

Siemens  
EcoTech



Fixed-mounted circuit breaker IEC 60947-2, frame size 2, 4-poles, N-pole left, In=2500A up to 690V AC 50/60Hz, breaking capacity S Icu=66/50kA at 500/690V, Trip unit ETU600 LSIg upgrade ready, color display, bluetooth and USB interface, Protection LT, ST, INST, GFx, include N-protection, (internal N-sensor available), incl. trip alarm switch (1xCO), rear connection horizontal, with internal voltage tap on upper stab of circuit breaker, with voltage tap module VTM680 and power supply of ETU600, able to communication, integrated metering type PMF-1 Energy Efficiency, Voltage, Active energy Ea 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, Remote trip alarm reset (RR) 208-240 V AC / 220-250 V DC for momentary duty, Shunt trip (ST2) 100% OP 208-240 V AC / 220-250 V DC, suitable for continuous duty, 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	II
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	ETU600 LSIg
Weight	70.921 kg
Net Weight	55.921 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	270 W
Current	
continuous current / rated value / maximum	2500 A
continuous current / rated value	2500 A
operational current	
• at 40 °C / rated value	2500 A
• at 45 °C / rated value	2500 A
• at 50 °C / rated value	2500 A
• at 55 °C / rated value	2500 A
• at 60 °C / rated value	2500 A
• at 65 °C / rated value	2500 A
• at 70 °C / rated value	2500 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 (Icu)	
• at 500 V / rated value	66 kA
• at 690 V / rated value	50 kA
operating short-circuit current breaking capacity (Ics)	
• at 500 V / rated value	66 kA
• at 690 V / rated value	50 kA

short-circuit current making capacity (I <sub>cm</sub> )	
<ul style="list-style-type: none"> <li>at 500 V / rated value</li> <li>at 690 V / rated value</li> </ul>	<p>145 kA</p> <p>105 kA</p>
short-time withstand current (I <sub>cw</sub> ) / at 500 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>	<p>66 kA</p> <p>66 kA</p> <p>66 kA</p> <p>55 kA</p>
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>	<p>50 kA</p> <p>50 kA</p> <p>50 kA</p> <p>50 kA</p>

**Electronic release unit**

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>	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
position / for voltage tap	top

**Basic protection functions**

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>	<p>Yes</p> <p>Yes</p> <p>Yes</p>
set values setting current (I <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic	0.5; 0.6; 0.7; 0.75; 0.8; 0.85; 0.9; 0.95; 1
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	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
set values setting current (I <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic / for eSet	0.4-1;0.001
adjustable absolute value setting current (I <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic / for eSet	
<ul style="list-style-type: none"> <li>minimum</li> <li>maximum</li> </ul>	<p>1000 A</p> <p>2500 A</p>
set values delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic / for eSet	0.5-30;0.001
set values setting current (I <sub>r</sub> ) / for L-tripping / with I <sub>4t</sub> characteristic / for eSet	0.4-1;0.001
set values delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>4t</sub> characteristic / for eSet	0.5-5;0.001
adjustable absolute value setting current (I <sub>r</sub> ) / for L-tripping / with I <sub>4t</sub> characteristic / for eSet	
<ul style="list-style-type: none"> <li>minimum</li> <li>maximum</li> </ul>	<p>1000 A</p> <p>2500 A</p>

**L: Overload protection N-conductor**

product feature / with neutral conductor protection / can be switched on/off	Yes
setting values setting current (I <sub>nN</sub> ) / for N-tripping	0.2-1;0.001
reference value setting current (I <sub>nN</sub> ) / for N-tripping	x I <sub>n</sub>
adjustable setting current (I <sub>nN</sub> ) / for N-tripping	
<ul style="list-style-type: none"> <li>minimum</li> <li>maximum</li> </ul>	<p>500 A</p> <p>2500 A</p>

**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> <li>independent of direction / selectable characteristic function</li> <li>decoder and infinite adjustability are selectable with eSet</li> </ul>	<p>Yes</p> <p>Yes</p> <p>Yes</p>

