

Withdrawable circuit breaker with guide frame, IEC 60947-2, frame size 1, 3-poles, In=1000A up to 690V AC 50/60Hz, breaking capacity S Icu=66/50kA 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 vertical, guide frame with shutter and w/o position signalling switch, 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 signalling switches, Auxiliary switches 2NO+2NC, without Closing coil (CC), manual operating mechanism with mechanical closing, without Remote trip alarm reset coil (RR), Shunt trip (ST2) 100% OP 208-240 V AC / 220-250 V DC, suitable for continuous duty, Shunt trip (ST) 100% OP 208-240 V AC / 220-250 V DC, suitable for continuous duty, Option K06 = 2nd Trip alarm switch 1 NO contact (S25)

Model	
product brand name	SENTRON
product designation	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	withdrawable circuit breaker
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	75.651 kg
Net Weight	62.651 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	130 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 (Icu)	
• at 500 V / rated value	66 kA
• at 690 V / rated value	50 kA
operating short-circuit current breaking capacity (Ics)	
• at 500 V / rated value	66 kA
• at 690 V / rated value	50 kA
short-circuit current making capacity (Icm)	
• 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	
<ul style="list-style-type: none"> <li>• for 0.5 s / rated value</li> <li>• for 1 s / rated value</li> <li>• for 2 s / rated value</li> <li>• for 3 s / rated value</li> </ul>	<p>66 kA</p> <p>66 kA</p> <p>45 kA</p> <p>35 kA</p>
short-time withstand current (I <sub>cw</sub> ) / at 690 V AC	
<ul style="list-style-type: none"> <li>• for 0.5 s / rated value</li> <li>• for 1 s / rated value</li> <li>• for 2 s / rated value</li> <li>• for 3 s / rated value</li> </ul>	<p>50 kA</p> <p>50 kA</p> <p>45 kA</p> <p>35 kA</p>
<b>Electronic release unit</b>	
product feature	
<ul style="list-style-type: none"> <li>• upgradable</li> <li>• Bluetooth and USB interface</li> <li>• decoder for basic protection functions</li> <li>• display and function keys</li> <li>• SENTRON powerconfig configuration software</li> </ul>	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
<b>Basic protection functions</b>	
product feature / for L-tripping	
<ul style="list-style-type: none"> <li>• can be switched on/off</li> <li>• selectable characteristic function</li> <li>• decoder and infinite adjustability are selectable with eSet</li> </ul>	<p>Yes</p> <p>Yes</p> <p>Yes</p>
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	
<ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	<p>400 A</p> <p>1000 A</p>
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	
<ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	<p>400 A</p> <p>1000 A</p>
<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	
<ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	<p>200 A</p> <p>2000 A</p>
<b>S: delayed short-circuit protection ST</b>	
product feature / for S-tripping	
<ul style="list-style-type: none"> <li>• independent of direction / can be switched on/off</li> <li>• independent of direction / selectable characteristic function</li> <li>• decoder and infinite adjustability are selectable with eSet</li> </ul>	<p>Yes</p> <p>Yes</p> <p>Yes</p>
<b>S: delayed short-circuit protection ST, settings values I<sub>0t</sub></b>	
set values setting current (I <sub>sd</sub> ) / for S-tripping / with I <sub>0t</sub> characteristic	1.5;2;2.5;3;4;5;6;8;10
reference value setting current (I <sub>sd</sub> ) / for S-tripping / with I <sub>0t</sub> 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> </ul>	600 A
<ul style="list-style-type: none"> <li>at 500 V / for S-tripping / with I0t characteristic / for eSet / independent of direction / maximum</li> </ul>	52.8 kA
<ul style="list-style-type: none"> <li>at 690 V / for S-tripping / with I0t characteristic / for eSet / independent of direction / maximum</li> </ul>	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> </ul>	600 A
<ul style="list-style-type: none"> <li>at 500 V / for S-tripping / with I2t characteristic / for eSet / independent of direction / maximum</li> </ul>	52.8 kA
<ul style="list-style-type: none"> <li>at 690 V / for S-tripping / with I2t characteristic / for eSet / independent of direction / maximum</li> </ul>	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> </ul>	Yes
<ul style="list-style-type: none"> <li>decoder and infinite adjustability are selectable (with eSet)</li> </ul>	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> </ul>	1500 A
<ul style="list-style-type: none"> <li>at 500 V / for I-tripping / for eSet / maximum</li> </ul>	52.8 kA
<ul style="list-style-type: none"> <li>at 690 V / for I-tripping / for eSet / maximum</li> </ul>	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
<b>Dimensions</b>	
height	468 mm
width	320 mm

