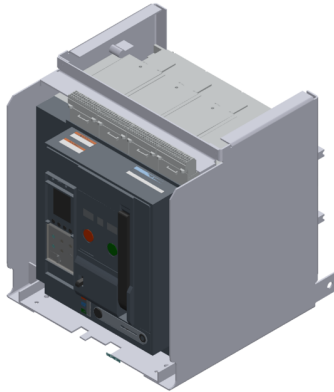


Siemens
EcoTech






Withdrawable circuit breaker with guide frame, IEC 60947-2, frame size 1, 4-poles, N-pole left, $I_n=1600\text{A}$ up to 690V AC 50/60Hz, breaking capacity N $I_{cu}=55/42\text{kA}$ at 500/690V, Trip unit ETU600 LSI upgrade ready, color display, bluetooth and USB interface, Protection LT, ST, INST, include N-protection, (internal N-sensor available), incl. trip alarm switch (1xCO), rear connection horizontal, guide frame with shutter and w/o position signalling switch, without Com & metering function Manual operating mechanism with mechanical closing, without Spring charging motor, Ready-to-close signal. switch, Auxiliary switches 4NO+4NC, without Closing coil (CC), manual operating mechanism with mechanical closing, without Remote trip alarm reset coil (RR), Undervoltage release (UVR) instantaneous (0,08 s) and short-delay (0,2 s), 110-127 V AC / 110-125 V DC, without 1st Shunt trip

| Model | |
|---|--|
| product brand name | SENTRON |
| product designation | Air circuit breaker |
| suitability for use | circuit breaker |
| size of the circuit-breaker | I |
| number of poles | 4 |
| position / of neutral conductor | neutral left |
| fastening method | withdrawable circuit breaker |
| design of the product | AC application |
| type of the driving mechanism | manual operating mechanism with mechanical or electrical closing |
| design of the electronic trip unit | ETU600 LSI |
| Weight | 87.924 kg |
| Net Weight | 72.924 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 | 310 W |
| Current | |
| continuous current / rated value / maximum | 1600 A |
| continuous current / rated value | 1600 A |
| operational current | |
| • at 40 °C / rated value | 1600 A |
| • at 45 °C / rated value | 1600 A |
| • at 50 °C / rated value | 1600 A |
| • at 55 °C / rated value | 1600 A |
| • at 60 °C / rated value | 1600 A |
| • at 70 °C / rated value | 1490 A |
| Switching capacity and short-time withstand current, according to IEC 60947-2 | |
| switching capacity class of the circuit breaker | N |
| maximum short-circuit current breaking capacity (I_{cu}) | |
| • at 500 V / rated value | 55 kA |
| • at 690 V / rated value | 42 kA |
| operating short-circuit current breaking capacity (I_{cs}) | |
| • at 500 V / rated value | 55 kA |
| • at 690 V / rated value | 42 kA |
| short-circuit current making capacity (I_{cm}) | |
| • at 500 V / rated value | 121 kA |

| | |
|--|--|
| <ul style="list-style-type: none"> • at 690 V / rated value | 88 kA |
| 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 | 55 kA 50 kA 45 kA 35 kA |
| 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 | 42 kA 42 kA 42 kA 35 kA |
| 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 | Yes Yes Yes Yes Yes |
| 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 | Yes Yes Yes |
| 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 |
| 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 | 640 A 1600 A |
| 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 |
| adjustable absolute value setting current (I _r) / for L-tripping / with I4t characteristic / for eSet <ul style="list-style-type: none"> • minimum • maximum | 640 A 1600 A |
| 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 | 0.2-1;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 | 320 A 1600 A |
| 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 | Yes Yes Yes |
| 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 | x I _r |

| | |
|---|------------------------|
| characteristic | |
| 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}) | |
| <ul style="list-style-type: none"> for S-tripping / with I0t characteristic / for eSet / independent of direction / minimum | 960 A |
| <ul style="list-style-type: none"> at 500 V / for S-tripping / with I0t characteristic / for eSet / independent of direction / maximum | 40 kA |
| <ul style="list-style-type: none"> at 690 V / for S-tripping / with I0t characteristic / for eSet / independent of direction / maximum | 33.6 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}) | |
| <ul style="list-style-type: none"> for S-tripping / with I2t characteristic / for eSet / independent of direction / minimum | 960 A |
| <ul style="list-style-type: none"> at 500 V / for S-tripping / with I2t characteristic / for eSet / independent of direction / maximum | 40 kA |
| <ul style="list-style-type: none"> at 690 V / for S-tripping / with I2t characteristic / for eSet / independent of direction / maximum | 33.6 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 | |
| <ul style="list-style-type: none"> can be switched on/off | Yes |
| <ul style="list-style-type: none"> 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) | |
| <ul style="list-style-type: none"> for I-tripping / for eSet / minimum | 2400 A |
| <ul style="list-style-type: none"> at 500 V / for I-tripping / for eSet / maximum | 44 kA |
| <ul style="list-style-type: none"> at 690 V / for I-tripping / for eSet / maximum | 33.6 kA |
| G: ground fault GF | |
| product feature / for G-tripping | |
| <ul style="list-style-type: none"> selectable characteristic function | No |
| Further protective functions | |
| protection function | |
| <ul style="list-style-type: none"> maintenance mode DAS+ | Yes |
| Measuring functions | |
| measurement function | |
| <ul style="list-style-type: none"> current measurement | Yes |
| Communication | |
| communication function | No |
| Service Life | |
| mechanical service life (operating cycles) | |
| <ul style="list-style-type: none"> without support / typical | 15000 |
| <ul style="list-style-type: none"> with support / typical | 30000 |
| electrical endurance (operating cycles) | |
| <ul style="list-style-type: none"> at 690 V / without support / typical | 10000 |
| <ul style="list-style-type: none"> at 690 V / with support / typical | 30000 |
| Dimensions | |
| height | 468 mm |

| | | |
|---|---|--------------------|
| width | 410 mm | |
| depth | 471 mm | |
| Main connection | | |
| arrangement of electrical connectors / for main current circuit | main connection on the rear, horizontal | |
| Auxiliary circuit | | |
| design of the auxiliary switch | 4 NO + 4 NC | |
| number of NC contacts / for auxiliary contacts | 4 | |
| number of NO contacts / for auxiliary contacts | 4 | |
| number of CO contacts / for auxiliary contacts | 0 | |
| Internal accessories | | |
| product component | | |
| • undervoltage release | Yes | |
| • voltage trigger | No | |
| • trip indicator | Yes | |
| • motor drive | No | |
| 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 | |
| Environmental footprint | | |
| Siemens Eco Profile (SEP) | Siemens EcoTech | |
| Certificates | | |
| reference code | | |
| • according to IEC 81346-2 | Q | |
| Approvals / Certificates | | |
| General Product Approval | EMV | |
|       | | |
| Radio Equipment Type Approval Certificate | Test Certificates | |
| Miscellaneous  | Miscellaneous FCC Miscellaneous Special Test Certificate | |
| Maritime application | other | |
|      | Confirmation | |
| other | Dangerous goods | Environment |
|  Manufacturer Declaration Transport Information Dangerous goods information |   | |
| Environment | | |



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>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3WA1116-2AE42-1AP0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3WA1116-2AE42-1AP0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3WA1116-2AE42-1AP0

CAX-Online-Generator

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

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

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

