

Withdrawable circuit breaker with guide frame, IEC 60947-2, frame size 2, 3-poles,  $I_n=4000\text{A}$  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 vertical, 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	106.3 kg
Net Weight	93.3 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	1040 W
Current	
continuous current / rated value / maximum	4000 A
continuous current / rated value	4000 A
operational current	
• at 40 °C / rated value	4000 A
• at 45 °C / rated value	4000 A
• at 50 °C / rated value	4000 A
• at 55 °C / rated value	4000 A
• at 60 °C / rated value	3910 A
• at 70 °C / rated value	3645 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
• for 1 s / rated value	85 kA

<ul style="list-style-type: none"> <li>• for 2 s / rated value</li> </ul>	85 kA
<ul style="list-style-type: none"> <li>• for 3 s / rated value</li> </ul>	75 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> </ul>	85 kA
<ul style="list-style-type: none"> <li>• for 1 s / rated value</li> </ul>	85 kA
<ul style="list-style-type: none"> <li>• for 2 s / rated value</li> </ul>	85 kA
<ul style="list-style-type: none"> <li>• for 3 s / rated value</li> </ul>	75 kA

### Electronic release unit

product feature	
<ul style="list-style-type: none"> <li>• upgradable</li> </ul>	No
<ul style="list-style-type: none"> <li>• Bluetooth and USB interface</li> </ul>	No
<ul style="list-style-type: none"> <li>• decoder for basic protection functions</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• display and function keys</li> </ul>	No
<ul style="list-style-type: none"> <li>• SENTRON powerconfig configuration software</li> </ul>	No

### Basic protection functions

product feature / for L-tripping	
<ul style="list-style-type: none"> <li>• can be switched on/off</li> </ul>	No
<ul style="list-style-type: none"> <li>• selectable characteristic function</li> </ul>	No
<ul style="list-style-type: none"> <li>• decoder and infinite adjustability are selectable with eSet</li> </ul>	No
set values setting current (I <sub>r</sub> ) / for L-tripping / with I2t characteristic	0.4;0.5;0.6;0.7;0.75;0.8;0.85;0.9;0.95;1.0
reference value setting current (I <sub>r</sub> ) / for L-tripping / with I2t characteristic	x I <sub>n</sub>
set values delay time (t <sub>r</sub> ) / for L-tripping / with I2t characteristic	0.75;1;2;5;8;10;14;17;21;25
reference value delay time (t <sub>r</sub> ) / 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 <sub>nN</sub> ) / for N-tripping	1
reference value setting current (I <sub>nN</sub> ) / for N-tripping	x I <sub>n</sub>

### S: delayed short-circuit protection ST

product feature / for S-tripping	
<ul style="list-style-type: none"> <li>• independent of direction / can be switched on/off</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• independent of direction / selectable characteristic function</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• decoder and infinite adjustability are selectable with eSet</li> </ul>	No

### S: delayed short-circuit protection ST, settings values I0t

set values setting current (I <sub>sd</sub> ) / for S-tripping / with I0t characteristic	1.5;2;2.5;3;4;5;6;8;10
reference value setting current (I <sub>sd</sub> ) / for S-tripping / with I0t characteristic	x I <sub>r</sub>
set values delay time (t <sub>sd</sub> ) / for S-tripping / with I0t characteristic	0.08;0.15;0.22;0.3;0.4
reference value delay time (t <sub>sd</sub> ) / for S-tripping / with I0t characteristic	s

### S: delayed short-circuit protection ST, settings values I2t

set values setting current (I <sub>sd</sub> ) / for S-tripping / with I2t characteristic	1.5;2;2.5;3;4;5;6;8;10
reference value setting current (I <sub>sd</sub> ) / for S-tripping / with I2t characteristic	x I <sub>r</sub>
set values delay time (t <sub>sd</sub> ) / 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"> <li>• can be switched on/off</li> </ul>	No
<ul style="list-style-type: none"> <li>• decoder and infinite adjustability are selectable (with eSet)</li> </ul>	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>

### G: ground fault GF

product feature / for G-tripping	
<ul style="list-style-type: none"> <li>• can be switched on/off</li> </ul>	No
<ul style="list-style-type: none"> <li>• selectable characteristic function</li> </ul>	No

### Further protective functions

protection function	
<ul style="list-style-type: none"> <li>• maintenance mode DAS+</li> </ul>	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	2000
• 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, 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	
• 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	



[Confirmation](#)



[Miscellaneous](#)



