

Siemens  
EcoTech



circuit breaker 3VA2 IEC Frame 160 breaking capacity class M Icu=55 kA @ 415 V  
4-pole, line protection ETU320, LI, In=63 A overload protection Ir=25 A...63 A  
short-circuit protection Ii=1.5...12 x In neutral conductor protection adjustable (OFF,  
100%) nut keeper kit



| Model                                                                                                 |                             |
|-------------------------------------------------------------------------------------------------------|-----------------------------|
| product brand name                                                                                    | SENTRON                     |
| product designation                                                                                   | Molded case circuit breaker |
| design of the product                                                                                 | Line protection             |
| design of the overcurrent release                                                                     | ETU320                      |
| protection function of the overcurrent release                                                        | LI                          |
| 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                                                                              | 4 W                         |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole           | 1.33 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                                                                                            | 2.769 kg                    |
| Current                                                                                               |                             |
| operational current                                                                                   |                             |
| • at 40 °C                                                                                            | 63 A                        |
| • at 45 °C                                                                                            | 63 A                        |
| • at 50 °C                                                                                            | 63 A                        |
| • at 55 °C                                                                                            | 63 A                        |
| • at 60 °C                                                                                            | 63 A                        |
| • at 65 °C                                                                                            | 63 A                        |
| • at 70 °C                                                                                            | 63 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                       |

|                                                                                                                                                                                                      |                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| <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>                                                                             | 55 kA<br>55 kA<br>36 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> | 85 kA<br>55 kA<br>55 kA<br>36 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>             | 187 kA<br>121 kA<br>121 kA<br>75.6 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 (Ir) / of the L-trip / with I2t characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                              | 25 A<br>63 A                                    |
| adjustable response value delay time (tr) / 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 (Ii) / for I-tripping <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                                       | 94 A<br>756 A                                   |
| adjustable setting current (InN) / for N-tripping <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                                                     | 25 A<br>63 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                                         |
| 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                                                                                                                                             | on both sides nut keeper kit                    |
| type of connectable conductor cross-sections / for flat-bar terminal connection / minimum                                                                                                            | 13 x 1 mm                                       |
| 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)                                                                                                                   | 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                                             |

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

| Approvals / Certificates |  |
|--------------------------|--|
| General Product Approval |  |



[Confirmation](#)



EG-Konf.



[Miscellaneous](#)

| General Product Approval | EMV | Test Certificates |
|--------------------------|-----|-------------------|
|--------------------------|-----|-------------------|



RCM

[Miscellaneous](#)

[Special Test Certificate](#)

[Type Test Certificate/Test Report](#)

| Maritime application |  |
|----------------------|--|
|----------------------|--|



ABS



BUREAU  
VERITAS



DNV



LRS



RMRS

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

| other | Dangerous goods | Environment |
|-------|-----------------|-------------|
|-------|-----------------|-------------|



[Confirmation](#)

[Miscellaneous](#)

[Transport Information](#)

Siemens  
EcoTech



[Environmental Confirmations](#)

| Environment |
|-------------|
|-------------|



[Environmental Confirmations](#)