**S: delayed short-circuit protection ST, settings values I<sub>0t</sub>**

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
set values setting current (I <sub>sd</sub> ) / for S-tripping / with I0t characteristic / for eSet / independent of direction	0.6-10;0.001
adjustable absolute value setting current (I <sub>sd</sub> )	
• for S-tripping / with I0t characteristic / for eSet / independent of direction / minimum	1500 A
• at 500 V / for S-tripping / with I0t characteristic / for eSet / independent of direction / maximum	52.8 kA
• at 690 V / for S-tripping / with I0t characteristic / for eSet / independent of direction / maximum	40 kA
set values delay time (t <sub>sd</sub> ) / for S-tripping / with I0t characteristic / for eSet / independent of direction	0.02-0.4;0.001
<b>S: delayed short-circuit protection ST, settings values I2t</b>	
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	0.1;0.2;0.3;0.4
set values setting current (I <sub>sd</sub> ) / for S-tripping / with I2t characteristic / for eSet / independent of direction	0.6-10;0.001
adjustable absolute value setting current (I <sub>sd</sub> )	
• for S-tripping / with I2t characteristic / for eSet / independent of direction / minimum	1500 A
• at 500 V / for S-tripping / with I2t characteristic / for eSet / independent of direction / maximum	52.8 kA
• at 690 V / for S-tripping / with I2t characteristic / for eSet / independent of direction / maximum	40 kA
set values delay time (t <sub>sd</sub> ) / 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 (I <sub>i</sub> ) / for I-tripping	1.5;2;3;4;6;8;10;12;15
reference value setting current (I <sub>i</sub> ) / for I-tripping	x I <sub>n</sub>
tripping factor setting current (I <sub>imax</sub> ) / for I-tripping	0.8
reference value setting current (I <sub>imax</sub> ) / for I-tripping	x I <sub>cs</sub>
set values setting current (I <sub>i</sub> ) / for I-tripping / for eSet	1.5-15;0.001
adjustable absolute value setting current (I <sub>i</sub> )	
• for I-tripping / for eSet / minimum	3750 A
• at 500 V / for I-tripping / for eSet / maximum	52.8 kA
• at 690 V / for I-tripping / for eSet / maximum	40 kA
<b>G: ground fault GF</b>	
product feature / for G-tripping	
• can be switched on/off	Yes
• selectable characteristic function	Yes
set values setting current (I <sub>g</sub> ) / for G-tripping / with I0t characteristic	0.04-0.8;0.001
reference value setting current (I <sub>g</sub> ) / for G-tripping / with I0t characteristic	x I <sub>n</sub>
set values delay time (t <sub>g</sub> ) / for G-tripping / with I0t characteristic	0.02-30;0.001
reference value delay time (t <sub>g</sub> ) / for G-tripping / with I0t characteristic	s
set values setting current (I <sub>g</sub> ) / for G-tripping / with I2t characteristic	0.04-0.8;0.001
reference value setting current (I <sub>g</sub> ) / for G-tripping / with I2t characteristic	x I <sub>n</sub>
set values delay time (t <sub>g</sub> ) / for G-tripping / with I2t characteristic	0.02-30; 0.001
reference value delay time (t <sub>g</sub> ) / for G-tripping / with I2t characteristic	s

#### Further protective functions

protection function	
<ul style="list-style-type: none"> <li>● maintenance mode DAS+</li> </ul>	Yes
<b>Measuring functions</b>	
type of measurement function	PMF-I
measurement function	
<ul style="list-style-type: none"> <li>● type according to IEC 61557-12</li> </ul>	Yes
<ul style="list-style-type: none"> <li>● current measurement</li> </ul>	Yes
<ul style="list-style-type: none"> <li>● measurement of voltage and active energy</li> </ul>	Yes
<b>Communication</b>	
communication function / prepared for communication (Ready4COM)	Yes
communication function	Yes
<b>Service Life</b>	
mechanical service life (operating cycles)	
<ul style="list-style-type: none"> <li>● without support / typical</li> </ul>	10000
<ul style="list-style-type: none"> <li>● with support / typical</li> </ul>	20000
electrical endurance (operating cycles)	
<ul style="list-style-type: none"> <li>● at 690 V / without support / typical</li> </ul>	7500
<ul style="list-style-type: none"> <li>● at 690 V / with support / typical</li> </ul>	20000
<b>Dimensions</b>	
height	437 mm
width	590 mm
depth	357 mm
<b>Main connection</b>	
arrangement of electrical connectors / for main current circuit	main connection on the rear, horizontal
<b>Auxiliary circuit</b>	
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
<b>Internal accessories</b>	
product component	
<ul style="list-style-type: none"> <li>● undervoltage release</li> </ul>	No
<ul style="list-style-type: none"> <li>● voltage trigger</li> </ul>	Yes
<ul style="list-style-type: none"> <li>● trip indicator</li> </ul>	Yes
<ul style="list-style-type: none"> <li>● motor drive</li> </ul>	Yes
<b>Environmental conditions</b>	
protection class IP / on the front	IP41
ambient temperature / during operation	
<ul style="list-style-type: none"> <li>● minimum</li> </ul>	-40 °C
<ul style="list-style-type: none"> <li>● maximum</li> </ul>	70 °C
ambient temperature / during storage	
<ul style="list-style-type: none"> <li>● minimum</li> </ul>	-40 °C
<ul style="list-style-type: none"> <li>● maximum</li> </ul>	80 °C
<b>Environmental footprint</b>	
Siemens Eco Profile (SEP)	Siemens EcoTech
<b>Certificates</b>	
reference code	
<ul style="list-style-type: none"> <li>● according to IEC 81346-2</li> </ul>	Q
<b>General Product Approval</b>	<b>EMV</b>



Radio Equipment Type Approval Certificate	Test Certificates	Maritime application
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Maritime application

other

Dangerous goods



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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=3WA1225-3LF12-4JE4-Z T40>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3WA1225-3LF12-4JE4-Z T40>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3WA1225-3LF12-4JE4-Z T40](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3WA1225-3LF12-4JE4-Z T40)

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

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



