

Withdrawable circuit breaker with guide frame, IEC 60947-2, frame size 1, 4-poles, N-pole left, $I_n=1600\text{A}$ up to 690V AC 50/60Hz, breaking capacity S $I_{cu}=66/50\text{kA}$ at 500/690V, Trip unit ETU300 LSI optimized for standard applications, without display Protection LT, ST, INST, include N-protection, (internal N-sensor available), 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
product designation	Air circuit breaker
suitability for use	circuit breaker
size of the circuit-breaker	I
number of poles	4
position / of neutral conductor	neutral left
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	86.7 kg
Net Weight	73.7 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 (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})	
• at 500 V / rated value	145 kA
• at 690 V / rated value	105 kA
short-time withstand current (I_{cw}) / at 500 V AC	
• for 0.5 s / rated value	66 kA

<ul style="list-style-type: none"> • for 1 s / rated value • for 2 s / rated value • for 3 s / rated value 	66 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 	50 kA
	50 kA
	45 kA
	35 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	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	410 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	EMV



[Confirmation](#)



EG-Konf.



RCM

Radio Equipment Type Approval Certificate	Test Certificates	Marine / Shipping
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[Miscellaneous](#)

[Miscellaneous](#)

[Special Test Certificate](#)



ABS



BUREAU VERITAS



LRS

other	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=3WA1116-3AB42-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3WA1116-3AB42-0AA0>

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

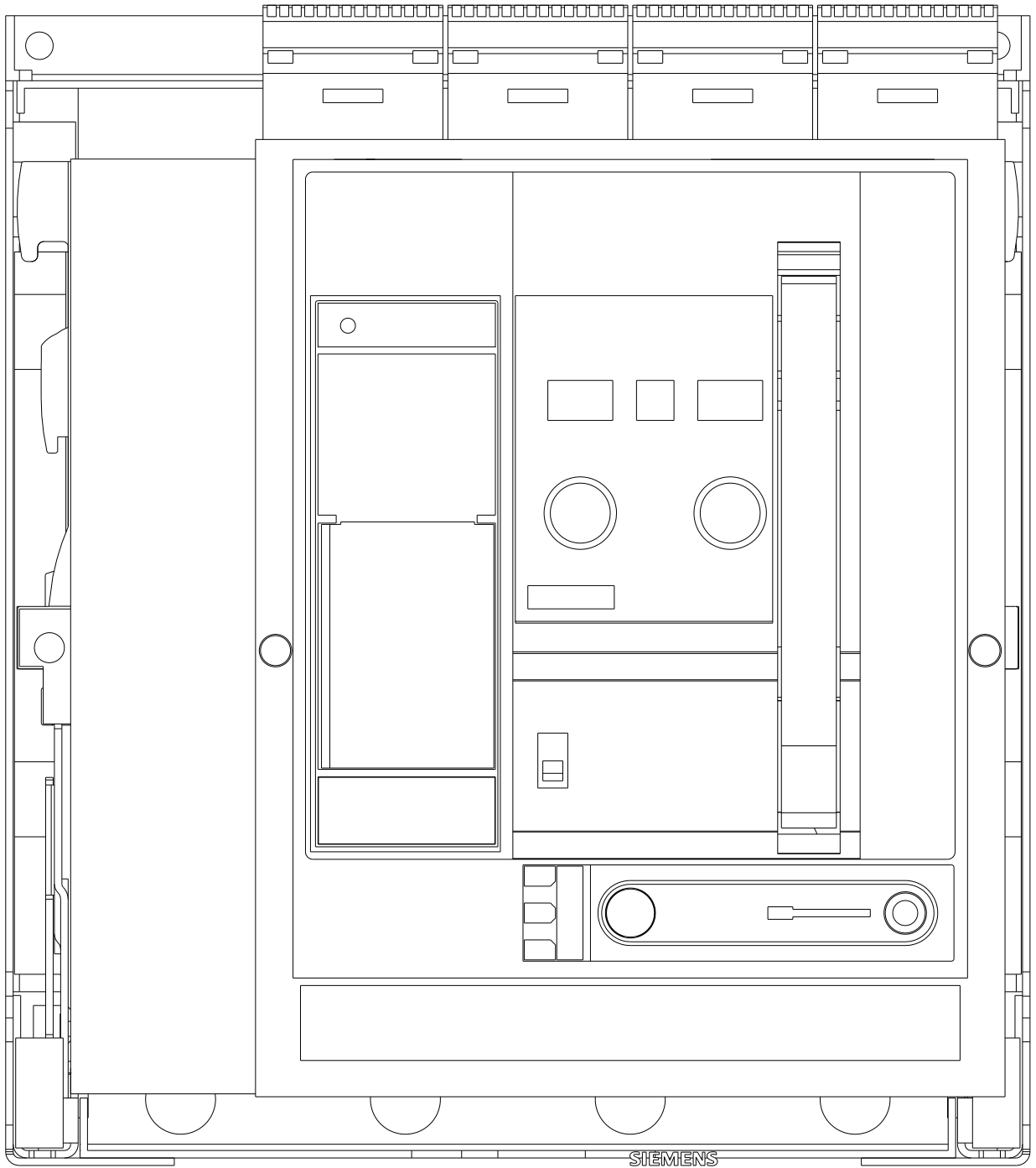
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3WA1116-3AB42-0AA0

