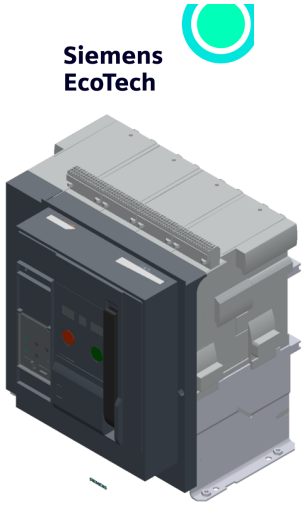
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Data sheet 3WA1120-2AB12-8EA4



Fixed-mounted circuit breaker IEC 60947-2, frame size 1, 4-poles, N-pole left, In=2000A up to 690V AC 50/60Hz, breaking capacity N Icu=55/42kA at 500/690V, Trip unit ETU300 LSI optimized for standard applica- tions, without display Protection LT, ST, INST, include N-protection, (internal N-sensor available), incl. trip alarm switch (1xCO), rear connection horizontal, without Com & metering function with manual and motorized operating mechanism (M) 208-240 V AC / 220-250 V DC, Storage status and ready-to- close signaling switches, Auxiliary switches 4NO+4NC, Closing coil (CC) 100% OP 208-240 V AC / 220-250 V DC, applicable for continuous duty, without Remote trip alarm reset coil (RR), without 2nd shunt trip, Shunt trip (ST) 100% OP 208-240 V AC / 220-250 V DC, suitable for continuous duty,

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	fixed-mounted circuit breakers
design of the product	AC application
type of the driving mechanism	manual operating mechanism/spring charging motor with spring charge signaling switch
design of the electronic trip unit	ETU300 LSI
Weight	52.972 kg
Net Weight	39.972 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	N
maximum short-circuit current breaking capacity (Icu)	
• at 500 V / rated value	55 kA
• at 690 V / rated value	42 kA
operating short-circuit current breaking capacity (Ics)	
• at 500 V / rated value	55 kA

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● at 690 V / rated value	42 kA
short-circuit current making capacity (Icm)	
● at 500 V / rated value	121 kA
● at 690 V / rated value	88 kA
short-time withstand current (Icw) / at 500 V AC	
● for 0.5 s / rated value	55 kA
● for 1 s / rated value	50 kA
● for 2 s / rated value	45 kA
● for 3 s / rated value	35 kA
short-time withstand current (Icw) / at 690 V AC	
● for 0.5 s / rated value	42 kA
● for 1 s / rated value	42 kA
● for 2 s / rated value	42 kA
● for 3 s / rated value	35 kA
Electronic release unit	
product feature	
● upgradable	No
● Bluetooth and USB interface	No
● decoder for basic protection functions	Yes
● display and function keys	No
● SENTRON powerconfig configuration software	No
Basic protection functions	
product feature / for L-tripping	
● can be switched on/off	No
● selectable characteristic function	No
● decoder and infinite adjustability are selectable with eSet	No
set values setting current (Ir) / 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 (Ir) / for L-tripping / with I2t characteristic	x In
set values delay time (tr) / for L-tripping / with I2t characteristic	0.75;1;2;5;8;10;14;17;21;25
reference value delay time (tr) / 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 (InN) / for N-tripping	1
reference value setting current (InN) / for N-tripping	x In
S: delayed short-circuit protection ST	
product feature / for S-tripping	
● independent of direction / can be switched on/off	Yes
● independent of direction / selectable characteristic function	Yes
● decoder and infinite adjustability are selectable with eSet	No
S: delayed short-circuit protection ST, settings values I0t	
set values setting current (Isd) / for S-tripping / with I0t characteristic	1.5;2;2.5;3;4;5;6;8;10
reference value setting current (Isd) / for S-tripping / with I0t characteristic	x Ir
set values delay time (tsd) / for S-tripping / with I0t characteristic	0.08;0.15;0.22;0.3;0.4
reference value delay time (tsd) / for S-tripping / with I0t characteristic	s
S: delayed short-circuit protection ST, settings values I2t	
set values setting current (Isd) / for S-tripping / with I2t characteristic	1.5;2;2.5;3;4;5;6;8;10
reference value setting current (Isd) / for S-tripping / with I2t characteristic	x Ir
set values delay time (tsd) / for S-tripping / with I2t characteristic	0.08;0.15;0.22;0.3;0.4
product feature / for I-tripping	
● can be switched on/off	No
● decoder and infinite adjustability are selectable (with eSet)	No

