SIEMENS

Data sheet 3WA1120-2AE02-4EV4-Z T40



Fixed-mounted circuit breaker IEC 60947-2, frame size 1, 3-poles, In=2000A up to 690V AC 50/60Hz, breaking capacity N Icu=55/42kA at 500/690V, Trip unit ETU600 LSI upgrade ready , colordisplay, bluetooth and USB interface, Protection LT, ST, INST, N-protection required an external N-sensor, 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 2NO+2NC, Closing coil (CC) 100% OP 208-240 V AC / 220-250 V DC, applicable for continuous duty, without Remote trip alarm reset coil (RR), Undervoltage release (UVR-t) with time delay 0,2-3,2 s 208-240 V AC / 220-250 V DC, Shunt trip (ST) 100% OP 208-240 V AC / 220-250 V DC, suitable for continuous duty, Option T40 = Door sealing frame IP41

Model	
product brand name	SENTRON
product designation	Air circuit breaker
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/spring charging motor with spring charge signaling switch
design of the electronic trip unit	ETU600 LSI
Weight	46.285 kg
Net Weight	33.285 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

Subject to change without notice
© Copyright Siemens

● 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	Yes
● Bluetooth and USB interface	Yes
● decoder for basic protection functions	Yes
● display and function keys	Yes
● SENTRON powerconfig configuration software	Yes
Basic protection functions	
product feature / for L-tripping	
● can be switched on/off	Yes
● selectable characteristic function	Yes
● decoder and infinite adjustability are selectable with eSet	Yes
set values setting current (Ir) / for L-tripping / with I2t characteristic	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	1;2;5;8;10;14;17;21;25
reference value delay time (tr) / for L-tripping / with I2t characteristic	s
set values setting current (Ir) / for L-tripping / with I2t characteristic / for eSet	0.4-1;0.001
adjustable absolute value setting current (Ir) / for L-tripping / with I2t characteristic / for eSet	
● minimum	800 A
● maximum	2000 A
set values delay time (tr) / for L-tripping / with I2t characteristic / for eSet	0.5-30;0.001
set values setting current (Ir) / for L-tripping / with I4t characteristic / for eSet	0.4-1;0.001
set values delay time (tr) / for L-tripping / with I4t characteristic / for eSet	0.5-5;0.001
adjustable absolute value setting current (Ir) / for L-tripping / with I4t characteristic / for eSet	
● minimum	800 A
● maximum	2000 A
L: Overload protection N-conductor	
product feature / with neutral conductor protection / can be switched on/off	Yes
setting values setting current (InN) / for N-tripping	0.2-2;0.001
reference value setting current (InN) / for N-tripping	x In
adjustable setting current (InN) / for N-tripping	
● minimum	400 A
● maximum	4000 A
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

Subject to change without notice
© Copyright Siemens

● decoder and infinite adjustability are selectable with eSet	Yes
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
set values setting current (Isd) / for S-tripping / with I0t characteristic / for eSet / independent of direction	0.6-10;0.001
adjustable absolute value setting current (Isd)	
● for S-tripping / with I0t characteristic / for eSet / independent of direction / minimum	1200 A
● at 500 V / for S-tripping / with I0t characteristic / for eSet / independent of direction / maximum	40 kA
● at 690 V / for S-tripping / with I0t characteristic / for eSet / independent of direction / maximum	33.6 kA
set values delay time (tsd) / for S-tripping / with I0t characteristic / for eSet / independent of direction	0.02-0.4;0.001
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	0.1;0.2;0.3;0.4
set values setting current (Isd) / for S-tripping / with I2t characteristic / for eSet / independent of direction	0.6-10;0.001
adjustable absolute value setting current (Isd)	
● for S-tripping / with I2t characteristic / for eSet / independent of direction / minimum	1200 A
● at 500 V / for S-tripping / with I2t characteristic / for eSet / independent of direction / maximum	40 kA
● at 690 V / for S-tripping / with I2t characteristic / for eSet / independent of direction / maximum	33.6 kA
set values delay time (tsd) / for S-tripping / with I2t characteristic / for eSet / independent of direction	0.02-0.4; 0.001
product feature / for I-tripping	
● can be switched on/off	Yes
● decoder and infinite adjustability are selectable (with eSet)	Yes
set values setting current (Ii) / for I-tripping	1.5;2;3;4;6;8;10;12;15
reference value setting current (Ii) / for I-tripping	x In
tripping factor setting current (Iimax) / for I-tripping	0.8
reference value setting current (Iimax) / for I-tripping	x Ics
set values setting current (Ii) / for I-tripping / for eSet	1.5-15;0.001
adjustable absolute value setting current (Ii)	
● for I-tripping / for eSet / minimum	3000 A
● at 500 V / for I-tripping / for eSet / maximum	44 kA
● at 690 V / for I-tripping / for eSet / maximum	33.6 kA
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)	

