

Fixed-mounted circuit breaker IEC 60947-2, frame size 1, 3-poles, $I_n=1600A$ up to 690V AC 50/60Hz, breaking capacity S $I_{cu}=66/50kA$ at 500/690V, Trip unit ETU300 LSI optimized for standard applications, without display 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	Air circuit breaker
suitability for use	circuit breaker
size of the circuit-breaker	1
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	ETU300 LSI
Weight	51.217 kg
Net Weight	38.217 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	135 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 65 °C / rated value	1600 A
• at 70 °C / rated value	1600 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})	
<ul style="list-style-type: none"> at 500 V / rated value at 690 V / rated value 	<p>145 kA</p> <p>105 kA</p>
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>No</p> <p>No</p> <p>Yes</p> <p>No</p> <p>No</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>No</p> <p>No</p> <p>No</p>
set values setting current (I _r) / for L-tripping / with I2t characteristic	0.4;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 I2t characteristic	x I _n
set values delay time (t _r) / for L-tripping / with I2t characteristic	0.75;1;2;5;8;10;14;17;21;25
reference value delay time (t _r) / for L-tripping / with I2t characteristic	s
L: Overload protection N-conductor	
product feature / with neutral conductor protection / can be switched on/off	No
setting values setting current (I _{nN}) / for N-tripping	1
reference value setting current (I _{nN}) / for N-tripping	x I _n
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>No</p>
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 characteristic	s
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 (t _{sd}) / for S-tripping / with I2t characteristic	0.08;0.15;0.22;0.3;0.4
product feature / for I-tripping	
<ul style="list-style-type: none"> can be switched on/off decoder and infinite adjustability are selectable (with eSet) 	<p>No</p> <p>No</p>
set values setting current (I _i) / for I-tripping	1.5;2;3;4;5;6;8;10;12;15

reference value setting current (I _n) / for I-tripping	x I _n
G: ground fault GF	
product feature / for G-tripping	
<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
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	
<ul style="list-style-type: none"> undervoltage release 	No
<ul style="list-style-type: none"> voltage trigger 	No
<ul style="list-style-type: none"> trip indicator 	Yes
<ul style="list-style-type: none"> motor drive 	No
Environmental conditions	
protection class IP / on the front	IP20
ambient temperature / during operation	
<ul style="list-style-type: none"> minimum 	-40 °C
<ul style="list-style-type: none"> maximum 	70 °C
ambient temperature / during storage	
<ul style="list-style-type: none"> minimum 	-40 °C
<ul style="list-style-type: none"> maximum 	80 °C
Environmental footprint	
Siemens Eco Profile (SEP)	Siemens EcoTech
Certificates	
reference code	
<ul style="list-style-type: none"> according to IEC 81346-2 	Q
Approvals / Certificates	
General Product Approval	EMV



[Confirmation](#)



EG-Konf.



RCM

Radio Equipment

Test Certificates

Maritime application

Type Approval Certificate

[Miscellaneous](#)

[Miscellaneous](#)

[Special Test Certificate](#)



other Dangerous goods Environment

[Confirmation](#)



[Manufacturer Declaration](#)

[Transport Information](#)



Siemens EcoTech



Environment



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>

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

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

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3WA1116-3AB01-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3WA1116-3AB01-0AA0>

