3VA5270-7EC31-1AA0

## **Data sheet**



circuit breaker 3VA5 UL frame 250 breaking capacity class C 100kA @ 480V 3-pole, line protection TM230, FTAM, In=70A overload protection Ir=70A fixed short-circuit protection Ii=5...10 x In UL 489 SB (naval), 50 °C without connection

product designation / according to UL file CFAM Molded-case circuit breaker product designation / according to UL file CFAM System protection design of the product designation / 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 (HOR Type) design of the load switch / according to UL 489 / High-Intensity-Discharge circuit breaker (HOR Type) design of the load switch / according to UL 489 / Switching Duty cruct breaker (SWD Type) design of the boad switch / according to UL 489 / Switching Duty cruct breaker (SWD Type) design of the overcurrent release TM230 protection function of the overcurrent release LL unurber of poles 3  Ceneral technical data operating voltage / at AC / rated value 690 V power loss [W] / maximum 17 W power loss [W] / for rated value of the current / at AC / in hot operating stole / per pole mechanical service life (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 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 electrical endurance (operating cycles) / at AC -1 / at 680 V 4 000 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 9 8 000 electrical endurance (operating cycles) / at AC -1 / at 680 V 9 8 000 electrical endurance (operating cycles) / at AC -1 / at 580 V 9 8 000 electrical endurance (operating cycles) / at AC -1 / at 580 V 9 8 000 electrical endurance (operating cycles) / at AC -1 / at 580 V 9 8 000 electrical endurance (operating cycles) / at 500 V 9 9 000 electrical endurance (operating cycles) / at 500 V 9 000 electrical endurance (operating cycles) / at 500 V 9 000 electrical	Model	
product designation / according to UL file	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 (HD Type) design of the load switch / according to UL 489 / Switching Duty circuit breaker (ISWD Type) design of the overcurrent release protection function of the overcurrent overcurrent overcurrent overcurrent overcurrent overcurrent function overcurrent overc	product designation	Molded-case circuit breaker
design of the load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circult 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 overcurrent release TM230 protection function of the overcurrent release LI number of poles 3 Ceneral technical data operating voltage / at AC / rated value 690 V power loss [W] / maximum 17 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 380415 V electrical endurance (operating cycles) / at 480 V 4000 electrical endurance (operating cycles) / at 480 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 electrical endurance (operating cycles) / at 480 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 electrical endurance (operating cycles) / at 480 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 electrical endurance (operating cycles) / at 480 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 electrical endurance (operating cycles) / at 480 V 8000 electrical endurance (operating cycles) / at 480 V 8000 electrical endurance (operating cycles) / at 480 V 8000 elec	product designation / according to UL file	CFAM
Conditioning, and Refrigeration circuit breaker (HACR Type) design of the load switch / according to UL 489 / High-Intensity- Discharage circuit breaker (HND Type)  design of the load switch / according to UL 489 / High-Intensity- protection function of the overcurrent release LI protection function of the overcurrent release protection function of the overcurrent release LI protection function of the overcurrent release protection function of the overcurrent release LI protection function function protect feather / for release protection function of the overcurrent release LI protection function of the overcurrent	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 TM230 protection function of the overcurrent release number of poles 3  General 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 product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof ground-fault monitoring version without product function  • other measurement function No Net Weight  Current  marking / according to UL 489 / 100%-rated breaker operational current • at 40 °C • at 50 °C • at 50 °C • at 60 °		Yes
design of the overcurrent release protection function of the overcurrent release LI number of poles 3  General technical data  operating voltage / at AC / rated value 690 V power loss [W] / maximum 17 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 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 / short-circuit and overload proof ground-fault monitoring version without product function No other measurement function No other measurement function No other measurement function No operational current 2 kg  Current at 40 °C 70 A 14 55 °C 70 A 14 55 °C 70 A 14 55 °C 66.5 A 14 50 °C 66.5 A 14 56 °C 64.4 A		No
Description function of the overcurrent release   LI		No
number of poles   3	design of the overcurrent release	TM230
