



Fixed-mounted circuit breaker IEC 60947-2, frame size 1, 3-poles, $I_n=1250A$ up to 690V AC 50/60Hz, breaking capacity M $I_{cu}=85/66kA$ 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 horizontal, 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), without 2nd shunt trip, without 1st Shunt trip

Model	
product brand name	SENTRON
product designation	3WA 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	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	48.537 kg
Net Weight	33.537 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	105 W
Current	
continuous current / rated value / maximum	1250 A
continuous current / rated value	1250 A
operational current	
• at 40 °C / rated value	1250 A
• at 45 °C / rated value	1250 A
• at 50 °C / rated value	1250 A
• at 55 °C / rated value	1250 A
• at 60 °C / rated value	1250 A
• at 65 °C / rated value	1250 A
• at 70 °C / rated value	1250 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 	Yes
<ul style="list-style-type: none"> • Bluetooth and USB interface 	Yes
<ul style="list-style-type: none"> • decoder for basic protection functions 	Yes
<ul style="list-style-type: none"> • display and function keys 	Yes
<ul style="list-style-type: none"> • SENTRON powerconfig configuration software 	Yes

Basic protection functions

product feature / for L-tripping	
<ul style="list-style-type: none"> • can be switched on/off 	Yes
<ul style="list-style-type: none"> • selectable characteristic function 	Yes
<ul style="list-style-type: none"> • decoder and infinite adjustability are selectable with eSet 	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;1.0
reference value setting current (I _r) / for L-tripping / with I2t characteristic	x I _n
set values delay time (tr) / for L-tripping / with I2t characteristic	1;2;5;8;10;14;17;21;25
reference value delay time (tr) / 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 	500 A
<ul style="list-style-type: none"> • maximum 	1250 A
set values delay time (tr) / 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 (tr) / for L-tripping / with I4t characteristic / for eSet	0.5-5;0.001
reference value delay time (tr) / for L-tripping / with I4t characteristic	s
adjustable absolute value setting current (I _r) / for L-tripping / with I4t characteristic / for eSet	
<ul style="list-style-type: none"> • minimum 	500 A
<ul style="list-style-type: none"> • maximum 	1250 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	0.2-2;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 	250 A
<ul style="list-style-type: none"> • maximum 	2500 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 	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 	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 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 (Isd) / for S-tripping / with I0t characteristic / for eSet / independent of direction	0.6-10;0.001
adjustable absolute value setting current (Isd) <ul style="list-style-type: none"> for S-tripping / with I0t characteristic / for eSet / independent of direction / minimum at 500 V / for S-tripping / with I0t characteristic / for eSet / independent of direction / maximum at 690 V / for S-tripping / with I0t characteristic / for eSet / independent of direction / maximum 	750 A 68 kA 52.8 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 (Isd) / for S-tripping / with I2t characteristic	1.5;2;2.5;3;4;5;6;8;10
reference value setting current (Isd) / for S-tripping / with I2t characteristic	x Ir
set values delay time (tsd) / for S-tripping / with I2t characteristic	0.1;0.2;0.3;0.4
set values setting current (Isd) / for S-tripping / with I2t characteristic / for eSet / independent of direction	0.6-10;0.001
adjustable absolute value setting current (Isd) <ul style="list-style-type: none"> for S-tripping / with I2t characteristic / for eSet / independent of direction / minimum at 500 V / for S-tripping / with I2t characteristic / for eSet / independent of direction / maximum at 690 V / for S-tripping / with I2t characteristic / for eSet / independent of direction / maximum 	750 A 68 kA 52.8 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 decoder and infinite adjustability are selectable (with eSet) 	Yes Yes
set values setting current (Ii) / for I-tripping	1.5;2;3;4;6;8;10;12;15
reference value setting current (Ii) / for I-tripping	x In
tripping factor setting current (Iimax) / for I-tripping	0.8
reference value setting current (Iimax) / for I-tripping	x Ics
set values setting current (Ii) / for I-tripping / for eSet	1.5-15;0.001
adjustable absolute value setting current (Ii) <ul style="list-style-type: none"> for I-tripping / for eSet / minimum at 500 V / for I-tripping / for eSet / maximum at 690 V / for I-tripping / for eSet / maximum 	1875 A 68 kA 52.8 kA
G: ground fault GF	
product feature / for G-tripping <ul style="list-style-type: none"> can be switched on/off selectable characteristic function 	No 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 with support / typical 	10000 15000
electrical endurance (operating cycles) <ul style="list-style-type: none"> at 690 V / without support / typical at 690 V / with support / typical 	7500 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, 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	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
Certificates	
reference code	
• according to IEC 81346-2	Q
other	

