SIEMENS

Data sheet

3VA5195-4ED12-1AA0



circuit breaker 3VA5 UL frame 125 breaking capacity class S 25kA @ 277 V 1-pole, line protection TM210, FTFM, In=15A overload protection Ir=15A fixed short-circuit protection Ii=20 x In UL489 SB (naval), 50 deg. cel. nut keeper kit on both sides

product brand name SENTRON product designation Molded-case circuit breaker product designation / according to UL file SEAM design of the product System protection design of the load switch / according to UL 489 / Heating, Arr Conditioning, and Retrigeration circuit breaker (HACR Type) Yes design of the load switch / according to UL 489 / High-Intensity- Discharge circuit breaker (HACR Type) Yes design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type) Yes design of the overcurrent release L1 protection function of the overcurrent release L1 protection function data 32 W operating voltage / at AC / rated value 415 V operating state / per pole 32 W mechanical service life (operating cycles) / typical 20 000 electrical endurance (operating cycles) / typical 20 000 electrical endurance (operating cycles) / typical 8000 electrical endurance (operating cycles) / t	Model	
product designation / according to UL file SEAM design of the product System protection design of the load switch / according to UL 489 / Heating, AT Yes Conditioning, and Refrigeration circuit breaker (HACR Type) Yes design of the load switch / according to UL 489 / High-Intensity- Discharge circuit breaker (MID Type) Yes design of the load switch / according to UL 489 / Migh-Intensity- Discharge circuit breaker (MID Type) Yes design of the overcurrent release TM210 protect dos/With / according to UL 489 / Migh-Intensity- Discharge circuit breaker (MID Type) Yes design of the overcurrent release Ll number of poles 1 Central tochnical data 3.2 W opware loss [W] / for rated value of the current / at AC / in tot 3 3.2 W power loss [W] / for rated value of the current / at AC / in tot 3 2.2 W electrical endurance (operating cycles) / typical 20 000 electrical endurance (operating cycles) / typical 20 000 electrical endurance (operating cycles) / at AC-1 / at 800 V 4 000 electrical endurance (operating cycles) / at AC / in tot 90 V 4 000 ground-fault monitoring version without	product brand name	SENTRON
design of the product System protection design of the bad switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type) Yes design of the bad switch / according to UL 489 / High-Intensity- Discharge circuit breaker (HACR Type) Yes design of the bad switch / according to UL 489 / High-Intensity- Discharge circuit breaker (HACR Type) Yes design of the coat switch / according to UL 489 / Switching Duty circuit breaker (SWD Type) Yes design of the coat switch / according to UL 489 / Switching Duty circuit breaker (SWD Type) Yes operating voltage / at AC / rated value 11 operating voltage / at AC / rated value 415 V power loss [W] / for rated value of the current / at AC / in thot operating state / per pole 32 W operating voltage / at AC / rated value of the current / at AC / in t60 V 4000 electrical endurance (operating cycles) / typical 20 000 electrical endurance (operating cycles) / at 800 V 4000 electrical endurance (operating cycles) / at 800 V 4000 electrical endurance (operating cycles) / at 800 V 4000 orgound-fault monitoring version without product fault monitoring version Vision orgound-fault monitoring versio	product designation	Molded-case circuit breaker
design of the load switch / according to LUL 489 / Heating, Air Conditioning, and Refingeration circuit breaker (HACR Type) Yes design of the load switch / according to LU 489 / High-Intensity- Discharge circuit breaker (HID Type) Yes design of the load switch / according to LU 489 / Switching Duty drout breaker (SWD Type) Yes design of the load switch / according to LU 489 / Switching Duty drout breaker (SWD Type) Yes operating of the overcurrent release LL number of poles 1 operating voltage / at AC / rated value 415 V opower loss [W] / maximum 3.2 W power loss [W] / for rated value of the current / at AC / in hot operating state / per pole 3.2 W per close [W] / for rated value of the current / at AC / in hot operating state / per pole 8000 electrical endurance (operating cycles) / t AC-1 / at 800 V 8000 electrical endurance (operating cycles) / t 440 V 8000 electrical endurance (operating cycles) / at AC-1 / at 800 V 8000 electrical endurance (operating cycles) / at AC-1 / at 800 V 8000 electrical endurance (operating cycles) / at AC-1 / at 800 V 8000 electrical endurance (operating cycles) / at AC-1 / at 800 V 8000 electrical endurance (operating cycles) / at AC-1 / at 800 V 8000 <td>product designation / according to UL file</td> <td>SEAM</td>	product designation / according to UL file	SEAM