Subject to change without notice
© Copyright Siemens

● 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	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	Yes
● voltage trigger	Yes
● trip indicator	Yes
● motor drive	Yes
Environmental conditions	
protection class IP / on the front	IP41
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
Confirmation		Industry Canada (IC) Miscellaneous

Radio Equipment Type Approval Certificate	Test Certificates	Maritime application
FCC Miscellaneous	Miscellaneous Special Test Certific-ate	

Maritime application	other

Subject to change without notice
© Copyright Siemens

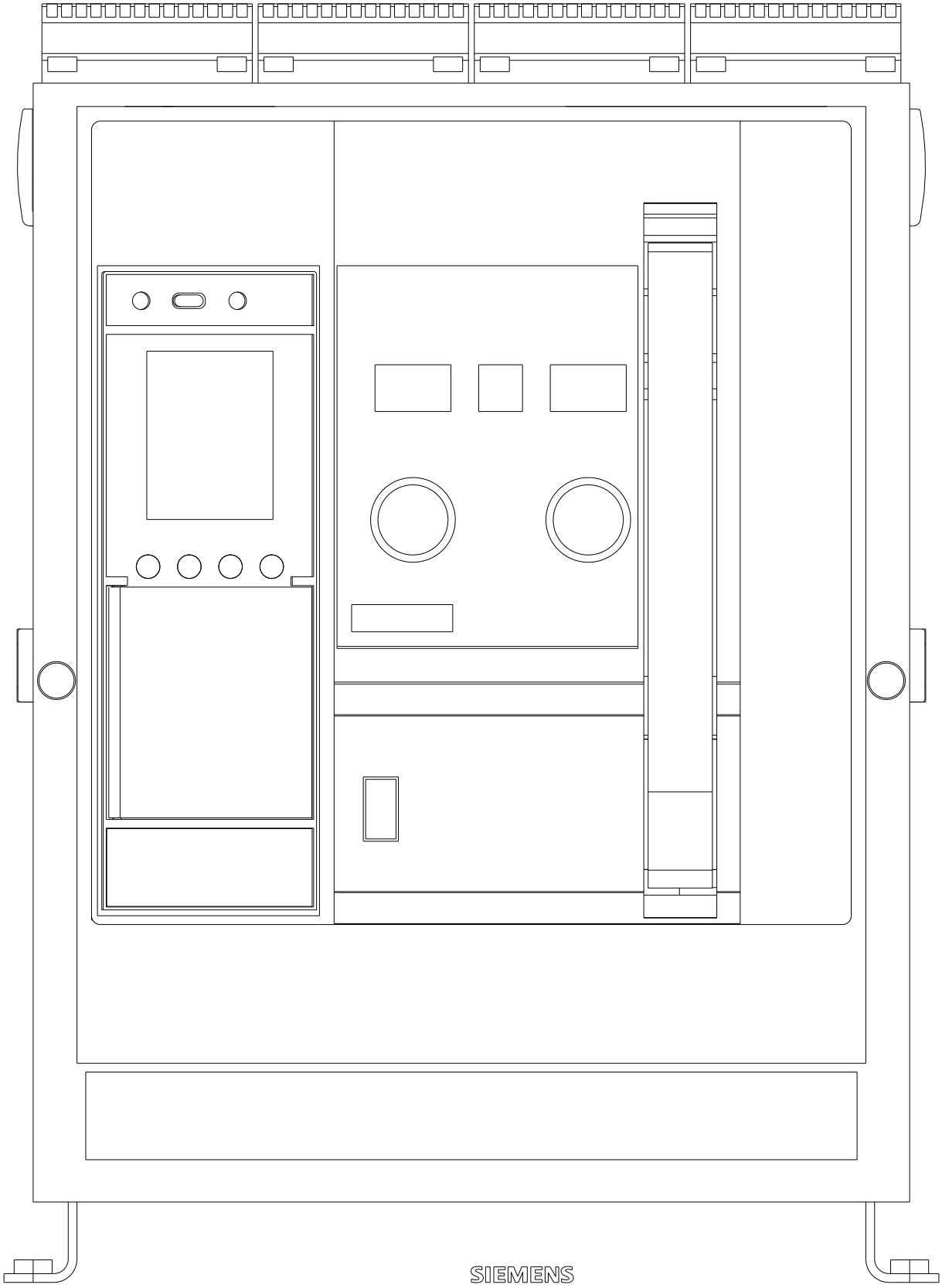
DNV	LRS	PRS	CCS (China Classification Society)	Miscellaneous	Miscellaneous