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set values setting current (Ii) / for I-tripping	1.5;2;3;4;5;6;8;10;12;15
reference value setting current (Ii) / for I-tripping	x In
G: ground fault GF	
product feature / for G-tripping	
● selectable characteristic function	No
Further protective functions	
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	15000
● with support / typical	30000
electrical endurance (operating cycles)	
● at 690 V / without support / typical	7500
● at 690 V / with support / typical	30000
Dimensions	
height	437 mm
width	410 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	4 NO + 4 NC
number of NC contacts / for auxiliary contacts	4
number of NO contacts / for auxiliary contacts	4
number of CO contacts / for auxiliary contacts	0
Internal accessories	
product component	
● undervoltage release	No
● voltage trigger	Yes
● trip indicator	Yes
● motor drive	Yes
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

Approvals / Certificates

Environment	General Product Approval

General Product Approval	EMV	Radio Equipment Type Approval Certificate

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TUEV	Confirmation	CE EG-Konf.	UKCA	RCM	Miscellaneous

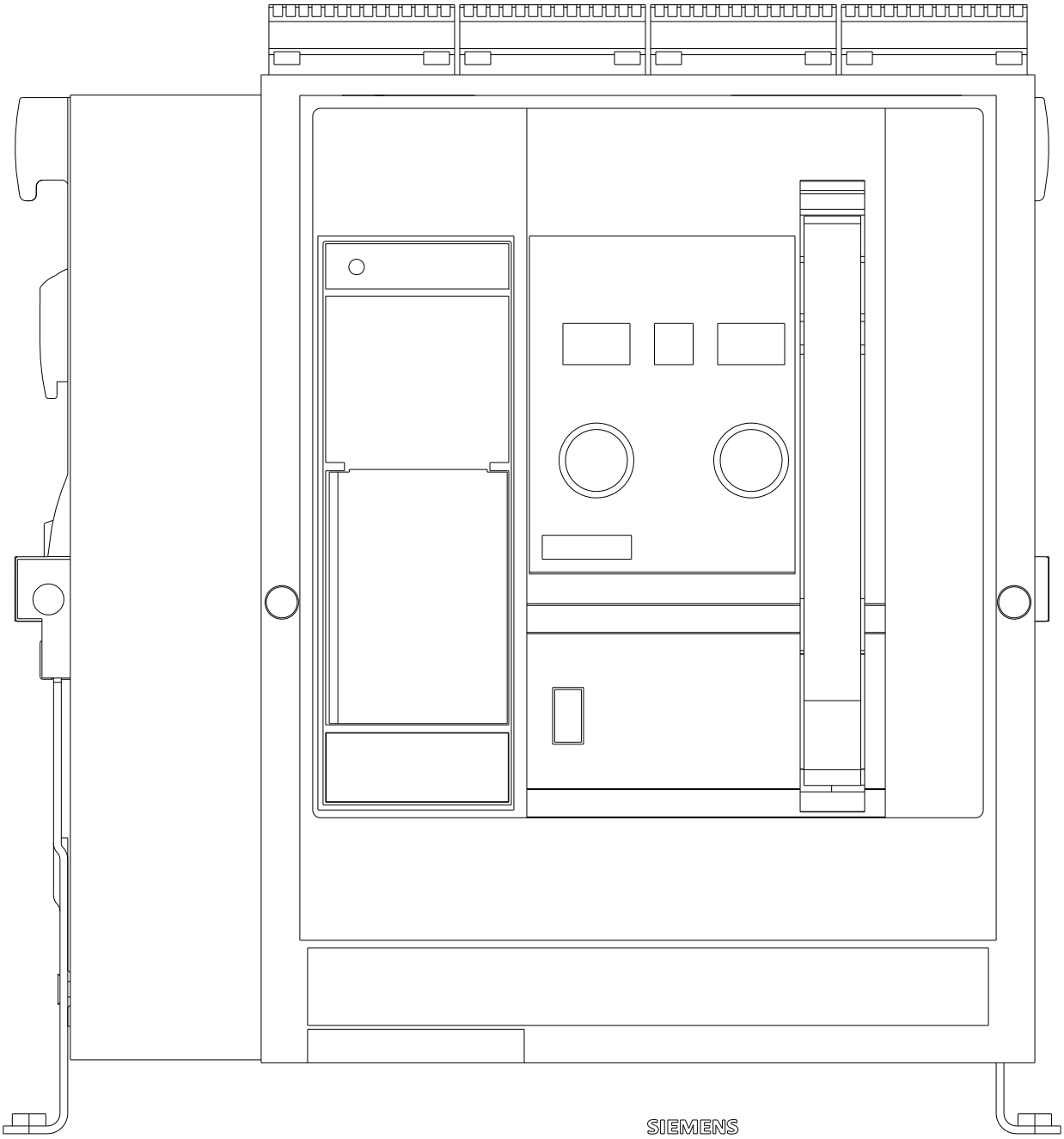
Test Certificates		Maritime application			
Miscellaneous	Special Test Certific-ate	ABS	BUREAU VERITAS	Lloyd's Register LRS	CCS (China Classifica-tion Society)

