# SIEMENS

### Data sheet

### 3VA5215-5ED31-1AA0



circuit breaker 3VA5 UL frame 250 breaking capacity class M 35kA @ 480 V 3-pole, line protection TM210, FTFM, In=150A overload protection Ir=150A fixed short-circuit protection Ii=10 x In UL 489 SB (naval), 50° C without connection

product branch name         SENTRON           product designation / according to UL file         MFAM           design of the foad switch / according to UL 489 / Heating, Ar         System protection           Conditioning, and Refrigeration circuit breaker (HACR Type)         Yes           design of the load switch / according to UL 489 / High-Intensity-         No           Discharge circuit breaker (HACR Type)         No           design of the load switch / according to UL 489 / High-Intensity-         No           Discharge circuit breaker (HACR Type)         No           design of the overcurrent release         TM210           protection function of the overcurrent release         L1           number of poles         3           Ceneral technical data         680 V           opware loss [W] / for rated value of the current / at AC / in hot         9.7 W           opware loss [W] / for rated value of the current / at AC / in hot         9.7 W           electrical endurance (operating cycles) / typical         20 000           electrical endurance (operating cycles) / at AC-1 / at 380 V         4 000           electrical endurance (operating cycles) / at AC-1 / at 380 V         4 000           electrical endurance (operating cycles) / at ACD / at 880 V         4 000           roduct factive for overclon curclors / upgradable/retoritable         No	Model	
product designation / according to UL file         MFAM           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           Discharge circuit breaker (INT Type)         No           design of the load switch / according to UL 489 / High-Intensity:         No           Discharge circuit breaker (INT Type)         No           design of the load switch / according to UL 489 / Switching Duty circuit breaker (INT Type)         No           design of the overcurrent release         TM210           protection function of the overcurrent release         Ll           number of poles         3           Ceneral technical data         900 V           operating voltage / at AC / rated value         690 V           power loss [W] / for rated value of the current / at AC / in hot         9.7 W           operating state / per pole         20 000           electrical endurance (operating cycles) / typical         20 000           electrical endurance (operating cycles) / typical         20 000           electrical endurance (operating cycles) / typical         8 000           electrical endurance (operating cycles) / typical         8 000           ground-fault monitoring version	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 (HACR Type)     No       design of the load switch / according to UL 489 / Switching Duty circuit breaker (GWD Type)     No       design of the load switch / according to UL 489 / Switching Duty circuit breaker (GWD Type)     No       design of the overcurrent release     TM210       protection function of the overcurrent release     Ll       number of poles     3       Control to function of the overcurrent release     U       operating voltage / at AC / rated value     690 V       power toss [W] / maximum     30 W       power toss [W] / for rated value of the current / at AC / in hot operating state / per pole     9.7 W       electrical endurance (operating cycles) / typical     20 000       electrical endurance (operating cycles) / typical     8000       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     8 000       electrical endurance (operating cycles) / at AC-1 / at 380/415 V     8 000       ground-fault monitorine cycles / at AC-1 / at 680 V     4 000       product feature /	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 (HID 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     L1       number of poles     3       contral tochnical data     690 V       operating voltage / at AC / rated value     690 V       power loss [W] / for arited value of the current / at AC / in hot operating state / per pole     9.7 W       electrical endurance (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 480 V     8 000       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       other measurement function     No       other measuremen	product designation / according to UL file	MFAM
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         operating voltage / at AC / rated value       690 V         power loss [W] / maximum       30 W         power loss [W] / for rated value of the current / at AC / in hot operating state / per pole       9000         electrical endurance (operating cycles) / typical       8000         electrical endurance (operating cycles) / at AC - / 1 at 380/415 V       8000         electrical endurance (operating cycles) / at AC - / 1 at 690 V       4000         electrical endurance (operating cycles) / at AC - / 1 at 690 V       4000         product feature / for neutral conductors / upgradable/retrofittable       No         rotardia endurance (operating cycles) / at AGO V       4000         electrical endurance (operating cycles) / at AGO V       4000         ground-fault monitoring version       without         product finature / for neutral conductors / upgradable/retrofittable       No         othe	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         General technical data       690 V         power loss [W] / for rated value of the current / at AC / in hot oper loss [W] / for rated value of the current / at AC / in hot operating state / per pole       9.7 W         mechanical 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 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 480 V       8 000         ground-fault monitoring version       without         product fueature / for neutral conductors / upgradable/retrofittable       No         / stature       No         • other measument function       No         • other measument function       No         • at 40 °C       150 A		Yes
circuit breaker (SWD Type)       TM210         design of the overcurrent release       Ll         number of poles       3         coperating voltage / at AC / rated value       690 V         power loss [W] / maximum       30 W         power loss [W] / maximum       30 W         pertection function of the current / at AC / in hot       9.7 W         operating state / per pole       mechanical service life (operating cycles) / typical       20 000         electrical endurance (operating cycles) / typical       20 000       electrical endurance (operating cycles) / typical         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 V       8 000       electrical endurance (operating cycles) / ta 480 V       8 000         electrical endurance (operating cycles) / at AC0 V       4 000       9 000       9 000         product feature / for neutral conductors / upgradable/retrofittable       No       9 000         / short-circuit and overtoad proof       ground-fault monitoring version       without         product function       No       00       00         • other measurement function       No       00       00         outeretion all ourtent       2 kg		No
protection function of the overcurrent release       Ll         number of poles       3         General technical data		No
number of poles       3         General tochnical data       690 V         power loss [W] / maximum       30 W         power loss [W] / for rated value of the current / at AC / in hot operating state / per pole       9.7 W         mechanical service life (operating cycles) / tt AC / in hot operating state / per pole       9.7 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       4 000         electrical endurance (operating cycles) / at AC-1 / at 680 V       4 000         electrical endurance (operating cycles) / at AC-1 / at 680 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         • at 40 °C       150 A         • at 45 °C       146 A         • at 45 °C       146 A         • at 55 °C       137 A         • at 60 °C       132 A         • at 65 °C       128 A	design of the overcurrent release	TM210
