |
| • for measured variable active power                                                | 1 %                                            |
| <b>Measuring inputs</b>                                                             |                                                |
| measurable supply voltage between (PE)N and L at AC                                 |                                                |
| • minimum                                                                           | 185 V                                          |
| • maximum                                                                           | 255 V                                          |
| measuring category for voltage measurement                                          | CATIII according to IEC 61010-2-030            |
| measuring procedure for current measurement                                         | TRMS                                           |
| measuring procedure for voltage measurement                                         | TRMS                                           |
| <b>Connections</b>                                                                  |                                                |
| <b>connectable conductor cross-section solid</b>                                    |                                                |
| • minimum                                                                           | 0.75 mm <sup>2</sup>                           |
| • maximum                                                                           | 16 mm <sup>2</sup>                             |
| <b>connectable conductor cross-section stranded</b>                                 |                                                |
| • minimum                                                                           | 0.75 mm <sup>2</sup>                           |
| • maximum                                                                           | 16 mm <sup>2</sup>                             |
| <b>connectable conductor cross-section finely stranded with core end processing</b> |                                                |
| • minimum                                                                           | 0.75 mm <sup>2</sup>                           |
| • maximum                                                                           | 10 mm <sup>2</sup>                             |
| <b>tightening torque with screw-type terminals</b>                                  |                                                |
| • minimum                                                                           | 1.2 N·m                                        |
| • maximum                                                                           | 2 N·m                                          |
| position of power supply cord                                                       | any                                            |
| <b>Mechanical Design</b>                                                            |                                                |
| <b>height</b>                                                                       | 90 mm                                          |
| <b>width</b>                                                                        | 18 mm                                          |
| <b>depth</b>                                                                        | 68.5 mm                                        |
| <b>installation depth</b>                                                           | 70 mm                                          |
| <b>number of modular width units</b>                                                | 1                                              |
| <b>fastening method</b>                                                             | DIN rail (REG)                                 |
| <b>mounting position</b>                                                            | any                                            |
| <b>net weight</b>                                                                   | 139 g                                          |
| <b>Environmental conditions</b>                                                     |                                                |
| standard                                                                            |                                                |
| • for shocks                                                                        | IEC 61373                                      |
| • for environmental sinusoidal oscillation check                                    | IEC 60068-2-6                                  |
| <b>ambient temperature during operation</b>                                         |                                                |
| • minimum                                                                           | -25 °C                                         |

|                                                                                    |        |
|------------------------------------------------------------------------------------|--------|
| • maximum                                                                          | 60 °C  |
| <b>ambient temperature during storage</b>                                          |        |
| • minimum                                                                          | -40 °C |
| • maximum                                                                          | 75 °C  |
| <b>ambient temperature with relative humidity 95%</b>                              | 55 °C  |
| <b>number of test cycles for environmental testing according to IEC 60068-2-30</b> | 28     |

#### Approvals Certificates

|                          |                                           |
|--------------------------|-------------------------------------------|
| General Product Approval | Radio Equipment Type Approval Certificate |
|--------------------------|-------------------------------------------|



[Confirmation](#)



[Miscellaneous](#)

|       |         |             |
|-------|---------|-------------|
| other | Railway | Environment |
|-------|---------|-------------|

[Miscellaneous](#)

[Confirmation](#)

[Special Test Certificate](#)



[Environmental Confirmations](#)

[Environmental Confirmations](#)

#### Further information

Information on the packaging

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

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

<http://www.siemens.com/lowvoltage/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=5SV6016-6MC06>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SV6016-6MC06>

