



Withdrawable circuit breaker with guide frame, IEC 60947-2, frame size 2, 3-poles,  $I_n=2000\text{A}$  up to 690V AC 50/60Hz, breaking capacity  $H\ I_{cu}=100/85\text{kA}$  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, 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	II
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	ETU300 LSI
Weight	92.9 kg
Net Weight	79.9 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	320 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	H
maximum short-circuit current breaking capacity ( $I_{cu}$ )	
• at 500 V / rated value	100 kA
• at 690 V / rated value	85 kA
operating short-circuit current breaking capacity ( $I_{cs}$ )	
• at 500 V / rated value	100 kA
• at 690 V / rated value	85 kA
short-circuit current making capacity ( $I_{cm}$ )	
• at 500 V / rated value	220 kA
• at 690 V / rated value	187 kA
short-time withstand current ( $I_{cw}$ ) / at 500 V AC	
• for 0.5 s / rated value	100 kA

<ul style="list-style-type: none"> <li>• for 1 s / rated value</li> <li>• for 2 s / rated value</li> <li>• for 3 s / rated value</li> </ul>	85 kA 66 kA 55 kA
short-time withstand current (I <sub>cw</sub> ) / at 690 V AC	
<ul style="list-style-type: none"> <li>• for 0.5 s / rated value</li> <li>• for 1 s / rated value</li> <li>• for 2 s / rated value</li> <li>• for 3 s / rated value</li> </ul>	85 kA 85 kA 66 kA 55 kA
<b>Electronic release unit</b>	
product feature	
<ul style="list-style-type: none"> <li>• upgradable</li> <li>• Bluetooth and USB interface</li> <li>• decoder for basic protection functions</li> <li>• display and function keys</li> <li>• SENTRON powerconfig configuration software</li> </ul>	No No Yes No No
<b>Basic protection functions</b>	
product feature / for L-tripping	
<ul style="list-style-type: none"> <li>• can be switched on/off</li> <li>• selectable characteristic function</li> <li>• decoder and infinite adjustability are selectable with eSet</li> </ul>	No No No
set values setting current (I <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> 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 <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic	x I <sub>n</sub>
set values delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic	0.75;1;2;5;8;10;14;17;21;25
reference value delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic	s
<b>L: Overload protection N-conductor</b>	
product feature / with neutral conductor protection / can be switched on/off	No
setting values setting current (I <sub>nN</sub> ) / for N-tripping	1
reference value setting current (I <sub>nN</sub> ) / for N-tripping	x I <sub>n</sub>
<b>S: delayed short-circuit protection ST</b>	
product feature / for S-tripping	
<ul style="list-style-type: none"> <li>• independent of direction / can be switched on/off</li> <li>• independent of direction / selectable characteristic function</li> <li>• decoder and infinite adjustability are selectable with eSet</li> </ul>	Yes Yes No
<b>S: delayed short-circuit protection ST, settings values I<sub>0t</sub></b>	
set values setting current (I <sub>sd</sub> ) / for S-tripping / with I <sub>0t</sub> characteristic	1.5;2;2.5;3;4;5;6;8;10
reference value setting current (I <sub>sd</sub> ) / for S-tripping / with I <sub>0t</sub> characteristic	x I <sub>r</sub>
set values delay time (t <sub>sd</sub> ) / for S-tripping / with I <sub>0t</sub> characteristic	0.08;0.15;0.22;0.3;0.4
reference value delay time (t <sub>sd</sub> ) / for S-tripping / with I <sub>0t</sub> characteristic	s
<b>S: delayed short-circuit protection ST, settings values I<sub>2t</sub></b>	
set values setting current (I <sub>sd</sub> ) / for S-tripping / with I <sub>2t</sub> characteristic	1.5;2;2.5;3;4;5;6;8;10
reference value setting current (I <sub>sd</sub> ) / for S-tripping / with I <sub>2t</sub> characteristic	x I <sub>r</sub>
set values delay time (t <sub>sd</sub> ) / for S-tripping / with I <sub>2t</sub> characteristic	0.08;0.15;0.22;0.3;0.4
product feature / for I-tripping	
<ul style="list-style-type: none"> <li>• can be switched on/off</li> <li>• decoder and infinite adjustability are selectable (with eSet)</li> </ul>	No No
set values setting current (I <sub>i</sub> ) / for I-tripping	1.5;2;3;4;5;6;8;10;12;15
reference value setting current (I <sub>i</sub> ) / for I-tripping	x I <sub>n</sub>
<b>G: ground fault GF</b>	
product feature / for G-tripping	
<ul style="list-style-type: none"> <li>• can be switched on/off</li> <li>• selectable characteristic function</li> </ul>	No No
<b>Further protective functions</b>	
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	10000		
• with support / typical	20000		
electrical endurance (operating cycles)			
• at 690 V / without support / typical	7500		
• at 690 V / with support / typical	20000		
Dimensions			
height	468 mm		
width	460 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		Radio Equipment Type Approval Certificate	Test Certificates



