

Fixed-mounted circuit breaker IEC 60947-2, frame size 1, 3-poles,  $I_n=1000A$  up to 690V AC 50/60Hz, breaking capacity S  $I_{cu}=66/50kA$  at 500/690V, Trip unit ETU600 LSI upgrade ready , colordisplay, bluetooth and USB interface, Protection LT, ST, INST, N-protection required an external N-sensor, incl. trip alarm switch (1xCO), front connection double hole, without Com & metering function Manual operating mechanism with mechanical closing, without Spring charging motor, Ready-to-close signal. switch, Auxiliary switches 2NO+2NC, 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), 24 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	1
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 with mechanical or electrical closing
design of the electronic trip unit	ETU600 LSI
Weight	53.161 kg
Net Weight	40.161 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	70 W
Current	
continuous current / rated value / maximum	1000 A
continuous current / rated value	1000 A
operational current	
• at 40 °C / rated value	1000 A
• at 45 °C / rated value	1000 A
• at 50 °C / rated value	1000 A
• at 55 °C / rated value	1000 A
• at 60 °C / rated value	1000 A
• at 65 °C / rated value	1000 A
• at 70 °C / rated value	1000 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 <sub>cm</sub> )	
• at 500 V / rated value	145 kA
• at 690 V / rated value	105 kA
short-time withstand current (I <sub>cw</sub> ) / at 500 V AC	
• for 0.5 s / rated value	66 kA
• for 1 s / rated value	66 kA
• for 2 s / rated value	45 kA
• for 3 s / rated value	35 kA
short-time withstand current (I <sub>cw</sub> ) / at 690 V AC	
• for 0.5 s / rated value	50 kA
• for 1 s / rated value	50 kA
• for 2 s / rated value	45 kA
• for 3 s / rated value	35 kA
<b>Electronic release unit</b>	
product feature	
• upgradable	Yes
• Bluetooth and USB interface	Yes
• decoder for basic protection functions	Yes
• display and function keys	Yes
• SENTRON powerconfig configuration software	Yes
<b>Basic protection functions</b>	
product feature / for L-tripping	
• can be switched on/off	Yes
• selectable characteristic function	Yes
• decoder and infinite adjustability are selectable with eSet	Yes
set values setting current (I <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic	0.5; 0.6; 0.7; 0.75; 0.8; 0.85; 0.9; 0.95; 1
reference value setting current (I <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic	x I <sub>n</sub>
set values delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic	1;2;5;8;10;14;17;21;25
reference value delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic	s
set values setting current (I <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic / for eSet	0.4-1;0.001
adjustable absolute value setting current (I <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic / for eSet	
• minimum	400 A
• maximum	1000 A
set values delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic / for eSet	0.5-30;0.001
set values setting current (I <sub>r</sub> ) / for L-tripping / with I <sub>4t</sub> characteristic / for eSet	0.4-1;0.001
set values delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>4t</sub> characteristic / for eSet	0.5-5;0.001
adjustable absolute value setting current (I <sub>r</sub> ) / for L-tripping / with I <sub>4t</sub> characteristic / for eSet	
• minimum	400 A
• maximum	1000 A
<b>L: Overload protection N-conductor</b>	
product feature / with neutral conductor protection / can be switched on/off	Yes
setting values setting current (I <sub>nN</sub> ) / for N-tripping	0.2-2;0.001
reference value setting current (I <sub>nN</sub> ) / for N-tripping	x I <sub>n</sub>
adjustable setting current (I <sub>nN</sub> ) / for N-tripping	
• minimum	200 A
• maximum	2000 A
<b>S: delayed short-circuit protection ST</b>	
product feature / for S-tripping	
• independent of direction / can be switched on/off	Yes
• independent of direction / selectable characteristic function	Yes
• decoder and infinite adjustability are selectable with eSet	Yes

