

Switch disconnecter 1600 A, Size 5, 4-pole Front operating mechanism center  
Basic unit without handle flat terminal



| Model                                                                                         |                              |
|-----------------------------------------------------------------------------------------------|------------------------------|
| product brand name                                                                            | SENTRON                      |
| product designation                                                                           | 3KD switch disconnecter      |
| design of the product                                                                         | Switch                       |
| display version for switch position indicator door-coupling rotary operating mechanism        | ON-OFF                       |
| design of the actuating element                                                               | Without handle               |
| type of the driving mechanism                                                                 | Front operating mechanism    |
| type of the driving mechanism motor drive                                                     | No                           |
| General technical data                                                                        |                              |
| number of poles                                                                               | 4                            |
| type of device                                                                                | fixed mounting               |
| size of switch disconnecter                                                                   | 5                            |
| mechanical service life (operating cycles) typical                                            | 8 000                        |
| electrical endurance (operating cycles)                                                       |                              |
| • at DC-21 A at 1000 V                                                                        | 100                          |
| • at AC-23 A at 690 V                                                                         | 500                          |
| • at DC-23 A at 440 V                                                                         | 500                          |
| I <sup>2</sup> t value                                                                        |                              |
| • with closed switch at 1000 V for combination switch +gG/aM SITOR fuse maximum               | 3 492 000 A <sup>2</sup> ·s  |
| • of the fuse at 500 V maximum permissible                                                    | 34 800 000 A <sup>2</sup> ·s |
| • of the gG/aM SITOR fuse at 1000 V maximum permissible                                       | 1 800 000 A <sup>2</sup> ·s  |
| position of the switch operating mechanism                                                    | after the second pole        |
| overvoltage in percent relative to the operating voltage at AC at 400, 500, 690 V at 50/60 Hz | 10 %                         |
| overvoltage category                                                                          | IV                           |
| degree of pollution                                                                           | 3                            |
| Voltage                                                                                       |                              |
| operating voltage with current paths in series                                                |                              |
| • with degree of pollution 2 at DC rated value                                                | 440 V / 3                    |
| • with degree of pollution 3 at DC rated value                                                | 440 V / 3                    |
| insulation voltage                                                                            |                              |
| • rated value                                                                                 | 1 000 V                      |
| surge voltage resistance rated value                                                          | 12 kV                        |
| operational current at AC-22 A at 1000 V maximum                                              | 1 600 A                      |
| Protection class                                                                              |                              |
| protection class IP                                                                           | IP00                         |
| protection class IP                                                                           |                              |
| • with closed switch with cover or cable lug cover                                            | IP20                         |