EMV	Test Certificates	Marine / Shipping	other	
	<a href="#">Special Test Certificate</a>	<a href="#">Type Test Certificates/Test Report</a>		<a href="#">Confirmation</a>
				<a href="#">Miscellaneous</a>
other	Environment			

[Miscellaneous](#)

[Environmental Confirmations](#)

## 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=3WA1240-5AB31-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3WA1240-5AB31-0AA0>

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

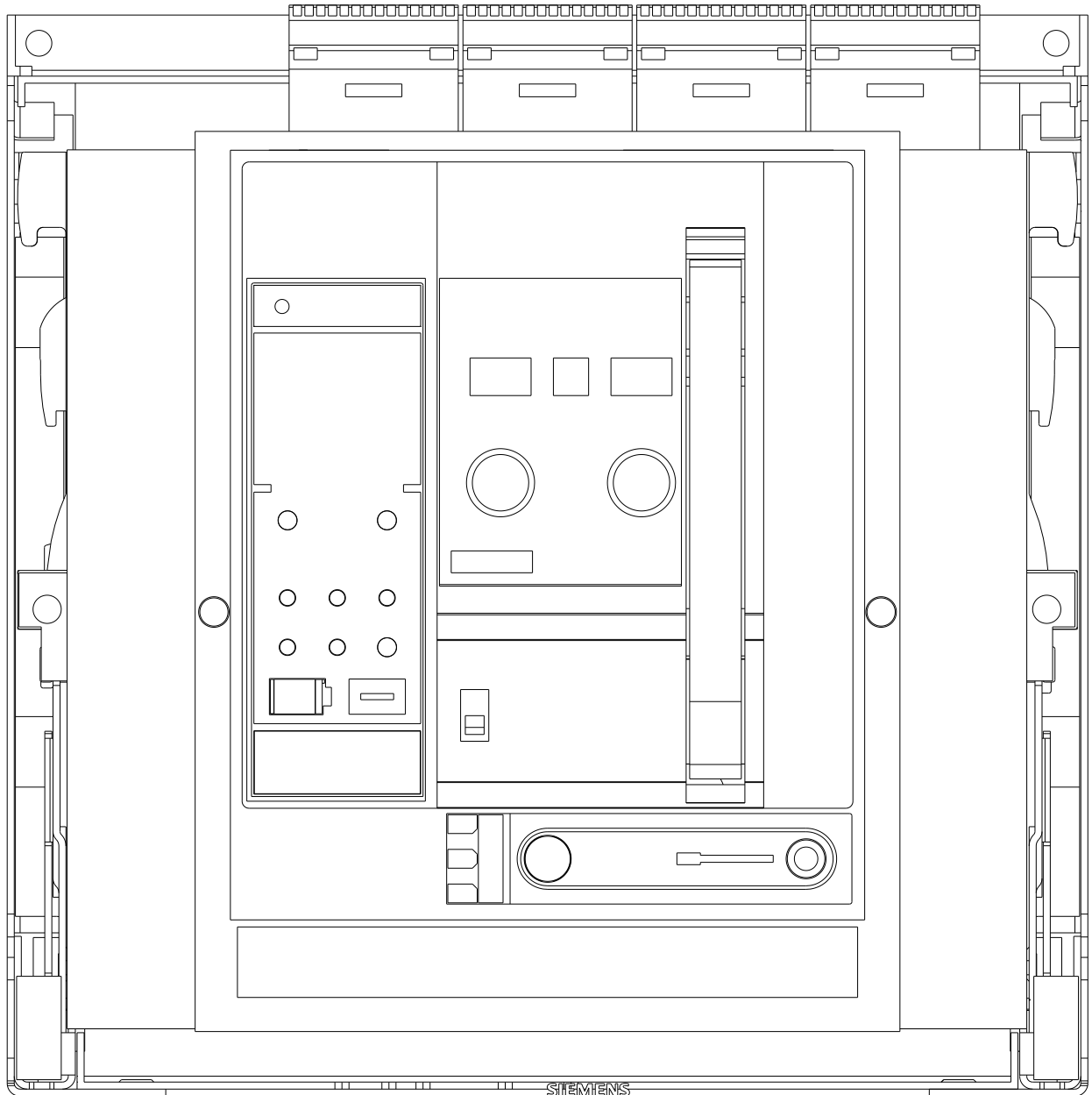
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3WA1240-5AB31-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3WA1240-5AB31-0AA0)