<b>S: delayed short-circuit protection ST, settings values I0t</b>	
set values setting current (I <sub>sd</sub> ) / for S-tripping / with I0t characteristic	1.5;2;2.5;3;4;5;6;8;10
reference value setting current (I <sub>sd</sub> ) / for S-tripping / with I0t characteristic	x I <sub>r</sub>
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 <sub>sd</sub> ) / for S-tripping / with I0t characteristic / for eSet / independent of direction	0.6-10;0.001
adjustable absolute value setting current (I <sub>sd</sub> ) <ul style="list-style-type: none"> <li>for S-tripping / with I0t characteristic / for eSet / independent of direction / minimum</li> <li>at 500 V / for S-tripping / with I0t characteristic / for eSet / independent of direction / maximum</li> <li>at 690 V / for S-tripping / with I0t characteristic / for eSet / independent of direction / maximum</li> </ul>	600 A 52.8 kA 40 kA
set values delay time (tsd) / for S-tripping / with I0t characteristic / for eSet / independent of direction	0.02-0.4;0.001
<b>S: delayed short-circuit protection ST, settings values I2t</b>	
set values setting current (I <sub>sd</sub> ) / for S-tripping / with I2t characteristic	1.5;2;2.5;3;4;5;6;8;10
reference value setting current (I <sub>sd</sub> ) / for S-tripping / with I2t characteristic	x I <sub>r</sub>
set values delay time (tsd) / for S-tripping / with I2t characteristic	0.1;0.2;0.3;0.4
set values setting current (I <sub>sd</sub> ) / for S-tripping / with I2t characteristic / for eSet / independent of direction	0.6-10;0.001
adjustable absolute value setting current (I <sub>sd</sub> ) <ul style="list-style-type: none"> <li>for S-tripping / with I2t characteristic / for eSet / independent of direction / minimum</li> <li>at 500 V / for S-tripping / with I2t characteristic / for eSet / independent of direction / maximum</li> <li>at 690 V / for S-tripping / with I2t characteristic / for eSet / independent of direction / maximum</li> </ul>	600 A 52.8 kA 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 <ul style="list-style-type: none"> <li>can be switched on/off</li> <li>decoder and infinite adjustability are selectable (with eSet)</li> </ul>	Yes Yes
set values setting current (I <sub>i</sub> ) / for I-tripping	1.5;2;3;4;6;8;10;12;15
reference value setting current (I <sub>i</sub> ) / for I-tripping	x I <sub>n</sub>
tripping factor setting current (I <sub>imax</sub> ) / for I-tripping	0.8
reference value setting current (I <sub>imax</sub> ) / for I-tripping	x I <sub>cs</sub>
set values setting current (I <sub>i</sub> ) / for I-tripping / for eSet	1.5-15;0.001
adjustable absolute value setting current (I <sub>i</sub> ) <ul style="list-style-type: none"> <li>for I-tripping / for eSet / minimum</li> <li>at 500 V / for I-tripping / for eSet / maximum</li> <li>at 690 V / for I-tripping / for eSet / maximum</li> </ul>	1500 A 52.8 kA 40 kA
<b>G: ground fault GF</b>	
product feature / for G-tripping <ul style="list-style-type: none"> <li>selectable characteristic function</li> </ul>	No
<b>Further protective functions</b>	
protection function <ul style="list-style-type: none"> <li>maintenance mode DAS+</li> </ul>	Yes
<b>Measuring functions</b>	
measurement function <ul style="list-style-type: none"> <li>current measurement</li> </ul>	Yes
<b>Communication</b>	
communication function	No
<b>Service Life</b>	
mechanical service life (operating cycles) <ul style="list-style-type: none"> <li>without support / typical</li> </ul>	15000

<ul style="list-style-type: none"> <li>with support / typical</li> </ul>	30000
electrical endurance (operating cycles)	
<ul style="list-style-type: none"> <li>at 690 V / without support / typical</li> </ul>	10000
<ul style="list-style-type: none"> <li>at 690 V / with support / typical</li> </ul>	30000

Dimensions	
height	437 mm
width	320 mm
depth	357 mm

Main connection	
arrangement of electrical connectors / for main current circuit	front main circuit connection, double hole

