



Fixed-mounted circuit breaker IEC 60947-2, frame size 1, 3-poles, $I_n=1250\text{A}$ up to 690V AC 50/60Hz, breaking capacity S $I_{cu}=66/50\text{kA}$ at 500/690V, Trip unit ETU600 LSI upgrade ready, color display, bluetooth and USB interface, Protection LT, ST, INST, N-protection required an external N-sensor, incl. trip alarm switch (1xCO), rear connection horizontal, without Com & metering function with manual and motorized operating mechanism (M) 208-240 V AC / 220-250 V DC, Storage status and ready-to-close signaling switches, Auxiliary switches 2NO+2NC, Closing coil (CC) 100% OP 208-240 V AC / 220-250 V DC, applicable for continuous duty, Remote trip alarm reset (RR) 208-240 V AC / 220-250 V DC for momentary duty, Undervoltage release (UVR) instantaneous (0,08 s) and short-delay (0,2 s), 208-240 V AC / 220-250 V DC, Shunt trip (ST) 100% OP 208-240 V AC / 220-250 V DC, suitable for continuous duty,

| Model | |
|---|--|
| product brand name | SENTRON |
| product designation | 3WA air circuit breaker |
| suitability for use | circuit breaker |
| size of the circuit-breaker | I |
| number of poles | 3 |
| position / of neutral conductor | no internal N-conductor |
| fastening method | fixed-mounted circuit breakers |
| design of the product | AC application |
| type of the driving mechanism | manual operating mechanism/spring charging motor with spring charge signaling switch |
| design of the electronic trip unit | ETU600 LSI |
| Weight | 47.555 kg |
| Net Weight | 32.555 kg |
| General technical data | |
| insulation voltage / rated value | 1000 V |
| operating voltage / at AC / at 50/60 Hz / rated value | 690 V |
| power loss [W] / maximum | 105 W |
| Current | |
| continuous current / rated value / maximum | 1250 A |
| continuous current / rated value | 1250 A |
| operational current | |
| • at 40 °C / rated value | 1250 A |
| • at 45 °C / rated value | 1250 A |
| • at 50 °C / rated value | 1250 A |
| • at 55 °C / rated value | 1250 A |
| • at 60 °C / rated value | 1250 A |
| • at 65 °C / rated value | 1250 A |
| • at 70 °C / rated value | 1250 A |
| Switching capacity and short-time withstand current, according to IEC 60947-2 | |
| switching capacity class of the circuit breaker | S |
| maximum short-circuit current breaking capacity (I_{cu}) | |
| • at 500 V / rated value | 66 kA |
| • at 690 V / rated value | 50 kA |
| operating short-circuit current breaking capacity (I_{cs}) | |
| • at 500 V / rated value | 66 kA |
| • at 690 V / rated value | 50 kA |
| short-circuit current making capacity (I_{cm}) | |
| • at 500 V / rated value | 145 kA |
| • at 690 V / rated value | 105 kA |