General technical data       operating voltage / at AC / rated value     690 V       power loss [W] / maximum     30 W       power loss [W] / for rated value of the current / at AC / in hot operating state / per pole     9.7 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     2 kg       Current     Tot A       • at 40 °C     150 A       • at 45 °C     146 A       • at 55 °C     137 A       • at 60 °C     132 A       • at 65 °C     128 A	protection function of the overcurrent release	LI
operating voltage / at AC / rated value       690 V         power loss [W] / maximum       30 W         power loss [W] / for rated value of the current / at AC / in hot operating state / per pole       9.7 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 OV       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         operational current       150 A         • at 40 °C       150 A         • at 40 °C       146 A         • at 55 °C       137 A         • at 60 °C       132 A         • at 65 °C       128 A	number of poles	3
power loss [M] / maximum     30 W       power loss [M] / for rated value of the current / at AC / in hot operating state / per pole     9.7 W       mechanical service life (operating cycles) / typical     20 000       electrical endurance (operating cycles) / t 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 800 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       product function     without       • other measurement function     No       • other measurement function     No       Net Weight     2 kg       Current     If 0 A       • at 40 °C     150 A       • at 40 °C     144 A       • at 40 °C     137 A       • at 55 °C     137 A       • at 60 °C     132 A       • at 60 °C     132 A       • at 65 °C     128 A	General technical data	
power loss [W] / for rated value of the current / at AC / in hot       9.7 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 AC 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         operational current       150 A         • at 40 °C       150 A         • at 45 °C       146 A         • at 45 °C       137 A         • at 60 °C       132 A         • at 65 °C       128 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 600 V8 000electrical endurance (operating cycles) / at 800 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 Weight2 kgCurrentImarking / according to UL 489 / 100%-rated breaker• at 40 °C150 A• at 45 °C146 A• at 55 °C137 A• at 60 °C132 A• at 65 °C128 A	power loss [W] / maximum	30 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 AB V       8 000         electrical endurance (operating cycles) / at AB 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       2 kg         Current       Imarking / according to UL 489 / 100%-rated breaker       No         operational current       Isto A       Isto A         • at 40 °C       150 A       Isto A         • at 50 °C       141 A       Isto A         • at 55 °C       137 A       Isto A         • at 65 °C       128 A       Isto A		9.7 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       2 kg         Current       marking / according to UL 489 / 100%-rated breaker       No         operational current       150 A         • at 40 °C       150 A         • at 55 °C       137 A         • at 60 °C       132 A         • at 65 °C       128 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 Weight2 kgCurrentItem Vmarking / according to UL 489 / 100%-rated breakerNo• at 40 °C150 A• at 45 °C146 A• at 55 °C137 A• at 65 °C128 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       2 kg         Current       No         marking / according to UL 489 / 100%-rated breaker       No         operational current       150 A         • at 40 °C       146 A         • at 50 °C       137 A         • at 60 °C       132 A         • at 65 °C       128 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       2 kg         Current       marking / according to UL 489 / 100%-rated breaker       No         operational current       150 A         • at 40 °C       150 A         • at 45 °C       146 A         • at 55 °C       137 A         • at 60 °C       132 A         • at 65 °C       128 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       2 kg         Current       No         marking / according to UL 489 / 100%-rated breaker       No         operational current       150 A         • at 40 °C       146 A         • at 50 °C       141 A         • at 55 °C       137 A         • at 60 °C       132 A         • at 65 °C       128 A	electrical endurance (operating cycles) / at 600 V	4 000
product functionNo• communication functionNo• other measurement functionNoNet Weight2 kgCurrentCurrentmarking / according to UL 489 / 100%-rated breakerNooperational current150 A• at 40 °C150 A• at 45 °C146 A• at 55 °C137 A• at 60 °C132 A• at 65 °C128 A		No
• communication functionNo• other measurement functionNoNet Weight2 kgCurrentmarking / according to UL 489 / 100%-rated breakerNooperational currentNo• at 40 °C150 A• at 45 °C146 A• at 55 °C147 A• at 60 °C137 A• at 60 °C132 A• at 65 °C128 A	ground-fault monitoring version	without
• other measurement functionNoNet Weight2 kgCurrentmarking / according to UL 489 / 100%-rated breakerNooperational currentNo• at 40 °C150 A• at 45 °C146 A• at 55 °C141 A• at 55 °C137 A• at 60 °C132 A• at 65 °C128 A	product function	
Net Weight2 kgCurrentmarking / according to UL 489 / 100%-rated breakerNooperational currentNo• at 40 °C150 A• at 45 °C146 A• at 55 °C141 A• at 55 °C137 A• at 60 °C132 A• at 65 °C128 A	<ul> <li>communication function</li> </ul>	No
Current       No         marking / according to UL 489 / 100%-rated breaker       No         operational current       150 A         • at 40 °C       150 A         • at 45 °C       146 A         • at 50 °C       141 A         • at 55 °C       137 A         • at 60 °C       132 A         • at 65 °C       128 A	<ul> <li>other measurement function</li> </ul>	No
marking / according to UL 489 / 100%-rated breakerNooperational current	Net Weight	2 kg
operational current         150 A           • at 40 °C         150 A           • at 45 °C         146 A           • at 50 °C         141 A           • at 55 °C         137 A           • at 60 °C         132 A           • at 65 °C         128 A	Current	
• at 40 °C     150 A       • at 45 °C     146 A       • at 50 °C     141 A       • at 55 °C     137 A       • at 60 °C     132 A       • at 65 °C     128 A	marking / according to UL 489 / 100%-rated breaker	No
• at 45 °C       146 A         • at 50 °C       141 A         • at 55 °C       137 A         • at 60 °C       132 A         • at 65 °C       128 A	operational current	
• at 50 °C       141 A         • at 55 °C       137 A         • at 60 °C       132 A         • at 65 °C       128 A	• at 40 °C	150 A
• at 55 °C 137 A • at 60 °C 132 A • at 65 °C 128 A	● at 45 °C	146 A
• at 60 °C 132 A • at 65 °C 128 A	• at 50 °C	141 A
• at 65 °C 128 A	• at 55 °C	137 A
	• at 60 °C	132 A
• at 70 °C 123 A	● at 65 °C	128 A
	● at 70 °C	123 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 240 V	85 kA
• at 480 V	35 kA
● at 600 V	18 kA
Adjustable parameters	
adjustable response value setting current (Ir) / of the L-trip / with I2t characteristic	
• minimum	150 A
• maximum	150 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	1 500 A
• maximum	1 500 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	150 150 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]	7.28 in
height	185 mm
width [in]	4.13 in
width	105 mm
depth [in]	3.27 in
depth	83 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	
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	

