



Fixed-mounted circuit breaker IEC 60947-2, frame size 1, 3-poles, $I_n=2000A$ up to 690V AC 50/60Hz, breaking capacity M $I_{cu}=85/66kA$ at 500/690V, Trip unit ETU300 LSIG optimized for standard applications, without display Protection LT, ST, INST, GF, N-protection required an external N-sensor, incl. trip alarm switch (1xCO), rear connection vertical, 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 4NO+4NC, Closing coil (CC) 5% OP 208-240 V AC / 220-250 V DC, for momentary 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), 24 V DC, Shunt trip (ST) 100% OP 24-30 V DC, suitable for continuous duty,

| Model | |
|---|--|
| product brand name | SENTRON |
| 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 | ETU300 LSIG |
| Weight | 52.1 kg |
| Net Weight | 39.1 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 | 240 W |
| Current | |
| continuous current / rated value / maximum | 2000 A |
| continuous current / rated value | 2000 A |
| operational current | |
| • at 40 °C / rated value | 2000 A |
| • at 45 °C / rated value | 2000 A |
| • at 50 °C / rated value | 2000 A |
| • at 55 °C / rated value | 2000 A |
| • at 60 °C / rated value | 2000 A |
| • at 65 °C / rated value | 2000 A |
| • at 70 °C / rated value | 2000 A |
| Switching capacity and short-time withstand current, according to IEC 60947-2 | |
| switching capacity class of the circuit breaker | M |
| maximum short-circuit current breaking capacity (I_{cu}) | |
| • at 500 V / rated value | 85 kA |
| • at 690 V / rated value | 66 kA |
| operating short-circuit current breaking capacity (I_{cs}) | |
| • at 500 V / rated value | 85 kA |
| • at 690 V / rated value | 66 kA |
| short-circuit current making capacity (I_{cm}) | |
| • at 500 V / rated value | 187 kA |
| • at 690 V / rated value | 145 kA |
| short-time withstand current (I_{cw}) / at 500 V AC | |

| | |
|---|-------|
| <ul style="list-style-type: none"> • for 0.5 s / rated value | 85 kA |
| <ul style="list-style-type: none"> • for 1 s / rated value | 85 kA |
| <ul style="list-style-type: none"> • for 2 s / rated value | 70 kA |
| <ul style="list-style-type: none"> • for 3 s / rated value | 60 kA |
| short-time withstand current (I _{cw}) / at 690 V AC | |
| <ul style="list-style-type: none"> • for 0.5 s / rated value | 66 kA |
| <ul style="list-style-type: none"> • for 1 s / rated value | 66 kA |
| <ul style="list-style-type: none"> • for 2 s / rated value | 66 kA |
| <ul style="list-style-type: none"> • for 3 s / rated value | 60 kA |

Electronic release unit

| | |
|--|-----|
| product feature | |
| <ul style="list-style-type: none"> • upgradable | No |
| <ul style="list-style-type: none"> • Bluetooth and USB interface | No |
| <ul style="list-style-type: none"> • decoder for basic protection functions | Yes |
| <ul style="list-style-type: none"> • display and function keys | No |
| <ul style="list-style-type: none"> • SENTRON powerconfig configuration software | No |

