



Withdrawable circuit breaker with guide frame, IEC 60947-2, frame size 1, 3-poles, $I_n=2500\text{A}$ up to 690V AC 50/60Hz, breaking capacity M $I_{cu}=85/66\text{kA}$ at 500/690V, Trip unit ETU600 LSI upgrade ready, color display, bluetooth and USB interface, Protection LT, ST, INST, N-protection required an external N-sensor, incl. trip alarm switch (1xCO), rear connection vertical, guide frame with shutter and w/o position signalling switch, without Com & metering function with manual and motorized operating mechanism (M) 110-127 V AC / 110-125 V DC, Storage status and ready-to-close signalling switches, Auxiliary switches 2NO+2NC, Closing coil (CC) 5% OP 110-127 V AC / 110-125 V DC, for momentary duty, without Remote trip alarm reset coil (RR), Undervoltage release (UVR-t) with time delay 0,2-3,2 s 110-127 V AC / 110-125 V DC, without 1st Shunt trip Option K06 = 2nd Trip alarm switch 1 NO contact (S25) Option S33 = Locking provision for Padlock device for charging handle padlocks are not included

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	withdrawable circuit breaker
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	82.208 kg
Net Weight	67.208 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	600 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 70 °C / rated value	2215 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	

<ul style="list-style-type: none"> • for 0.5 s / rated value 	85 kA
<ul style="list-style-type: none"> • for 1 s / rated value 	85 kA
<ul style="list-style-type: none"> • for 2 s / rated value 	70 kA
<ul style="list-style-type: none"> • for 3 s / rated value 	60 kA
short-time withstand current (I _{cw}) / at 690 V AC	
<ul style="list-style-type: none"> • for 0.5 s / rated value 	66 kA
<ul style="list-style-type: none"> • for 1 s / rated value 	66 kA
<ul style="list-style-type: none"> • for 2 s / rated value 	66 kA
<ul style="list-style-type: none"> • for 3 s / rated value 	60 kA
Electronic release unit	
product feature	
<ul style="list-style-type: none"> • upgradable 	Yes
<ul style="list-style-type: none"> • Bluetooth and USB interface 	Yes
<ul style="list-style-type: none"> • decoder for basic protection functions 	Yes
<ul style="list-style-type: none"> • display and function keys 	Yes
<ul style="list-style-type: none"> • SENTRON powerconfig configuration software 	Yes
Basic protection functions	
product feature / for L-tripping	
<ul style="list-style-type: none"> • can be switched on/off 	Yes
<ul style="list-style-type: none"> • selectable characteristic function 	Yes
<ul style="list-style-type: none"> • decoder and infinite adjustability are selectable with eSet 	Yes
set values setting current (I _r) / 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 (I _r) / for L-tripping / with I2t characteristic	x I _n
set values delay time (t _r) / for L-tripping / with I2t characteristic	1;2;5;8;10;14;17;21;25
reference value delay time (t _r) / for L-tripping / with I2t characteristic	s
set values setting current (I _r) / for L-tripping / with I2t characteristic / for eSet	0.4-1;0.001
adjustable absolute value setting current (I _r) / for L-tripping / with I2t characteristic / for eSet	
<ul style="list-style-type: none"> • minimum 	1000 A
<ul style="list-style-type: none"> • maximum 	2500 A
set values delay time (t _r) / for L-tripping / with I2t characteristic / for eSet	0.5-30;0.001
set values setting current (I _r) / for L-tripping / with I4t characteristic / for eSet	0.4-1;0.001
set values delay time (t _r) / for L-tripping / with I4t characteristic / for eSet	0.5-5;0.001
adjustable absolute value setting current (I _r) / for L-tripping / with I4t characteristic / for eSet	
<ul style="list-style-type: none"> • minimum 	1000 A
<ul style="list-style-type: none"> • maximum 	2500 A
L: Overload protection N-conductor	
product feature / with neutral conductor protection / can be switched on/off	Yes
setting values setting current (I _{nN}) / for N-tripping	0.2-2;0.001
reference value setting current (I _{nN}) / for N-tripping	x I _n
adjustable setting current (I _{nN}) / for N-tripping	
<ul style="list-style-type: none"> • minimum 	500 A
<ul style="list-style-type: none"> • maximum 	5000 A
S: delayed short-circuit protection ST	
product feature / for S-tripping	
<ul style="list-style-type: none"> • independent of direction / can be switched on/off 	Yes
<ul style="list-style-type: none"> • independent of direction / selectable characteristic function 	Yes
<ul style="list-style-type: none"> • decoder and infinite adjustability are selectable with eSet 	Yes
S: delayed short-circuit protection ST, settings values I0t	
set values setting current (I _{sd}) / for S-tripping / with I0t characteristic	1.5;2;2.5;3;4;5;6;8;10
reference value setting current (I _{sd}) / for S-tripping / with I0t characteristic	x I _r
set values delay time (t _{sd}) / 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) <ul style="list-style-type: none"> • for S-tripping / with I0t characteristic / for eSet / independent of direction / minimum • at 500 V / for S-tripping / with I0t characteristic / for eSet / independent of direction / maximum • at 690 V / for S-tripping / with I0t characteristic / for eSet / independent of direction / maximum 	1500 A 68 kA 52.8 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) <ul style="list-style-type: none"> • for S-tripping / with I2t characteristic / for eSet / independent of direction / minimum • at 500 V / for S-tripping / with I2t characteristic / for eSet / independent of direction / maximum • at 690 V / for S-tripping / with I2t characteristic / for eSet / independent of direction / maximum 	1500 A 68 kA 52.8 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 <ul style="list-style-type: none"> • can be switched on/off • decoder and infinite adjustability are selectable (with eSet) 	Yes 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) <ul style="list-style-type: none"> • for I-tripping / for eSet / minimum • at 500 V / for I-tripping / for eSet / maximum • at 690 V / for I-tripping / for eSet / maximum 	3750 A 68 kA 52.8 kA
G: ground fault GF	
product feature / for G-tripping <ul style="list-style-type: none"> • selectable characteristic function 	No
Further protective functions	
protection function <ul style="list-style-type: none"> • maintenance mode DAS+ 	Yes
Measuring functions	
measurement function <ul style="list-style-type: none"> • current measurement 	Yes
Communication	
communication function	No
Service Life	
mechanical service life (operating cycles) <ul style="list-style-type: none"> • without support / typical • with support / typical 	10000 15000
electrical endurance (operating cycles) <ul style="list-style-type: none"> • at 690 V / without support / typical • at 690 V / with support / typical 	5000 15000
Dimensions	
height	468 mm
width	320 mm
depth	471 mm

Main connection

arrangement of electrical connectors / for main current circuit	main connection on the rear, vertical
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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	No
• 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

General Product Approval EMV



Radio Equipment Type Approval Certificate Test Certificates

[Miscellaneous](#)



[Miscellaneous](#)

[FCC](#)

[Miscellaneous](#)

[Special Test Certificate](#)

Maritime application other



other Dangerous goods Environment

[Confirmation](#)

[Manufacturer Declaration](#)

[Dangerous goods information](#)

[Transport Information](#)



Environment



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=3WA1125-4AE31-3MU0-Z_K06+S33

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

https://support.industry.siemens.com/cs/ww/en/ps/3WA1125-4AE31-3MU0-Z_K06+S33

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3WA1125-4AE31-3MU0-Z_K06+S33

CAX-Online-Generator

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

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

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