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

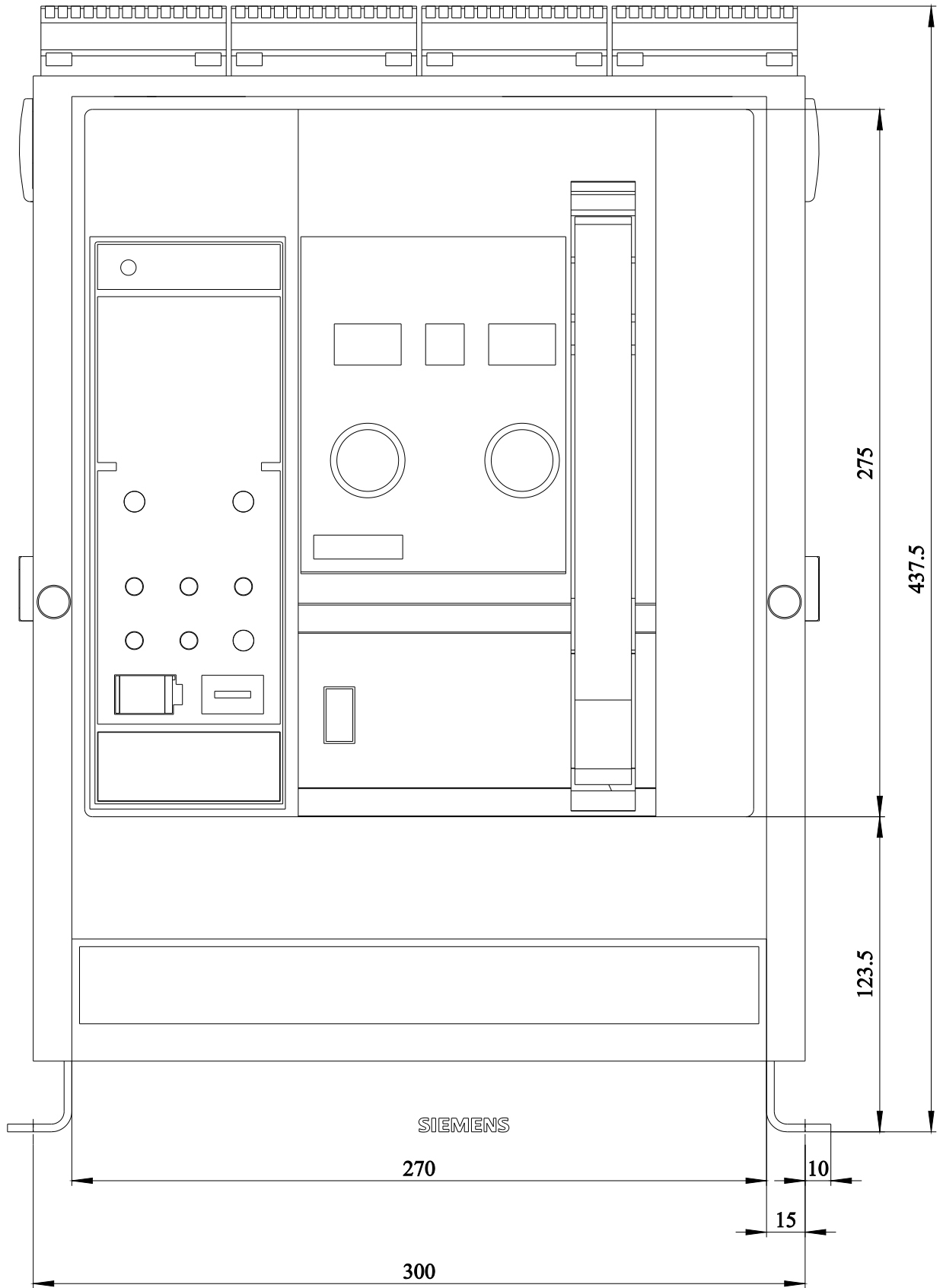
https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3WA1116-3AB01-0AA0