## Miscellaneous

Test Certificates	Marine / Shipping	other
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## Miscellaneous



## Confirmation

Dangerous goods	Environment
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#### 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=3WA1220-5AB32-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3WA1220-5AB32-0AA0>

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

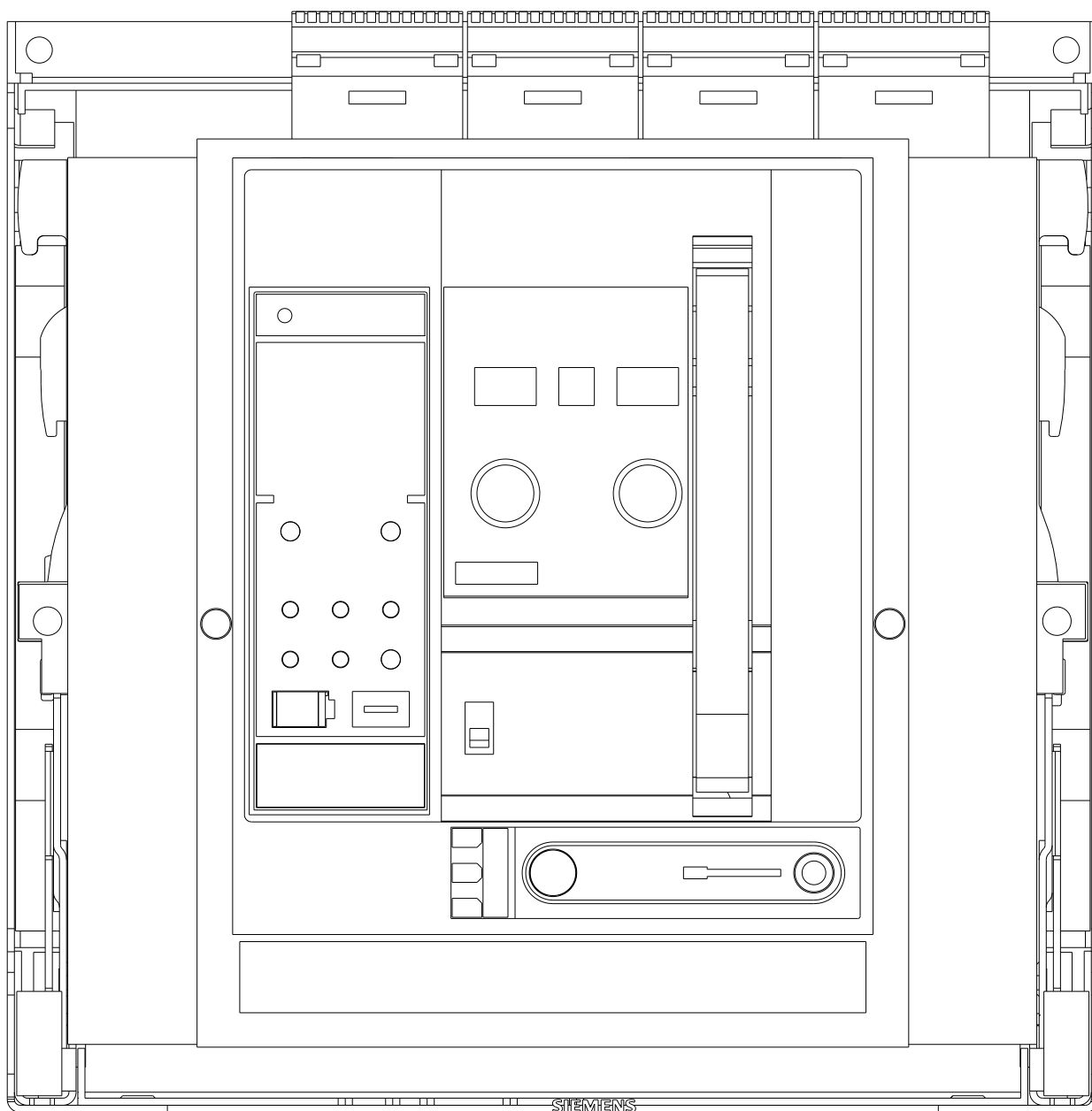
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3WA1220-5AB32-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3WA1220-5AB32-0AA0)

