

Siemens  
EcoTech



circuit breaker 3VA2 IEC Frame 160 breaking capacity class C Icu=110 kA @ 415 V 4-pole, line protection ETU350, LSI, In=40 A overload protection Ir=16 A...40 A short-circuit protection Isd=1.5...10 x Ir, li=12 x In neutral conductor protection adjustable (OFF, 100%) terminal connection



| Model                                                                                                 |                             |
|-------------------------------------------------------------------------------------------------------|-----------------------------|
| product brand name                                                                                    | SENTRON                     |
| product designation                                                                                   | Molded case circuit breaker |
| design of the product                                                                                 | Line protection             |
| design of the overcurrent release                                                                     | ETU350                      |
| protection function of the overcurrent release                                                        | LSI                         |
| number of poles                                                                                       | 4                           |
| General technical data                                                                                |                             |
| insulation voltage / rated value                                                                      | 800 V                       |
| operating voltage / at AC / rated value                                                               | 690 V                       |
| power loss [W] / maximum                                                                              | 1.6 W                       |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole           | 0.53 W                      |
| mechanical service life (operating cycles) / typical                                                  | 25 000                      |
| electrical endurance (operating cycles) / at AC-1 / at 380/415 V                                      | 14 000                      |
| electrical endurance (operating cycles) / at AC-1 / at 690 V                                          | 9 800                       |
| product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof | No                          |
| ground-fault monitoring version                                                                       | Without                     |
| product function                                                                                      |                             |
| • communication function                                                                              | No                          |
| • other measurement function                                                                          | No                          |
| Net Weight                                                                                            | 3.2 kg                      |
| Current                                                                                               |                             |
| operational current                                                                                   |                             |
| • at 40 °C                                                                                            | 40 A                        |
| • at 45 °C                                                                                            | 40 A                        |
| • at 50 °C                                                                                            | 40 A                        |
| • at 55 °C                                                                                            | 40 A                        |
| • at 60 °C                                                                                            | 40 A                        |
| • at 65 °C                                                                                            | 40 A                        |
| • at 70 °C                                                                                            | 40 A                        |
| Switching capacity according to IEC 60947                                                             |                             |
| switching capacity class of the circuit breaker                                                       | C                           |
| maximum short-circuit current breaking capacity (Icu)                                                 |                             |
| • at 240 V                                                                                            | 150 kA                      |

|                                                                                                                                                                                                      |                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| <ul style="list-style-type: none"> <li>• at 415 V</li> <li>• at 440 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul>                                                                             | 110 kA<br>110 kA<br>85 kA<br>3 kA              |
| operating short-circuit current breaking capacity (Ics) <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 440 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul> | 150 kA<br>110 kA<br>110 kA<br>85 kA<br>2.5 kA  |
| short-circuit current making capacity (Icm) <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 440 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul>             | 330 kA<br>242 kA<br>242 kA<br>187 kA<br>3.7 kA |
| <b>Adjustable parameters</b>                                                                                                                                                                         |                                                |
| product feature / for L-tripping / can be switched on/off                                                                                                                                            | No                                             |
| adjustable response value setting current (I <sub>r</sub> ) / of the L-trip / with I2t characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                 | 16 A<br>40 A                                   |
| adjustable response value delay time (t <sub>r</sub> ) / for L-tripping / with I2t characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                     | 0.5 s<br>17 s                                  |
| adjustable response value setting current (I <sub>sd</sub> ) / of S-trip / with I2t characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                    | 24 A<br>400 A                                  |
| adjustable response value delay time (t <sub>sd</sub> ) / for S-tripping / with I2t characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                    | 0.0001 s<br>0.4 s                              |
| adjustable response value setting current (I <sub>i</sub> ) / for I-tripping <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                          | 480 A<br>480 A                                 |
| adjustable setting current (I <sub>n</sub> ) / for N-tripping <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                                         | 16 A<br>40 A                                   |
| design of the N-conductor protection                                                                                                                                                                 | adjustable OFF; 100%                           |
| product function / grounding protection                                                                                                                                                              | No                                             |
| <b>Mechanical Design</b>                                                                                                                                                                             |                                                |
| product component <ul style="list-style-type: none"> <li>• undervoltage release</li> <li>• voltage trigger</li> <li>• trip indicator</li> </ul>                                                      | No<br>No<br>No                                 |
| height [in]                                                                                                                                                                                          | 7.13 in                                        |
| height                                                                                                                                                                                               | 181 mm                                         |
| width [in]                                                                                                                                                                                           | 5.51 in                                        |
| type of connectable conductor cross-sections / of the round conductor terminal / stranded                                                                                                            | 1 x (6 - 120 mm²)                              |
| width                                                                                                                                                                                                | 140 mm                                         |
| depth [in]                                                                                                                                                                                           | 3.39 in                                        |
| depth                                                                                                                                                                                                | 86 mm                                          |
| <b>Connections</b>                                                                                                                                                                                   |                                                |
| arrangement of electrical connectors / for main current circuit                                                                                                                                      | Front terminal                                 |
| type of electrical connection / for main current circuit                                                                                                                                             | double-sided box terminal                      |
| design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)                                                                                                                   | tin                                            |