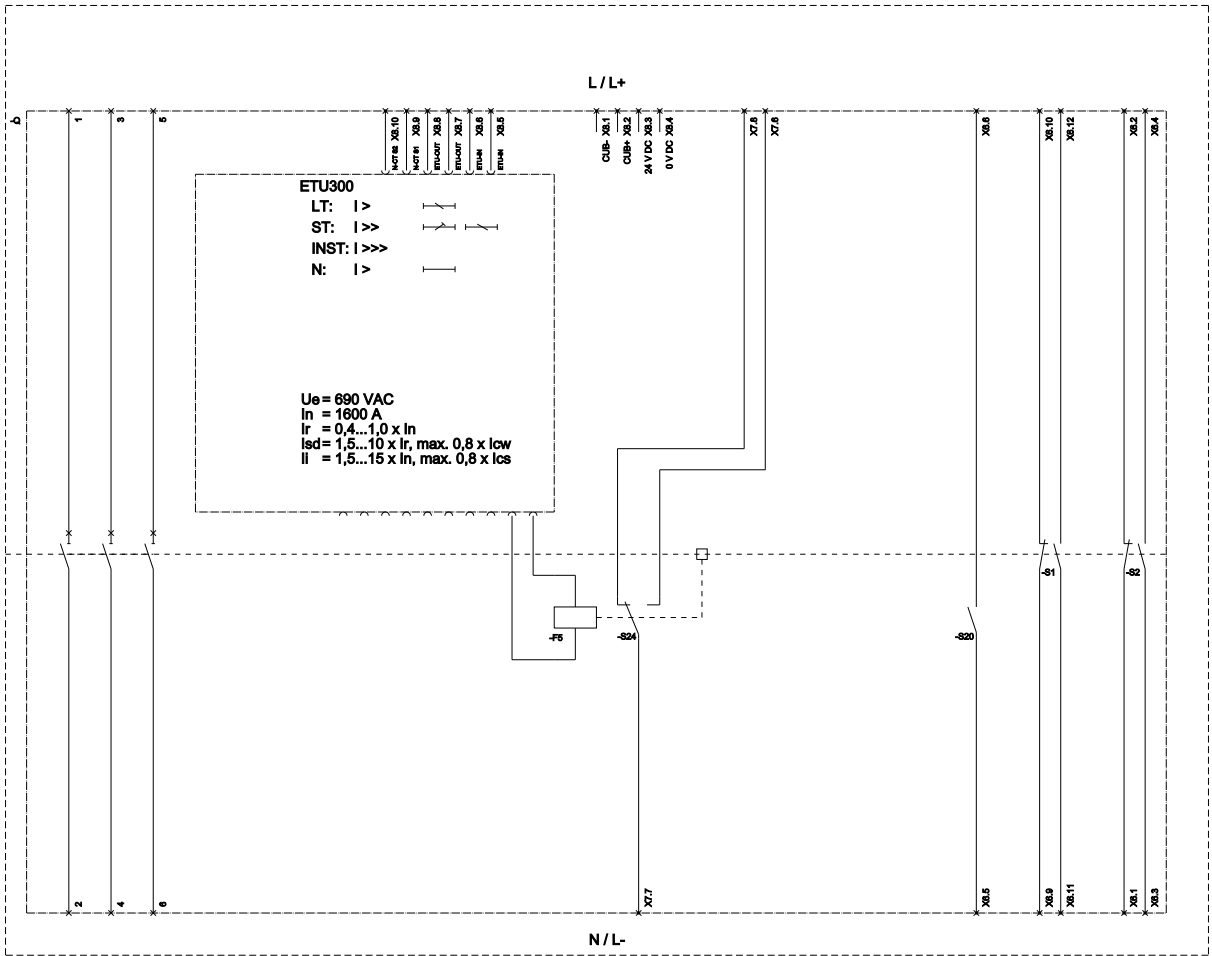
CAX-Online-Generator

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

Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP="HAUPT"></mmp_prod_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP=)





LT (Long Time Delay / Überstromschutz), ST (Short Time Delay / Kurzschlusschutz, Inzertwertschutz), INST (Instantaneous / Kurzschlusschutz, verzögerlos), N (Neutral Protection / Neutralleiterenschutz), CP (Circuit Breaker Protection / Erdschlusschutz),
 F5 (Highlink for trip unit / Anlaufstromschutz), S24 (TAS: Let trip alarm switch (Reset position) / Status Anlaufstromschutz (Reset Position)), S1-S8 (AUX: Auxiliary switch / Hilfskontakt), S20 (RTC: Ready to close signalling switch / Bereitschaftsschaltkontakt)

last modified:

11/24/2025

