

Fixed-mounted circuit breaker IEC 60947-2, frame size 1, 3-poles, $I_n=2000A$ up to 690V AC 50/60Hz, breaking capacity N $I_{cu}=55/42kA$ 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, 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	53.617 kg
Net Weight	38.617 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	N
maximum short-circuit current breaking capacity (I_{cu})	
• at 500 V / rated value	55 kA
• at 690 V / rated value	42 kA
operating short-circuit current breaking capacity (I_{cs})	
• at 500 V / rated value	55 kA
• at 690 V / rated value	42 kA
short-circuit current making capacity (I_{cm})	
• at 500 V / rated value	121 kA
• at 690 V / rated value	88 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 	55 kA
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 	42 kA
	42 kA
	42 kA
	35 kA

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 	Yes
	Yes
	Yes
	Yes
	Yes

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 	Yes
	Yes
	Yes
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;1.0
reference value setting current (I _r) / for L-tripping / with I _{2t} characteristic	x I _n
set values delay time (tr) / for L-tripping / with I _{2t} characteristic	1;2;5;8;10;14;17;21;25
reference value delay time (tr) / 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 	800 A
	2000 A
set values delay time (tr) / 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 (tr) / for L-tripping / with I _{4t} characteristic / for eSet	0.5-5;0.001
reference value delay time (tr) / for L-tripping / with I _{4t} characteristic	s
adjustable absolute value setting current (I _r) / for L-tripping / with I _{4t} characteristic / for eSet	
<ul style="list-style-type: none"> • minimum • maximum 	800 A
	2000 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 • maximum 	400 A
	4000 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 • independent of direction / selectable characteristic function • decoder and infinite adjustability are selectable with eSet 	Yes
	Yes
	Yes

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})	
<ul style="list-style-type: none"> for S-tripping / with I0t characteristic / for eSet / independent of direction / minimum 	1200 A
<ul style="list-style-type: none"> at 500 V / for S-tripping / with I0t characteristic / for eSet / independent of direction / maximum 	40 kA
<ul style="list-style-type: none"> at 690 V / for S-tripping / with I0t characteristic / for eSet / independent of direction / maximum 	33.6 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})	
<ul style="list-style-type: none"> for S-tripping / with I2t characteristic / for eSet / independent of direction / minimum 	1200 A
<ul style="list-style-type: none"> at 500 V / for S-tripping / with I2t characteristic / for eSet / independent of direction / maximum 	40 kA
<ul style="list-style-type: none"> at 690 V / for S-tripping / with I2t characteristic / for eSet / independent of direction / maximum 	33.6 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 	Yes
<ul style="list-style-type: none"> 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)	
<ul style="list-style-type: none"> for I-tripping / for eSet / minimum 	3000 A
<ul style="list-style-type: none"> at 500 V / for I-tripping / for eSet / maximum 	44 kA
<ul style="list-style-type: none"> at 690 V / for I-tripping / for eSet / maximum 	33.6 kA
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
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 	15000
<ul style="list-style-type: none"> with support / typical 	30000
electrical endurance (operating cycles)	
<ul style="list-style-type: none"> at 690 V / without support / typical 	10000
<ul style="list-style-type: none"> at 690 V / with support / typical 	30000
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
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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

General Product Approval

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](#)

[Transport Information](#)

[Dangerous goods information](#)



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=3WA1120-2AE01-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3WA1120-2AE01-0AA0>

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

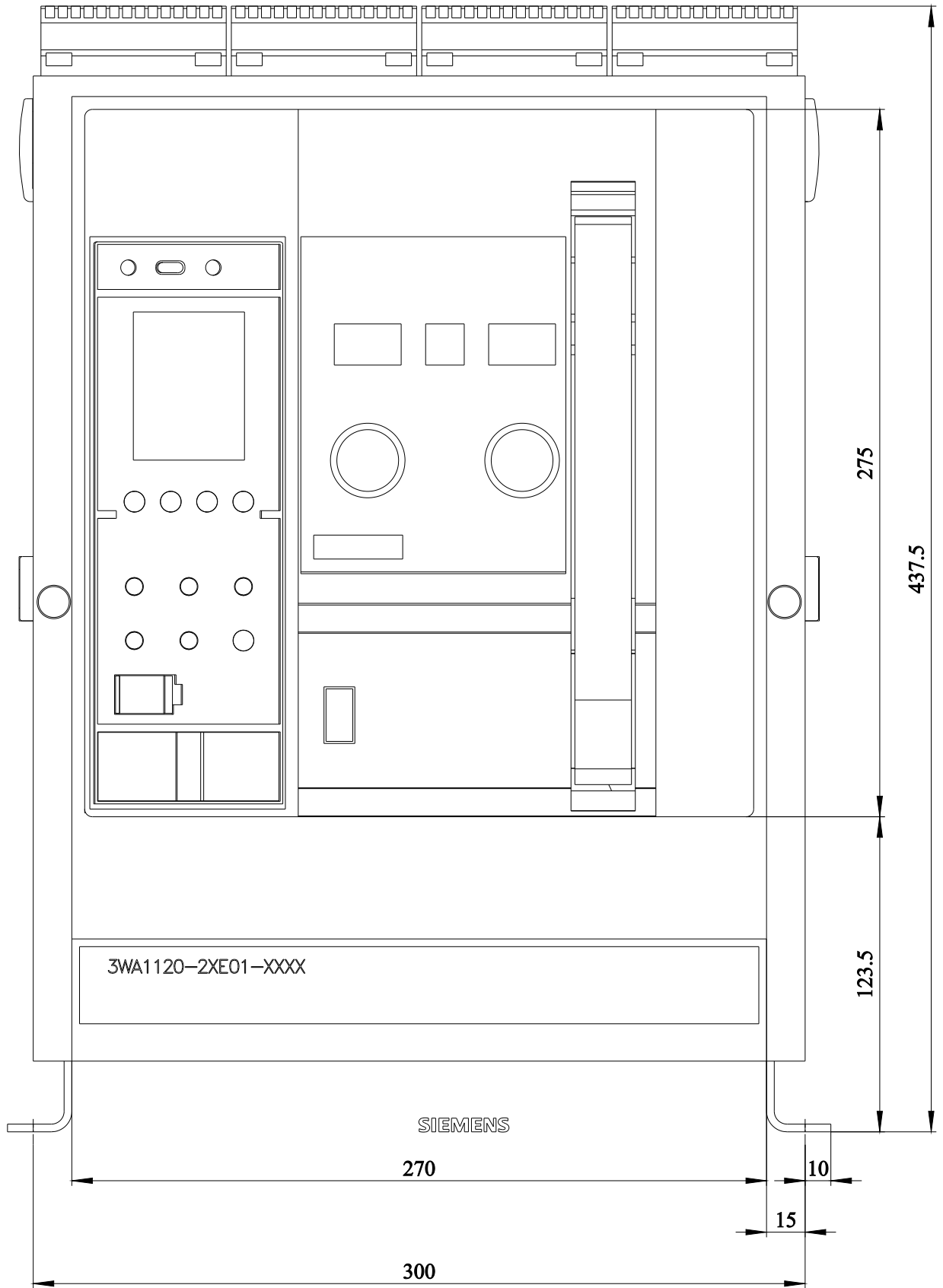
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3WA1120-2AE01-0AA0