|                                                                                       |                 |
|---------------------------------------------------------------------------------------|-----------------|
| design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) | tin             |
| <b>Auxiliary circuit</b>                                                              |                 |
| number of CO contacts / for auxiliary contacts                                        | 0               |
| <b>Accessories</b>                                                                    |                 |
| product extension / optional / motor drive                                            | Yes             |
| <b>Environmental conditions</b>                                                       |                 |
| protection class IP / on the front                                                    | IP40            |
| ambient temperature                                                                   |                 |
| • during operation / minimum                                                          | -25 °C          |
| • during operation / maximum                                                          | 70 °C           |
| • during storage / minimum                                                            | -40 °C          |
| • during storage / maximum                                                            | 80 °C           |
| <b>Environmental footprint</b>                                                        |                 |
| global warming potential [CO2 eq] / total                                             | 61.814 kg       |
| global warming potential [CO2 eq] / during manufacturing                              | 14.6 kg         |
| global warming potential [CO2 eq] / during operation                                  | 48.9 kg         |
| global warming potential [CO2 eq] / after end of life                                 | -2.2 kg         |
| Siemens Eco Profile (SEP)                                                             | Siemens EcoTech |
| reference code / according to IEC 81346-2                                             | Q               |
| <b>Approvals / Certificates</b>                                                       |                 |
| <b>General Product Approval</b>                                                       |                 |



[Miscellaneous](#)



| EMV | Test Certificates                                                                                                               | Maritime application |
|-----|---------------------------------------------------------------------------------------------------------------------------------|----------------------|
|     | <a href="#">Special Test Certificate</a><br><a href="#">Type Test Certificates/Test Report</a><br><a href="#">Miscellaneous</a> | <br>                 |

| Maritime application | other                                                                              |
|----------------------|------------------------------------------------------------------------------------|
| <br><br>             | <a href="#">CCS (China Classification Society)</a><br><a href="#">Confirmation</a> |

| other                         | Dangerous goods                       | Environment                                                                                |
|-------------------------------|---------------------------------------|--------------------------------------------------------------------------------------------|
| <a href="#">Miscellaneous</a> | <a href="#">Transport Information</a> | <br>                                                                                       |
|                               |                                       | <a href="#">Environmental Confirmations</a><br><a href="#">Environmental Confirmations</a> |

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| <b>Further information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Information on the packaging</b><br><a href="https://support.industry.siemens.com/cs/ww/en/view/109813875">https://support.industry.siemens.com/cs/ww/en/view/109813875</a><br><b>Information for data generation and storage</b><br><a href="https://support.industry.siemens.com/cs/ww/en/view/109995012">https://support.industry.siemens.com/cs/ww/en/view/109995012</a><br><b>Information- and Downloadcenter (Catalogs, Brochures,...)</b><br><a href="https://www.siemens.com/lowvoltage/catalogs">https://www.siemens.com/lowvoltage/catalogs</a><br><b>Industry Mall (Online ordering system)</b><br><a href="https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA2140-7HN46-0AA0">https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA2140-7HN46-0AA0</a><br><b>Service&amp;Support (Manuals, Certificates, Characteristics, FAQs,...)</b><br><a href="https://support.industry.siemens.com/cs/ww/en/ps/3VA2140-7HN46-0AA0">https://support.industry.siemens.com/cs/ww/en/ps/3VA2140-7HN46-0AA0</a><br><b>Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)</b><br><a href="https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2140-7HN46-0AA0">https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2140-7HN46-0AA0</a> |





