

Withdrawable circuit breaker with guide frame, IEC 60947-2, frame size 1, 3-poles, In=1600A up to 690V AC 50/60Hz, breaking capacity S Icu=66/50kA at 500/690V, Trip unit ETU600 LSIG upgrade ready , colordisplay, bluetooth and USB interface, Protection LT, ST, INST, GFx, N-protection required an external N-sensor, incl. trip alarm switch (1xCO), rear connection horizontal, guide frame with shutter and w/o position signalling switch, 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
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 with mechanical or electrical closing
design of the electronic trip unit	ETU600 LSIG
Weight	76.367 kg
Net Weight	61.367 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	310 W
Current	
continuous current / rated value / maximum	1600 A
continuous current / rated value	1600 A
operational current	
• at 40 °C / rated value	1600 A
• at 45 °C / rated value	1600 A
• at 50 °C / rated value	1600 A
• at 55 °C / rated value	1600 A
• at 60 °C / rated value	1600 A
• at 70 °C / rated value	1490 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 (Icw) / at 500 V AC	
• for 0.5 s / rated value	66 kA
• for 1 s / rated value	66 kA

<ul style="list-style-type: none"> • for 2 s / rated value 	45 kA
<ul style="list-style-type: none"> • for 3 s / rated value 	35 kA
short-time withstand current (I _{cw}) / at 690 V AC	
<ul style="list-style-type: none"> • for 0.5 s / rated value 	50 kA
<ul style="list-style-type: none"> • for 1 s / rated value 	50 kA
<ul style="list-style-type: none"> • for 2 s / rated value 	45 kA
<ul style="list-style-type: none"> • for 3 s / rated value 	35 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 (t _r) / for L-tripping / with I2t characteristic	1;2;5;8;10;14;17;21;25
reference value delay time (t _r) / 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 	640 A
<ul style="list-style-type: none"> • maximum 	1600 A
set values delay time (t _r) / 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 (t _r) / for L-tripping / with I4t characteristic / for eSet	0.5-5;0.001
reference value delay time (t _r) / 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 	640 A
<ul style="list-style-type: none"> • maximum 	1600 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 	320 A
<ul style="list-style-type: none"> • maximum 	3200 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 (t _{sd}) / for S-tripping / with I0t characteristic	0.08;0.15;0.22;0.3;0.4
reference value delay time (t _{sd}) / for S-tripping / with I0t	s

characteristic	
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	960 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	960 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	2400 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	
• can be switched on/off	Yes
• selectable characteristic function	Yes
set values setting current (I _g) / for G-tripping / with I0t characteristic	0.0625-1.25;0.001
reference value setting current (I _g) / for G-tripping / with I0t characteristic	x I _n
set values delay time (t _g) / for G-tripping / with I0t characteristic	0.02-30;0.001
reference value delay time (t _g) / for G-tripping / with I0t characteristic	s
set values setting current (I _g) / for G-tripping / with I2t characteristic	0.0625-1.25;0.001
reference value setting current (I _g) / for G-tripping / with I2t characteristic	x I _n
set values delay time (t _g) / for G-tripping / with I2t characteristic	0.02-5;0.001
reference value delay time (t _g) / for G-tripping / with I2t characteristic	s
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	468 mm	
width	320 mm	
depth	471 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	
General Product Approval	EMC	Radio Equipment Type Approval Certificate
 Confirmation		
		 Miscellaneous
Radio Equipment Type Approval Certificate	Declaration of Conformity	Test Certificates
 Miscellaneous	 FCC	 Special Test Certificate
		
Test Certificates	Marine / Shipping	
Miscellaneous		
		
		

other	Dangerous Good	Environment
Confirmation	Manufacturer Declaration	Dangerous Goods Information
		Transport Information
		Environmental Confirmations

Further information

Siemens has decided to exit the Russian market (see here).