depth	471 mm
<b>Main connection</b>	
arrangement of electrical connectors / for main current circuit	main connection on the rear, vertical
<b>Auxiliary circuit</b>	
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
<b>Internal accessories</b>	
product component	
• undervoltage release	No
• voltage trigger	Yes
• trip indicator	Yes
• motor drive	Yes
<b>Environmental conditions</b>	
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
<b>General Product Approval</b>	EMV



**Radio Equipment Type Approval Certificate**

**Test Certificates**

[Miscellaneous](#)



[Miscellaneous](#)

[FCC](#)

[Miscellaneous](#)

[Special Test Certificate](#)

**Maritime application**

**other**



**other**

**Dangerous goods**

**Environment**

[Manufacturer Declaration](#)

[Confirmation](#)

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Siemens EcoTech



**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=3WA1110-3AE31-4AE4-Z K06>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3WA1110-3AE31-4AE4-Z K06>

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

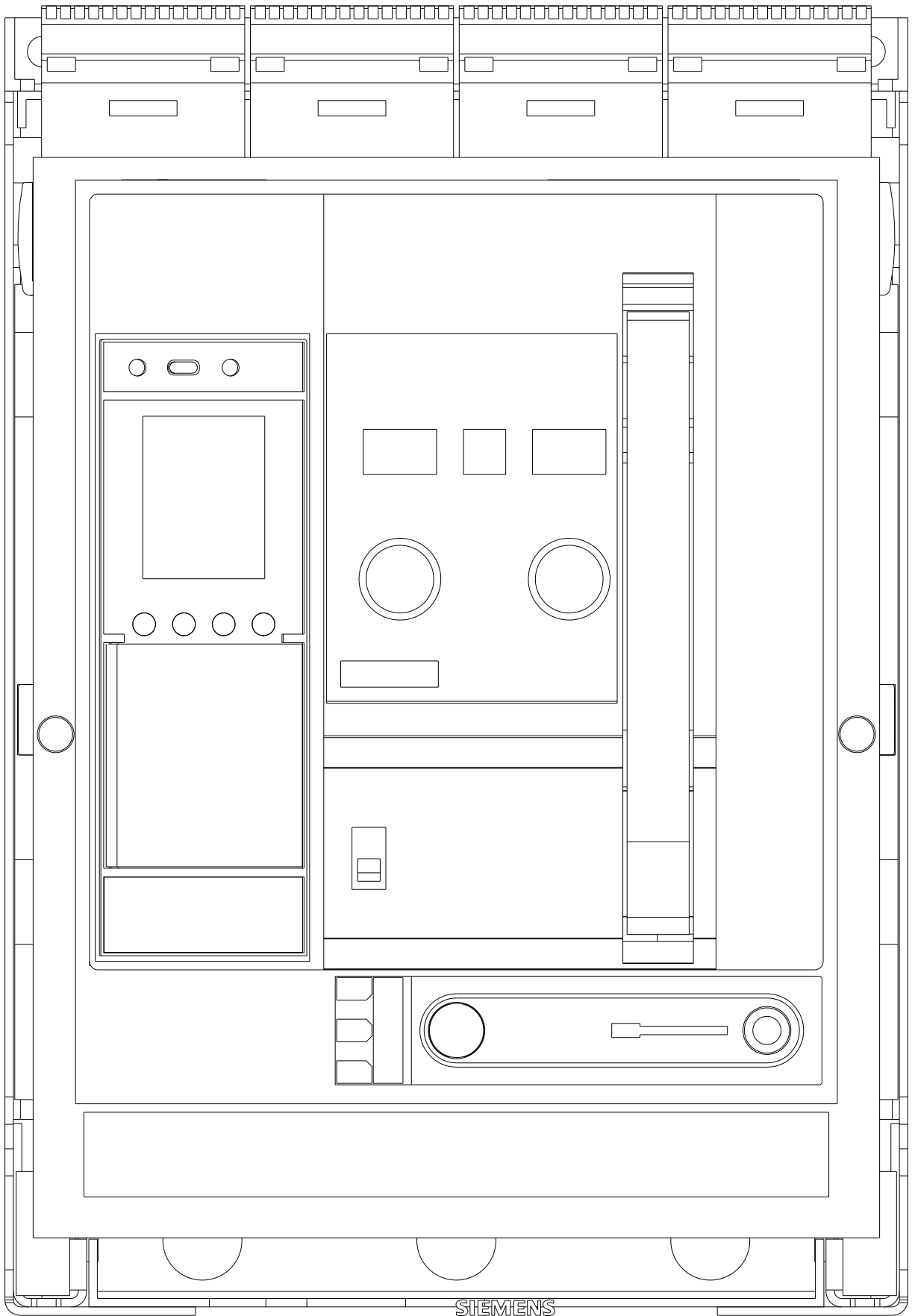
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3WA1110-3AE31-4AE4-Z K06](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3WA1110-3AE31-4AE4-Z K06)