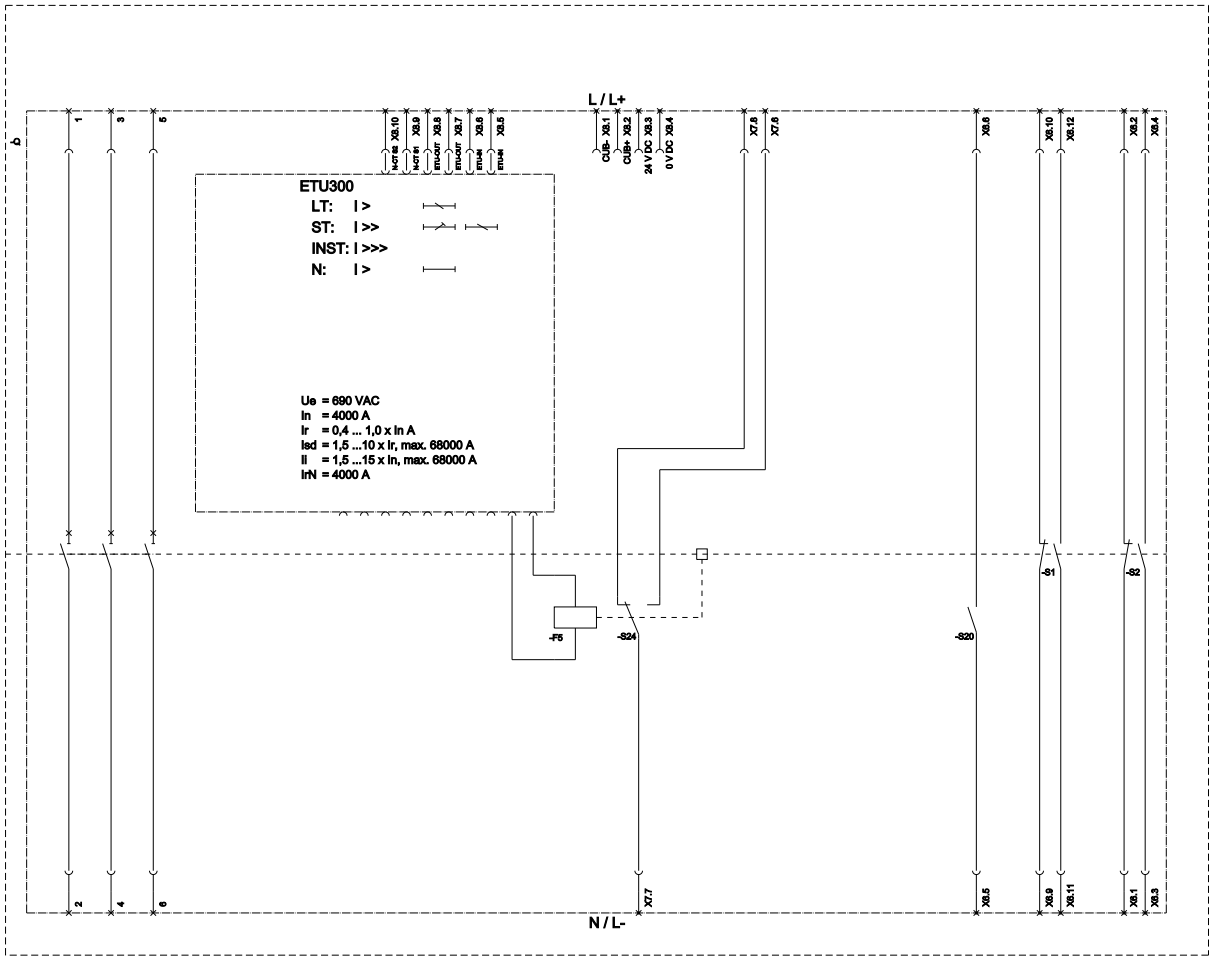
### CAX-Online-Generator

<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 / Kurzstromschutz, Inzernstromschutz), INST (Instantaneous / Kurzstromschutz, verzögert), N (Neutral Protection / Neutralitätschutz), CP (Circuit Break Protection / Erdschutz),  
 F5 (fuse for trip unit / Auslöseorgane), S24 (TAS: 1st trip alarm switch (Reset position) / Erste Auslöseorgane (Reset Position)), S1-S8 (AUX: Auxiliary switch / Hilfskontakt), S20 (RTO: Ready to close signalling switch / Bereitschaftsschaltkontakt),  
 X00: position signalling switch module / Positionsmelderschaltmodul.

last modified:

7/3/2023

