SIEMENS

Data sheet

3VA5135-4ED31-1AA0



circuit breaker 3VA5 UL frame 125 breaking capacity class S 25kA @ 480V 3-pole, line protection TM210, FTFM, In=35A overload protection Ir=35A fixed short-circuit protection li=10 x In UL 489 SB (naval), 50° C without connection

product branch name SENTRON product designation / according to UL file SEAM design of the product System protection design of the bad switch / according to UL 489 / Heating, Air Conditioning, and Retrigeration circuit breaker (HACR Type) Yes design of the load switch / according to UL 489 / High-Intensity- Discharge circuit breaker (HINCR Type) Yes design of the load switch / according to UL 489 / Switching Duty circuit breaker (HINCR (SWD Type) No design of the load switch / according to UL 489 / Switching Duty circuit breaker (WIN Type) No design of the overcurrent release TM210 protection function of the overcurrent release U 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 3.8 W operating voltage / at AC / rated value 690 V power loss [W] / for rated value of the current / at AB0 V 8000 electrical endurance (operating cycles) / at 800 V 8000 electrical endurance (operating cycles) / at 600 V 8000 product fauture (for eutral conductors / uperadableretofittable No	Model	
product designation / according to UL file SEAM design of the product System protection 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 / High-Intensity- Discharge circuit breaker (HIT Type) Yes design of the load switch / according to UL 489 / Switching Duty circuit breaker (HIT Type) No design of the load switch / according to UL 489 / Switching Duty circuit breaker (HIT Type) No design of the overcurrent release TM210 protection function of the overcurrent release IL number of poles 3 Ceneral technical data 690 V power loss [W] / maximum 11.4 W power loss [W] / for rated value of the current / at AC / in hot operating state / per pole 8 000 electrical endurance (operating cycles) / typical 20 000 electrical endurance (operating cycles) / typical 20 000 electrical endurance (operating cycles) / typical 20 000 ground-fault monitoring version without product feature / for neutral conductors / upgradable/retrofittable No other measurement function No <	product brand name	SENTRON
design of the product System protection design of the load switch / according to UL 489 / Heating, Air Conditioning, and Refrigerative (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) 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 load switch / according to UL 489 / High-Intensity- Discharge circuit breaker (HID Type) No operating voltage / at AC / rated value 690 V power loss [W] / maximum 11.4 W power loss [W] / for rated value of the current / at AC / in hot operating state / per pole 38 W delectrical endurance (operating cycles) / at AC-1 / at 380/415 V 8 000 electrical endurance (operating cycles) / at AC-1 / at 480 V 8 000 electrical endurance (operating cycles) / at AC-1 / at 690 V 4 000 I product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof No ground-fault monitoritor 0.088 kg 000 current <td< td=""><td>product designation</td><td>Molded-case circuit breaker</td></td<>	product designation	Molded-case circuit breaker
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 (HD Type) Yes design of the load switch / according to UL 489 / High-Intensity- Discharge circuit breaker (HD Type) No design of the load switch / according to UL 489 / Switching Duty drout breaker (SWD Type) No design of the load switch / according to UL 489 / Switching Duty drout breaker (SWD Type) No design of the load switch / according to UL 489 / Switching Duty drout breaker (SWD Type) No design of the load switch / according to UL 489 / Switching Duty drout breaker (SWD Type) No design of the load switch / according to UL 489 / Switching Duty drout breaker (SWD Type) No operating voltage / at AC / rated value 690 V operating voltage / at AC / rated value of the current / at AC / in hot operating state / per pole 38 W mechanical service life (operating cycles) / at AC-1 / at 380/415 V 8 000 electrical endurance (operating cycles) / at AC-1 / at 680 V 8 000 electrical endurance (operating cycles) / at AC-1 / at 680 V 8 000 electrical endurance (operating cycles) / at AC-1 / at 680 V 8 000 ground-fault monitoring version without product feature / for neutral conductors / upgradable/refortitable No / shot-cital endurance (operating c	product designation / according to UL file	SEAM
Conditioning, and Refrigeration circuit breaker (HACR Type) Yes design of the load switch / according to UL 489 / High-Intensity- Yes design of the load switch / according to UL 489 / Switching Duty No circuit breaker (HID Type) No design of the overcurrent release TM210 protection function of the overcurrent release Li number of poles 3 General technical data 690 V power loss [W] / naximum 11.4 W 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 cycles) / typical 20 000 electrical endurance (operating cycles) / at AC-1 / at 380/415 W 8 000 electrical endurance (operating cycles) / at AC-1 / at 380/415 W 8 000 electrical endurance (operating cycles) / at AC-1 / at 380/415 W 8 000 electrical endurance (operating cycles) / at AC / at 380/415 W 8 000 electrical endurance (operating cycles) / at AC / at 380/415 W 8 000 electrical endurance (operating cycles) / at AC / at 380/415 W 8 000 ground-fault monitoring version without product feature / for neutral conductors / upgradable/retrofittable No other measurement function <td>design of the product</td> <td>System protection</td>	design of the product	System protection
Discharge circuit breaker (HID Type) No design of the load switch / according to UL 489 / Switching Duty No circuit breaker (SWD Type) TM210 protection function of the overcurrent release Ll number of poles 3 Ceneral tochnical data 690 V power loss [W] / maximum 11.4 W power loss [W] / for rated value of the current / at AC / in hot 3.8 W operating soltage / at AC / rated value of the current / at AC / in hot 3.8 W operating soltage / at AC / rated value of the current / at AC / in hot 3.8 W operating solta / according 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 AC0 V 8 000 electrical endurance (operating cycles) / at AEO V 8 000 electrical endurance (operating cycles) / at AEO V 4 000 ground-fault monitoring version without product fueature / for neutral conductors / upgradable/retrofittable No other measument function No • other measument function 0.88 kg Current 35 A • at 45 °C 34 A <	o o o ,	Yes
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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 [M] / maximum 11.4 W power loss [M] / 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) / 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 600 V 4 000 electrical endurance (operating cycles) / at AC-1 / 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 0.88 kg Current 0 eat 40 °C 35 A eat 45 °C 34 A eat 55 °C 32 A		No