|                                                                                                                          |                                           |
|--------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| <ul style="list-style-type: none"> <li>• on the front</li> </ul>                                                         | IP00                                      |
| <b>Dissipation</b>                                                                                                       |                                           |
| power loss [W]                                                                                                           |                                           |
| <ul style="list-style-type: none"> <li>• with conventional rated thermal current per pole</li> </ul>                     | 57 W                                      |
| <ul style="list-style-type: none"> <li>• with conventional rated thermal current per device</li> </ul>                   | 228 W                                     |
| <ul style="list-style-type: none"> <li>• for rated value of the current at AC in hot operating state per pole</li> </ul> | 57 W                                      |
| <b>Main circuit</b>                                                                                                      |                                           |
| operating power                                                                                                          |                                           |
| <ul style="list-style-type: none"> <li>• at AC-23 A at 500 V rated value</li> </ul>                                      | 1 000 kW                                  |
| operational current rated value                                                                                          | 1 600 A                                   |
| <b>Auxiliary circuit</b>                                                                                                 |                                           |
| number of connected NC contacts for auxiliary contacts                                                                   | 0                                         |
| number of connected NO contacts for auxiliary contacts                                                                   | 0                                         |
| number of connected CO contacts for auxiliary contacts                                                                   | 0                                         |
| number of CO contacts for auxiliary contacts                                                                             | 0                                         |
| number of NC contacts for auxiliary contacts                                                                             | 8                                         |
| number of NO contacts for auxiliary contacts                                                                             | 8                                         |
| <b>Suitability</b>                                                                                                       |                                           |
| suitability for use                                                                                                      |                                           |
| <ul style="list-style-type: none"> <li>• main switch</li> </ul>                                                          | Yes                                       |
| <ul style="list-style-type: none"> <li>• switch disconnecter</li> </ul>                                                  | Yes                                       |
| <ul style="list-style-type: none"> <li>• EMERGENCY OFF switch</li> </ul>                                                 | Yes                                       |
| <ul style="list-style-type: none"> <li>• safety switch</li> </ul>                                                        | Yes                                       |
| <ul style="list-style-type: none"> <li>• maintenance/repair switch</li> </ul>                                            | Yes                                       |
| <b>Product details</b>                                                                                                   |                                           |
| product component                                                                                                        |                                           |
| <ul style="list-style-type: none"> <li>• trip indicator</li> </ul>                                                       | No                                        |
| <ul style="list-style-type: none"> <li>• voltage trigger</li> </ul>                                                      | No                                        |
| <ul style="list-style-type: none"> <li>• undervoltage release</li> </ul>                                                 | No                                        |
| <ul style="list-style-type: none"> <li>• undervoltage release with leading contact</li> </ul>                            | No                                        |
| product extension auxiliary switch                                                                                       | Yes                                       |
| <b>product extension optional</b>                                                                                        |                                           |
| <ul style="list-style-type: none"> <li>• motor drive</li> </ul>                                                          | No                                        |
| <ul style="list-style-type: none"> <li>• voltage trigger</li> </ul>                                                      | No                                        |
| <b>Short circuit</b>                                                                                                     |                                           |
| short-time withstand current (I <sub>cw</sub> ) at 1000 V AC/440 V DC limited to 1 s rated value                         | 55 kA                                     |
| short-circuit current making capacity (I <sub>cm</sub> ) for switch disconnecter                                         |                                           |
| <ul style="list-style-type: none"> <li>• at 1000 V AC without fuse link rated value minimum</li> </ul>                   | 121 kA                                    |
| <ul style="list-style-type: none"> <li>• at DC 440 V without fuse link rated value minimum</li> </ul>                    | 80 kA                                     |
| <ul style="list-style-type: none"> <li>• without fuse link rated value minimum</li> </ul>                                | 121 kA                                    |
| conditional short-circuit current with line-side fuse protection                                                         |                                           |
| <ul style="list-style-type: none"> <li>• at 500 V by gG fuse rated value</li> </ul>                                      | 100 kA                                    |
| <ul style="list-style-type: none"> <li>• at 690 V by gG fuse rated value</li> </ul>                                      | 100 kA                                    |
| <b>Connections</b>                                                                                                       |                                           |
| type of connectable conductor cross-sections for aluminum conductor                                                      |                                           |
| <ul style="list-style-type: none"> <li>• stranded with lug</li> </ul>                                                    | 1x (120 ... 300 mm²), 2x (95 ... 300 mm²) |
| type of connectable conductor cross-sections                                                                             |                                           |
| <ul style="list-style-type: none"> <li>• for copper busbar</li> </ul>                                                    | 2 x (60 x 10 mm²)                         |
| type of connectable conductor cross-sections for copper conductor                                                        |                                           |
| <ul style="list-style-type: none"> <li>• stranded with lug according to DIN 46234</li> </ul>                             | 1x (120 ... 240 mm²), 2x (95 ... 240 mm²) |
| <ul style="list-style-type: none"> <li>• stranded with lug according to DIN 46235</li> </ul>                             | 1x (120 ... 240 mm²), 2x (95 ... 240 mm²) |
| type of electrical connection for main current circuit                                                                   | flat connector                            |
| <b>Mechanical Design</b>                                                                                                 |                                           |
| height                                                                                                                   | 310 mm                                    |
| width                                                                                                                    | 472 mm                                    |
| depth                                                                                                                    | 153 mm                                    |
| fastening method                                                                                                         | screw fixing                              |

|                                          |          |
|------------------------------------------|----------|
| fastening method                         |          |
| • 4-hole front mounting                  | No       |
| • front mounting with central attachment | No       |
| • rail mounting                          | No       |
| mounting position                        | any      |
| net weight                               | 21 340 g |

