SIEMENS

Data sheet

3VA5120-5ED11-1AA0

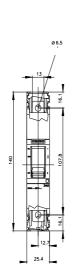


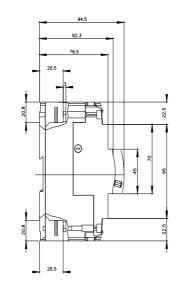
circuit breaker 3VA5 UL frame 125 breaking capacity class M 35kA @ 277V 1-pole, line protection TM210, FTFM, In=20A overload protection Ir=20A fixed short-circuit protection Ii=15 x In UL 489 SB (naval), 50° C without connection

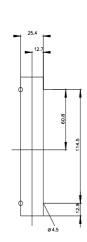
product branch name SENTRON product designation / according to UL file Molded-case circuit breaker (MACR Type) design of the load switch / according to UL 489 / Hearing, Arr Conditioning, and Refrigeration circuit breaker (HACR Type) Yes design of the load switch / according to UL 489 / Hearing, Arr Discharge circuit breaker (MICR Type) Yes design of the load switch / according to UL 489 / Hearing, Arr Discharge circuit breaker (MIC Type) Yes design of the load switch / according to UL 489 / Switching Duty circuit breaker (MIC Type) Yes design of the load switch / according to UL 489 / Switching Duty circuit breaker (MIC Type) Yes design of the load switch / according to UL 489 / Switching Duty circuit breaker (MIC Type) Yes design of the load switch / according to UL 489 / Total value UL protection function of the overcurrent release UL number of poles 1 dementation function of the overcurrent / at AC / in hot operating voltage / at AC / rated value 415 V power loss [W] / for rated value of the current / at AC / in hot operating voltage / per pole 8000 electrical endurance (operating cycles) / ta AC-1 / at 380/415 V 8000 electrical endurance (operating cycles) / at AC-0 / at 380/415 V 8000 electrical enduran	Model	
product designation / according to UL file MEAM design of the product System protection design of the load switch / according to UL 489 / High-Intensity- Discharge circuit breaker (HTT Type) Yes design of the load switch / according to UL 489 / High-Intensity- Discharge circuit breaker (INT Type) Yes design of the load switch / according to UL 489 / Switching Duty circuit breaker (INT Type) Yes design of the load switch / according to UL 489 / Switching Duty circuit breaker (INT Type) Yes design of the overcurrent release TM210 protection function of the overcurrent release Ll number of poles 1 General technical data 407 W power loss [W] / for rated value of the current / at AC / in hot operating state / per pole 407 W mechanical service IIIC (operating cycles) / typical 20 000 electrical endurance (operating cycles) / typical 20 000 electrical endurance (operating cycles) / typical 8000 electrical endurance (operating cycles) / typical 8000 ground-fault monitoring version without product feature / for neutral conductors / upgradable/retrofitable No otherer No	product brand name	SENTRON
design of the product System protection design of the load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration 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 / 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 load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type) Yes design of the load switch / according to UL 489 / Intensity- Discharge circuit breaker (HID Type) Yes design of the load switch / according to UL 489 / Intensity- port loss [W] / maximum Yes operating voltage / at AC / rated value 415 V power loss [W] / for rated value of the current / at AC / in hot operating sotie / per pole 407 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 380/415 V 8 000 electrical endurance (operating cycles) / at AC-1 / at 380/415 V	product designation	Molded-case circuit breaker
design of the load switch / according to UL 489 / HaCR Type) Yes design of the load switch / according to UL 489 / HaCR Type) Yes design of the load switch / according to UL 489 / HaCR Type) Yes design of the load switch / according to UL 489 / HaCR Type) Yes design of the load switch / according to UL 489 / HaCR Type) Yes design of the load switch / according to UL 489 / HaCR Type) Yes design of the code switch / according to UL 489 / HaCR Type) Yes design of the code switch / according to UL 489 / HaCR Type) Yes design of the code switch / according to UL 489 / HaCR Type) Yes design of the code switch / according to UL 489 / HaCR Type) Yes design of the code switch / according to UL 489 / HaCR Type) Yes design of the code switch / according to UL 489 / Faxibility Yes operating voltage / at AC / rated value 415 V power loss [W] / for rated value of the current / at AC / in hot 407 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 A0 V 8 000 electrical endurance (operating cycles) / at A0 V 8 000 electrical endurance (operating cycles) / at A0 V 8 000 ground-fault monitoring version without <td< td=""><td>product designation / according to UL file</td><td>MEAM</td></td<>	product designation / according to UL file	MEAM
Conditioning, and Refrigeration 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 (HID Type) Yes design of the overcurrent release TM210 protection function of the overcurrent release LI operating voltage / at AC / rated value 415 V operating voltage / at AC / rated value 415 V power loss [W] / maximum 4.07 W operating voltage / at AC / rated value of the current / at AC / in hot operating state / per pole 4000 electrical endurance (operating cycles) / typical 8000 electrical endurance (operating cycles) / at AC / 1 at 380/415 V 8000 electrical endurance (operating cycles) / at 480 V 8000 electrical endurance (operating cycles) / at 480 V 8000 electrical endurance (operating cycles) / at 480 V 8000 ground-fault monitoring version without product feature / for neutral conductors / upgradable/retrofittable No other measurement function No other measurement function No other measurement function 020 A et	design of the product	System protection
Discharge circuit breaker (HID Type) Yes design of the load switch / according to UL 489 / Switching Duty Yes design of the overcurrent release TM210 protection function of the overcurrent release Ll number of poles 1 Ceneral technical data		Yes
circuit breaker (SWD Type) TM210 protection function of the overcurrent release Ll number of poles 1 General technical data		Yes