number of poles 3 General technical data 690 V power loss [W] / maximum 11.4 W power loss [W] / for rated value of the current / at AC / in hot operating state / per pole 3.8 W mechanical service life (operating cycles) / the current / at AC / in hot 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 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 • other measurement function No • other measurement function No • other measurement function S A • at 40 °C 35 A • at 45 °C 34 A • at 55 °C 32 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 3.8 W operating state / per pole 3.8 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 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 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 0.88 kg Current marking / according to UL 489 / 100%-rated breaker No operational current 35 A • at 40 °C 35 A • at 55 °C 32 A • at 65 °	protection function of the overcurrent release	LI
operating voltage / at AC / rated value 690 V power loss [W] / maximum 11.4 W power loss [W] / for rated value of the current / at AC / in hot operating state / per pole 3.8 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 AC0 V 8 000 electrical endurance (operating cycles) / at AC0 V 4 000 product feature / for neutral conductors / upgradable/retrofittable No / stort-circuit and overload proof No ground-fault monitoring version without product function No • communication function No • other measurement function No Net Weight 0.88 kg Current at 40 °C 35 A • at 40 °C 35 A 34 A • at 50 °C 33 A 33 A • at 60 °C 33 A 33 A 33 A	number of poles	3
intermediate intermediate power loss [W] / for rated value of the current / at AC / in hot operating state / per pole 3.8 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 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 0.88 kg Current at 40 °C • at 40 °C 35 A • at 45 °C 34 A • at 55 °C 33 A • at 60 °C 33 A • at 65 °C 32 A	General technical data	
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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 690 V 4 000 electrical endurance (operating cycles) / at 480 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 / 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 - • at 40 °C 35 A • at 40 °C 34 A • at 50 °C 33 A • at 60 °C 33 A • at 60 °C 32 A	power loss [W] / maximum	11.4 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 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 No / short-circuit and overload proof without ground-fault monitoring version without product function No • other measurement function No • other measurement function No next 40 °C 35 A • at 40 °C 35 A • at 40 °C 35 A • at 45 °C 34 A • at 50 °C 33 A • at 60 °C 33 A • at 60 °C 32 A		3.8 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 No / short-circuit and overload proof without ground-fault monitoring version without product function No • communication function No • other measurement function No Net Weight 0.88 kg Current No • at 40 °C 35 A • at 45 °C 34 A • at 55 °C 33 A • at 65 °C 32 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 without ground-fault monitoring version without product function No • communication function No • other measurement function No Net Weight 0.88 kg Current Mo marking / according to UL 489 / 100%-rated breaker No operational current 35 A • at 40 °C 35 A • at 45 °C 34 A • at 55 °C 33 A • at 60 °C 35 A • at 65 °C 32 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 0.88 kg Current Image: 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 55 °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 No / short-circuit and overload proof without ground-fault monitoring version without product function No • communication function No • other measurement function No Net Weight 0.88 kg Current marking / according to UL 489 / 100%-rated breaker No 35 A • at 40 °C 35 A • at 45 °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 No • communication function No • other measurement function No Net Weight 0.88 kg Current marking / according to UL 489 / 100%-rated breaker No No operational current 35 A • at 40 °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 600 V	4 000
product function No • communication function No • other measurement function No Net Weight 0.88 kg Current Current marking / according to UL 489 / 100%-rated breaker No operational current No • at 40 °C 35 A • at 50 °C 34 A • at 55 °C 33 A • at 60 °C 33 A • at 65 °C 32 A		No
• communication functionNo• other measurement functionNoNet Weight0.88 kgCurrentCurrentmarking / according to UL 489 / 100%-rated breakerNooperational current35 A• at 40 °C35 A• at 55 °C34 A• at 55 °C33 A• at 60 °C33 A• at 65 °C32 A	ground-fault monitoring version	without
• other measurement functionNoNet Weight0.88 kgCurrentmarking / according to UL 489 / 100%-rated breakerNooperational currentNo• at 40 °C35 A• at 45 °C34 A• at 55 °C34 A• at 55 °C33 A• at 60 °C33 A• at 65 °C32 A	product function	
Net Weight0.88 kgCurrentmarking / according to UL 489 / 100%-rated breakerNooperational currentNo• at 40 °C35 A• at 45 °C34 A• at 50 °C34 A• at 55 °C33 A• at 60 °C33 A• at 65 °C32 A	communication function	No
Current 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	other measurement function	No
marking / according to UL 489 / 100%-rated breakerNooperational current35 A• at 40 °C35 A• at 45 °C34 A• at 50 °C34 A• at 55 °C33 A• at 60 °C33 A• at 65 °C32 A	Net Weight	0.88 kg
operational current• at 40 °C35 A• at 45 °C34 A• at 50 °C34 A• at 55 °C33 A• at 60 °C33 A• at 65 °C32 A	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	marking / according to UL 489 / 100%-rated breaker	No
• 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	operational current	
• at 50 °C 34 A • at 55 °C 33 A • at 60 °C 33 A • at 65 °C 32 A	• 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 • 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 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	35 A			
maximum adjustable response value delay time (tr) / for L-tripping / with I2t abarateristic	35 A			
characteristic	1.			
• minimum	1s			
maximum adjustable response value setting current (li) / for I-tripping	1s			
e minimum	350 A			
minimum maximum	350 A 350 A			
adjustable setting current (InN) / for N-tripping	550 A			
minimum	0 A			
• maximum	0 A			
adjustable current response value current / of the current-	35 35 A			
dependent overload release				
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]	3 in			
width	76.2 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	Yes			
Environmental conditions				
protection class IP / on the front	IP40			
ambient temperature	25.00			
during operation / minimum	-25 °C			
during operation / maximum	70 °C -40 °C			
 during storage / minimum during storage / maximum 	-40 °C			
• during storage / maximum Certificates				
certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	Yes			
General Product Approval	EMC			
	Miscellaneous ERIC			