#### Environmental conditions

|                                      |        |
|--------------------------------------|--------|
| ambient temperature during operation |        |
| • minimum                            | -25 °C |
| • maximum                            | 70 °C  |
| ambient temperature during storage   |        |
| • minimum                            | -50 °C |
| • maximum                            | 80 °C  |

#### Certificates

|                                         |   |
|-----------------------------------------|---|
| reference code according to IEC 81346-2 | Q |
|-----------------------------------------|---|

#### Approvals Certificates

##### General Product Approval



[Confirmation](#)



[Miscellaneous](#)

| General Product Approval | Test Certificates | Marine / Shipping | other |
|--------------------------|-------------------|-------------------|-------|
|--------------------------|-------------------|-------------------|-------|



[Type Test Certificates/Test Report](#)



[Miscellaneous](#)

[Confirmation](#)

#### Environment

[Environmental Conformations](#)

[Environmental Conformations](#)

#### 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=3KD5440-0RE20-0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3KD5440-0RE20-0>

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

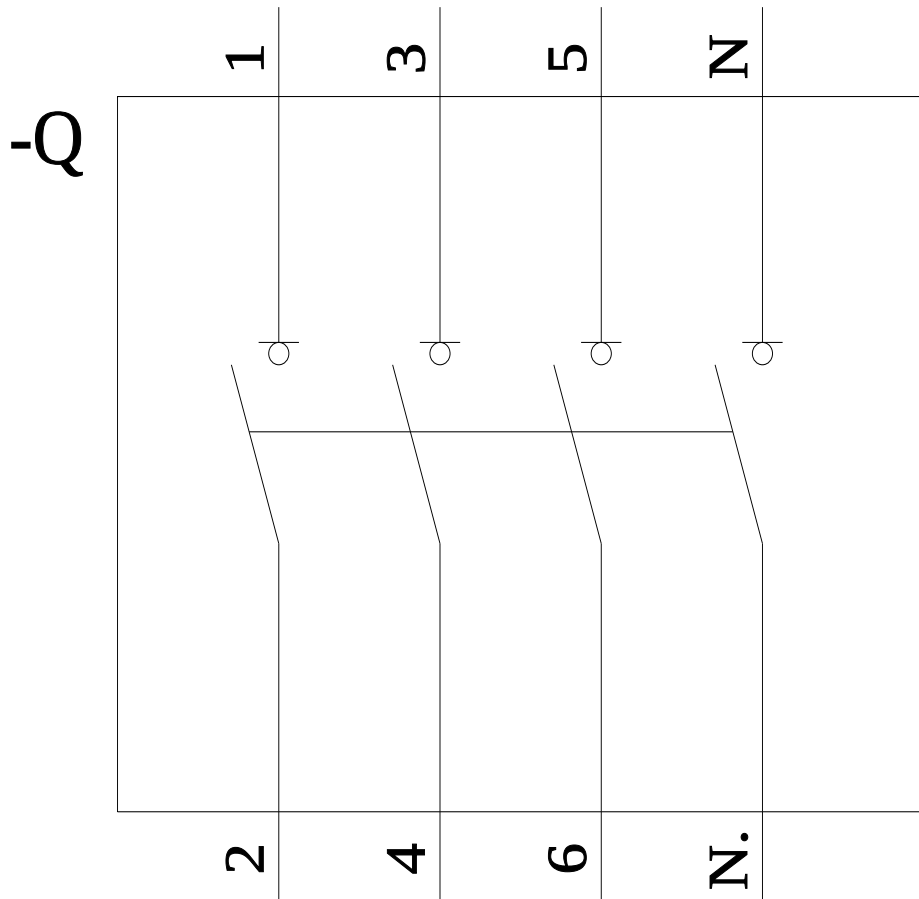
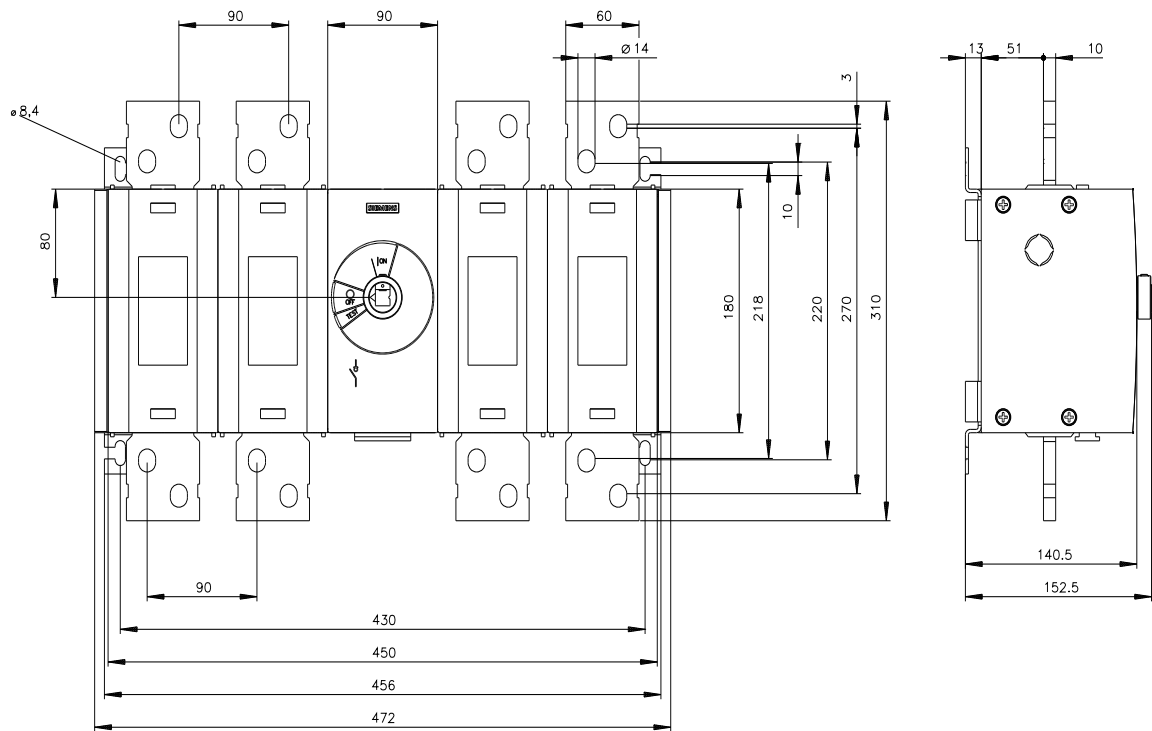
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3KD5440-0RE20-0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3KD5440-0RE20-0)

