## 3VA5135-4ED11-1AA0

**Data sheet** 



circuit breaker 3VA5 UL frame 125 breaking capacity class S 25kA @ 277V 1-pole, line protection TM210, FTFM, In=35A overload protection Ir=35A fixed short-circuit protection Ii=10 x In UL 489 SB (naval),  $50^\circ$  C without connection

| product designation product designation product designation / according to UL file design of the product design of the product design of the load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type) design of the load switch / according to UL 489 / High-Intensity- Discharge circuit breaker (HD Type) design of the load switch / according to UL 489 / Switching Duty circuit breaker (FIO Type) design of the load switch / according to UL 489 / Switching Duty circuit breaker (FIO Type) design of the load switch / according to UL 489 / Switching Duty circuit breaker (FIO Type) design of the overcurrent release  | Model  |                             |
|--|--|-----------------------------|
| product designation / according to UL file     design of the product     design of the load switch / according to UL 489 / Heating, Air     Conditioning, and Refrigeration circuit breaker (HACR Type)     design of the load switch / according to UL 489 / High-Intensity-     ibscharage circuit breaker (HID Type)     design of the load switch / according to UL 489 / Switching Duty     design of the load switch / according to UL 489 / Switching Duty     design of the load switch / according to UL 489 / Switching Duty     design of the overcurrent release     protection function of the overcurrent release     ILI     unwher of poles     1     Central technical data     operating voltage / at AC / rated value     At 5 V     power loss [W] / for rated value of the current / at AC / in hot     operating state / per pole     mechanical service life (operating cycles) / typical     electrical endurance (operating cycles) / at AC-1 / at 380/415 V     electrical endurance (operating cycles) / at AC-1 / at 380/415 V     electrical endurance (operating cycles) / at AC 80 V     electrical endurance (operating cycles) / at AC 80 V     electrical endurance (operating cycles) / at AC V     electrical endurance (operating cycles) / at AC V     or operating cycles) / at AC V     or operating cycles / at AC V     or operating cycle | product brand name   | SENTRON                     |
| design of the product design of the load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type) design of the load switch / according to UL 489 / High-Intensity- Discharge circuit breaker (IBVD Type) design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type) design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type) design of the voercurrent release TM210 protection function of the overcurrent release II number of poles 1  Ceneral technical data operating voltage / at AC / rated value power loss [W] / maximum Jose New York (SwD Type) design of the load switch / according to UL 489 / Switching Duty operating voltage / at AC / rated value  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole mechanical service life (operating cycles) / typical electrical endurance (operating cycles) / at AC-1 / at 690 V delectrical endurance (operating cycles) / at AC-1 / at 690 V electrical endurance (operating cycles) / at 480 | product designation  | Molded-case circuit breaker |
| design of the load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type)   design of the load switch / according to UL 489 / High-Intensity- Discharge circuit breaker (HID Type)   design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type)   design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type)   design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type)   design of the overcurrent release  | product designation / according to UL file                       | SEAM                        |
| Conditioning, and Refrigeration circuit breaker (HACR Type) design of the load switch / according to UL 489 / High-Intensity- bischarge circuit breaker (HHD Type)  design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type)  design of the overcurrent release protection function of the overcurrent release LL number of poles  General technical data  operating voltage / at AC / rated value opwer loss [W] / maximum opwer loss [W] / for rated value of the current / at AC / in hot operating state / per pole mechanical service life (operating cycles) / typical 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 A00 V electrical endurance (operating cycles) / at 800 V el | design of the product  | System protection           |
| Discharge circuit breaker (HID Type)  design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type)  design of the overcurrent release  TM210  protection function of the overcurrent release  LL  number of poles  1  Ceneral technical data  operating voltage / at AC / rated value  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  mechanical service life (operating cycles) / typical  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 ABO V  electrical endurance (operating cycles) / at ABO V  electrical endurance (operating cycles) / at ABO V  product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof  ground-fault monitoring version  product function  • communication function  • other measurement function  No  No  Not Weight  Current  marking / according to UL 489 / 100%-rated breaker  operational current  • at 40 °C  • at 45 °C  • at 55 °C  • at 65 °C  32 A   |  | Yes                         |
