

Siemens
EcoTech



circuit breaker 3VA6 UL Frame 250 breaking capacity class C 100 kA @ 480 V 3-pole, line protection ETU560, LSIG, $I_n=100$ A overload protection $I_r=40$ A ...100 A short-circuit protection $I_{sd}=0.6..10 \times I_n$, $I_i=1.5..12 \times I_n$ neutral conductor protection optionally with ext. CT; up to 160% ground-fault protection $I_g=0.2... 1 \times I_n$, $t_g=0.05-0.8$ s cable connection on two sides



| Model | |
|--|---|
| product brand name | SENTRON |
| product designation | Molded-case circuit breaker |
| product designation / according to UL file | CFAE |
| design of the product | System protection |
| design of the load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type) | Yes |
| design of the overcurrent release | ETU560 |
| protection function of the overcurrent release | LSIG |
| number of poles | 3 |
| General technical data | |
| insulation voltage / rated value | 800 V |
| operating voltage / at AC / rated value | 690 V |
| power loss [W] / maximum | 6.7 W |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole | 2.23 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 480 V | 12 000 |
| electrical endurance (operating cycles) / at 600 V | 8 400 |
| product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof | Yes |
| ground-fault monitoring version | Summation current formation L-conductor |
| product function | |
| • communication function | Yes |
| • other measurement function | No |
| Net Weight | 2.709 kg |
| Current | |
| marking / according to UL 489 / 100%-rated breaker | No |
| operational current | |
| • at 40 °C | 100 A |
| • 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 | C |
| maximum short-circuit current breaking capacity (I _{cu}) | |
| • at 240 V | 150 kA |
| • at 415 V | 110 kA |
| • at 690 V | 3 kA |
| operating short-circuit current breaking capacity (I _{cs}) | |
| • at 240 V | 150 kA |
| • at 415 V | 110 kA |
| • at 690 V | 3 kA |
| short-circuit current making capacity (I _{cm}) | |
| • at 240 V | 330 kA |
| • at 415 V | 242 kA |
| • at 690 V | 4.5 kA |

Switching capacity according to UL 489

| | |
|---------------------------|--------|
| current breaking capacity | |
| • at 240 V | 200 kA |
| • at 480 V | 100 kA |
| • at 600 V | 35 kA |

Adjustable parameters

| | |
|--|---------|
| adjustable response value setting current (I _r) / of the L-trip / with I _{2t} characteristic | |
| • minimum | 40 A |
| • maximum | 100 A |
| adjustable response value delay time (t _r) / for L-tripping / with I _{2t} characteristic | |
| • minimum | 0.5 s |
| • maximum | 25 s |
| adjustable response value setting current (I _{sd}) / of S-trip / with I _{0t} characteristic | |
| • minimum | 60 A |
| • maximum | 1 000 A |
| adjustable response value setting current (I _{sd}) / of S-trip / with I _{2t} characteristic | |
| • minimum | 60 A |
| • maximum | 1 000 A |
| adjustable response value delay time (t _{sd}) / for S-tripping / with I _{0t} characteristic | |
| • minimum | 0.05 s |
| • maximum | 0.5 s |
| adjustable response value delay time (t _{sd}) / for S-tripping / with I _{2t} characteristic | |
| • minimum | 0.05 s |
| • maximum | 0.5 s |
| adjustable response value setting current (I _i) / for I-tripping | |
| • minimum | 150 A |
| • maximum | 1 200 A |
| adjustable current response value current / for G-tripping / with standard characteristic | |
| • initial value | 20 A |
| • full-scale value | 100 A |
| adjustable response value delay time (t _g) / for G-tripping / with I _{0t} characteristic | |
| • minimum | 0.05 s |
| • maximum | 0.8 s |
| adjustable response value setting current (I _g) / for G-tripping / with I _{2t} characteristic | |
| • minimum | 20 A |
| • maximum | 100 A |
| adjustable response value delay time (t _g) / for G-tripping / with I _{2t} characteristic | |
| • minimum | 0.05 s |
| • maximum | 0.8 s |
| adjustable setting current (I _{nN}) / for N-tripping | |

| | |
|---|-----------------------------|
| • minimum | 0 A |
| • maximum | 0 A |
| design of the N-conductor protection | adjustable OFF; 20% to 160% |
| product function / grounding protection | Yes |

Mechanical Design

| | |
|---|-------------------------|
| product component | |
| • undervoltage release | No |
| • voltage trigger | No |
| • trip indicator | No |
| height [in] | 7.8 in |
| height | 198 mm |
| width [in] | 4.13 in |
| type of connectable conductor cross-sections / of the round conductor terminal / stranded | 1 x (6 AWG - 350 kcmil) |
| width | 105 mm |
| depth [in] | 3.39 in |
| depth | 86 mm |

Connections

| | |
|---|---|
| arrangement of electrical connectors / for main current circuit | Front connection |
| type of electrical connection / for main current circuit | circular conductor terminal on both sides |

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 | 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](#)

| | | | |
|--------------------------|-----|-------|-----------------|
| General Product Approval | EMV | other | Dangerous goods |
|--------------------------|-----|-------|-----------------|



[Confirmation](#)

[Miscellaneous](#)

[Transport Information](#)

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,...)

