



circuit breaker 3VA2 IEC Frame 100 breaking capacity class S Icu=36 kA @ 415 V 4-pole, line protection ETU560, LSIG, In=100 A overload protection Ir=40 A...100 A short-circuit protection I_{sd}=0.6...10x I_n, I_i=1.5...12x I_n neutral conductor protection adjustable (OFF, up to 100%) ground-fault protection, can be switched off I_g=0.2...1 x I_n= tg=0.05-0.8s 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 | ETU560 |
| protection function of the overcurrent release | LSIG |
| 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 | 13.5 W |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole | 4.5 W |
| mechanical service life (operating cycles) / typical | 25 000 |
| product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof | No |
| ground-fault monitoring version | Summation current formation L + N conductor |
| product function | |
| • communication function | Yes |
| • other measurement function | No |
| Net Weight | 2.682 kg |
| Current | |
| operational current | |
| • at 45 °C | 100 A |
| • at 50 °C | 100 A |
| • at 55 °C | 100 A |
| • at 60 °C | 100 A |
| • at 65 °C | 100 A |
| • at 70 °C | 100 A |
| Switching capacity according to IEC 60947 | |
| switching capacity class of the circuit breaker | S |
| maximum short-circuit current breaking capacity (I _{cu}) | |
| • at 240 V | 55 kA |
| • at 415 V | 36 kA |
| • at 440 V | 36 kA |
| • at 500 V | 25 kA |

| | |
|--|--|
| <ul style="list-style-type: none"> • at 690 V | 2 kA |
| operating short-circuit current breaking capacity (Ics) | |
| <ul style="list-style-type: none"> • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V | 55 kA 36 kA 36 kA 25 kA 2 kA |
| short-circuit current making capacity (Icm) | |
| <ul style="list-style-type: none"> • at 415 V • at 440 V • at 500 V • at 690 V | 75.5 kA 75.5 kA 52.5 kA 3 kA |

Adjustable parameters

| | |
|---|-----------------------------|
| 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"> • minimum • maximum | 40 A 100 A |
| adjustable response value delay time (tr) / for L-tripping / with I2t characteristic | |
| <ul style="list-style-type: none"> • minimum • maximum | 0.5 s 25 s |
| adjustable response value setting current (Isd) / of S-trip / with I0t characteristic | |
| <ul style="list-style-type: none"> • minimum • maximum | 60 A 1 000 A |
| adjustable response value setting current (Isd) / of S-trip / with I2t characteristic | |
| <ul style="list-style-type: none"> • minimum • maximum | 60 A 1 000 A |
| adjustable response value delay time (tsd) / for S-tripping / with I0t characteristic | |
| <ul style="list-style-type: none"> • minimum • maximum | 0.05 s 0.5 s |
| adjustable response value delay time (tsd) / for S-tripping / with I2t characteristic | |
| <ul style="list-style-type: none"> • minimum • maximum | 0.05 s 0.5 s |
| adjustable response value setting current (Ii) / for I-tripping | |
| <ul style="list-style-type: none"> • minimum • maximum | 150 A 1 200 A |
| adjustable current response value current / for G-tripping / with standard characteristic | |
| <ul style="list-style-type: none"> • initial value • full-scale value | 20 A 100 A |
| adjustable response value delay time (tg) / for G-tripping / with I0t characteristic | |
| <ul style="list-style-type: none"> • minimum • maximum | 0.05 s 0.8 s |
| adjustable response value setting current (Ig) / for G-tripping / with I2t characteristic | |
| <ul style="list-style-type: none"> • minimum • maximum | 20 A 100 A |
| adjustable response value delay time (tg) / for G-tripping / with I2t characteristic | |
| <ul style="list-style-type: none"> • minimum • maximum | 0.05 s 0.8 s |
| adjustable setting current (InN) / for N-tripping | |
| <ul style="list-style-type: none"> • minimum • maximum | 20 A 100 A |
| design of the N-conductor protection | adjustable OFF; 20% to 100% |
| product function / grounding protection | Yes |

| Mechanical Design | |
|--|------------------------------------|
| product component | |
| <ul style="list-style-type: none"> • undervoltage release • voltage trigger • trip indicator | No No No |
| height [in] | 7.13 in |
| width [in] | 5.51 in |
| depth [in] | 3.39 in |
| Connections | |
| 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 |
| 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 | |
| <ul style="list-style-type: none"> • during operation / minimum • during operation / maximum • during storage / minimum • during storage / maximum | -25 °C 70 °C -40 °C 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 | |




[Miscellaneous](#)



[Confirmation](#)



| General Product Approval | EMV | Test Certificates | | | Maritime application |
|---|---|-------------------------------|--|--|--|
|  |  | Miscellaneous | Special Test Certificate | Type Test Certificates/Test Report | CCS (China Classification Society) |
| other | | Dangerous goods | Environment | | |

[Miscellaneous](#)

[Miscellaneous](#)

[Confirmation](#)



[Transport Information](#)

[Environmental Confirmations](#)



Environmental Con-
firmations



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=3VA2010-4JQ42-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA2010-4JQ42-0AA0>