| design of the overcurrent release TM210 protection function of the overcurrent release LI number of poles 1  Ceneral technical data  operating voltage / at AC / rated value 415 V 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) / 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 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 ground-fault monitoring version without product function  • communication function No Net Weight 0.38 kg  Current marking / according to UL 489 / 100%-rated breaker No operational current • at 40 °C 35 A • at 45 °C 34 A • at 55 °C 33 A • at 60 °C 33 A • at 60 °C 33 A • at 60 °C 33 A  |  | Yes                         |
| protection function of the overcurrent release LI number of poles 1  General technical data operating voltage / at AC / rated value 415 V power loss [W] / maximum 3.8 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) / 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 600 V 4 000 electrical endurance (operating cycles) / at 600 V 4 000 product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof ground-fault monitoring version without product function ocommunication function No Not Weight 0.38 kg  Current  marking / according to UL 489 / 100%-rated breaker operational current  • at 40 °C 35 A • at 55 °C 34 A • at 55 °C 33 A • at 60 °C 33 A  |  | No                          |
| Tumber of poles  | design of the overcurrent release                                | TM210                       |
| Ceneral technical data   | protection function of the overcurrent release                   | LI                          |
| operating voltage / at AC / rated value 415 V power loss [W] / maximum 3.8 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 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 600 V 4 000 electrical endurance (operating cycles) / at 600 V 4 000 product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof ground-fault monitoring version without product function • communication function No Net Weight 0.38 kg  Current marking / according to UL 489 / 100%-rated breaker No operational current • at 40 °C 35 A • at 45 °C 34 A • at 50 °C 33 A • at 50 °C 33 A • at 60 °C 33 A • at 60 °C 33 A • at 60 °C 33 A  | number of poles  | 1                           |
| Dower loss [W] / maximum   3.8 W   | General technical data   |                             |
| 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 8 000 electrical endurance (operating cycles) / at AC-1 / at 690 V 4 000 electrical endurance (operating cycles) / at 80 V 8 000 electrical endurance (operating cycles) / at 80 V 4 000 product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof ground-fault monitoring version without product function No Nother measurement function No Nother measurement function No Nother measurement function No Nother measurement function Nother measurem | operating voltage / at AC / rated value                          | 415 V                       |
| operating state / per pole mechanical service life (operating cycles) / typical 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 480 V electrical endurance (operating cycles) / at 690 V product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof ground-fault monitoring version without product function • communication function • other measurement function No Net Weight 0.38 kg  Current marking / according to UL 489 / 100%-rated breaker operational current • at 40 °C • at 45 °C • at 45 °C • at 45 °C • at 55 °C 33 A • at 60 °C 33 A • at 60 °C 33 A • at 65 °C 33 A   | power loss [W] / maximum   | 3.8 W                       |
| 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 480 V electrical endurance (operating cycles) / at 480 V electrical endurance (operating cycles) / at 600 V product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof ground-fault monitoring version without product function  • communication function • other measurement function No Net Weight  Current  marking / according to UL 489 / 100%-rated breaker operational current • at 40 °C • at 45 °C • at 60 °C • at 60 °C • at 65 °C  32 A   |  | 3.8 W                       |
| electrical endurance (operating cycles) / at AC-1 / at 690 V electrical endurance (operating cycles) / at 480 V electrical endurance (operating cycles) / at 600 V electrical endurance (operating cycles) / at 600 V product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof ground-fault monitoring version  • communication function • other measurement function No Net Weight  Current  marking / according to UL 489 / 100%-rated breaker operational current • at 40 °C • at 45 °C • at 45 °C • at 45 °C • at 60 °C • at 60 °C • at 65 °C  32 A  | mechanical service life (operating cycles) / typical             | 20 000                      |