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

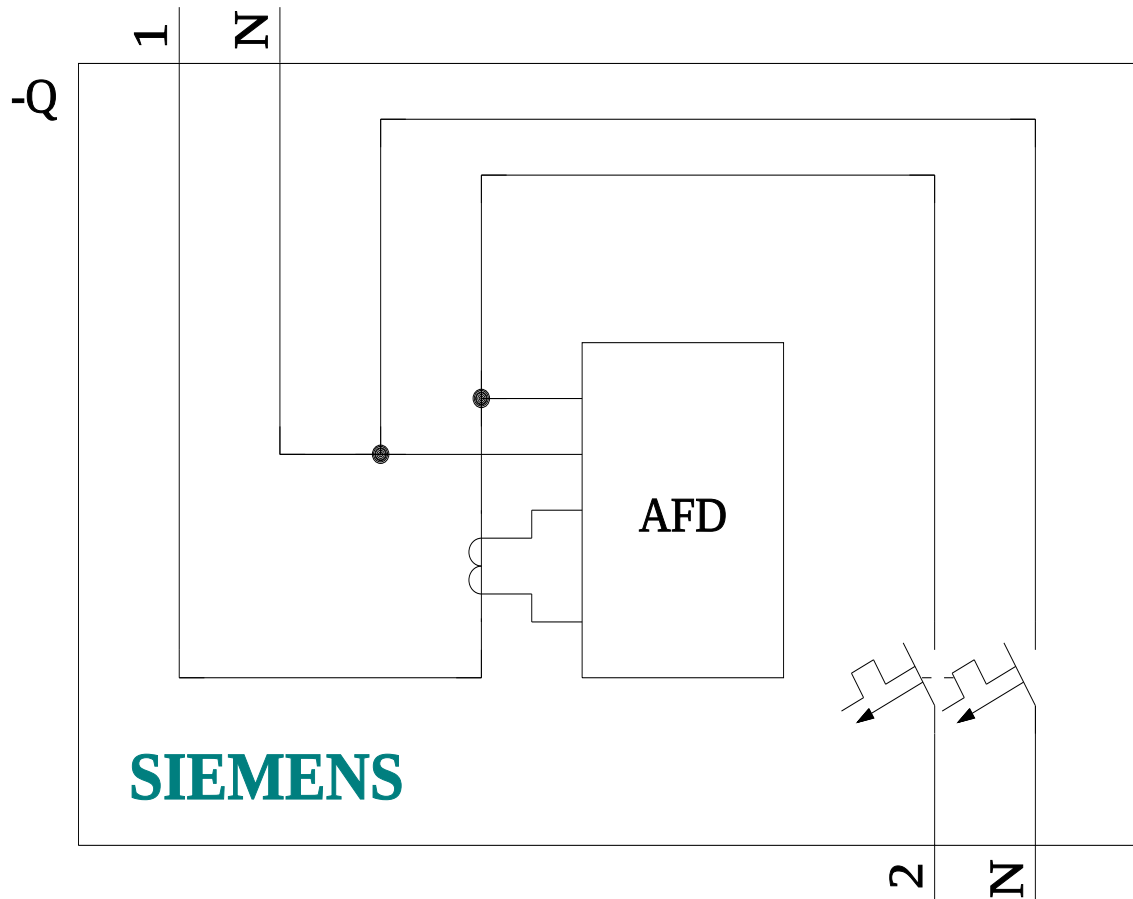
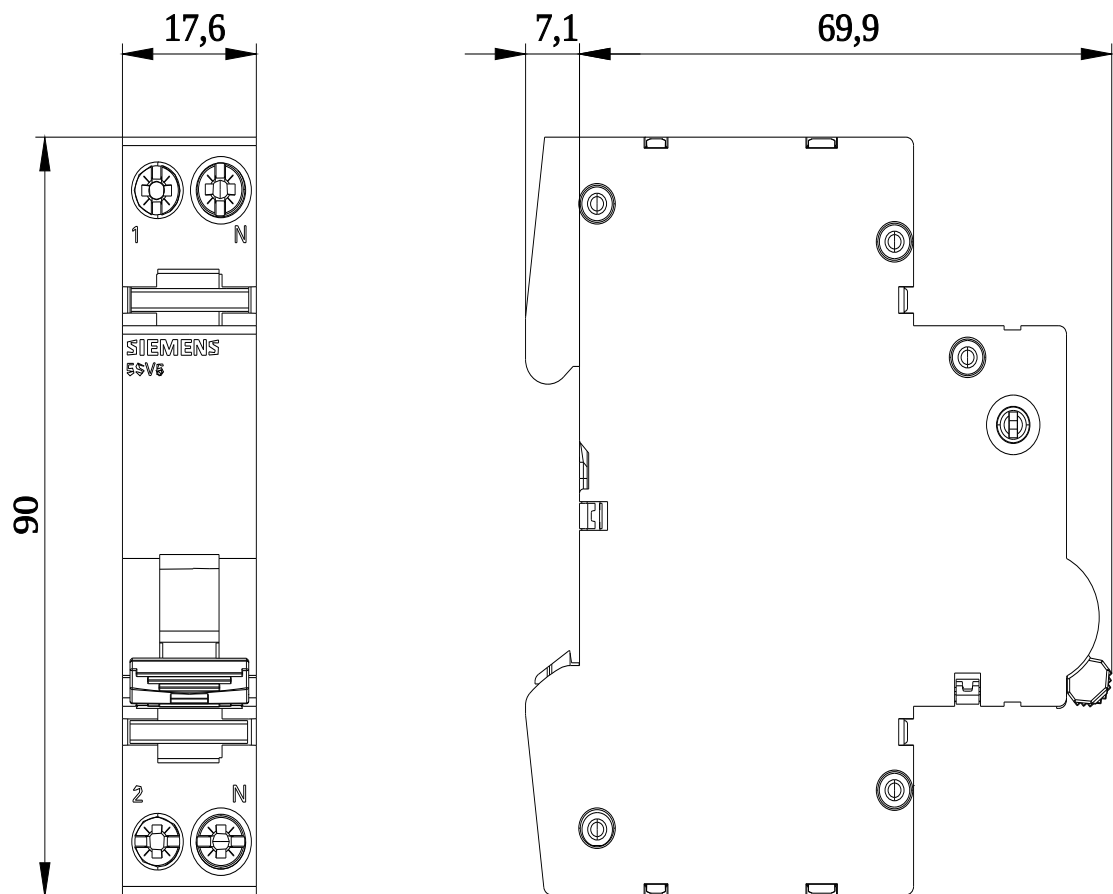
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=5SV6016-6MC06](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SV6016-6MC06)