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### 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=3VA5215-5ED31-1AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA5215-5ED31-1AA0

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

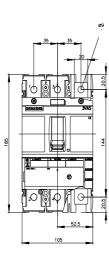
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA5215-5ED31-1AA0

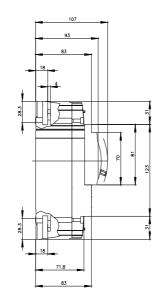
CAx-Online-Generator

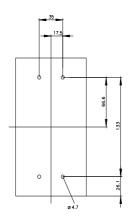
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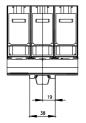
Tender specifications

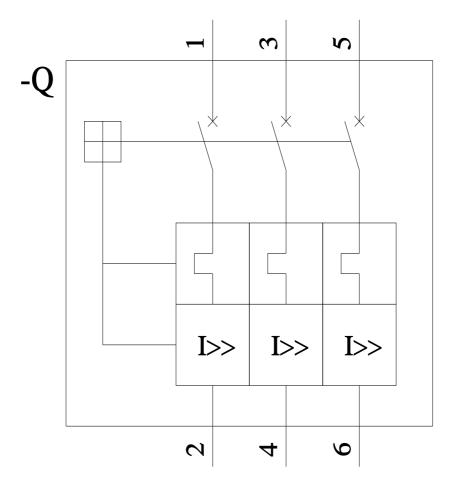
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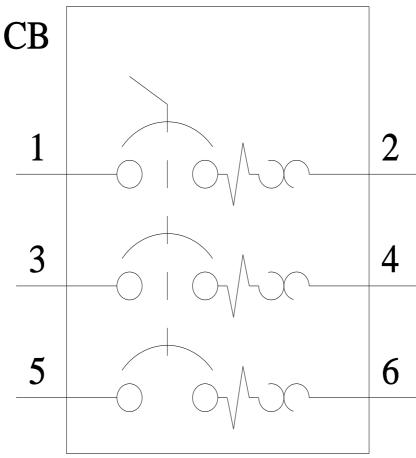












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Authorized Distributor

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