Conditioning, and Refigeration circuit breaker (HACR Type) Yes design of the load switch / according to UL 489 / High-Intensity- Discharge circuit breaker (HID Type) Yes design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type) Yes design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type) Yes design of the overcurrent release LI number of poles 1 General technical data 3.2 W operating voltage / at AC / rated value 415 V power loss [W] / for rated value of the current / at AC / in tot operating state / per pole 3.2 W mechanical service life (operating cycles) / typical 20 000 electrical endurance (operating cycles) / typical 20 000 electrical endurance (operating cycles) / typical 8 000 ground-fault monitoring version without product function No / shortorical and vers	design of the product	System protection
Discarge circul breaker (HD Type) Yes design of the load switch / according to UL 489 / Switching Duty circul breaker (SWD Type) Yes design of the overcurrent release TM210 protection function of the overcurrent release Ll number of poles 1 General technical data 3.2 W power loss [W] / maximum 3.2 W power loss [W] / for rated value of the current / at AC / in hot operating state / per pole 3.2 W rechancial service life (operating cycles) / typical 20 000 electrical endurance (operating cycles) / ta 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 680 V 4 000 electrical endurance (operating cycles) / at AC0 V 8 000 electrical endurance (operating cycles) / at 800 V 8 000 ground-fautr monitoring version without product feature / for neutral conductors / upgradable/retrofittable No other measurement function No • other measurement function No • other measurement function Veidual for • at 45 °C		Yes
circuit breaker (SMD Type) Interference in the overcurrent release III protection function of the overcurrent release II number of poles 1 General technical dat 415 V operating voltage / at AC / rated value 415 V power loss [W] / maximum 3.2 W power loss [W] / for rated value of the current / at AC / in hot operating state / per pole 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) / 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 No product feature / for neutral conductors / upgradable/retrofittable No / short-circuit and overload proof without product function No • oommunication function No • other measurement function 15 A • at 45 °C 15 A <t< td=""><td>6 6 <i>7</i></td><td>Yes</td></t<>	6 6 <i>7</i>	Yes
protection function of the overcurrent release Li number of poles 1 General technical data		Yes
number of poles 1 General technical data operating voltage / at AC / rated value 415 V power loss [W] / maximum 3.2 W power loss [W] / for rated value of the current / at AC / in hot operating state / per pole 3.2 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 product feature / for neutral conductors / upgradable/retrofittable / short-ictuit and overload proof No ground-fault monitoring version without porent technical current No • other measurement function No • at 40 °C 15 A • at 40 °C 15 A • at 45 °C 15 A • at 65 °C 14 A	design of the overcurrent release	TM210
General technical data operating voltage / at AC / rated value 415 V power loss [W] / maximum 3.2 W power loss [W] / for rated value of the current / at AC / in hot operating state / per pole 3.2 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 480 V 8 000 electrical endurance (operating cycles) / at 800 V 4 000 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 Net Weight 0.404 kg Current Imarking / according to UL 489 / 100%-rated breaker No operational current 15 A • at 40 °C 15 A • at 40 °C 15 A • at 50 °C 14 A • at 60 °C 14 A	protection function of the overcurrent release	Ц
operating voltage / at AC / rated value 415 V power loss [W] / maximum 3.2 W power loss [W] / for rated value of the current / at AC / in hot 3.2 W operating stale / per pole account of the current / at AC / in hot 3.2 W 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 0 V 8 000 electrical endurance (operating cycles) / at AC 0 V 4 000 product feature / for neutral conductors / upgradable/retrofittable No / short-circuit and overload proof without product function without • communication function No • other measurement function No No No Not veight 0404 kg current 15 A • at 40 °C 15 A • at 40 °C 15 A • at 45 °C 14 A • at 55 °C 14 A • at 55 °C 14 A • at 60 °C 14 A	number of poles	1
power loss [W] / maximum 3.2 W power loss [W] / for rated value of the current / at AC / in hot operating state / per pole mechanical service life (operating cycles) / typical 20 000 electrical endurance (operating cycles) / at AC-1 / at 380/415 V electrical endurance (operating cycles) / at AC-1 / at 690 V electrical endurance (operating cycles) / at AC-1 / at 690 V electrical endurance (operating cycles) / at AC-1 / at 690 V electrical endurance (operating cycles) / at 600 V electrical endurance (operating cycles) / at 600 V for neutral conductors / upgradable/retrofittable / short-circuit and overload proof ground-fault monitoring version without product function • communication function No No We Weight 0.404 kg Current • at 40 °C • at 45 °C • at 45 °C • at 55 °C • at 55 °C • at 60 °C • at 65 °C 14 A	General technical data	
power loss [W] / for rated value of the current / at AC / in hot 3.2 W operating state / per pole 20 000 mechanical service life (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 AO V 4 000 product feature / for neutral conductors / upgradable/retrofittable No / short-circuit and overload proof without product function without product function function No other measurement function No vetweight 0.404 kg Current 15 A eat 40 °C 15 A eat 40 °C 15 A eat 45 °C 14 A eat 50 °C 14 A eat 60 °C 14 A eat 60 °C 14 A	operating voltage / at AC / rated value	415 V