##### CAX-Online-Generator

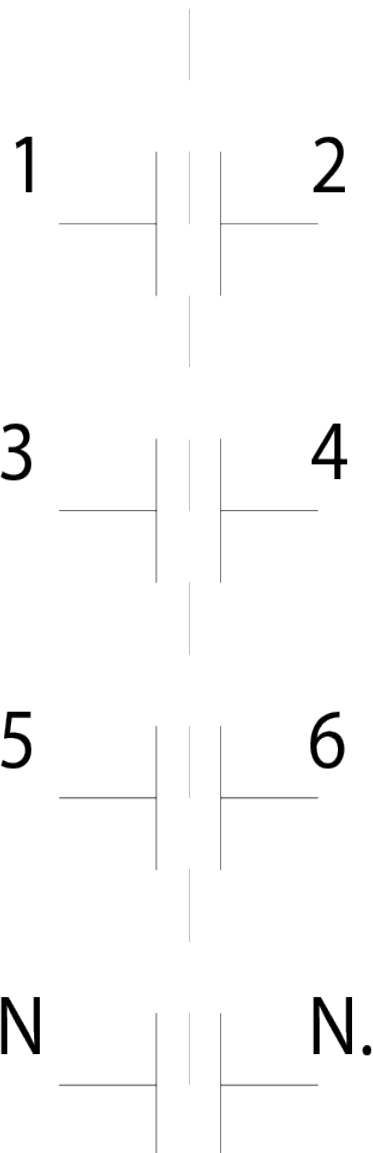
<http://www.siemens.com/cax>

##### Tender specifications

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



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