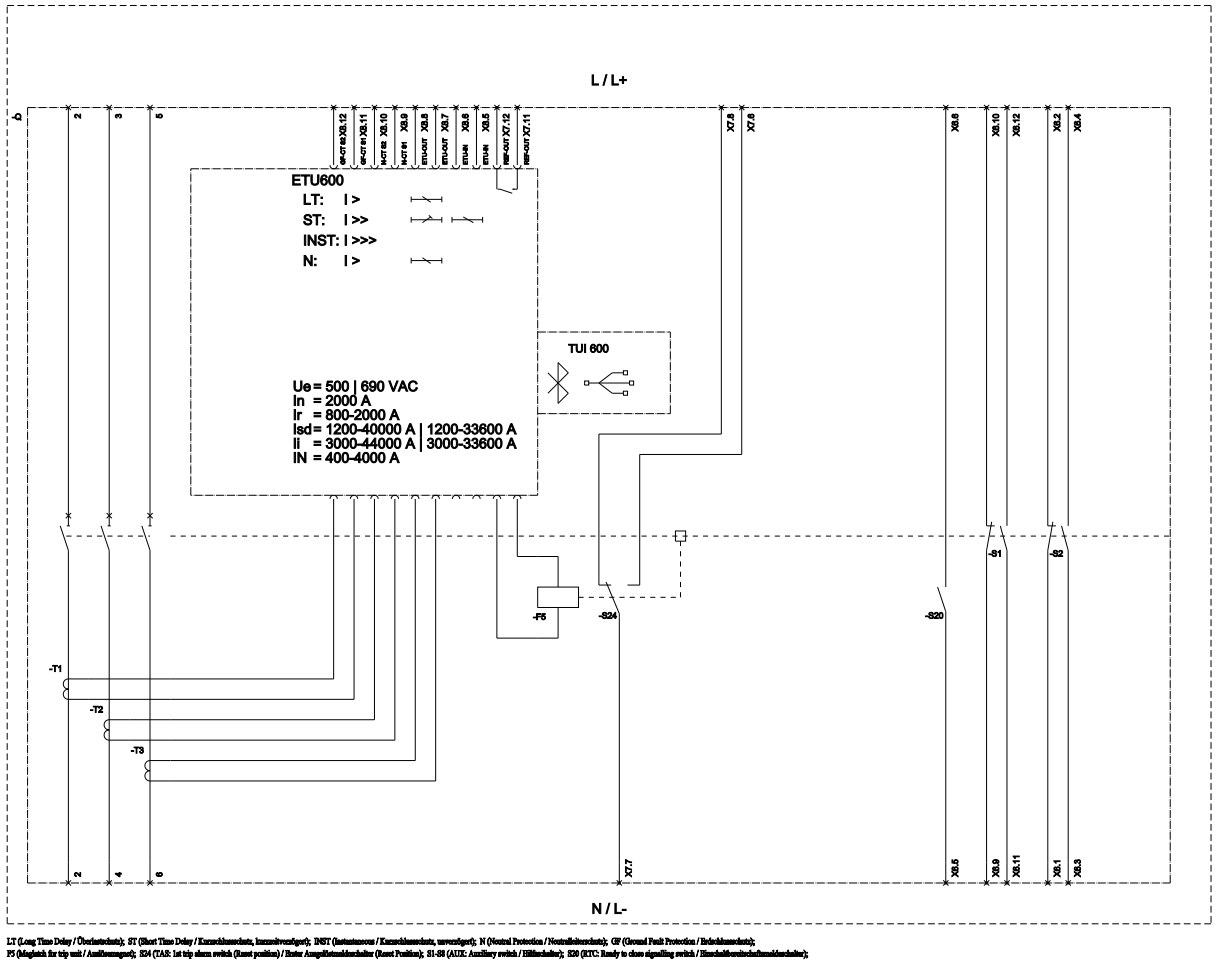
CAx-Online-Generator

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

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

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





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