| electrical endurance (operating cycles) / at 480 V electrical endurance (operating cycles) / at 600 V  product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof ground-fault monitoring version  product function  ocommunication function No  No  Net Weight  Current  marking / according to UL 489 / 100%-rated breaker  operational current  o at 40 °C  o at 45 °C  o at 55 °C  o at 65 °C  solve at 60 °C  o at 65 °C  | electrical endurance (operating cycles) / at AC-1 / at 380/415 V | 8 000                       |
| electrical endurance (operating cycles) / at 600 V  product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof  ground-fault monitoring version  product function  communication function  nother measurement function  Nothet Weight  Current  marking / according to UL 489 / 100%-rated breaker  operational current  at 40 °C  at 45 °C  at 45 °C  at 45 °C  at 45 °C  at 65 °C  33 A  at 65 °C  32 A  | electrical endurance (operating cycles) / at AC-1 / at 690 V     | 4 000                       |
| product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof  ground-fault monitoring version without  product function  • communication function No  • other measurement function No  Net Weight 0.38 kg  Current  marking / according to UL 489 / 100%-rated breaker No  operational current  • at 40 °C 35 A  • at 45 °C 34 A  • at 50 °C 34 A  • at 55 °C 33 A  • at 60 °C 33 A  • at 65 °C 32 A   | electrical endurance (operating cycles) / at 480 V               | 8 000                       |
| / short-circuit and overload proof ground-fault monitoring version without  product function   | electrical endurance (operating cycles) / at 600 V               | 4 000                       |
| product function  • communication function  • other measurement function  No  Net Weight  O.38 kg  Current  marking / according to UL 489 / 100%-rated breaker  operational current  • at 40 °C  • at 45 °C  • at 50 °C  • at 55 °C  • at 60 °C  • at 60 °C  • at 65 °C  32 A  |  | No                          |
| <ul> <li>● communication function</li> <li>No</li> <li>Not Weight</li> <li>0.38 kg</li> <li>Current</li> <li>marking / according to UL 489 / 100%-rated breaker</li> <li>No</li> <li>operational current</li> <li>at 40 °C</li> <li>at 45 °C</li> <li>at 45 °C</li> <li>at 50 °C</li> <li>at 55 °C</li> <li>at 60 °C</li> <li>at 60 °C</li> <li>at 65 °C</li> <li>32 A</li> </ul>  | ground-fault monitoring version                                  | without                     |
| ● other measurement function  No  Net Weight  0.38 kg  Current  marking / according to UL 489 / 100%-rated breaker  operational current  ● at 40 °C  ● at 45 °C  ● at 50 °C  ● at 55 °C  ● at 60 °C  ● at 65 °C  32 A  | product function   |                             |
| Net Weight         0.38 kg           Current           marking / according to UL 489 / 100%-rated breaker         No           operational current <ul></ul>   | <ul> <li>communication function</li> </ul>                       | No                          |
| Current           marking / according to UL 489 / 100%-rated breaker         No           operational current         35 A           • at 40 °C         35 A           • at 45 °C         34 A           • at 50 °C         34 A           • at 55 °C         33 A           • at 60 °C         33 A           • at 65 °C         32 A   | <ul> <li>other measurement function</li> </ul>                   | No                          |
| marking / according to UL 489 / 100%-rated breaker       No         operational current       35 A         • at 40 °C       35 A         • at 45 °C       34 A         • at 50 °C       34 A         • at 55 °C       33 A         • at 60 °C       33 A         • at 65 °C       32 A   | Net Weight   | 0.38 kg                     |
| operational current  • at 40 °C  • at 45 °C  • at 50 °C  34 A  • at 55 °C  33 A  • at 60 °C  33 A  • at 65 °C  32 A  | Current  |                             |
| <ul> <li>at 40 °C</li> <li>at 45 °C</li> <li>at 50 °C</li> <li>at 55 °C</li> <li>at 60 °C</li> <li>at 65 °C</li> <li>32 A</li> </ul>   | marking / according to UL 489 / 100%-rated breaker               | No                          |
| <ul> <li>at 45 °C</li> <li>at 50 °C</li> <li>at 55 °C</li> <li>at 60 °C</li> <li>at 65 °C</li> <li>33 A</li> <li>at 65 °C</li> <li>32 A</li> </ul>   | operational current  |                             |
| <ul> <li>at 50 °C</li> <li>at 55 °C</li> <li>at 60 °C</li> <li>at 65 °C</li> <li>33 A</li> <li>33 A</li> <li>34 A</li> <li>33 A</li> <li>33 A</li> <li>32 A</li> </ul>   | • at 40 °C   | 35 A                        |
| • at 55 °C 33 A • at 60 °C 33 A • at 65 °C 32 A  | • at 45 °C   | 34 A                        |
| • at 60 °C 33 A<br>• at 65 °C 32 A   | • at 50 °C   | 34 A                        |
| • at 65 °C 32 A  | • at 55 °C   | 33 A                        |
|  | • at 60 °C   | 33 A                        |
| • at 70 °C 32 A  | ● at 65 °C   | 32 A                        |
|  | ● at 70 °C   | 32 A                        |

