



Fixed-mounted circuit breaker IEC 60947-2, frame size 1, 3-poles, $I_n=2000A$ up to 690V AC 50/60Hz, breaking capacity M $I_{cu}=85/66kA$ 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 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
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	ETU300 LSI
Weight	46.5 kg
Net Weight	33.5 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	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	
• for 0.5 s / rated value	85 kA

<ul style="list-style-type: none"> • for 1 s / rated value • for 2 s / rated value • for 3 s / rated value 	85 kA 70 kA 60 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 	66 kA 66 kA 66 kA 60 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 	No No Yes No No

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 	No No No
set values setting current (I _r) / for L-tripping / with I _{2t} characteristic	0.4;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 (t _r) / for L-tripping / with I _{2t} characteristic	0.75;1;2;5;8;10;14;17;21;25
reference value delay time (t _r) / for L-tripping / with I _{2t} 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 	Yes Yes No

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) 	No No

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 _i) / for I-tripping	x I _n

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	
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• 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	10000	
• with support / typical	15000	
electrical endurance (operating cycles)		
• at 690 V / without support / typical	7500	
• at 690 V / with support / typical	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	
General Product Approval	other	Environment

[Confirmation](#)



[Miscellaneous](#)

[Confirmation](#)

[Environmental Con-
firmations](#)

[Environmental Con-
firmations](#)

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=3WA1120-4AB02-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3WA1120-4AB02-0AA0>

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

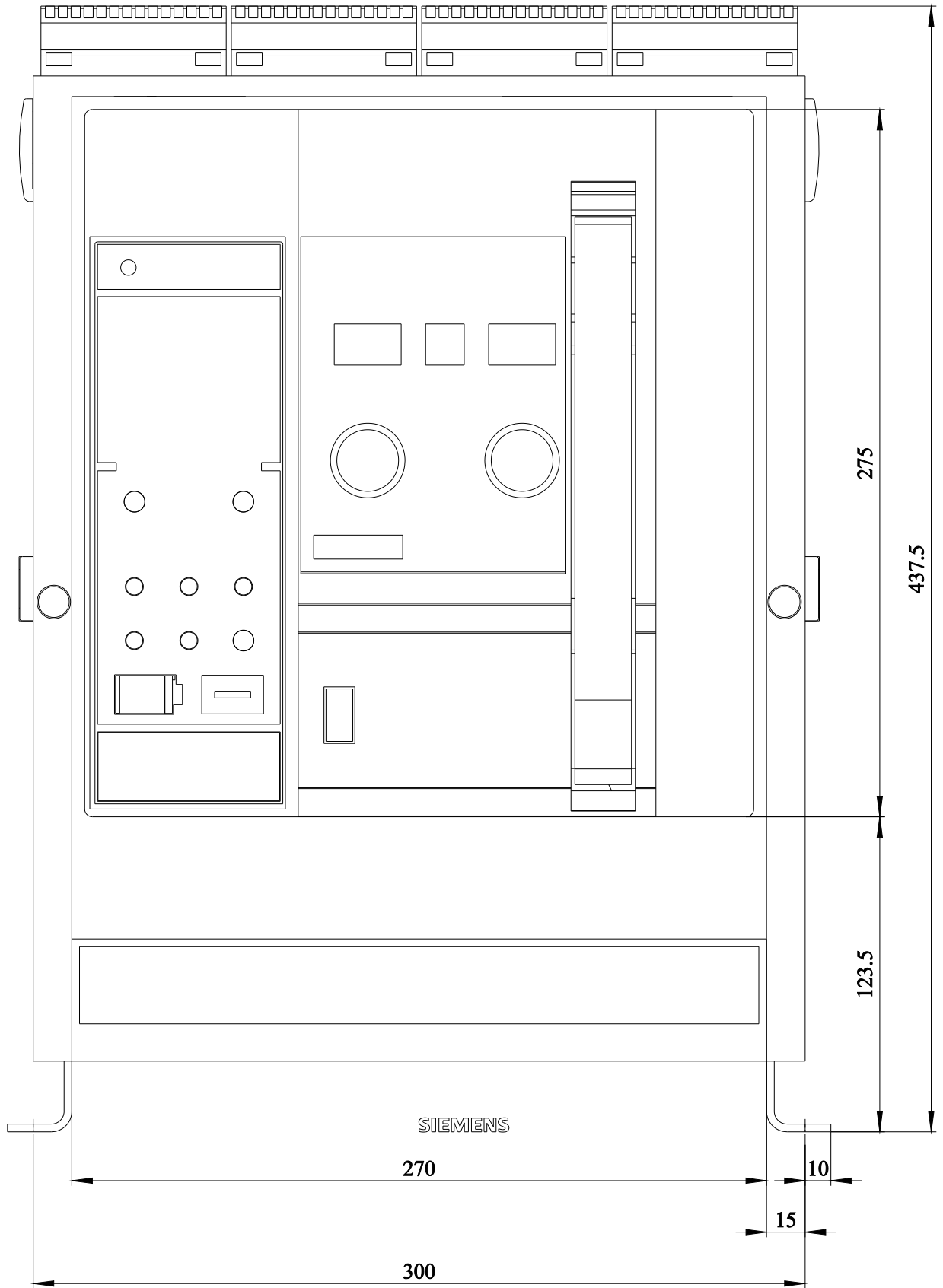
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3WA1120-4AB02-0AA0