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|---|--|
| short-time withstand current (I _{cw}) / at 500 V AC | |
| <ul style="list-style-type: none"> • for 0.5 s / rated value • for 1 s / rated value • for 2 s / rated value • for 3 s / rated value | <p>66 kA</p> <p>66 kA</p> <p>45 kA</p> <p>35 kA</p> |
| short-time withstand current (I _{cw}) / at 690 V AC | |
| <ul style="list-style-type: none"> • for 0.5 s / rated value • for 1 s / rated value • for 2 s / rated value • for 3 s / rated value | <p>50 kA</p> <p>50 kA</p> <p>45 kA</p> <p>35 kA</p> |
| Electronic release unit | |
| product feature | |
| <ul style="list-style-type: none"> • upgradable • Bluetooth and USB interface • decoder for basic protection functions • display and function keys • SENTRON powerconfig configuration software | <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> |
| Basic protection functions | |
| product feature / for L-tripping | |
| <ul style="list-style-type: none"> • can be switched on/off • selectable characteristic function • decoder and infinite adjustability are selectable with eSet | <p>Yes</p> <p>Yes</p> <p>Yes</p> |
| set values setting current (I _r) / for L-tripping / with I2t characteristic | 0.5;0.6;0.7;0.75;0.8;0.85;0.9;0.95;1.0 |
| reference value setting current (I _r) / for L-tripping / with I2t characteristic | x I _n |
| set values delay time (t _r) / for L-tripping / with I2t characteristic | 1;2;5;8;10;14;17;21;25 |
| reference value delay time (t _r) / for L-tripping / with I2t characteristic | s |
| set values setting current (I _r) / for L-tripping / with I2t characteristic / for eSet | 0.4-1;0.001 |
| adjustable absolute value setting current (I _r) / for L-tripping / with I2t characteristic / for eSet | |
| <ul style="list-style-type: none"> • minimum • maximum | <p>500 A</p> <p>1250 A</p> |
| set values delay time (t _r) / for L-tripping / with I2t characteristic / for eSet | 0.5-30;0.001 |
| set values setting current (I _r) / for L-tripping / with I4t characteristic / for eSet | 0.4-1;0.001 |
| set values delay time (t _r) / for L-tripping / with I4t characteristic / for eSet | 0.5-5;0.001 |
| reference value delay time (t _r) / for L-tripping / with I4t characteristic | s |
| adjustable absolute value setting current (I _r) / for L-tripping / with I4t characteristic / for eSet | |
| <ul style="list-style-type: none"> • minimum • maximum | <p>500 A</p> <p>1250 A</p> |
| L: Overload protection N-conductor | |
| product feature / with neutral conductor protection / can be switched on/off | Yes |
| setting values setting current (I _{nN}) / for N-tripping | 0.2-2;0.001 |
| reference value setting current (I _{nN}) / for N-tripping | x I _n |
| adjustable setting current (I _{nN}) / for N-tripping | |
| <ul style="list-style-type: none"> • minimum • maximum | <p>250 A</p> <p>2500 A</p> |
| S: delayed short-circuit protection ST | |
| product feature / for S-tripping | |
| <ul style="list-style-type: none"> • independent of direction / can be switched on/off • independent of direction / selectable characteristic function • decoder and infinite adjustability are selectable with eSet | <p>Yes</p> <p>Yes</p> <p>Yes</p> |
| S: delayed short-circuit protection ST, settings values I0t | |
| set values setting current (I _{sd}) / for S-tripping / with I0t characteristic | 1.5;2;2.5;3;4;5;6;8;10 |