other					Dangerous goods
Miscellaneous	Miscellaneous	Confirmation	产品合格 QC PASS	Manufacturer Declara-tion	Transport Information

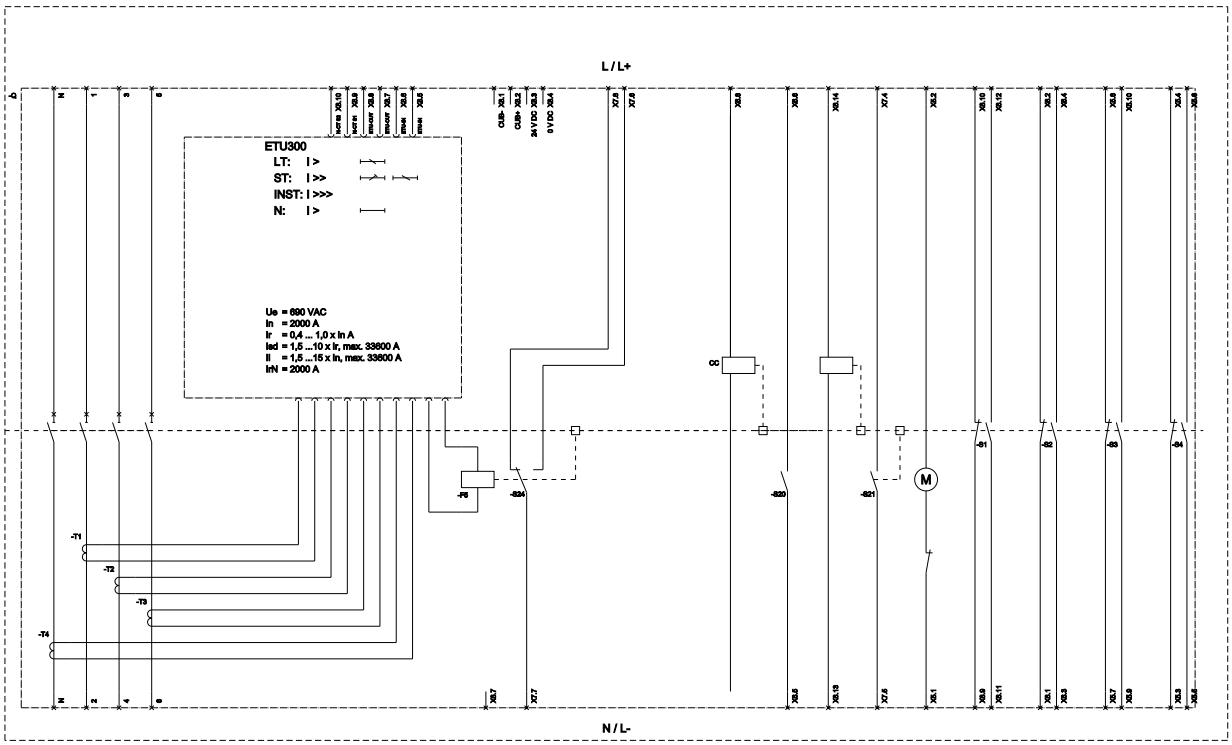
Further information

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=3WA1120-2AB12-8EA4
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3WA1120-2AB12-8EA4
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3WA1120-2AB12-8EA4
CAx-Online-Generator
https://www.siemens.com/cax
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https://curves.simaris.siemens.com/curves/3WA1120-2AB12-8EA4

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