## SIEMENS

## Data sheet

## 3VA5111-4ED32-1AA0



circuit breaker 3VA5 UL frame 125 breaking capacity class S 25kA @ 480 V 3-pole, line protection TM210, FTFM, In=110A overload protection Ir=110A fixed short-circuit protection Ii=10 x In UL489 SB (naval), 50 deg. cel. nut keeper kit on both sides

product brand name         SENTRON           product designation / according to UL file         SEAM           design of the product         System protection           design of the product         System protection           design of the load switch / according to UL 489 / Heating, Ar         Yes           Conditioning, and Retrigeration circuit breaker (HACR Type)         No           design of the load switch / according to UL 489 / High-Intensity-         No           Discharge circuit breaker (HIO Type)         No           design of the load switch / according to UL 489 / Switching Duty aricuit breaker (HACR Type)         No           design of the overcurrent release         TM210           protection function of the overcurrent release         Ll           number of poles         3           General technical data         690 V           operating voltage / at AC / rated value         690 V           power loss [W] / for rated value of the current / at AC / in hot         8.6 W           operating soltage / proble         20000           electrical endurance (operating cycles) / 1 ypical         20 000           electrical endurance (operating cycles) / at AC-1 / at 389 V 4         8000           electrical endurance (operating cycles) / at AD V         8 000           electrical endurance (operating cycles) / at AD V	Model	
product designation / according to UL file SEAM System protection Gesign of the product System protection Yes System protection Yes Yes Conditioning, and Refrigeration circuit breaker (HACR Type) No Constraint Condition Conditioning, and Refrigeration circuit breaker (HACR Type) No Constraint Condition Conditioning to UL 489 / High-Intensity No Constraint Condition Conditioning Condition Conditioning Condition Conditioning Condition Conditioning Condition Conditioning Condition Conditioning Condition	product brand name	SENTRON
design of the product     System protection       design of the load switch / according to UL 489 / Heating, Air Conditioning, and Refrigerating circuit breaker (HACR Type)     Yes       design of the load switch / according to UL 489 / High-Intensity- Discharge circuit breaker (HIOT Type)     No       design of the load switch / according to UL 489 / High-Intensity- Discharge circuit breaker (HIOT Type)     No       design of the load switch / according to UL 489 / Switching Duty circuit breaker (GND Type)     No       design of the overcurrent release     TM210       protection function of the overcurrent release     Ll       operating voltage / at AC / rated value     690 V       power loss (W) / for rated value of the current / at AC / in hot operating state / per pole     8.6 W       mechanical service life (operating cycles) / typical     20 000       electrical endurance (operating cycles) / typical     20 000       electrical endurance (operating cycles) / at AC-1 / at 380/415 V     8 000       electrical endurance (operating cycles) / at AC-1 / at 690 V     4 000       product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof     V       ground-fault monitoring version     without       product function     No       • etde 0° C     005 A       • etde 0° C     105 A       • etde 0° C     105 A       • etde 0° C     105 A       • etde	product designation	Molded-case circuit breaker
design of the load switch / according to UL 489 / HacR Type)     Yes       Conditioning, and Refrigeration circuit breaker (HACR Type)     No       design of the load switch / according to UL 489 / High-Intensity- Discharge circuit breaker (HID Type)     No       design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type)     No       design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type)     No       design of the overcurrent release     TM210       protection function of the overcurrent release     L1       number of poles     3       Ceneral technical data     690 V       operating voltage / at AC / rated value     690 V       power loss [W] / for rated value of the current / at AC / in hot operating state / per pole     86 W       operating state / per pole     20 000       electrical endurance (operating cycles) / at AC-1 / at 380/415 V     8 000       electrical endurance (operating cycles) / at AC-1 / at 690 V     4 000       product feature / for neutral conductors / upgradable/retrofittable     No       / short-fault function     No       electrical endurance (operating cycles) / at 480 V     8 000       electrical endurance (operating cycles) / at 480 V     8 000       ground-fault monitoring version     without       product function     No       • other measurement function     No <t< td=""><td>product designation / according to UL file</td><td>SEAM</td></t<>	product designation / according to UL file	SEAM
Conditioning, and Refrigeration circuit breaker (HACR Type)       No         design of the load switch / according to UL 489 / High-Intensity- Discharge circuit breaker (HID Type)       No         design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type)       No         design of the overcurrent release       TM210         protection function of the overcurrent release       LI         operating voltage / at AC / rated value       690 V         power loss [W] / maximum       25.8 W         operating voltage / at AC / rated value of the current / at AC / in hot operating state / per pole       8.6 W         electrical endurance (operating cycles) / typical       8.000         electrical endurance (operating cycles) / typical       8.000         electrical endurance (operating cycles) / typical       8.000         electrical endurance (operating cycles) / ta 480 V       8.000         electrical endurance (operating cycles) / ta 480 V       8.000         electrical endurance (operating cycles) / ta 480 V       8.000         ground-fault monitoring version       without         product feature / for neutral conductors / upgradable/retrofittable       No         other measurement function       No         • other measurement function       No         • other measurement function       No         • o	design of the product	System protection