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	
<ul style="list-style-type: none"> <li>undervoltage release</li> </ul>	Yes
<ul style="list-style-type: none"> <li>voltage trigger</li> </ul>	No
<ul style="list-style-type: none"> <li>trip indicator</li> </ul>	Yes
<ul style="list-style-type: none"> <li>motor drive</li> </ul>	No

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

Environmental footprint	
Siemens Eco Profile (SEP)	Siemens EcoTech

Certificates	
reference code	
<ul style="list-style-type: none"> <li>according to IEC 81346-2</li> </ul>	Q

### Approvals / Certificates

#### General Product Approval



[Confirmation](#)



EMV	Radio Equipment Type Approval Certificate	Test Certificates
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[Miscellaneous](#)



[Miscellaneous](#)

[FCC](#)

[Miscellaneous](#)

Test Certificates	Maritime application
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[Special Test Certificate](#)



other	Dangerous goods	Environment
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[Confirmation](#)

[Manufacturer Declaration](#)

[Dangerous goods information](#)

[Transport Information](#)



## Environment

Siemens  
EcoTech



## 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 (catalogues, leaflets,...)

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

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3WA1110-3AE03-0AL0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3WA1110-3AE03-0AL0>

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

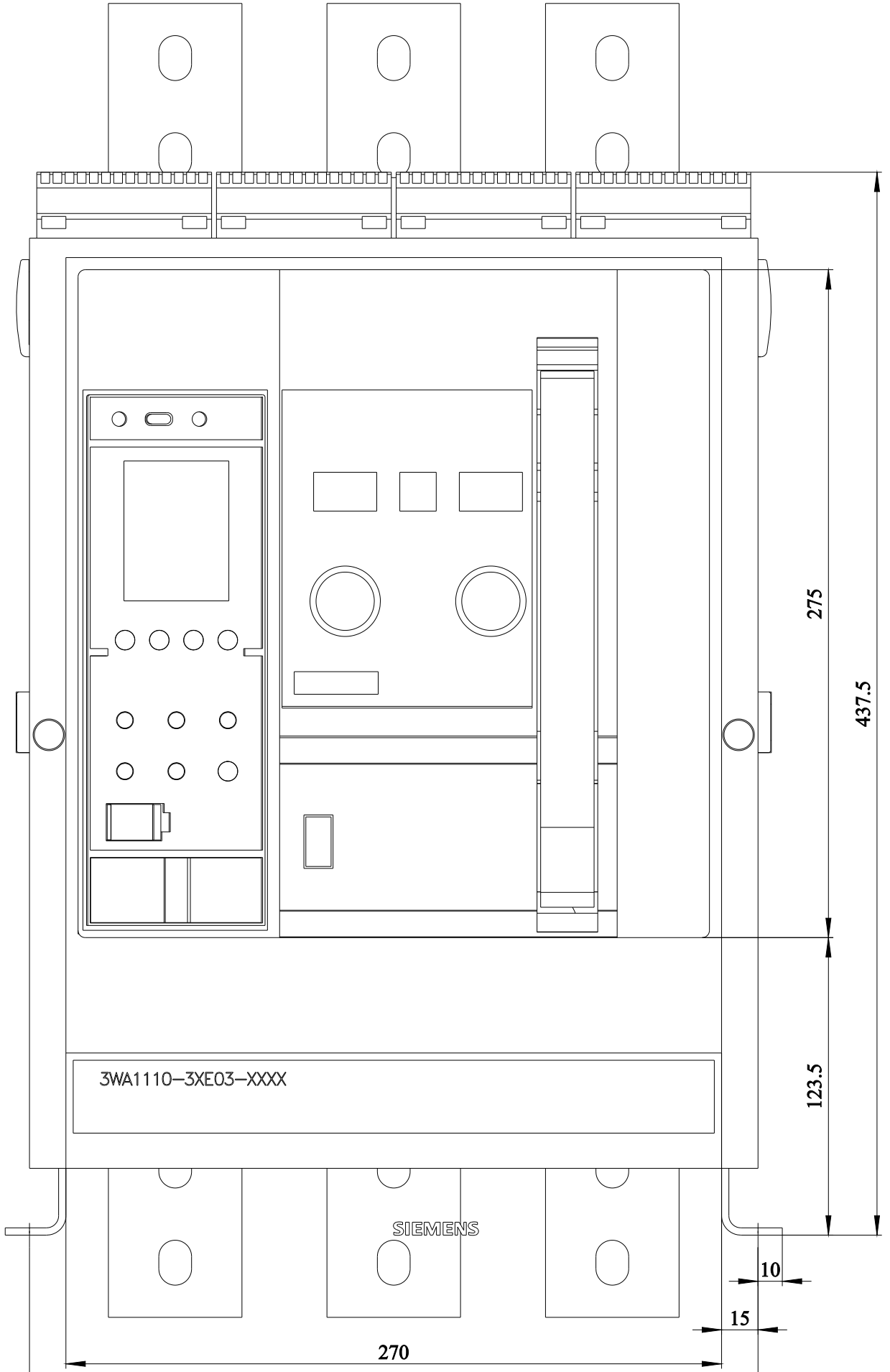
[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3WA1110-3AE03-0AL0](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3WA1110-3AE03-0AL0)