operating state / per pole 20 000 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 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 other measurement function No other measurement function No other measurement function 0.404 kg operational current 15 A i at 40 °C 15 A i at 40 °C 14 A i at 50 °C 14 A i at 50 °C 14 A i at 60 °C 14 A i at 60 °C 14 A	power loss [W] / maximum	3.2 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 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 • other measurement function No operational current 15 A • at 40 °C 15 A • at 40 °C 15 A • at 50 °C 14 A • at 50 °C 14 A • at 60 °C 14 A • at 65 °C 14 A		3.2 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 • other measurement function No • other measurement function No • at 40 °C 15 A • at 40 °C 15 A • at 40 °C 14 A • at 50 °C 14 A • at 60 °C 14 A • at 65 °C 14 A	mechanical service life (operating cycles) / typical	20 000
electrical endurance (operating cycles) / at 480 V8 000electrical endurance (operating cycles) / at 600 V4 000product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proofNoground-fault monitoring versionwithoutproduct functionNo• communication functionNo• other measurement functionNoNet Weight0.404 kgCurrentmarking / according to UL 489 / 100%-rated breaker• at 40 °C15 A• at 40 °C15 A• at 45 °C15 A• at 50 °C14 A• at 60 °C14 A• at 60 °C14 A• at 65 °C14 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 other measurement function • communication function No • other measurement function No Net Weight 0.404 kg Current Value marking / according to UL 489 / 100%-rated breaker No operational current 15 A • at 40 °C 15 A • at 45 °C 14 A • at 55 °C 14 A • at 60 °C 14 A • at 65 °C 14 A	electrical endurance (operating cycles) / at AC-1 / at 690 V	4 000
product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proofNoground-fault monitoring versionwithoutproduct functionNo• communication functionNo• other measurement functionNoNet Weight0.404 kgCurrentmarking / according to UL 489 / 100%-rated breaker• at 40 °C15 A• at 40 °C15 A• at 45 °C14 A• at 55 °C14 A• at 60 °C14 A• at 65 °C14 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 0.404 kg Met Weight 0.404 kg Current	electrical endurance (operating cycles) / at 600 V	4 000
product functionNo• communication functionNo• other measurement functionNoNet Weight0.404 kgCurrentmarking / according to UL 489 / 100%-rated breakerNooperational current15 A• at 40 °C15 A• at 45 °C15 A• at 50 °C14 A• at 55 °C14 A• at 60 °C14 A• at 65 °C14 A		Νο
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• other measurement functionNoNet Weight0.404 kgCurrentmarking / according to UL 489 / 100%-rated breakerNooperational current15 A• at 40 °C15 A• at 45 °C15 A• at 50 °C14 A• at 60 °C14 A• at 60 °C14 A• at 65 °C14 A	product function	
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Current No marking / according to UL 489 / 100%-rated breaker No operational current	 other measurement function 	No
marking / according to UL 489 / 100%-rated breaker No operational current	Net Weight	0.404 kg
operational current 15 A • at 40 °C 15 A • at 45 °C 15 A • at 50 °C 14 A • at 55 °C 14 A • at 60 °C 14 A • at 65 °C 14 A	Current	
• at 40 °C 15 A • at 45 °C 15 A • at 50 °C 14 A • at 55 °C 14 A • at 60 °C 14 A • at 65 °C 14 A	marking / according to UL 489 / 100%-rated breaker	No
• at 45 °C 15 A • at 50 °C 14 A • at 55 °C 14 A • at 60 °C 14 A • at 65 °C 14 A	operational current	
• at 50 °C 14 A • at 55 °C 14 A • at 60 °C 14 A • at 65 °C 14 A	• at 40 °C	15 A
• at 55 °C 14 A • at 60 °C 14 A • at 65 °C 14 A	● at 45 °C	15 A
• at 60 °C 14 A • at 65 °C 14 A	● at 50 °C	14 A
• at 65 °C 14 A	● at 55 °C	14 A
	● at 60 °C	14 A
• at 70 °C 14 A	● at 65 °C	14 A
	● at 70 °C	14 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 120 V	65 kA
• at 277 V	25 kA
• at 347 V	14 kA
Adjustable parameters	
adjustable response value setting current (Ir) / of the L-trip / with	
12t characteristic	
• minimum	15 A
• maximum	15 A
adjustable response value delay time (tr) / for L-tripping / with I2t characteristic	
• minimum	1s
• maximum	1 s
adjustable response value setting current (li) / for I-tripping	
• minimum	300 A
• maximum	300 A
adjustable setting current (InN) / for N-tripping	
• minimum	0 A
maximum	0 A
adjustable current response value current / of the current- dependent overload release	15 15 A
product function / grounding protection	No
Mechanical Design	
product component	
 undervoltage release 	No
voltage trigger	No
trip indicator	No
height [in]	5.51 in
height	140 mm
width [in]	1 in
width	25.4 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	
number of CO contacts / for auxiliary contacts	0
Accessories	
product extension / optional / motor drive	No
Environmental conditions	
protection class IP / on the front	IP40
ambient temperature	
during operation / minimum	-25 °C
during operation / maximum	70 °C
during sportation / maximum	-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)