<https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business>

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=3WA1116-3AF32-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3WA1116-3AF32-0AA0>

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

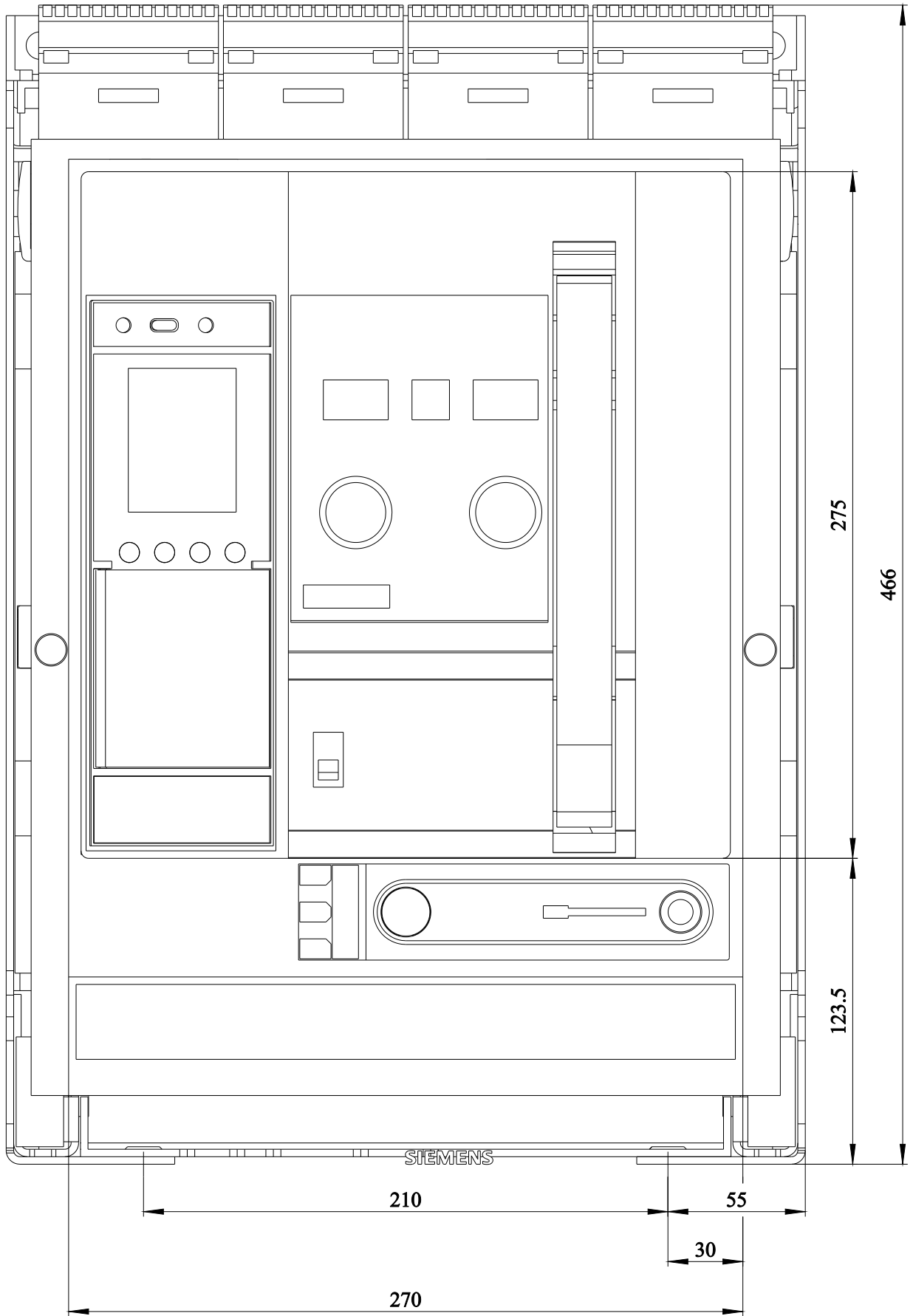
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3WA1116-3AF32-0AA0