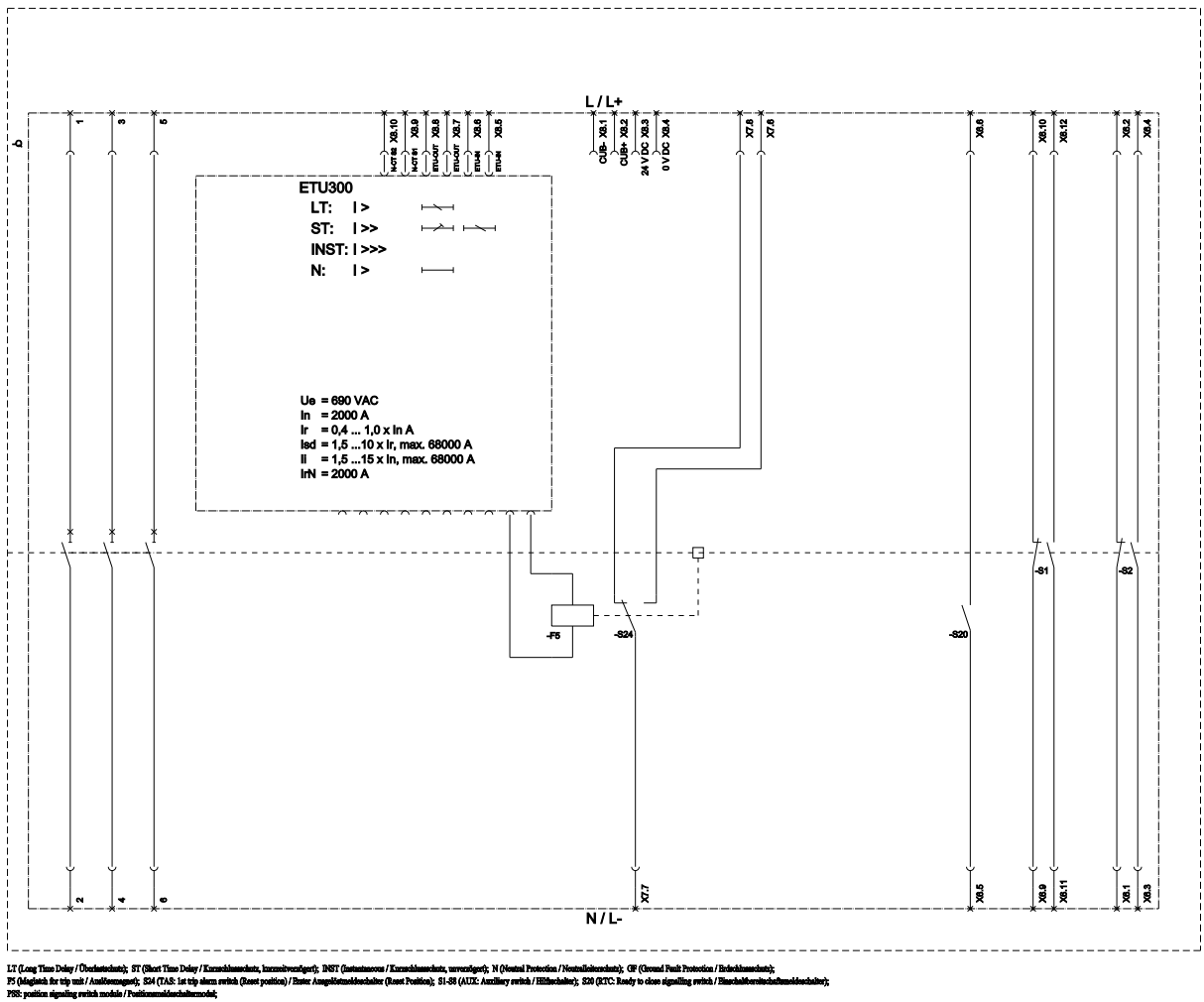
**CAX-Online-Generator**

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

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

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





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