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

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA6210-7JQ36-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6210-7JQ36-0AA0>

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

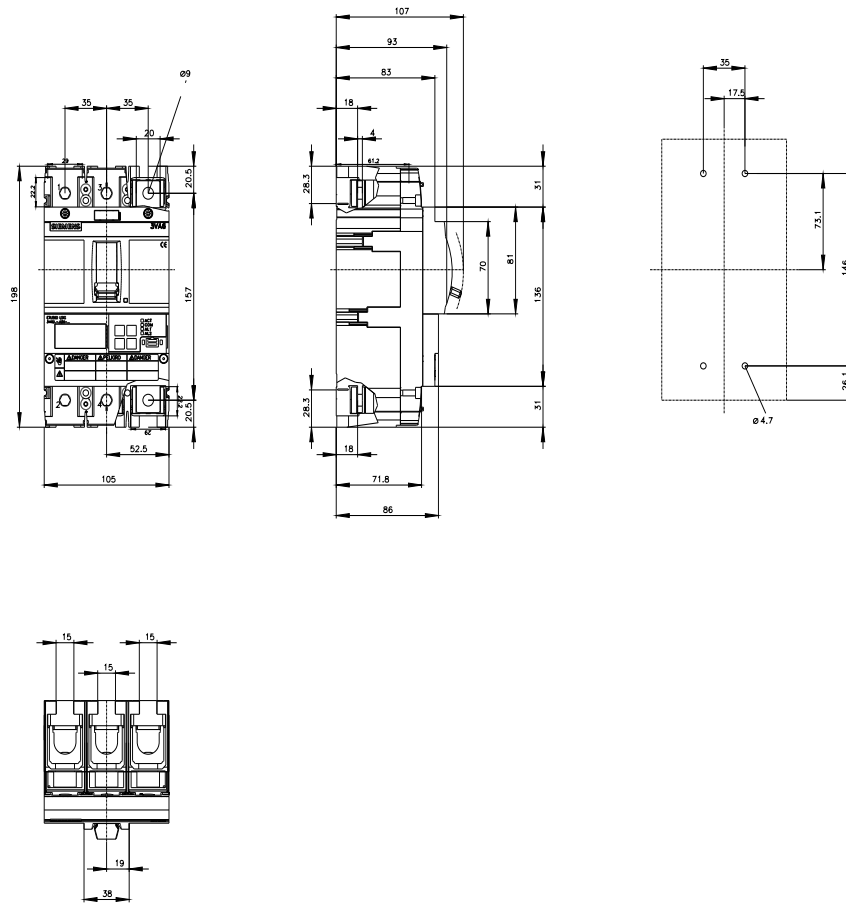
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6210-7JQ36-0AA0

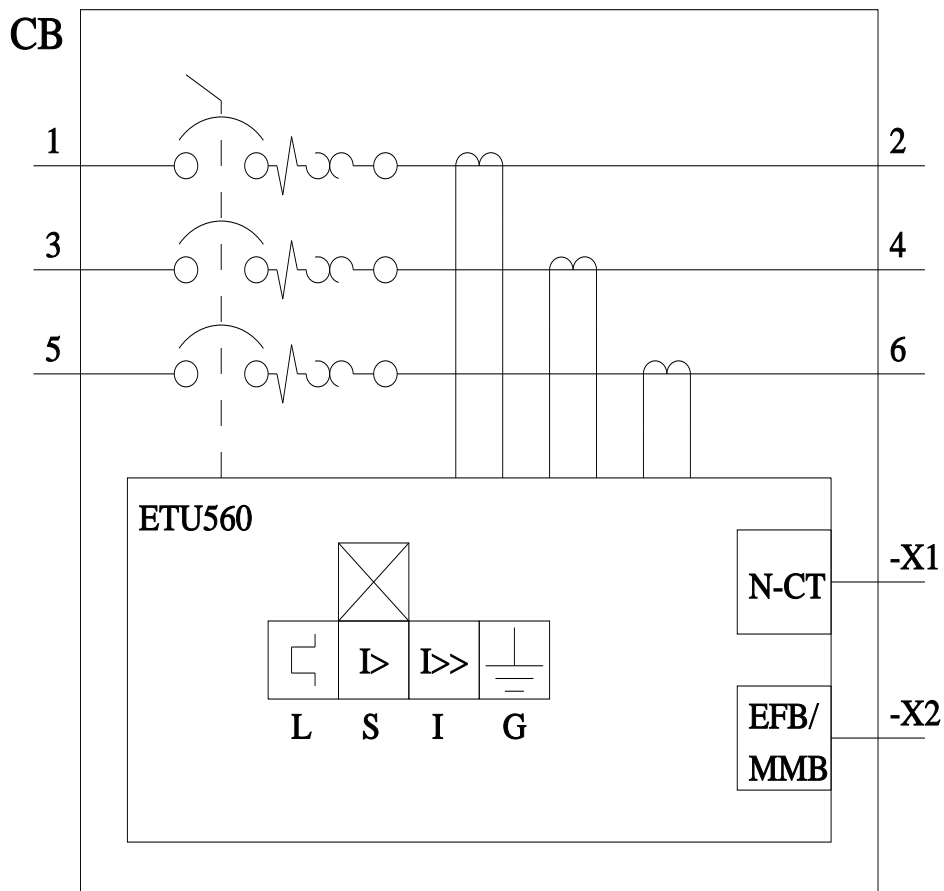
CAX-Online-Generator

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

Tender specifications

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





last modified:

5/2/2025