| | |
|--|------------------------|
| reference value setting current (I _{sd}) / for S-tripping / with I0t characteristic | x I _r |
| set values delay time (tsd) / for S-tripping / with I0t characteristic | 0.08;0.15;0.22;0.3;0.4 |
| reference value delay time (tsd) / for S-tripping / with I0t characteristic | s |
| set values setting current (I _{sd}) / for S-tripping / with I0t characteristic / for eSet / independent of direction | 0.6-10;0.001 |
| adjustable absolute value setting current (I _{sd}) | |
| • for S-tripping / with I0t characteristic / for eSet / independent of direction / minimum | 750 A |
| • at 500 V / for S-tripping / with I0t characteristic / for eSet / independent of direction / maximum | 52.8 kA |
| • at 690 V / for S-tripping / with I0t characteristic / for eSet / independent of direction / maximum | 40 kA |
| set values delay time (tsd) / for S-tripping / with I0t characteristic / for eSet / independent of direction | 0.02-0.4;0.001 |
| S: delayed short-circuit protection ST, settings values I2t | |
| set values setting current (I _{sd}) / for S-tripping / with I2t characteristic | 1.5;2;2.5;3;4;5;6;8;10 |
| reference value setting current (I _{sd}) / for S-tripping / with I2t characteristic | x I _r |
| set values delay time (tsd) / for S-tripping / with I2t characteristic | 0.1;0.2;0.3;0.4 |
| set values setting current (I _{sd}) / for S-tripping / with I2t characteristic / for eSet / independent of direction | 0.6-10;0.001 |
| adjustable absolute value setting current (I _{sd}) | |
| • for S-tripping / with I2t characteristic / for eSet / independent of direction / minimum | 750 A |
| • at 500 V / for S-tripping / with I2t characteristic / for eSet / independent of direction / maximum | 52.8 kA |
| • at 690 V / for S-tripping / with I2t characteristic / for eSet / independent of direction / maximum | 40 kA |
| set values delay time (tsd) / for S-tripping / with I2t characteristic / for eSet / independent of direction | 0.02-0.4;0.001 |
| product feature / for I-tripping | |
| • can be switched on/off | Yes |
| • decoder and infinite adjustability are selectable (with eSet) | Yes |
| set values setting current (I _i) / for I-tripping | 1.5;2;3;4;6;8;10;12;15 |
| reference value setting current (I _i) / for I-tripping | x I _n |
| tripping factor setting current (I _{imax}) / for I-tripping | 0.8 |
| reference value setting current (I _{imax}) / for I-tripping | x I _{cs} |
| set values setting current (I _i) / for I-tripping / for eSet | 1.5-15;0.001 |
| adjustable absolute value setting current (I _i) | |
| • for I-tripping / for eSet / minimum | 1875 A |
| • at 500 V / for I-tripping / for eSet / maximum | 52.8 kA |
| • at 690 V / for I-tripping / for eSet / maximum | 40 kA |
| G: ground fault GF | |
| product feature / for G-tripping | |
| • can be switched on/off | No |
| • selectable characteristic function | No |
| Further protective functions | |
| protection function | |
| • maintenance mode DAS+ | Yes |
| Measuring functions | |
| measurement function | |
| • current measurement | Yes |
| Communication | |
| communication function | No |
| Service Life | |
| mechanical service life (operating cycles) | |
| • without support / typical | 15000 |
| • with support / typical | 30000 |
| electrical endurance (operating cycles) | |
| • at 690 V / without support / typical | 10000 |
| • at 690 V / with support / typical | 30000 |

| Dimensions | |
|------------|--------|
| height | 437 mm |
| width | 320 mm |
| depth | 357 mm |

| Main connection | |
|---|---|
| arrangement of electrical connectors / for main current circuit | main connection on the rear, horizontal |

| Auxiliary circuit | |
|--|-------------|
| design of the auxiliary switch | 2 NO + 2 NC |
| number of NC contacts / for auxiliary contacts | 2 |
| number of NO contacts / for auxiliary contacts | 2 |
| number of CO contacts / for auxiliary contacts | 0 |

| Internal accessories | |
|------------------------|-----|
| product component | |
| • undervoltage release | Yes |
| • voltage trigger | Yes |
| • trip indicator | Yes |
| • motor drive | Yes |

| Environmental conditions | |
|--|--------|
| protection class IP / on the front | IP20 |
| ambient temperature / during operation | |
| • minimum | -40 °C |
| • maximum | 70 °C |
| ambient temperature / during storage | |
| • minimum | -40 °C |
| • maximum | 80 °C |

| Certificates | |
|----------------------------|---|
| reference code | |
| • according to IEC 81346-2 | Q |

| General Product Approval | EMV |
|--------------------------|-----|
|--------------------------|-----|



| Radio Equipment Type Approval Certificate | Test Certificates |
|---|-------------------|
|---|-------------------|

[Miscellaneous](#)



[Miscellaneous](#)

[FCC](#)

[Miscellaneous](#)

[Special Test Certificate](#)

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



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

[Confirmation](#)

[Manufacturer Declaration](#)

[Dangerous goods information](#)

[Transport Information](#)



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



Further information

Information on the packaging

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

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3WA1112-3AE02-4JQ4>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3WA1112-3AE02-4JQ4>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3WA1112-3AE02-4JQ4

CAX-Online-Generator

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

Information- and Downloadcenter (catalogues, leaflets,...)

<http://www.siemens.com/energy-automation>