other			Dangerous goods	
Confirmation	产品合格 QC PASS	Manufacturer Declaration	Transport Information	Dangerous goods information

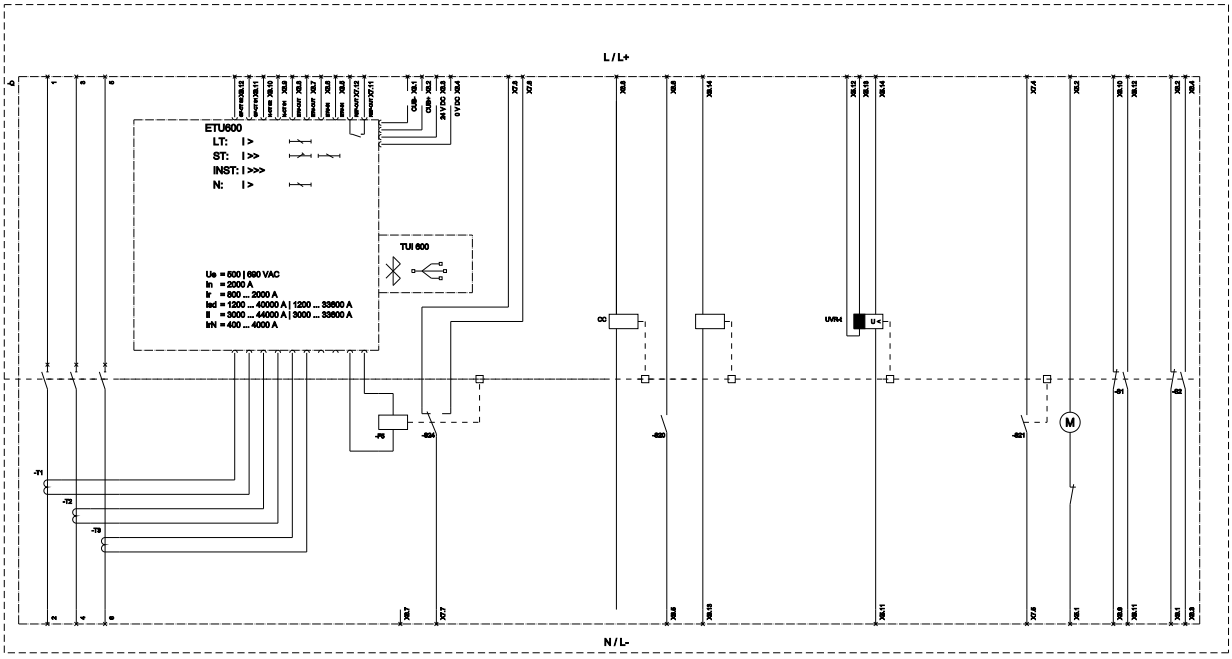
Further information

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=3WA1120-2AE02-4EV4-Z T40
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3WA1120-2AE02-4EV4-Z T40
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3WA1120-2AE02-4EV4-Z T40
CAx-Online-Generator
https://www.siemens.com/cax
Kennlinien
https://curves.simaris.siemens.com/curves/3WA1120-2AE02-4EV4-Z T40

Subject to change without notice
© Copyright Siemens



Subject to change without notice
© Copyright Siemens



last modified: 2/10/2026

Subject to change without notice
© Copyright Siemens

Subject to change without notice
© Copyright Siemens