

Fixed-mounted circuit breaker IEC 60947-2, frame size 1, 4-poles, N-pole left, $I_n=1000\text{A}$ 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, include N-protection, (internal N-sensor available), 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, without Closing coil (CC), manual operating mechanism with mechanical closing, without Remote trip alarm reset coil (RR), without 2nd shunt trip, Shunt trip (ST) 100% OP 208-240 V AC / 220-250 V DC, suitable for continuous duty,

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	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	51.788 kg
Net Weight	38.788 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_{cm})	
• at 500 V / rated value	145 kA
• at 690 V / rated value	105 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 	<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 I _{2t} 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 I _{2t} characteristic	x I _n
set values delay time (t _r) / for L-tripping / with I _{2t} characteristic	1;2;5;8;10;14;17;21;25
reference value delay time (t _r) / for L-tripping / with I _{2t} characteristic	s
set values setting current (I _r) / for L-tripping / with I _{2t} characteristic / for eSet	0.4-1;0.001
adjustable absolute value setting current (I _r) / for L-tripping / with I _{2t} characteristic / for eSet	
<ul style="list-style-type: none"> • minimum • maximum 	<p>400 A</p> <p>1000 A</p>
set values delay time (t _r) / for L-tripping / with I _{2t} characteristic / for eSet	0.5-30;0.001
set values setting current (I _r) / for L-tripping / with I _{4t} characteristic / for eSet	0.4-1;0.001
set values delay time (t _r) / for L-tripping / with I _{4t} characteristic / for eSet	0.5-5;0.001
adjustable absolute value setting current (I _r) / for L-tripping / with I _{4t} characteristic / for eSet	
<ul style="list-style-type: none"> • minimum • maximum 	<p>400 A</p> <p>1000 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	0.2-1;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 	<p>200 A</p> <p>1000 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 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 (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	600 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	600 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	1500 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	
• 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	410 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	No
• 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

Approvals / Certificates		
General Product Approval	Test Certificates	other



[Special Test Certificate](#)



[Miscellaneous](#)

other	Environment
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[Confirmation](#)

[Miscellaneous](#)

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[Environmental Confirmations](#)

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=3WA1110-3AE12-4AA4>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3WA1110-3AE12-4AA4>

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

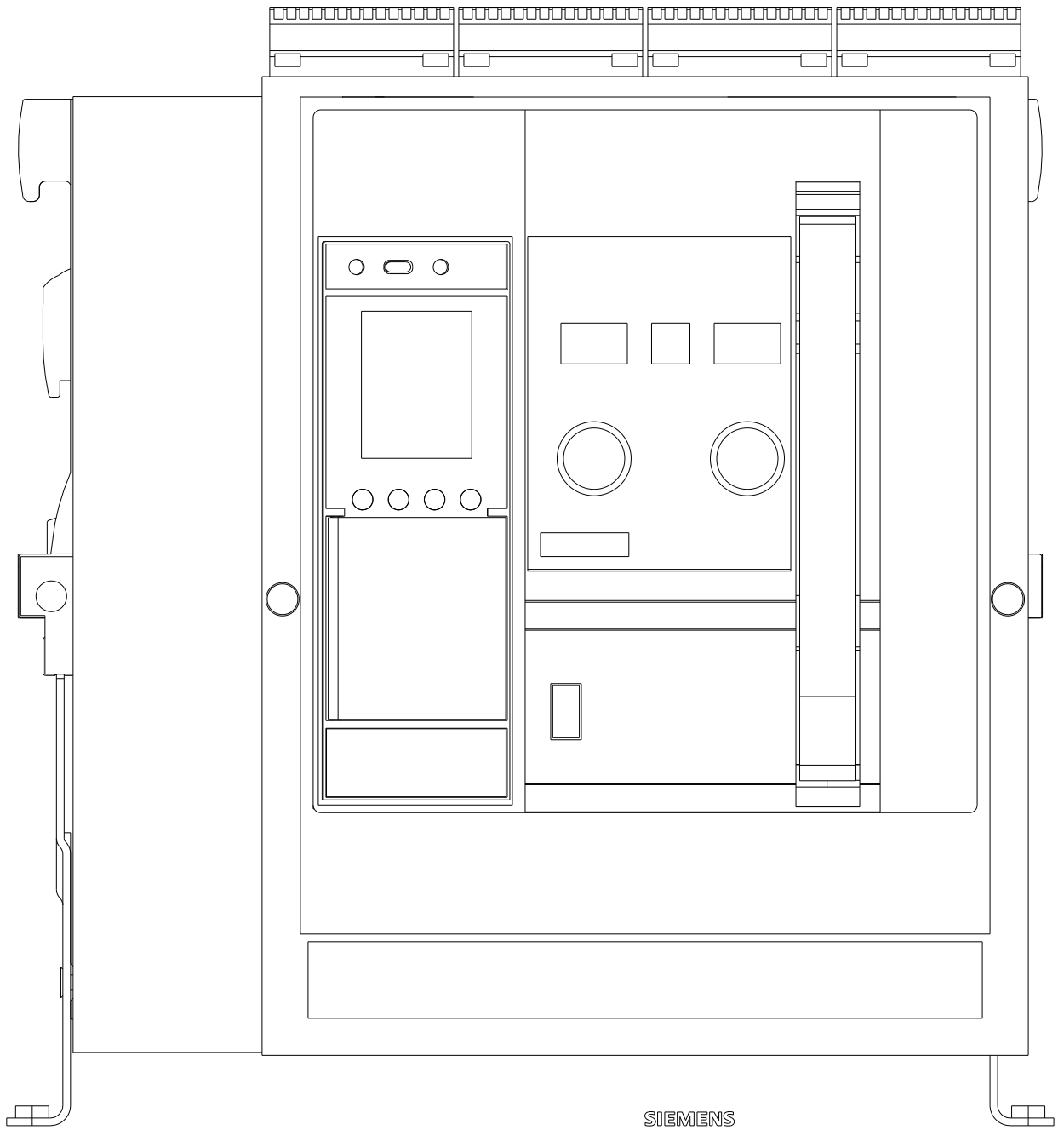
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3WA1110-3AE12-4AA4