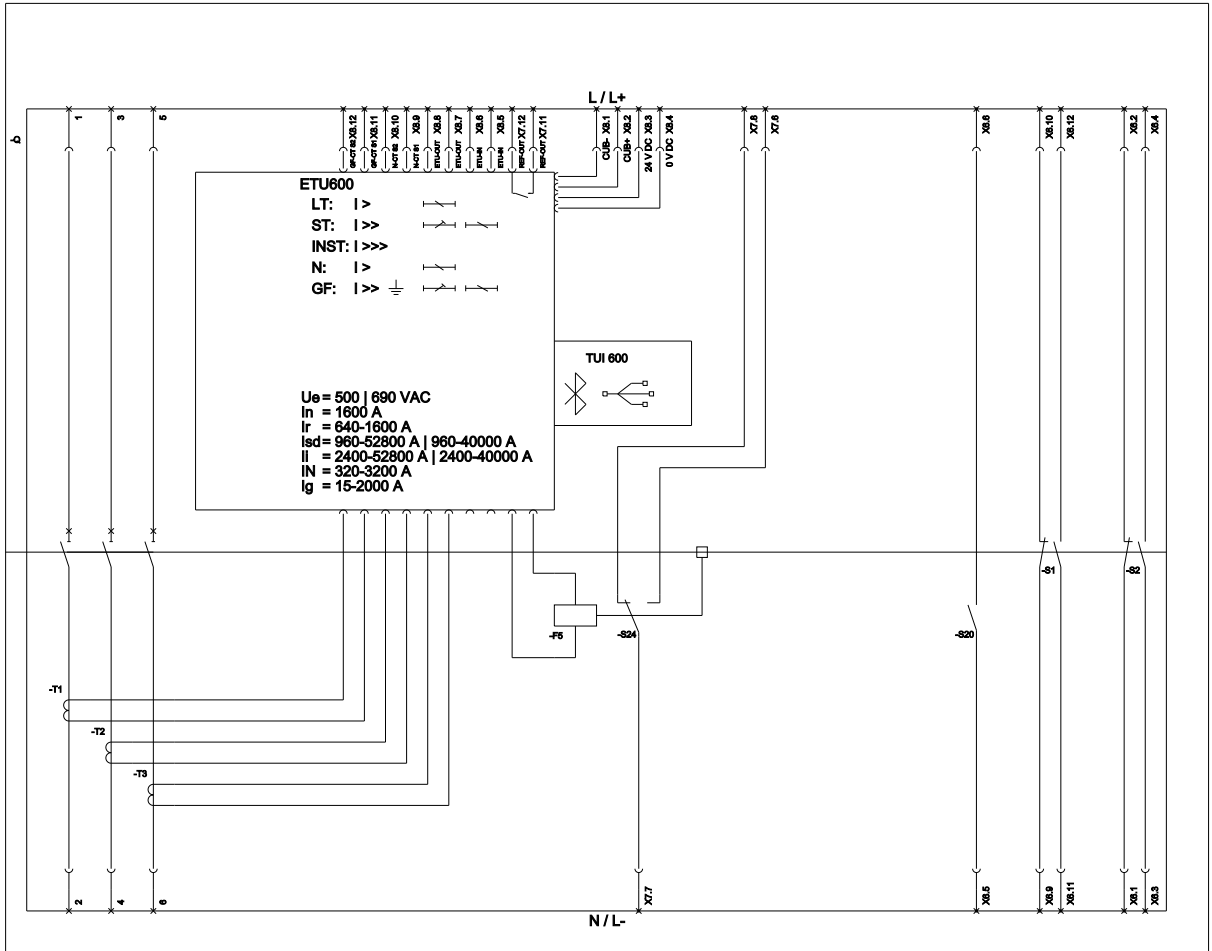
CAx-Online-Generator

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

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

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





O (Ground Fault Protection / Erdbeschutz), LT (Long Time Delay / Überstromschutz), ST (Short Time Delay / Kurzstromschutz, kurzschlussfest), INST (Instantaneous / Kurzstromschutz, unverzögernd), N (Neutral Protection / Neutraleichenschutz), GF (Ground Fault Protection / Erdbeschutz), PS (Signal switch for trip unit / Auslösekontakt), S24 (TAS: last trip alarm switch (Reset position) / Beleg Anzeigekontaktgeber (Reset Position)), S1-S8 (AUX: Auxiliary switch / Hilfskontakt), S20 (RTTC: Ready to close signaling switch / Erdbeschutzkontaktgeber), T30: position signaling switch module / Positionsmelderschaltwerk

last modified:

8/2/2023