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

https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2010-4JQ42-0AA0

CAX-Online-Generator

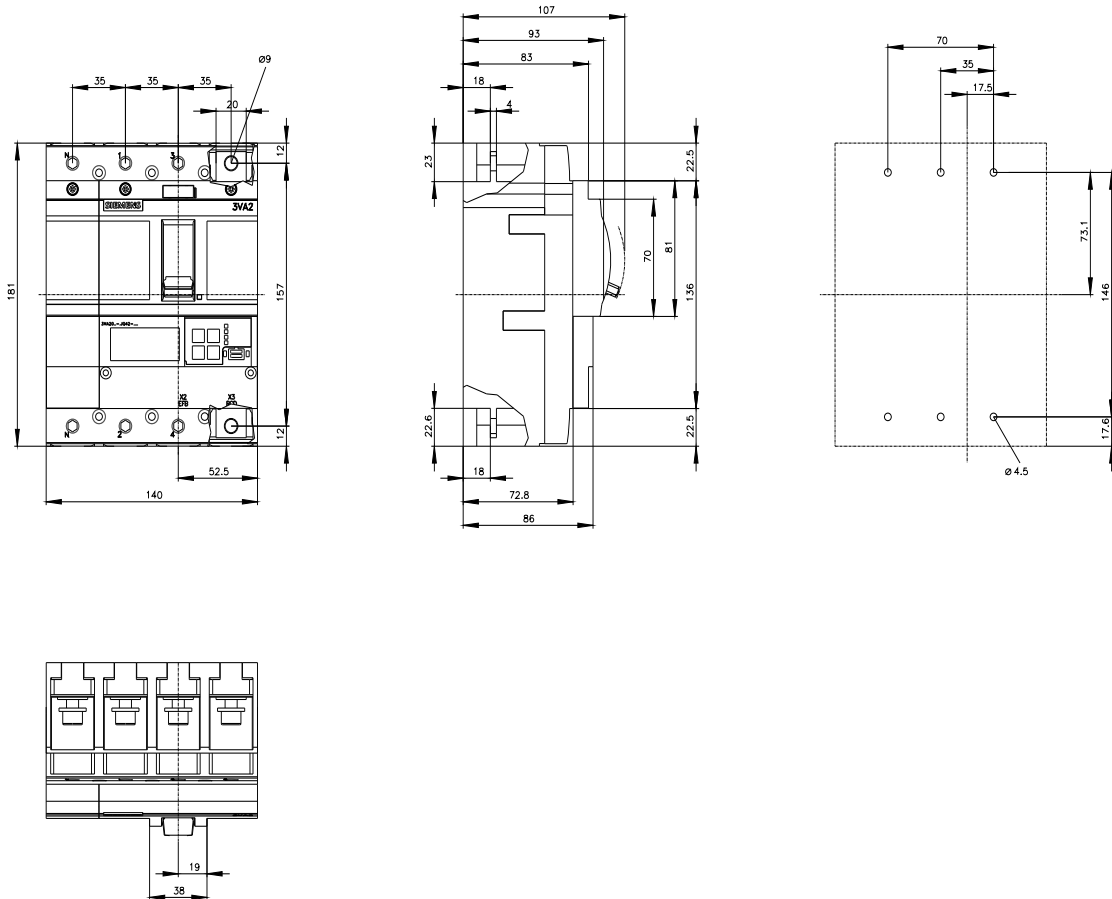
<https://www.siemens.com/cax>

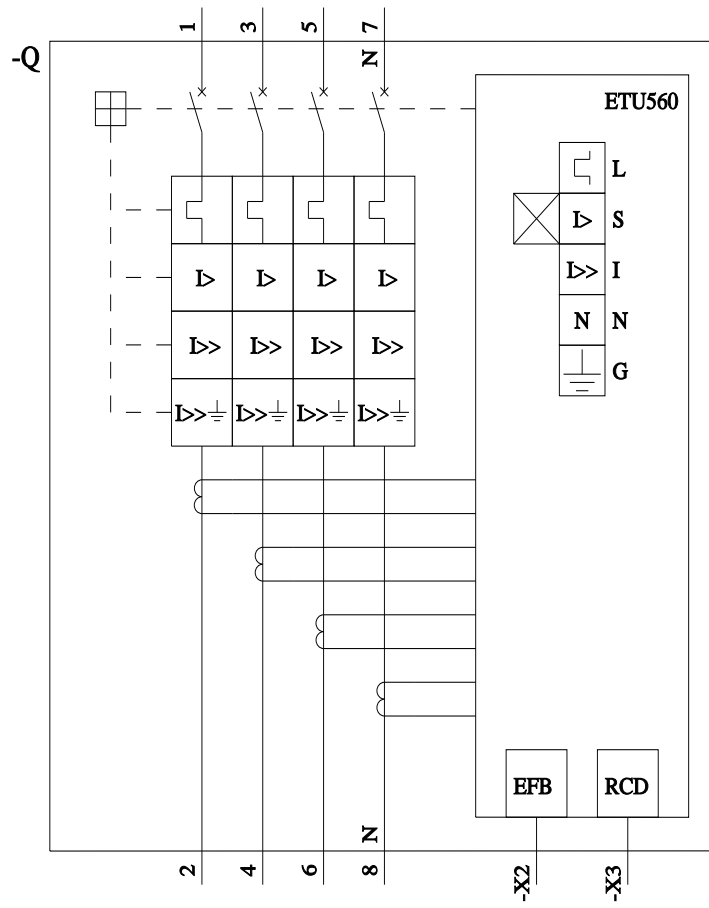
Tender specifications

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

Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP="HAUPT"></mmp_prod_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP=)





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