General technical data  operating voltage / at AC / rated value 690 V  power loss [W] / maximum 17 W  power loss [W] / maximum 5.7 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 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  ground-fault monitoring version without  product function No  • other measurement function No  Net Weight 2 kg  Current  marking / according to UL 489 / 100%-rated breaker No  operational current  • at 40 °C 70 A  • at 55 °C 70 A  • at 55 °C 66.5 A  • at 65 °C 64.4 A	protection function of the overcurrent release	Ш
operating voltage / at AC / rated value 690 V power loss [W] / maximum 17 W power loss [W] / for rated value of the current / at AC / in hot operating state / per pole 70 power loss [W] / for rated value of the current / at AC / in hot operating state / per pole 70 per	number of poles	3
Dower loss [W] / maximum	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 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 ground-fault monitoring version without product function  • communication function No  • other measurement function No  Net Weight 2 kg  Current  marking / according to UL 489 / 100%-rated breaker No operational current  • at 40 °C 70 A • at 45 °C 70 A • at 55 °C 67.9 A • at 60 °C 66.5 A • at 65 °C 64.4 A	operating voltage / at AC / rated value	690 V
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 480 V 8 000 electrical endurance (operating cycles) / at 690 V 4 000 product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof ground-fault monitoring version without product function No  • other measurement function No Net Weight 2 kg  Current marking / according to UL 489 / 100%-rated breaker No operational current • at 40 °C 70 A • at 50 °C 70 A • at 55 °C 67.9 A • at 60 °C • at 65 °C 66.5 A • at 65 °C 64.4 A	power loss [W] / maximum	17 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 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 ground-fault monitoring version without product function		5.7 W
electrical endurance (operating cycles) / at AC-1 / at 690 V	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  communication function  other measurement function  No  No  Net Weight  Current  marking / according to UL 489 / 100%-rated breaker  operational current  at 40 °C  at 45 °C  at 45 °C  at 55 °C  at 60 °C  at 66 °C  at 66 °C  at 66 °C  at 65 °C  64.4 A	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  other measurement function  No  Net Weight  Current  marking / according to UL 489 / 100%-rated breaker  operational current  other 40 °C  other type of	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 2 kg  Current marking / according to UL 489 / 100%-rated breaker No operational current • at 40 °C 70 A • at 45 °C 70 A • at 50 °C 70 A • at 55 °C 67.9 A • at 60 °C 66.5 A • at 65 °C 64.4 A	electrical endurance (operating cycles) / at 480 V	8 000
/ short-circuit and overload proof ground-fault monitoring version without product function  • communication function No  • other measurement function No  Net Weight 2 kg  Current  marking / according to UL 489 / 100%-rated breaker No operational current  • at 40 °C 70 A  • at 45 °C 70 A  • at 55 °C 70 A  • at 65 °C 66.5 A  • at 65 °C 64.4 A	electrical endurance (operating cycles) / at 600 V	4 000
product function		No
<ul> <li>◆ communication function</li> <li>No</li> <li>Nother measurement function</li> <li>No</li> <li>Net Weight</li> <li>2 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>70 A</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>64.4 A</li> </ul>	ground-fault monitoring version	without
● other measurement function  No  Net Weight  2 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  ● 66.5 A  ● at 65 °C  ● 64.4 A	product function	
Net Weight         2 kg           Current           marking / according to UL 489 / 100%-rated breaker         No           operational current         70 A           • at 40 °C         70 A           • at 50 °C         70 A           • at 55 °C         67.9 A           • at 60 °C         66.5 A           • at 65 °C         64.4 A	communication function	No
Current           marking / according to UL 489 / 100%-rated breaker         No           operational current         70 A           • at 40 °C         70 A           • at 50 °C         70 A           • at 55 °C         67.9 A           • at 60 °C         66.5 A           • at 65 °C         64.4 A	<ul> <li>other measurement function</li> </ul>	No
marking / according to UL 489 / 100%-rated breaker       No         operational current       70 A         • at 40 °C       70 A         • at 50 °C       70 A         • at 55 °C       67.9 A         • at 60 °C       66.5 A         • at 65 °C       64.4 A	Net Weight	2 kg
operational current  • at 40 °C  • at 45 °C  • at 50 °C  • at 55 °C  • at 60 °C  • at 65 °C  • at 65 °C  • 64.4 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>66.5 A</li> <li>at 65 °C</li> <li>64.4 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>66.5 A</li> <li>at 65 °C</li> <li>64.4 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>66.5 A</li> <li>64.4 A</li> </ul>	• at 40 °C	70 A
• at 55 °C 67.9 A • at 60 °C 66.5 A • at 65 °C 64.4 A	• at 45 °C	70 A
• at 60 °C     • at 65 °C     • 64.4 A	• at 50 °C	70 A
• at 65 °C 64.4 A	● at 55 °C	67.9 A
	• at 60 °C	66.5 A
• at 70 °C 61.6 A	• at 65 °C	64.4 A
	● at 70 °C	61.6 A

