



Fixed-mounted circuit breaker IEC 60947-2, frame size 1, 3-poles,  $I_n=1600A$  up to 690V AC 50/60Hz, breaking capacity S  $I_{cu}=66/50kA$  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 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), Undervoltage release (UVR) instantaneous (0,08 s) and short-delay (0,2 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,

Model	
product brand name	SENTRON
product designation	3WA 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	ETU300 LSI
Weight	45.6 kg
Net Weight	32.6 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	135 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 65 °C / rated value	1600 A
• at 70 °C / rated value	1600 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 <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>45 kA</p> <p>35 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>45 kA</p> <p>35 kA</p>
<b>Electronic release unit</b>	
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>No</p> <p>No</p> <p>Yes</p> <p>No</p> <p>No</p>
<b>Basic protection functions</b>	
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>No</p> <p>No</p> <p>No</p>
set values setting current (I <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> 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 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	0.75;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
<b>L: Overload protection N-conductor</b>	
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>
<b>S: delayed short-circuit protection ST</b>	
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>No</p>
<b>S: delayed short-circuit protection ST, settings values I<sub>0t</sub></b>	
set values setting current (I <sub>sd</sub> ) / for S-tripping / with I <sub>0t</sub> characteristic	1.5;2;2.5;3;4;5;6;8;10
reference value setting current (I <sub>sd</sub> ) / for S-tripping / with I <sub>0t</sub> characteristic	x I <sub>r</sub>
set values delay time (t <sub>sd</sub> ) / for S-tripping / with I <sub>0t</sub> characteristic	0.08;0.15;0.22;0.3;0.4
reference value delay time (t <sub>sd</sub> ) / for S-tripping / with I <sub>0t</sub> characteristic	s
<b>S: delayed short-circuit protection ST, settings values I<sub>2t</sub></b>	
set values setting current (I <sub>sd</sub> ) / for S-tripping / with I <sub>2t</sub> characteristic	1.5;2;2.5;3;4;5;6;8;10
reference value setting current (I <sub>sd</sub> ) / for S-tripping / with I <sub>2t</sub> characteristic	x I <sub>r</sub>
set values delay time (t <sub>sd</sub> ) / for S-tripping / with I <sub>2t</sub> 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> <li>• decoder and infinite adjustability are selectable (with eSet)</li> </ul>	<p>No</p> <p>No</p>
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>
<b>G: ground fault GF</b>	
product feature / for G-tripping	
<ul style="list-style-type: none"> <li>• can be switched on/off</li> <li>• selectable characteristic function</li> </ul>	<p>No</p> <p>No</p>

Further protective functions	
protection function	
<ul style="list-style-type: none"> <li>● maintenance mode DAS+</li> </ul>	Yes
Measuring functions	
measurement function	
<ul style="list-style-type: none"> <li>● current measurement</li> </ul>	Yes
Communication	
communication function	No
Service Life	
mechanical service life (operating cycles)	
<ul style="list-style-type: none"> <li>● without support / typical</li> </ul>	15000
<ul style="list-style-type: none"> <li>● with support / typical</li> </ul>	30000
electrical endurance (operating cycles)	
<ul style="list-style-type: none"> <li>● at 690 V / without support / typical</li> </ul>	10000
<ul style="list-style-type: none"> <li>● at 690 V / with support / typical</li> </ul>	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	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	
<ul style="list-style-type: none"> <li>● undervoltage release</li> </ul>	Yes
<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
Environmental conditions	
protection class IP / on the front	IP20
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
Certificates	
reference code	
<ul style="list-style-type: none"> <li>● according to IEC 81346-2</li> </ul>	Q

#### General Product Approval

#### Test Certificates

#### other



[Miscellaneous](#)

[Confirmation](#)

#### Environment

[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=3WA1116-3AB02-8EQ4>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3WA1116-3AB02-8EQ4>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3WA1116-3AB02-8EQ4](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3WA1116-3AB02-8EQ4)

**CAX-Online-Generator**

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

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

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