[Confirmation](#)

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?mifb=3WA1112-4AE02-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3WA1112-4AE02-0AA0>

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

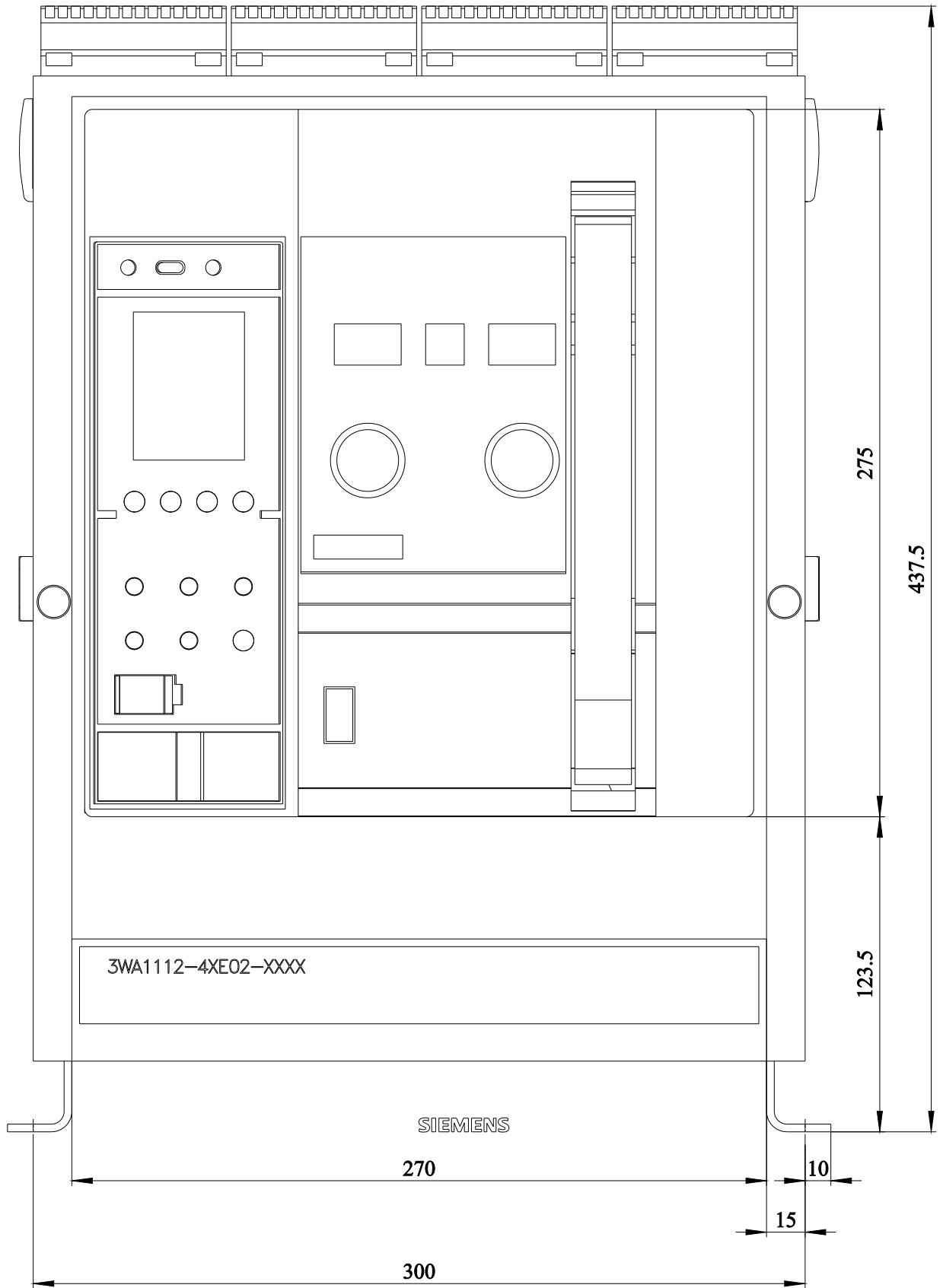
http://www.automation.siemens.com/bilddb/cax_en.aspx?mifb=3WA1112-4AE02-0AA0