Discharge circuit breaker (HID Type)       No         design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type)       No         design of the overcurrent release       TM210         protection function of the overcurrent release       Ll         number of poles       3         Ceneral tochnical data       690 V         power loss [W] / for rated value of the current / at AC / in hot operating voltage / at AC / rated value of the current / at AC / in hot operating state / per pole       86 W         mechanical service life (operating cycles) / typical       20 000         electrical endurance (operating cycles) / at AC-1 / at 380/415 V       8 000         electrical endurance (operating cycles) / at AC-1 / at 690 V       4 000         electrical endurance (operating cycles) / at AC0 V       8 000         electrical endurance (operating cycles) / at A00 V       8 000         electrical endurance (operating cycles) / at 480 V       8 000         electrical endurance (operating cycles) / at A00 V       4 000         ground-fault monitoring version       without         product fueature / for neutral conductors / upgradable/retrofittable       No         / status       0.951 kg         Current       110 A         • at 40 °C       105 A         • at 55 °C       105 A		Yes
circuit breaker (SWD Type)       TM2 10         protection function of the overcurrent release       LI         number of poles       3         Ceneral technical data       690 V         operating voltage / at AC / rated value       690 V         power loss [W] / maximum       25.8 W         power loss [W] / maximum       25.8 W         power loss [W] / maximum       25.8 W         perating state / per pole       8.6 W         mechanical service life (operating cycles) / typical       20 000         electrical endurance (operating cycles) / typical       20 000         electrical endurance (operating cycles) / ta AC-1 / at 380/415 V       8 000         electrical endurance (operating cycles) / ta AC-1 / at 690 V       4 000         electrical endurance (operating cycles) / at 600 V       4 000         electrical endurance (operating cycles) / at 600 V       4 000         product feature / for neutral conductors / upgradable/retrofittable       No         / stotricit and overload proof       ground-fault monitoring version         without       without         product function       No         • other measurement function       No         • other measurement function       No         • other measurement function       No         <		No
protection function of the overcurrent release       Ll         number of poles       3         General technical data       690 V         operating voltage / at AC / rated value       690 V         power loss [W] / maximum       25.8 W         power loss [W] / for rated value of the current / at AC / in hot       8.6 W         operating solate / per pole       and the current / at AC / in hot         mechanical service life (operating cycles) / typical       20 000         electrical endurance (operating cycles) / at AC-1 / at 380/415 V       8 000         electrical endurance (operating cycles) / at AC-1 / at 380/415 V       8 000         electrical endurance (operating cycles) / at AC-1 / at 690 V       4 000         product feature / for neutral conductors / upgradable/retrofittable       No         / short-circuit and overload proof       without         ground-fault monitoring version       without         product function       No         • other measurement function       No         • other measurement function       No         • other measurement function       No         • at 40 °C       110 A         • at 45 °C       107 A         • at 55 °C       103 A         • at 55 °C       98 A		No
number of poles     3       General tochnical data     690 V       power loss [W] / maximum     25.8 W       power loss [W] / for rated value of the current / at AC / in hot operating state / per pole     8.6 W       mechanical service life (operating cycles) / the current / at 380/415 V     8.000       electrical endurance (operating cycles) / at AC-1 / at 880 V     4.000       electrical endurance (operating cycles) / at AC-1 / at 690 V     4.000       electrical endurance (operating cycles) / at AC-1 / at 690 V     4.000       electrical endurance (operating cycles) / at AC-1 / at 690 V     4.000       electrical endurance (operating cycles) / at AC-1 / at 690 V     4.000       electrical endurance (operating cycles) / at AC-1 / at 690 V     4.000       product feature / for neutral conductors / upgradable/retrofittable /short-circuit and overload proof     No       ground-fault monitoring version     without       product function     No       • other measurement function     No       • other measurement function     No       • other measurement function     No       • at 40 °C     110 A       • at 45 °C     107 A       • at 50 °C     103 A       • at 55 °C     98 A	design of the overcurrent release	TM210