CAx-Online-Generator

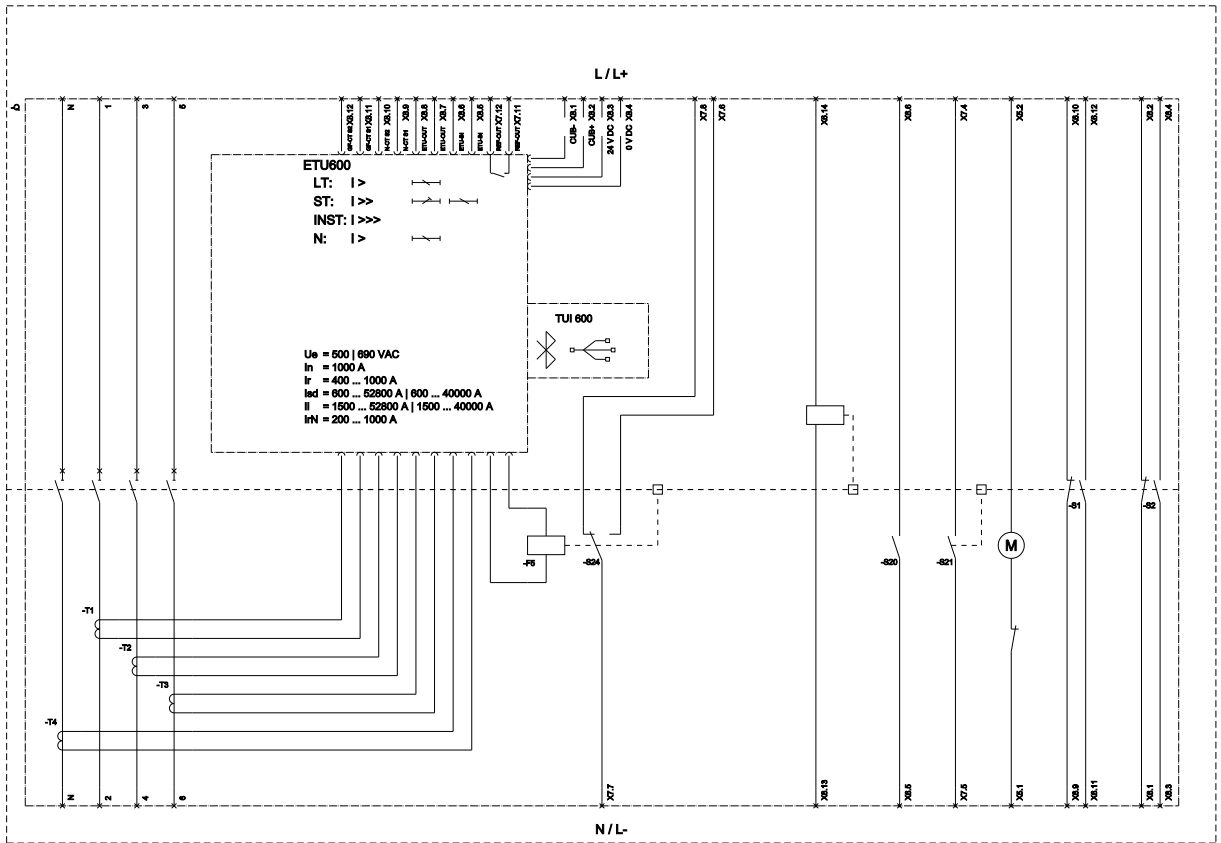
<http://www.siemens.com/cax>

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

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



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LT (Long Time Delay / Überstromschutz), ST (Short Time Delay / Kurzstromschutz, Stromüberstrom), INST (Instantaneous / Momentanstromschutz), CB (Circuit Breaker Protection / Betriebsmechanismus), CT (Circuit Breaker Control / Steuermechanismus), ST (Set auxiliary release / Steuer-Erhaltungsschalter), S14 (Close-off switch for secondary only about trip / Abschaltkontakt für Sekundärspannung bei Spannungsüberstrom), PT (Magnetlock for trip coil / Anlaufmagnet), CS4 (CAS: Set stop alarm switch (Reset position) / Fehler Anlaufstromschutzkontakt (Reset Position)), ST-48 (AZC: Auxiliary switch / Erhaltungsschalter), S20 (RTC: Ready to close signaling switch / Abschaltkontakt für Abschaltkontakt), S21 (Spring charge signaling switch / Springenmechanismus Abschaltkontakt).

last modified:

9/3/2025