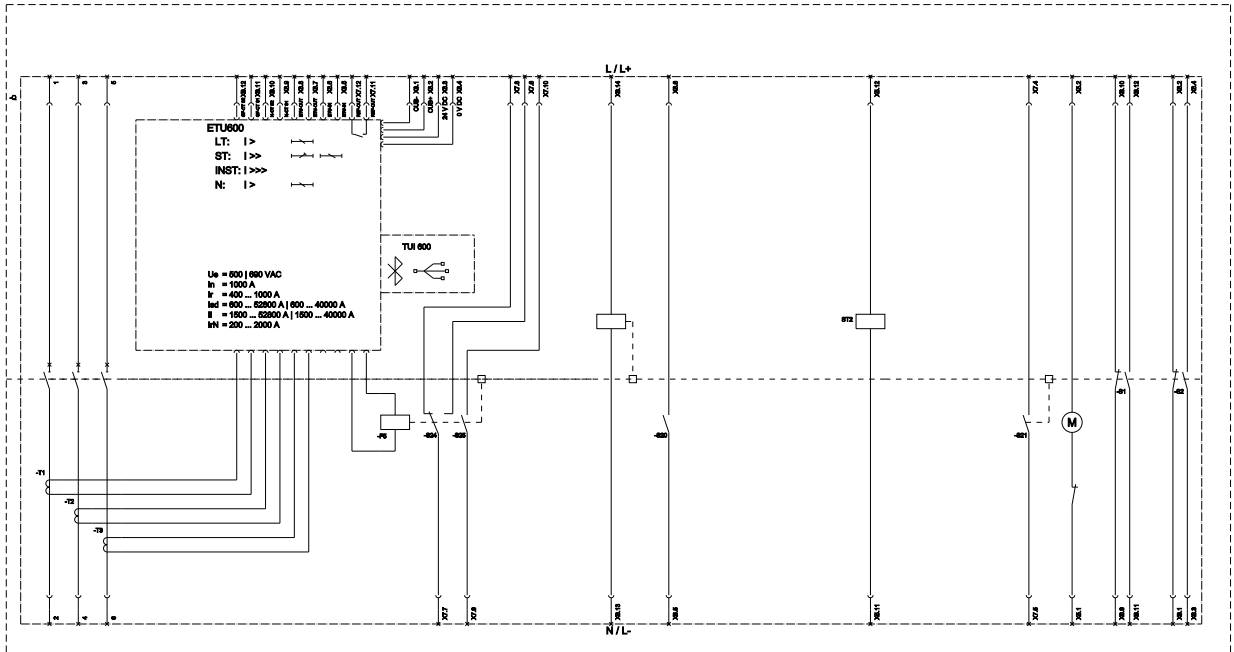
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<http://www.siemens.com/cax>

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

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





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