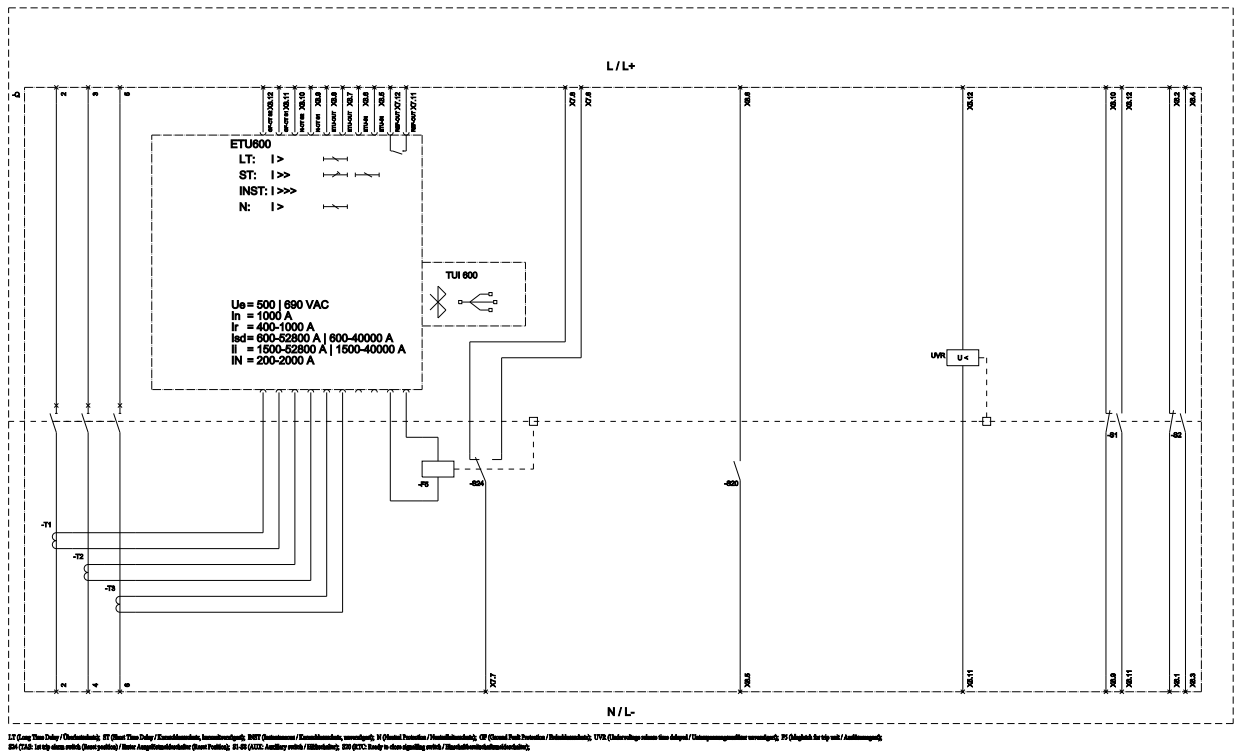
CAX-Online-Generator

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

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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