switching capacity class of the circuit breaker	С
design of short-circuit protection	For switching power values in DC networks, see the 3VA molded case circui breaker device manual; link to be found under Service & Support in the last chapter
witching capacity according to UL 489	
current breaking capacity	
• at 240 V	200 kA
• at 480 V	100 kA
• at 600 V	35 kA
djustable parameters	
adjustable response value setting current (Ir) / of the L-trip / with l2t characteristic	
• minimum	70 A
maximum	70 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	050 4
• minimum	350 A
maximum  adjustable patting current (InN) / for N tripping	700 A
adjustable setting current (InN) / for N-tripping	0.0
minimum     maximum	0 A 0 A
adjustable current response value current / of the current-dependent overload release	70 70 A
product function / grounding protection	No
lechanical 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
onnections	
arrangement of electrical connectors / for main current circuit	Without connection
type of electrical connection / for main current circuit	Without
uxiliary circuit	
number of CO contacts / for auxiliary contacts	0
ccessories	
product extension / optional / motor drive	Yes
nvironmental conditions	ID 10
protection class IP / on the front	IP40
ambient temperature	05.00
during operation / minimum	-25 °C
during operation / maximum     during storage / minimum	70 °C
during storage / minimum	-40 °C
during storage / maximum     artificators	80 °C
ertificates  certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	Yes
General Product Approval	

**Declaration of Conformity** 

Marine / Shipping

other









**Miscellaneous** 

Confirmation

other

**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)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA5270-7EC31-1AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA5270-7EC31-1AA0

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

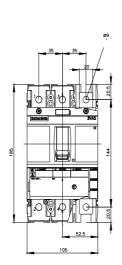
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA5270-7EC31-1AA0

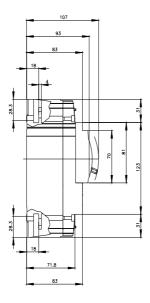
CAx-Online-Generator

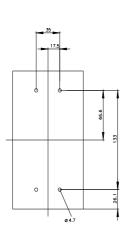
http://www.siemens.com/cax

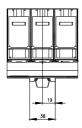
**Tender specifications** 

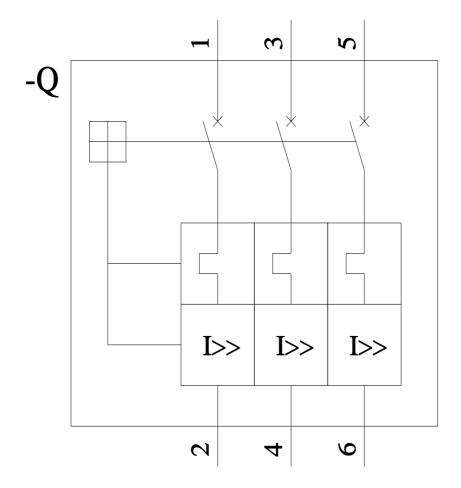
http://www.siemens.com/specifications

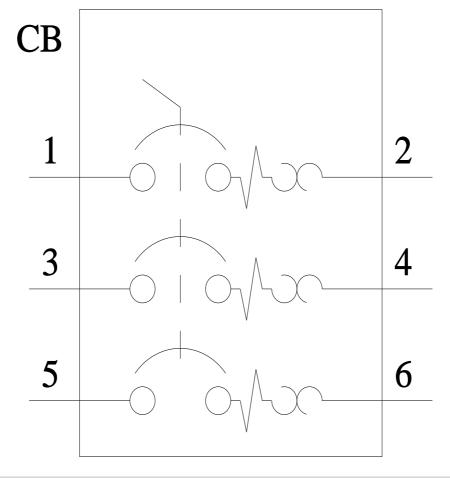












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**Authorized Distributor** 

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