| Further information |
|---------------------|
|---------------------|

Information on the packaging

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

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

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

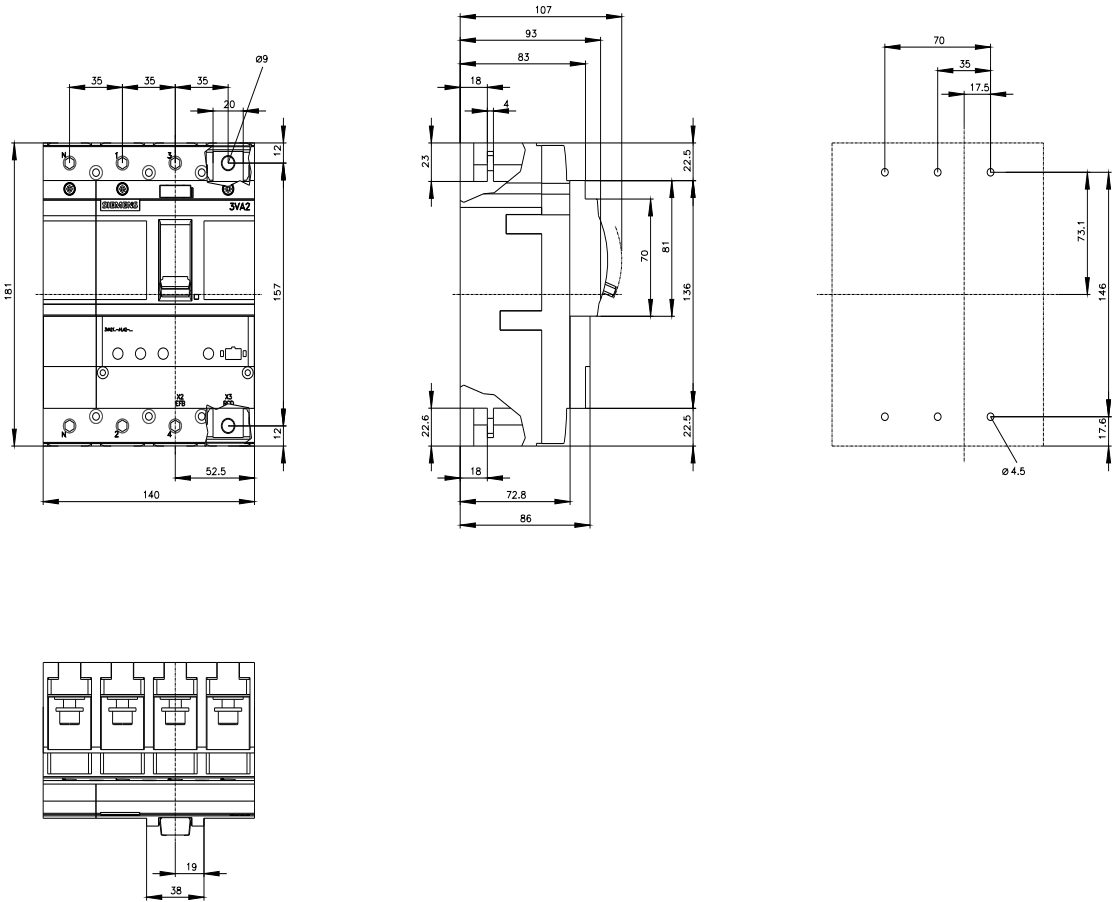
<https://www.siemens.com/lowvoltage/catalogs>

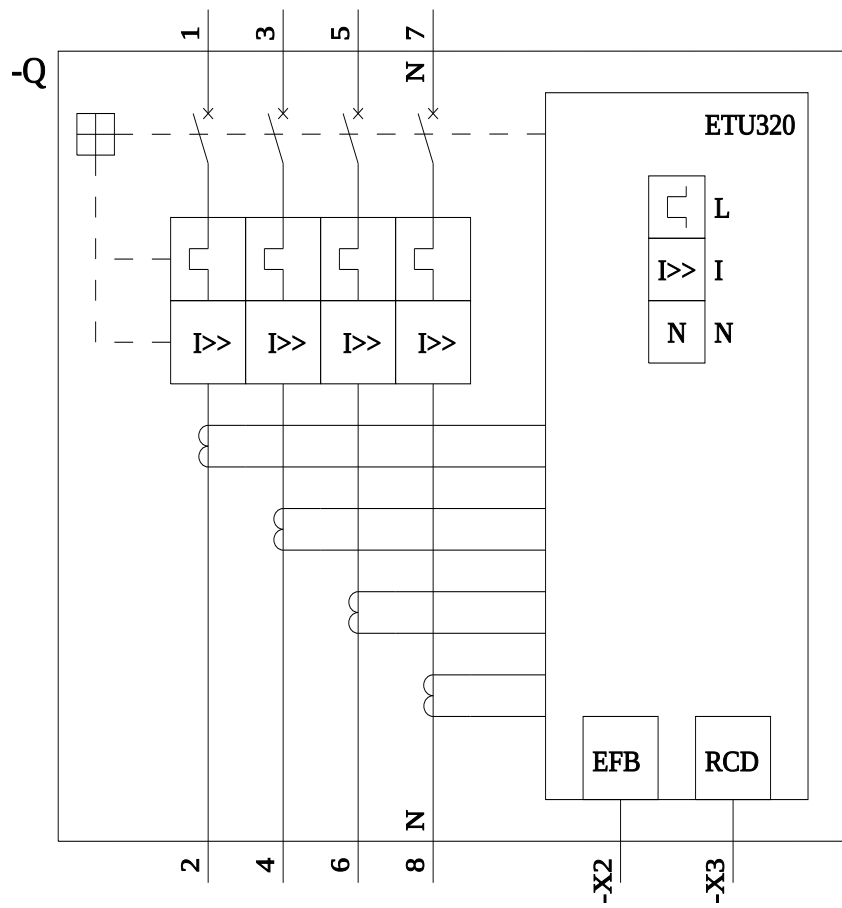
Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA2163-5HL42-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA2163-5HL42-0AA0>





last modified:

4/3/2025