Basic protection functions

| | |
|---|--|
| product feature / for L-tripping | |
| <ul style="list-style-type: none"> • can be switched on/off | No |
| <ul style="list-style-type: none"> • selectable characteristic function | No |
| <ul style="list-style-type: none"> • decoder and infinite adjustability are selectable with eSet | No |
| set values setting current (I _r) / for L-tripping / with I _{2t} characteristic | 0.4;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 I _{2t} characteristic | x I _n |
| set values delay time (t _r) / for L-tripping / with I _{2t} characteristic | 0.75;1;2;5;8;10;14;17;21;25 |
| reference value delay time (t _r) / for L-tripping / with I _{2t} characteristic | s |
| L: Overload protection N-conductor | |
| product feature / with neutral conductor protection / can be switched on/off | No |
| setting values setting current (I _{nN}) / for N-tripping | 1 |
| reference value setting current (I _{nN}) / for N-tripping | x I _n |
| 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 | Yes |
| <ul style="list-style-type: none"> • independent of direction / selectable characteristic function | Yes |
| <ul style="list-style-type: none"> • decoder and infinite adjustability are selectable with eSet | No |
| S: delayed short-circuit protection ST, settings values I_{0t} | |
| set values setting current (I _{sd}) / for S-tripping / with I _{0t} characteristic | 1.5;2;2.5;3;4;5;6;8;10 |
| reference value setting current (I _{sd}) / for S-tripping / with I _{0t} characteristic | x I _r |
| set values delay time (t _{sd}) / for S-tripping / with I _{0t} characteristic | 0.08;0.15;0.22;0.3;0.4 |
| reference value delay time (t _{sd}) / for S-tripping / with I _{0t} characteristic | s |
| S: delayed short-circuit protection ST, settings values I_{2t} | |
| set values setting current (I _{sd}) / for S-tripping / with I _{2t} characteristic | 1.5;2;2.5;3;4;5;6;8;10 |
| reference value setting current (I _{sd}) / for S-tripping / with I _{2t} characteristic | x I _r |
| set values delay time (t _{sd}) / for S-tripping / with I _{2t} characteristic | 0.08;0.15;0.22;0.3;0.4 |
| product feature / for I-tripping | |
| <ul style="list-style-type: none"> • can be switched on/off | No |
| <ul style="list-style-type: none"> • decoder and infinite adjustability are selectable (with eSet) | No |
| set values setting current (I _i) / for I-tripping | 1.5;2;3;4;5;6;8;10;12;15 |
| reference value setting current (I _i) / for I-tripping | x I _n |
| G: ground fault GF | |
| product feature / for G-tripping | |
| <ul style="list-style-type: none"> • can be switched on/off | No |
| <ul style="list-style-type: none"> • selectable characteristic function | No |
| set values setting current (I _g) / for G-tripping / with I _{0t} | 0,2 |

| | |
|--|------------------|
| characteristic | |
| reference value setting current (I _g) / for G-tripping / with I0t characteristic | x I _n |
| set values delay time (t _g) / for G-tripping / with I0t characteristic | 0.2 |
| reference value delay time (t _g) / for G-tripping / with I0t characteristic | s |

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 | 10000 |
| <ul style="list-style-type: none"> • with support / typical | 15000 |
| electrical endurance (operating cycles) | |
| <ul style="list-style-type: none"> • at 690 V / without support / typical | 7500 |
| <ul style="list-style-type: none"> • at 690 V / with support / typical | 15000 |

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, vertical |
|---|---------------------------------------|

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 | |
| <ul style="list-style-type: none"> • undervoltage release | Yes |
| <ul style="list-style-type: none"> • voltage trigger | Yes |
| <ul style="list-style-type: none"> • trip indicator | Yes |
| <ul style="list-style-type: none"> • motor drive | Yes |

Environmental conditions

| | |
|---|--------|
| protection class IP / on the front | IP20 |
| ambient temperature / during operation | |
| <ul style="list-style-type: none"> • minimum | -40 °C |
| <ul style="list-style-type: none"> • maximum | 70 °C |
| ambient temperature / during storage | |
| <ul style="list-style-type: none"> • minimum | -40 °C |
| <ul style="list-style-type: none"> • maximum | 80 °C |

Certificates

| | |
|--|---|
| reference code | |
| <ul style="list-style-type: none"> • according to IEC 81346-2 | Q |

| | | |
|--------------------------|-----|---|
| General Product Approval | EMV | Radio Equipment Type Approval Certificate |
|--------------------------|-----|---|



[Miscellaneous](#)

| | | |
|-------------------|----------------------|-------|
| Test Certificates | Maritime application | other |
|-------------------|----------------------|-------|

[Miscellaneous](#)

[Special Test Certificate](#)



[Confirmation](#)

other

Dangerous goods

Environment



[Manufacturer Declaration](#)

[Transport Information](#)



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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=3WA1120-4AC01-8SL1>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3WA1120-4AC01-8SL1>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3WA1120-4AC01-8SL1

CAX-Online-Generator

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

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

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