| 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 I2t characteristic |  |
| • minimum  | 35 A   |
| • maximum  | 35 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  | 350 A  |
| • maximum  | 350 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    | 35 35 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  | West and a second secon |
| arrangement of electrical connectors / for main current circuit                          | Without connection   |
| type of electrical connection / for main current circuit                                 | Without  |
| Auxiliary circuit  |  |
| number of CO contacts / for auxiliary contacts   | 0  |
| Accessories  |  |
| product extension / optional / motor drive   | No   |
| invironmental conditions   |  |
| protection class IP / on the front   | IP40   |
| ambient temperature  |  |
| during operation / minimum   | -25 °C   |
| <ul><li>during operation / maximum</li></ul>   | 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  |
|  |  |



Confirmation



Miscellaneous









Type Test Certificates/Test Report







Marine / Shipping

other





Confirmation

**Miscellaneous** 

**Miscellaneous** 

## 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)

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA5135-4ED11-1AA0

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

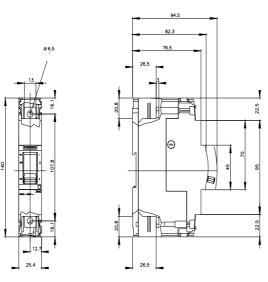
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA5135-4ED11-1AA0

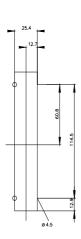
**CAx-Online-Generator** 

http://www.siemens.com/cax

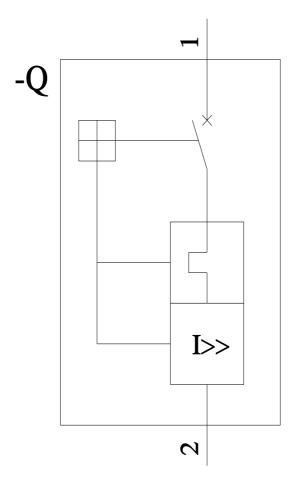
**Tender specifications** 

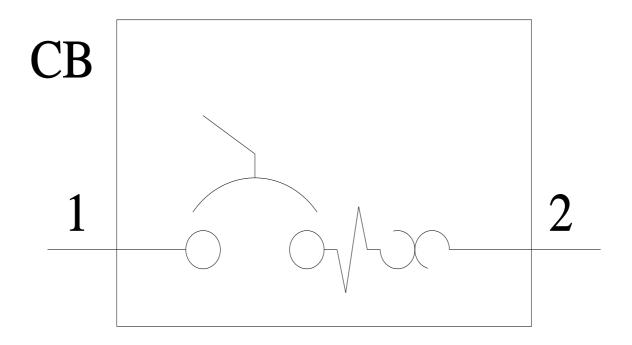
http://www.siemens.com/specifications











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