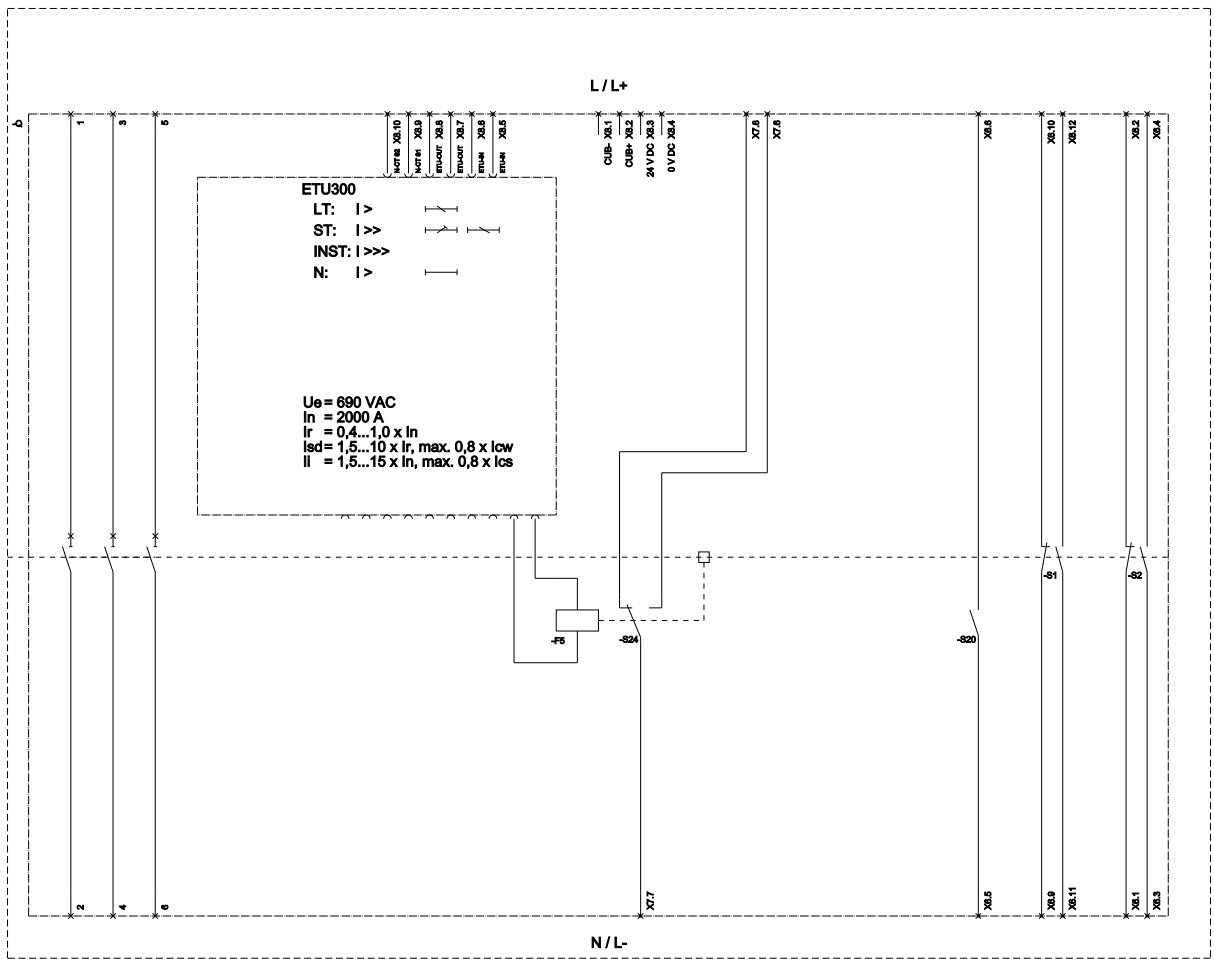
CAX-Online-Generator

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

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

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





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 (fuse link for trip unit / Anlaufstromerzeuger), S20 (TAS: Trip alarm switch (Reset position) / Status Anlaufstromerzeuger (Reset Position)), S1-S8 (AUX: Auxiliary switch / Hilfskontakt), S20 (RTC: Ready to close signalling switch / Bereitschaftsschaltkontakt)

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