General technical data         operating voltage / at AC / rated value       690 V         power loss [W] / for rated value of the current / at AC / in hot operating state / per pole       25.8 W         mechanical service life (operating cycles) / typical       20 000         electrical endurance (operating cycles) / at AC-1 / at 380/415 V       8 000         electrical endurance (operating cycles) / at AC-1 / at 690 V       4 000         electrical endurance (operating cycles) / at AC-1 / at 690 V       4 000         electrical endurance (operating cycles) / at 480 V       8 000         electrical endurance (operating cycles) / at 600 V       4 000         product feature / for neutral conductors / upgradable/retrofittable       No         / short-circuit and overload proof       without         ground-fault monitoring version       without         product function       No         • other measurement function       No         Net Weight       0.951 kg         Current       110 A         • at 40 °C       107 A         • at 55 °C       103 A         • at 60 °C       100 A         • at 60 °C       98 A	protection function of the overcurrent release	LI
operating voltage / at AC / rated value         690 V           power loss [W] / maximum         25.8 W           power loss [W] / for rated value of the current / at AC / in hot operating state / per pole         8.6 W           mechanical service life (operating cycles) / typical         20 000           electrical endurance (operating cycles) / typical         20 000           electrical endurance (operating cycles) / at AC-1 / at 380/415 V         8 000           electrical endurance (operating cycles) / at AC-1 / at 690 V         4 000           electrical endurance (operating cycles) / at AC V         8 000           electrical endurance (operating cycles) / at AC V         8 000           electrical endurance (operating cycles) / at AB V         8 000           electrical endurance (operating cycles) / at 480 V         8 000           electrical endurance (operating cycles) / at 480 V         4 000           product feature / for neutral conductors / upgradable/retrofittable         No           /short-circuit and overload proof         No           ground-fault monitoring version         without           product function         No           • communication function         No           Net Weight         0.951 kg           Current         110 A           • at 40 °C         105 A           • a	number of poles	3
power loss [W] / maximum       25.8 W         power loss [W] / for rated value of the current / at AC / in hot operating state / per pole       8.6 W         mechanical service life (operating cycles) / typical       20 000         electrical endurance (operating cycles) / at AC-1 / at 380/415 V       8 000         electrical endurance (operating cycles) / at AC-1 / at 690 V       4 000         electrical endurance (operating cycles) / at AC0 V       8 000         electrical endurance (operating cycles) / at 600 V       4 000         product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof       No         ground-fault monitoring version       without         product function       No         • other measurement function       No         Net Weight       0.951 kg         Current       at 40 °C         • at 40 °C       110 A         • at 40 °C       107 A         • at 55 °C       103 A         • at 60 °C       100 A         • at 60 °C       98 A	General technical data	
power loss [W] / for rated value of the current / at AC / in hot       8.6 W         operating state / per pole       20 000         mechanical service life (operating cycles) / typical       20 000         electrical endurance (operating cycles) / at 80-1 / at 380/415 V       8 000         electrical endurance (operating cycles) / at AC-1 / at 690 V       4 000         electrical endurance (operating cycles) / at 600 V       4 000         electrical endurance (operating cycles) / at 600 V       4 000         product feature / for neutral conductors / upgradable/retrofittable       No         / short-circuit and overload proof       without         ground-fault monitoring version       without         product function       No         • other measurement function       No         • other measurement function       No         operational current       110 A         • at 40 °C       110 A         • at 45 °C       107 A         • at 45 °C       103 A         • at 55 °C       103 A         • at 66 °C       98 A	operating voltage / at AC / rated value	690 V
operating state / per polemechanical service life (operating cycles) / typical20 000electrical endurance (operating cycles) / at AC-1 / at 380/415 V8 000electrical endurance (operating cycles) / at 690 V4 000electrical endurance (operating cycles) / at 690 V8 000electrical endurance (operating cycles) / at 800 V8 000electrical endurance (operating cycles) / at 800 V4 000product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proofNoground-fault monitoring versionwithoutproduct functionNo• communication functionNo• other measurement functionNoNet Weight0.951 kgCurrentmarking / according to UL 489 / 100%-rated breaker• at 40 °C110 A• at 45 °C105 A• at 55 °C103 A• at 66 °C98 A	power loss [W] / maximum	25.8 W
electrical endurance (operating cycles) / at AC-1 / at 380/415 V       8 000         electrical endurance (operating cycles) / at AC-1 / at 690 V       4 000         electrical endurance (operating cycles) / at AC-1 / at 690 V       8 000         electrical endurance (operating cycles) / at AC-1 / at 690 V       8 000         electrical endurance (operating cycles) / at ABO V       8 000         electrical endurance (operating cycles) / at 600 V       4 000         product feature / for neutral conductors / upgradable/retrofittable       No         / short-circuit and overload proof       without         ground-fault monitoring version       without         product function       No         • communication function       No         • other measurement function       No         Net Weight       0.951 kg         Current       eat 40 °C         • at 40 °C       110 A         • at 40 °C       107 A         • at 50 °C       103 A         • at 55 °C       100 A         • at 60 °C       98 A		8.6 W