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Declaration of Conform	ity	Test Certificates	Marine / Shipping		
UK CA	CE EG-Konf.	<u>Type Test Certific-</u> ates/Test Report	ABS	BUREAU VERITAS	
Marine / Shipping		other			
Llovds Register	KMRS	<u>Miscellaneous</u>	<u>Confirmation</u>	<u>Miscellaneous</u>	

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)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA5135-4ED31-1AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA5135-4ED31-1AA0

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

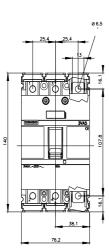
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5135-4ED31-1AA0

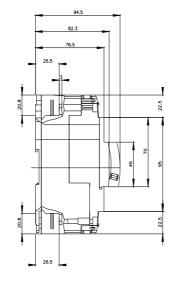
CAx-Online-Generator

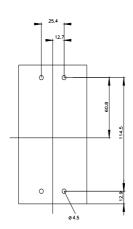
http://www.siemens.com/cax

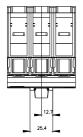
Tender specifications

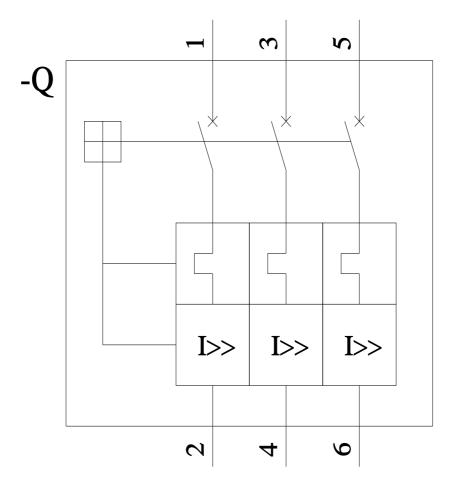
http://www.siemens.com/specifications

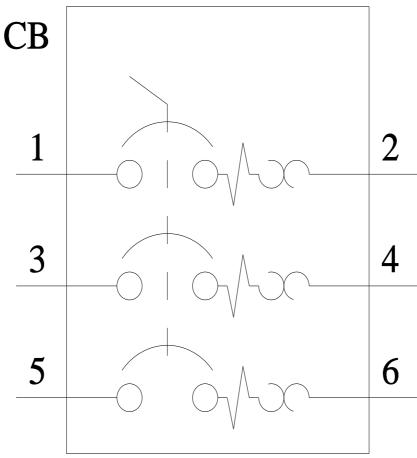












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