protection function of the overcurrent release Ll number of poles 1 General technical data		Yes
number of poles 1 General technical data 415 V operating voltage / at AC / rated value 415 V power loss [W] / maximum 4.07 W power loss [W] / trated value of the current / at AC / in hot operating state / per pole 4.07 W mechanical service life (operating cycles) / thycal 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 AC0 V 8 000 electrical endurance (operating cycles) / at 800 V 4 000 product feature / for neutral conductors / upgradable/retrofittable No / short-circuit and overload proof without ground-fault monitoring version without poduct function No • other measurement function No • other measurement function No • at 40 °C 20 A • at 40 °C 20 A • at 40 °C 20 A • at 45 °C 20 A • at 50 °C 19 A • at 65 °C 18 A<	design of the overcurrent release	TM210
General 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 4.07 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 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 600 V 4 000 ground-fault monitoring version without product function No • communication function No • other measurement function No Net Weight 0.38 kg Current 20 A • at 40 °C 20 A • at 40 °C 20 A • at 50 °C 19 A • at 50 °C 19 A • at 50 °C 19 A • at 65 °C 18	protection function of the overcurrent release	L
operating voltage / at AC / rated value 415 V power loss [W] / maximum 4.07 W power loss [W] / for rated value of the current / at AC / in hot operating state / per pole 4.07 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 ABO 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 No ground-fault monitoring version without product function No • communication function No Net Weight 0.38 kg Current at 40 °C • at 40 °C 20 A • at 40 °C 20 A • at 50 °C 19 A • at 60 °C 19 A • at 60 °C<	number of poles	1
power loss [W] / maximum 4.07 W power loss [W] / for rated value of the current / at AC / in hot operating state / per pole 4.07 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) / 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 No / short-circuit and overload proof No ground-fault monitoring version without product function No • other measurement function No Net Weight 0.38 kg Current at 40 °C • at 40 °C 20 A • at 40 °C 20 A • at 45 °C 19 A • at 55 °C 19 A • at 60 °C 19 A • at 65 °C 18 A <td>General technical data</td> <td></td>	General technical data	
power loss [W] / for rated value of the current / at AC / in hot 4.07 W 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 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 20 A • at 40 °C 20 A • at 45 °C 20 A • at 45 °C 19 A • at 55 °C 19 A • at 65 °C 18 A	operating voltage / at AC / rated value	415 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 / shot-circuit and overload proofNoground-fault monitoring versionwithoutproduct functionNo• communication functionNo• other measurement functionNoNet Weight0.38 kgCurrentmarking / according to UL 489 / 100%-rated breakeroperational current20 A• at 40 °C20 A• at 45 °C19 A• at 60 °C19 A• at 60 °C19 A• at 60 °C18 A	power loss [W] / maximum	4.07 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 AC-1 / at 690 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 No ground-fault monitoring version without product function No • other measurement function No • other measurement function No • other measurement function No operational current 0.38 kg • at 40 °C 20 A • at 40 °C 20 A • at 40 °C 20 A • at 50 °C 19 A • at 60 °C 19 A • at 65 °C 18 A		4.07 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 Net Weight 0.38 kg Current at 40 °C • at 40 °C 20 A • at 45 °C 20 A • at 55 °C 19 A • at 65 °C 18 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 Weight0.38 kgCurrentmarking / according to UL 489 / 100%-rated breaker• at 40 °C20 A• at 40 °C20 A• at 45 °C19 A• at 55 °C19 A• at 65 °C18 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 0.38 kg Current No marking / according to UL 489 / 100%-rated breaker No operational current 20 A • at 40 °C 20 A • at 45 °C 19 A • at 55 °C 19 A • at 60 °C 19 A • at 65 °C 18 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 other measurement function • communication function No • other measurement function No Net Weight 0.38 kg Current marking / according to UL 489 / 100%-rated breaker operational current 20 A • at 40 °C 20 A • at 45 °C 19 A • at 55 °C 19 A • at 66 °C 18 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 0.38 kg Current 0.38 kg marking / according to UL 489 / 100%-rated breaker No operational current 20 A • at 40 °C 20 A • at 50 °C 19 A • at 60 °C 19 A • at 60 °C 18 A	electrical endurance (operating cycles) / at 600 V	4 000
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• other measurement functionNoNet Weight0.38 kgCurrentmarking / according to UL 489 / 100%-rated breakerNooperational currentNo• at 40 °C20 A• at 45 °C20 A• at 55 °C19 A• at 55 °C19 A• at 60 °C19 A• at 65 °C18 A	product function	
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Current No marking / according to UL 489 / 100%-rated breaker No operational current 20 A • at 40 °C 20 A • at 45 °C 20 A • at 50 °C 19 A • at 55 °C 19 A • at 60 °C 19 A • at 65 °C 18 A	 other measurement function 	No
marking / according to UL 489 / 100%-rated breakerNooperational current20 A• at 40 °C20 A• at 45 °C20 A• at 50 °C19 A• at 55 °C19 A• at 60 °C19 A• at 65 °C18 A	Net Weight	0.38 kg
operational current 20 A • at 40 °C 20 A • at 45 °C 20 A • at 55 °C 19 A • at 55 °C 19 A • at 60 °C 19 A • at 65 °C 18 A	Current	
• at 40 °C 20 A • at 45 °C 20 A • at 50 °C 19 A • at 55 °C 19 A • at 60 °C 19 A • at 65 °C 18 A	marking / according to UL 489 / 100%-rated breaker	No
• at 45 °C 20 A • at 50 °C 19 A • at 55 °C 19 A • at 60 °C 19 A • at 65 °C 18 A	operational current	
• at 50 °C 19 A • at 55 °C 19 A • at 60 °C 19 A • at 65 °C 18 A	● at 40 °C	20 A
• at 55 °C 19 A • at 60 °C 19 A • at 65 °C 18 A	● at 45 °C	20 A
• at 60 °C 19 A • at 65 °C 18 A	• at 50 °C	19 A
• at 65 °C 18 A	• at 55 °C	19 A
	• at 60 °C	19 A
	• at 65 °C	18 A
	• at 70 °C	18 A

Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	Μ
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	85 kA
• at 277 V	35 kA
• at 347 V	18 kA
Adjustable parameters	
adjustable response value setting current (Ir) / of the L-trip / with I2t characteristic	
• minimum	20 A
• maximum	20 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	200 A
• minimum	300 A
maximum adjustable setting current (InN) / for N-tripping	300 A
minimum	0 A
• maximum	0 A
adjustable current response value current / of the current- dependent overload release	20 20 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	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
Environmental conditions	
protection class IP / on the front	IP40
ambient temperature	25.10
during operation / minimum	-25 °C
during operation / maximum	70 °C
during storage / minimum	-40 °C 80 °C
during storage / maximum Certificates	
certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	Yes
General Product Approval	

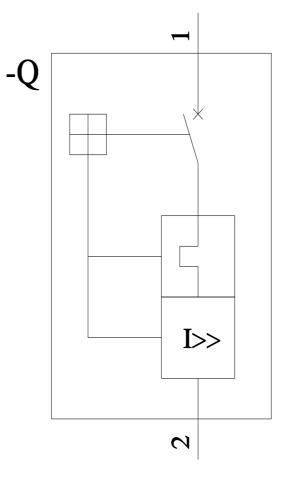
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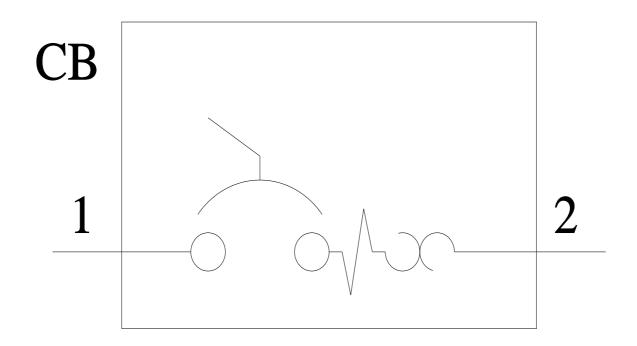












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