 $\underline{https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA5195-4ED12-1AA0}$

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA5195-4ED12-1AA0

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

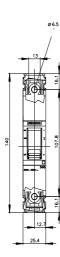
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5195-4ED12-1AA0

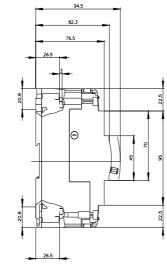
CAx-Online-Generator

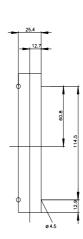
http://www.siemens.com/cax

Tender specifications

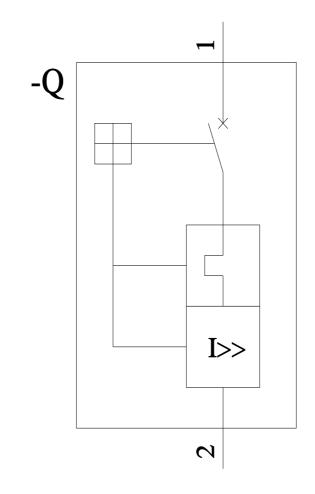
http://www.siemens.com/specifications

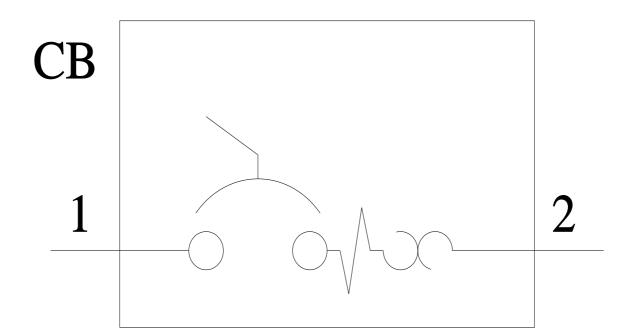












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