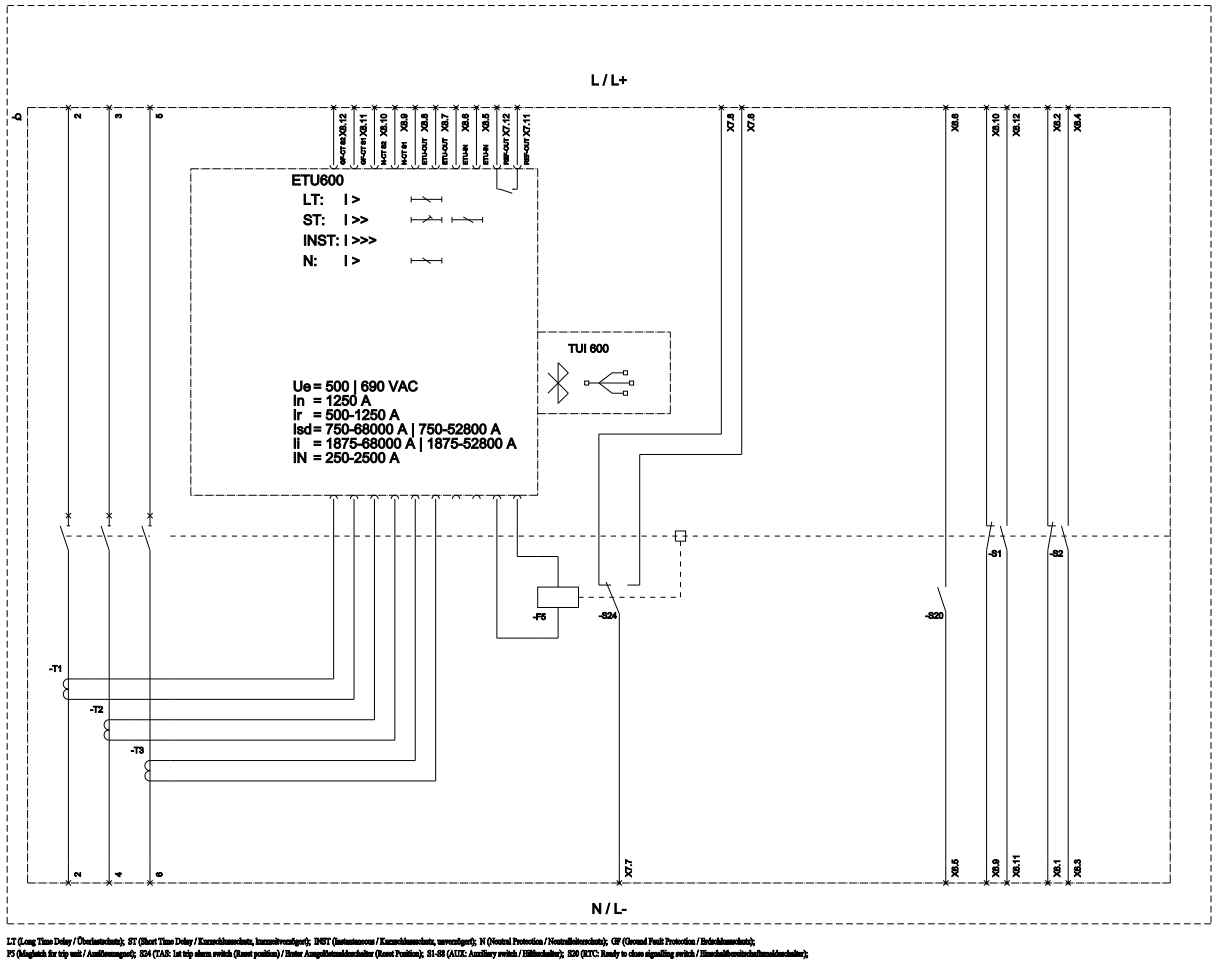
CAX-Online-Generator

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

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

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





LT (Long Time Delay / Überspannung), ST (Short Time Delay / Kurzschlusszeit, kurzzeitverzögerung), INST (Instantaneous / Kurzschlusszeit, unverzögert), N (Neutral Protection / Neutralüberwachung), GP (Ground Fault Protection / Erdlebensüberwachung),
 PS (pluglock for trip unit / Anstößverschluss), ISM (IAS: last trip alarm switch (Reset position) / Fehler Anzeigebetriebsmechanismus (Reset Position)), SI-SI (AUX: Auxiliary switch / Hilfsmechanismus), ISM (RTCC: Ready to close signaling switch / Abschließmechanismus)

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