

**Siemens**  
**EcoTech**



circuit breaker 3VA2 IEC Frame 250 breaking capacity class M Icu=55 kA @ 415 V  
3-pole, motor protection ETU350M, LSI, In=200 A overload protection Ir=80 A...200  
A short-circuit protection Isd=3...15 x Ir, li=15 x In nut keeper kit



| Model                                                                                                  |                             |
|--------------------------------------------------------------------------------------------------------|-----------------------------|
| product brand name                                                                                     | SENTRON                     |
| product designation                                                                                    | Molded case circuit breaker |
| design of the product                                                                                  | Motor protection            |
| design of the overcurrent release                                                                      | ETU350M                     |
| protection function of the overcurrent release                                                         | LSI                         |
| number of poles                                                                                        | 3                           |
| General technical data                                                                                 |                             |
| insulation voltage / rated value                                                                       | 800 V                       |
| operating voltage / at AC / rated value                                                                | 690 V                       |
| operating power / at AC-3 / at 400 V                                                                   | 75 000 W                    |
| operating power / at AC-3 / at 230 V                                                                   | 37 000 W                    |
| power loss [W] / maximum                                                                               | 46 W                        |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole            | 15.33 W                     |
| mechanical service life (operating cycles) / typical                                                   | 25 000                      |
| electrical endurance (operating cycles) / at AC-1 / at 380/415 V                                       | 12 000                      |
| electrical endurance (operating cycles) / at AC-1 / at 690 V                                           | 8 400                       |
| electrical endurance (operating cycles) / at AC-3 / at 380/415 V                                       | 6 000                       |
| product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof | No                          |
| ground-fault monitoring version                                                                        | Without                     |
| product function                                                                                       |                             |
| • communication function                                                                               | No                          |
| • phase failure detection                                                                              | Yes                         |
| • other measurement function                                                                           | No                          |
| Net Weight                                                                                             | 2.133 kg                    |
| Current                                                                                                |                             |
| operational current                                                                                    |                             |
| • at 40 °C                                                                                             | 200 A                       |
| • at 45 °C                                                                                             | 200 A                       |
| • at 50 °C                                                                                             | 200 A                       |
| • at 55 °C                                                                                             | 200 A                       |
| • at 60 °C                                                                                             | 200 A                       |
| • at 65 °C                                                                                             | 200 A                       |
| • at 70 °C                                                                                             | 200 A                       |
| Switching capacity according to IEC 60947                                                              |                             |
| switching capacity class of the circuit breaker                                                        | M                           |

|                                                                                                                   |                              |
|-------------------------------------------------------------------------------------------------------------------|------------------------------|
| maximum short-circuit current breaking capacity (Icu)                                                             |                              |
| • at 240 V                                                                                                        | 85 kA                        |
| • at 415 V                                                                                                        | 55 kA                        |
| • at 440 V                                                                                                        | 55 kA                        |
| • at 500 V                                                                                                        | 36 kA                        |
| • at 690 V                                                                                                        | 3.5 kA                       |
| operating short-circuit current breaking capacity (Ics)                                                           |                              |
| • at 240 V                                                                                                        | 85 kA                        |
| • at 415 V                                                                                                        | 55 kA                        |
| • at 440 V                                                                                                        | 55 kA                        |
| • at 500 V                                                                                                        | 36 kA                        |
| • at 690 V                                                                                                        | 3.5 kA                       |
| short-circuit current making capacity (Icm)                                                                       |                              |
| • at 240 V                                                                                                        | 187 kA                       |
| • at 415 V                                                                                                        | 121 kA                       |
| • at 440 V                                                                                                        | 121 kA                       |
| • at 500 V                                                                                                        | 75.6 kA                      |
| • at 690 V                                                                                                        | 5.2 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 I <sub>2t</sub> characteristic |                              |
| • minimum                                                                                                         | 80 A                         |
| • maximum                                                                                                         | 200 A                        |
| adjustable response value delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic     |                              |
| • minimum                                                                                                         | 4 s                          |
| • maximum                                                                                                         | 15 s                         |
| adjustable response value setting current (I <sub>sd</sub> ) / of S-trip / with I <sub>0t</sub> characteristic    |                              |
| • minimum                                                                                                         | 600 A                        |
| • maximum                                                                                                         | 3 000 A                      |
| adjustable response value delay time (t <sub>sd</sub> ) / for S-tripping / with I <sub>0t</sub> characteristic    |                              |
| • minimum                                                                                                         | 0.03 s                       |
| • maximum                                                                                                         | 0.03 s                       |
| adjustable response value setting current (I <sub>i</sub> ) / for I-tripping                                      |                              |
| • minimum                                                                                                         | 3 000 A                      |
| • maximum                                                                                                         | 3 000 A                      |
| adjustable setting current (I <sub>nN</sub> ) / for N-tripping                                                    |                              |
| • minimum                                                                                                         | 0 A                          |
| • maximum                                                                                                         | 0 A                          |
| product function / grounding protection                                                                           | No                           |
| adjustable trip class (T <sub>c</sub> CLASS)                                                                      | 10A, 10E, 20E                |
| tripping time (T <sub>p</sub> ) / with adjustable trip class (T <sub>c</sub> CLASS)                               |                              |
| • minimum                                                                                                         | 4 s                          |
| • maximum                                                                                                         | 15 s                         |
| <b>Mechanical Design</b>                                                                                          |                              |
| product component                                                                                                 |                              |
| • undervoltage release                                                                                            | No                           |
| • voltage trigger                                                                                                 | No                           |
| • trip indicator                                                                                                  | No                           |
| height [in]                                                                                                       | 7.13 in                      |
| height                                                                                                            | 181 mm                       |
| width [in]                                                                                                        | 4.13 in                      |
| width                                                                                                             | 105 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                                                          | on both sides nut keeper kit |
| type of connectable conductor cross-sections / for flat-bar                                                       | 13 x 1 mm                    |

|                                                                                           |           |
|-------------------------------------------------------------------------------------------|-----------|
| terminal connection / minimum                                                             |           |
| type of connectable conductor cross-sections / for flat-bar terminal connection / maximum | 25 x 8 mm |
| design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)        | silver    |
| design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)     | tin       |