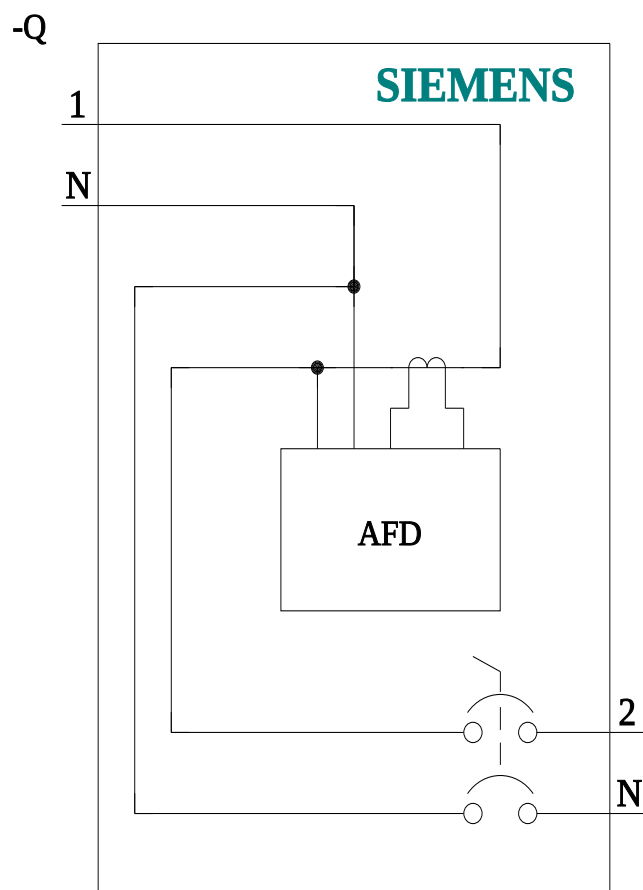
CAX-Online-Generator

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

Tender specifications

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





last modified:

7/5/2024 