electrical endurance (operating cycles) / at AC-1 / at 690 V       4 000         electrical endurance (operating cycles) / at 480 V       8 000         electrical endurance (operating cycles) / at 600 V       4 000         product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof       No         ground-fault monitoring version       without         product function       No         • communication function       No         • other measurement function       No         vertext       0.951 kg         Current       Int A0 °C         • at 40 °C       110 A         • at 45 °C       107 A         • at 55 °C       103 A         • at 60 °C       98 A	mechanical service life (operating cycles) / typical	20 000
electrical endurance (operating cycles) / at 480 V       8 000         electrical endurance (operating cycles) / at 600 V       4 000         product feature / for neutral conductors / upgradable/retrofittable       No         / short-circuit and overload proof       No         ground-fault monitoring version       without         product function       No         • communication function       No         • other measurement function       No         Net Weight       0.951 kg         Current       Into A         • at 40 °C       110 A         • at 45 °C       107 A         • at 50 °C       103 A         • at 65 °C       98 A	electrical endurance (operating cycles) / at AC-1 / at 380/415 V	8 000
electrical endurance (operating cycles) / at 600 V       4 000         product feature / for neutral conductors / upgradable/retrofittable       No         / short-circuit and overload proof       without         ground-fault monitoring version       without         product function       No         • communication function       No         • other measurement function       No         Net Weight       0.951 kg         Current       Into A         • at 40 °C       110 A         • at 45 °C       107 A         • at 55 °C       103 A         • at 65 °C       98 A	electrical endurance (operating cycles) / at AC-1 / at 690 V	4 000
product feature / for neutral conductors / upgradable/retrofittable       No         / short-circuit and overload proof       without         ground-fault monitoring version       without         product function       No         • communication function       No         • other measurement function       No         Net Weight       0.951 kg         Current       marking / according to UL 489 / 100%-rated breaker         No       No         operational current       110 A         • at 40 °C       107 A         • at 55 °C       103 A         • at 60 °C       98 A	electrical endurance (operating cycles) / at 480 V	8 000
/ short-circuit and overload proof       without         ground-fault monitoring version       without         product function       No         • communication function       No         • other measurement function       No         Net Weight       0.951 kg         Current       marking / according to UL 489 / 100%-rated breaker         No       No         operational current       110 A         • at 40 °C       107 A         • at 55 °C       103 A         • at 60 °C       100 A         • at 65 °C       98 A	electrical endurance (operating cycles) / at 600 V	4 000
product function       No         • communication function       No         • other measurement function       No         Net Weight       0.951 kg         Current       Current         marking / according to UL 489 / 100%-rated breaker       No         operational current       110 A         • at 40 °C       110 A         • at 45 °C       107 A         • at 50 °C       105 A         • at 60 °C       100 A         • at 60 °C       98 A		No
• communication functionNo• other measurement functionNoNet Weight0.951 kgCurrentmarking / according to UL 489 / 100%-rated breakerNooperational current110 A• at 40 °C110 A• at 45 °C107 A• at 55 °C103 A• at 60 °C100 A• at 65 °C98 A	ground-fault monitoring version	without
• other measurement functionNoNet Weight0.951 kgCurrentNomarking / according to UL 489 / 100%-rated breakerNooperational currentI10 A• at 40 °C110 A• at 45 °C107 A• at 55 °C105 A• at 55 °C103 A• at 60 °C98 A	product function	
Net Weight0.951 kgCurrentNomarking / according to UL 489 / 100%-rated breakerNooperational currentI10 A• at 40 °C110 A• at 45 °C107 A• at 55 °C105 A• at 60 °C100 A• at 65 °C98 A	<ul> <li>communication function</li> </ul>	No
Current       No         marking / according to UL 489 / 100%-rated breaker       No         operational current       110 A         • at 40 °C       110 A         • at 45 °C       107 A         • at 50 °C       105 A         • at 55 °C       103 A         • at 60 °C       100 A         • at 65 °C       98 A	<ul> <li>other measurement function</li> </ul>	No
marking / according to UL 489 / 100%-rated breakerNooperational current	Net Weight	0.951 kg
operational current         110 A           • at 40 °C         110 A           • at 45 °C         107 A           • at 50 °C         105 A           • at 55 °C         103 A           • at 60 °C         100 A           • at 65 °C         98 A	Current	
• at 40 °C       110 A         • at 45 °C       107 A         • at 50 °C       105 A         • at 55 °C       103 A         • at 60 °C       100 A         • at 65 °C       98 A	marking / according to UL 489 / 100%-rated breaker	No
• at 45 °C       107 A         • at 50 °C       105 A         • at 55 °C       103 A         • at 60 °C       100 A         • at 65 °C       98 A	operational current	
• at 50 °C       105 A         • at 55 °C       103 A         • at 60 °C       100 A         • at 65 °C       98 A	• at 40 °C	110 A
• at 55 °C       103 A         • at 60 °C       100 A         • at 65 °C       98 A	● at 45 °C	107 A
• at 60 °C 100 A • at 65 °C 98 A	● at 50 °C	105 A
• at 65 °C 98 A	● at 55 °C	103 A
	● at 60 °C	100 A
• at 70 °C 96 A	● at 65 °C	98 A
	● at 70 °C	96 A

Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	S
design of short-circuit protection	For switching power values in DC networks, see the 3VA molded case circuit breaker device manual; link to be found under Service & Support in the last chapter
Switching capacity according to UL 489	· ·
current breaking capacity	
• at 240 V	65 kA
• at 480 V	25 kA
• at 600 Y/347 V	14 kA
Adjustable parameters	
adjustable response value setting current (Ir) / of the L-trip / with I2t characteristic	
• minimum	110 A
• maximum	110 A
adjustable response value delay time (tr) / for L-tripping / with I2t characteristic	
• minimum	1 s
• maximum	1 s
adjustable response value setting current (li) / for I-tripping	
• minimum	1 100 A
• maximum	1 100 A
adjustable absolute value setting current (InN) / for N-tripping	
• minimum	0 A
maximum	0 A
adjustable current response value current / of the current- dependent overload release	110 110 A
product function / grounding protection	No
Mechanical Design	
product component	
undervoltage release	No
<ul> <li>voltage trigger</li> </ul>	No
trip indicator	No
height [in]	5.51 in
height	140 mm
width [in]	3 in
width	76.2 mm
depth [in]	3.01 in
depth	76.5 mm
Connections	
arrangement of electrical connectors / for main current circuit	Front connection
type of electrical connection / for main current circuit	nut keeper kit on both ends
type of connectable conductor cross-sections / for flat-bar terminal connection / minimum	12 x 1 mm
type of connectable conductor cross-sections / for flat-bar terminal connection / maximum	17 x 6.5 mm
Auxiliary circuit	0
number of CO contacts / for auxiliary contacts	0
Accessories	
product extension / optional / motor drive	Yes
Environmental conditions	
protection class IP / on the front	IP40
ambient temperature	
during operation / minimum	-25 °C
during operation / maximum	70 °C
during storage / minimum	-40 °C
during storage / maximum	80 °C
Certificates	
certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	Yes
General Product Approval	



## Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

Information- and Downloadcenter (Catalogs, Brochures,...)

http://www.siemens.com/lowvoltage/catalogs

Industry Mall (Online ordering system)

 $\underline{https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA5111-4ED32-1AA0}$ 

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA5111-4ED32-1AA0

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

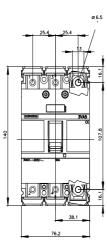
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA5111-4ED32-1AA0

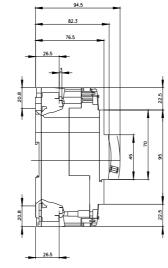
CAx-Online-Generator

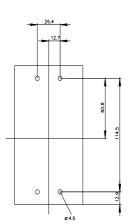
http://www.siemens.com/cax

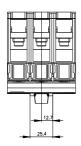
**Tender specifications** 

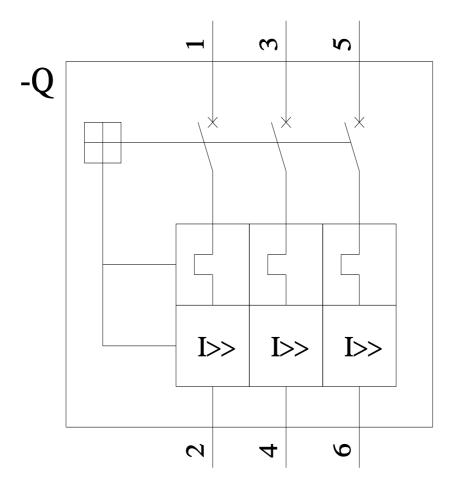
http://www.siemens.com/specifications

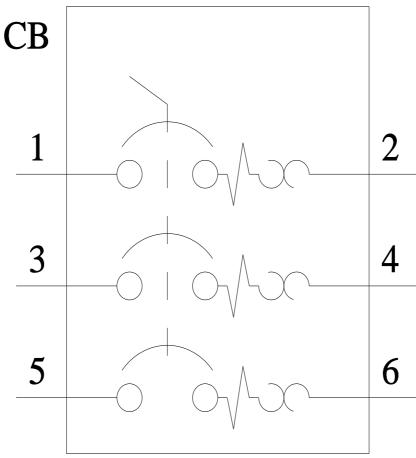












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