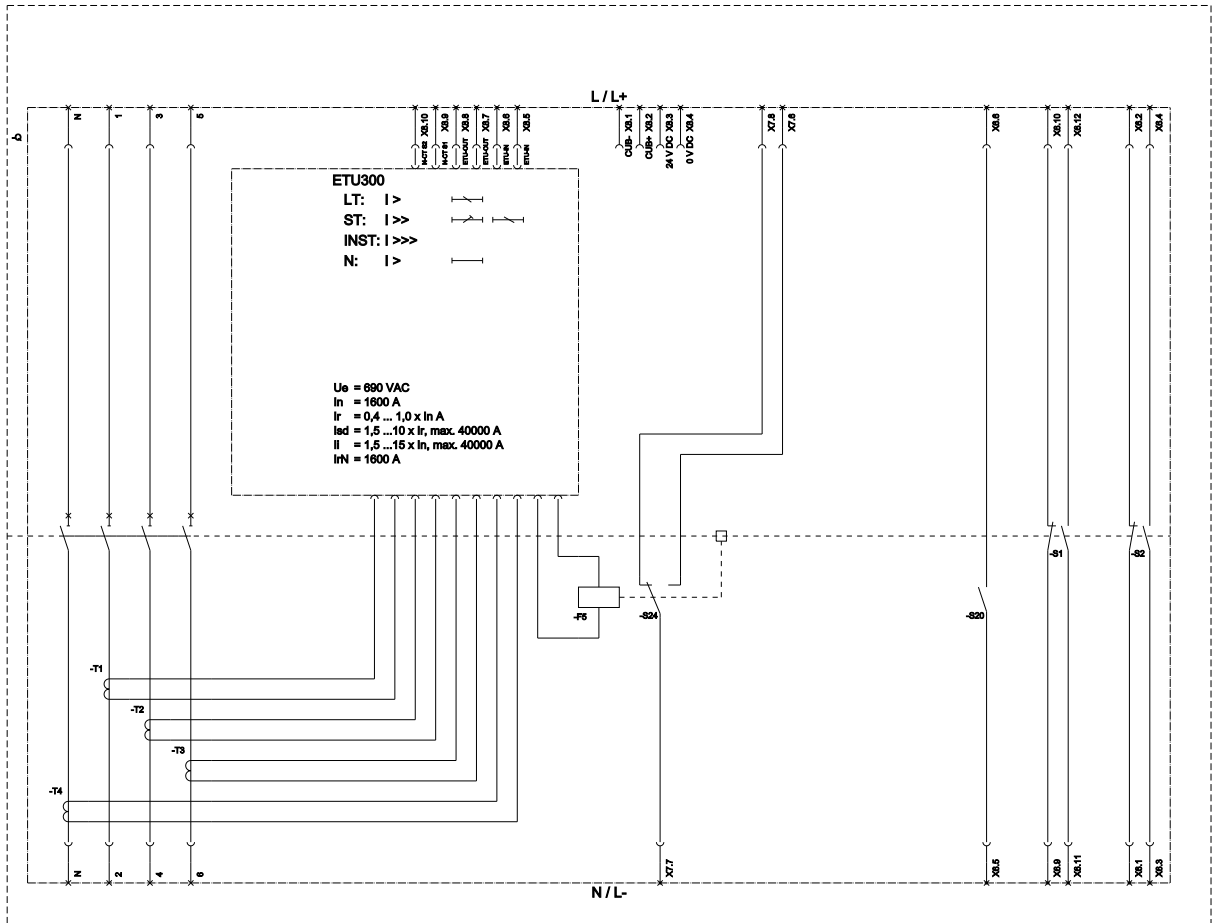
CAX-Online-Generator

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

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

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





LT (Long Time Delay / Überspannung); ST (Short Time Delay / Kurzschlusschutz, kurzzeitverzögerter); INST (Instantaneous / Kurzschlusschutz, unverzögert); N (Neutral Protection / Neutralüberwachung); GF (Ground Fault Protection / Erdlebensschutz);
 F5 (Signal switch for trip unit / Anzeigenschalter); S20 (TAS: In trip alarm switch (Reset position) / Fehler Anzeigebalkenhalter (Reset Position); S1-S4 (AUX: Auxiliary switch / Hilfskontakt); S20 (RTCC: Ready to close signaling switch / Abschaltkontaktüberwachungskontakt);
 F5C: position signaling switch module / Positionsschaltkontaktmodul

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12/13/2023

