













Siemens  
EcoTech



Withdrawable circuit breaker without guide frame, IEC 60947-2, frame size 2, 3-poles,  $I_n=2000\text{A}$  up to 690V AC 50/60Hz, breaking capacity M  $I_{cu}=85/66\text{kA}$  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), 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, Option B16 = Option plug with reduced rated current  $I_n=1600\text{A}$ , rated current  $I_n < I_{n\text{max}}$ , Option S07 = Locking provision against unauthorized closing Secured Open; for padlock device Padlocks are not included. 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	3
position / of neutral conductor	no internal N-conductor
fastening method	withdrawable circuit breaker without guide frame
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	59.868 kg
Net Weight	46.868 kg
General technical data	
insulation voltage / rated value	1000 V
operating voltage / at AC / at 50/60 Hz / rated value	690 V
Current	
continuous current / rated value / maximum	2000 A
continuous current / rated value	1600 A
Switching capacity and short-time withstand current, according to IEC 60947-2	
switching capacity class of the circuit breaker	M
maximum short-circuit current breaking capacity ( $I_{cu}$ )	
• at 500 V / rated value	85 kA
• at 690 V / rated value	66 kA
operating short-circuit current breaking capacity ( $I_{cs}$ )	
• at 500 V / rated value	85 kA
• at 690 V / rated value	66 kA
short-circuit current making capacity ( $I_{cm}$ )	
• at 500 V / rated value	187 kA
• at 690 V / rated value	145 kA
short-time withstand current ( $I_{cw}$ ) / at 500 V AC	
• for 0.5 s / rated value	85 kA
• for 1 s / rated value	85 kA
• for 2 s / rated value	66 kA
• for 3 s / rated value	55 kA
short-time withstand current ( $I_{cw}$ ) / at 690 V AC	

<ul style="list-style-type: none"> <li>• for 0.5 s / rated value</li> </ul>	66 kA
<ul style="list-style-type: none"> <li>• for 1 s / rated value</li> </ul>	66 kA
<ul style="list-style-type: none"> <li>• for 2 s / rated value</li> </ul>	66 kA
<ul style="list-style-type: none"> <li>• for 3 s / rated value</li> </ul>	55 kA
<b>Electronic release unit</b>	
product feature	
<ul style="list-style-type: none"> <li>• upgradable</li> </ul>	No
<ul style="list-style-type: none"> <li>• Bluetooth and USB interface</li> </ul>	No
<ul style="list-style-type: none"> <li>• decoder for basic protection functions</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• display and function keys</li> </ul>	No
<ul style="list-style-type: none"> <li>• SENTRON powerconfig configuration software</li> </ul>	No
<b>Basic protection functions</b>	
product feature / for L-tripping	
<ul style="list-style-type: none"> <li>• can be switched on/off</li> </ul>	No
<ul style="list-style-type: none"> <li>• selectable characteristic function</li> </ul>	No
<ul style="list-style-type: none"> <li>• decoder and infinite adjustability are selectable with eSet</li> </ul>	No
set values setting current (I <sub>r</sub> ) / for L-tripping / with I2t characteristic	0.4;0.5;0.6;0.7;0.75;0.8;0.85;0.9;0.95;1.0
reference value setting current (I <sub>r</sub> ) / for L-tripping / with I2t characteristic	x I <sub>n</sub>
set values delay time (t <sub>r</sub> ) / for L-tripping / with I2t characteristic	0.75;1;2;5;8;10;14;17;21;25
reference value delay time (t <sub>r</sub> ) / for L-tripping / with I2t 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> </ul>	Yes
<ul style="list-style-type: none"> <li>• independent of direction / selectable characteristic function</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• decoder and infinite adjustability are selectable with eSet</li> </ul>	No
<b>S: delayed short-circuit protection ST, settings values I0t</b>	
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
<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	0.08;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> </ul>	No
<ul style="list-style-type: none"> <li>• decoder and infinite adjustability are selectable (with eSet)</li> </ul>	No
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>• selectable characteristic function</li> </ul>	No
<b>Further protective functions</b>	
protection function	
<ul style="list-style-type: none"> <li>• maintenance mode DAS+</li> </ul>	Yes
<b>Measuring functions</b>	
measurement function	
<ul style="list-style-type: none"> <li>• current measurement</li> </ul>	Yes
<b>Communication</b>	

communication function	No		
<b>Service Life</b>			
mechanical service life (operating cycles)			
• without support / typical	10000		
• with support / typical	20000		
electrical endurance (operating cycles)			
• at 690 V / without support / typical	7500		
• at 690 V / with support / typical	20000		
<b>Dimensions</b>			
height	468 mm		
width	460 mm		
depth	471 mm		
<b>Auxiliary circuit</b>			
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		
<b>Internal accessories</b>			
product component			
• undervoltage release	No		
• voltage trigger	Yes		
• trip indicator	Yes		
• motor drive	Yes		
<b>Environmental conditions</b>			
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		
<b>Environmental footprint</b>			
Siemens Eco Profile (SEP)	Siemens EcoTech		
<b>Certificates</b>			
reference code			
• according to IEC 81346-2	Q		
<b>General Product Approval</b>		<b>EMV</b>	<b>Radio Equipment Type Approval Certificate</b>
			
			<a href="#">Miscellaneous</a>
<b>Test Certificates</b>	<b>Maritime application</b>		<b>other</b>
<a href="#">Miscellaneous</a>	<a href="#">Special Test Certificate</a>		
			<a href="#">Confirmation</a>
<b>other</b>	<b>Dangerous goods</b>	<b>Environment</b>	
	<a href="#">Transport Information</a>		
	<a href="#">Manufacturer Declaration</a>		
<b>Further information</b>			

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=3WA1220-4AB30-8EA4-Z B16+S07+T40>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3WA1220-4AB30-8EA4-Z B16+S07+T40>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3WA1220-4AB30-8EA4-Z B16+S07+T40](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3WA1220-4AB30-8EA4-Z B16+S07+T40)

CAX-Online-Generator

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

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

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