#### Auxiliary circuit

|                                                |   |
|------------------------------------------------|---|
| number of CO contacts / for auxiliary contacts | 0 |
|------------------------------------------------|---|

#### Accessories

|                                            |     |
|--------------------------------------------|-----|
| product extension / optional / motor drive | Yes |
|--------------------------------------------|-----|

#### Environmental conditions

|                                    |        |
|------------------------------------|--------|
| 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  |

#### Environmental footprint

|                                                          |                 |
|----------------------------------------------------------|-----------------|
| Environmental Product Declaration(EPD)                   | Yes             |
| Global Warming Potential [CO2 eq] / total                | 251 kg          |
| Global Warming Potential [CO2 eq] / during manufacturing | 20.4 kg         |
| Global Warming Potential [CO2 eq] / during operation     | 235 kg          |
| Global Warming Potential [CO2 eq] / after end of life    | -3.75 kg        |
| Siemens Eco Profile (SEP)                                | Siemens EcoTech |
| reference code / according to IEC 81346-2                | Q               |

#### Approvals / Certificates

##### General Product Approval



[Confirmation](#)



[Miscellaneous](#)

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



[Miscellaneous](#)

[Special Test Certificate](#)



| Marine / Shipping | other | Dangerous goods | Environment |
|-------------------|-------|-----------------|-------------|
|-------------------|-------|-----------------|-------------|

[CCS \(China Classification Society\)](#)

[Confirmation](#)

[Miscellaneous](#)

[Miscellaneous](#)

[Transport Information](#)



#### Environment



[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=3VA2220-5MN32-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA2220-5MN32-0AA0>

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

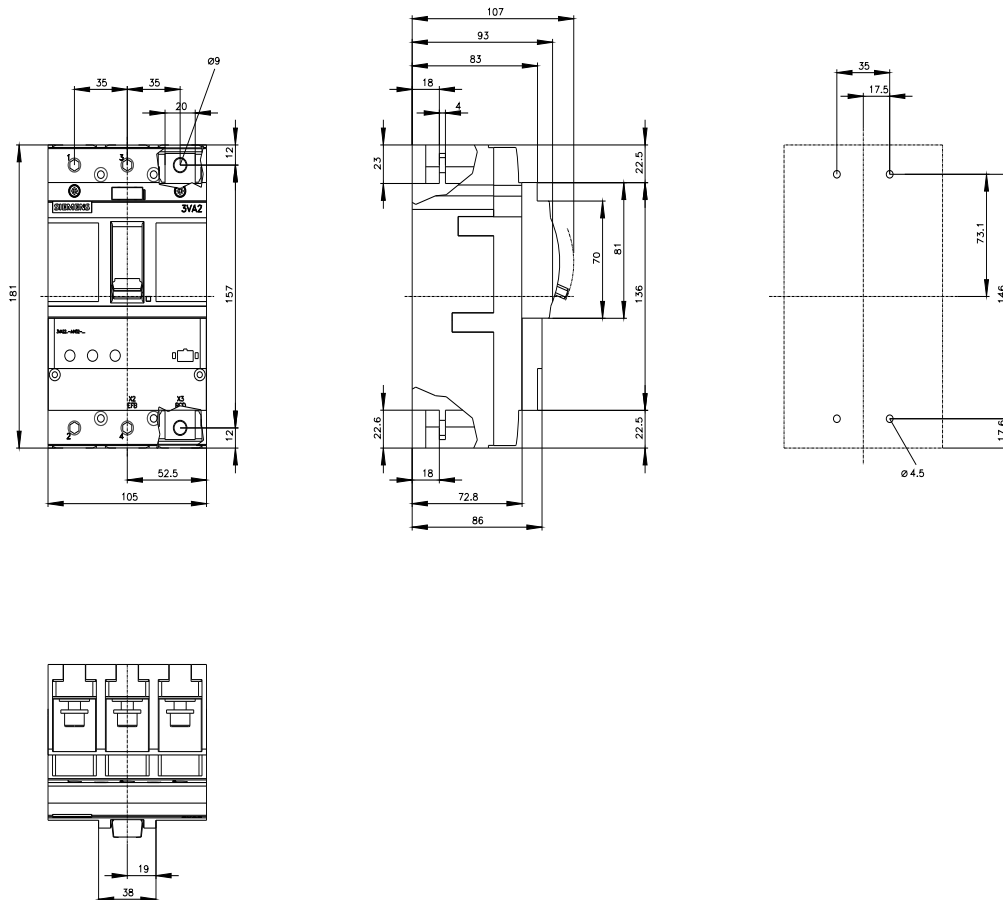
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA2220-5MN32-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2220-5MN32-0AA0)

CAX-Online-Generator

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

Tender specifications

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





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