3VA5290-7EC36-1AA0

Data sheet



circuit breaker 3VA5 UL frame 250 breaking capacity class C 100kA @ 480 V 3-pole, line protection TM230, FTAM, ln=90A overload protection lr=90A fixed short-circuit protection li=5...10 x ln UL489 SB (naval), 50 deg. cel. cable connection on both sides

product brand name product designation / according to UL file 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 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type) design of the load switch / according to UL 489 / High-intensity- Discharge circuit breaker (HIO 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 towercurrent release TM230 protection function of the overcurrent release LI number of poles 3 Ceneral technical data operating voltage / at AC / rated value power loss [W] / maximum 25 W power loss [W] / for rated value of the current / at AC / in hot operating voltage / at AC / rated value / according to UL 489 / the total portang state / per pole mechanical service life (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 AC-1 / at 690 V electrical endurance (operating cycles) / at AC-1 / at 690 V electrical endurance (operating cycles) / at AC-1 / at 690 V product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof ground-flaut monotroning version product function • communication function • communication function • other measurement function No No at 40 °C • at 45 °C • at 65 °C 82.8 A 55.7 82.8 A 79.2 A	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 (SWD 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	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 ILI number of poles 3 Ceneral technical data operating voltage / at AC / rated value power loss [W] / maximum 25 W power loss [W] / maximum 25 W 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 680 V electrical endurance (operating cycles) / at 480 V electrical endurance (ope	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- Discharge circuit breaker (FMD 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 Coneral technical data operating voltage / at AC / rated value operating voltage / at AC / rated value operating voltage / at AC / rated value operating state / per pole mechanical service life (operating cycles) / typical electrical endurance (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 /	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 protection function of the overcurrent release number of poles 3 General technical data operating voltage / at AC / rated value power loss [W] / maximum 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 AC-0 V electrical endurance (operating cycles) / at AC-0 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 • 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 °C • at 6		Yes
design of the overcurrent release 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 25 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 No Wet Weight 2.308 kg Current marking / according to UL 489 / 100%-rated breaker No operational current • at 40 °C 90 A • at 55 °C 90 A • at 55 °C 87.3 A • at 60 °C 85.5 A 87.3 A • at 60 °C 85.5 A 82.8 A		No
protection function of the overcurrent release		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 25 W power loss [W] / maximum 8.2 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 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 Note Weight 2.308 kg Current marking / according to UL 489 / 100%-rated breaker No operational current • at 40 °C • at 55 °C • at 55 °C • at 60 °C	protection function of the overcurrent release	LI
operating voltage / at AC / rated value 690 V power loss [W] / maximum 25 W power loss [W] / for rated value of the current / at AC / in hot operating state / per pole electrical 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	number of poles	3
power 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 No • other measurement function No Net Weight 2.308 kg Current marking / according to UL 489 / 100%-rated breaker No operational current • at 40 °C 90 A • at 45 °C 90 A • at 55 °C 87.3 A • at 60 °C 85.5 A • at 65 °C 82.8 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 • order measurement function No Net Weight 2.308 kg Current marking / according to UL 489 / 100%-rated breaker No operational current • at 40 °C 90 A • at 50 °C 90 A • at 65 °C 87.3 A • at 60 °C 85.5 A • at 65 °C 82.8 A	power loss [W] / maximum	25 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		8.2 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 Net Weight Current marking / according to UL 489 / 100%-rated breaker operational current at 40 °C at 45 °C at 45 °C by A at 55 °C cat 66 °C at 65 °C 82.8 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 vithout 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 45 °C at 55 °C at 65 °C at 65 °C at 65 °C by 0 A et 65 °C 4000 No No No No No No No No No	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 2.308 kg Current marking / according to UL 489 / 100%-rated breaker No operational current • at 40 °C 90 A • at 45 °C 90 A • at 55 °C 90 A • at 65 °C 87.3 A • at 60 °C • at 65 °C 82.8 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		No
 ◆ communication function No Nother measurement function No Net Weight 2.308 kg Current marking / according to UL 489 / 100%-rated breaker No operational current • at 40 °C • at 45 °C • at 50 °C • at 50 °C • at 60 °C • at 60 °C • at 65 °C 82.8 A 	ground-fault monitoring version	without
● other measurement function No Net Weight 2.308 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 ● 85.5 A ● at 65 °C ■ 82.8 A	product function	
Net Weight 2.308 kg Current marking / according to UL 489 / 100%-rated breaker No operational current 0 90 A • at 40 °C 90 A • at 50 °C 90 A • at 55 °C 87.3 A • at 60 °C 85.5 A • at 65 °C 82.8 A	 communication function 	No
Current marking / according to UL 489 / 100%-rated breaker No operational current 90 A • at 40 °C 90 A • at 50 °C 90 A • at 55 °C 87.3 A • at 60 °C 85.5 A • at 65 °C 82.8 A	 other measurement function 	No
marking / according to UL 489 / 100%-rated breaker No operational current 90 A • at 40 °C 90 A • at 55 °C 90 A • at 55 °C 90 A • at 60 °C 87.3 A • at 65 °C 85.5 A • at 65 °C 82.8 A	Net Weight	2.308 kg
operational current • at 40 °C • at 45 °C • at 50 °C • at 55 °C • at 60 °C • at 65 °C • at 65 °C • at 65 °C	Current	
 at 40 °C at 45 °C at 50 °C at 55 °C at 60 °C at 65 °C 85.5 A at 65 °C 82.8 A 	marking / according to UL 489 / 100%-rated breaker	No
 at 45 °C at 50 °C at 55 °C at 60 °C at 65 °C 85.5 A at 65 °C 82.8 A 	operational current	
 at 50 °C at 55 °C at 60 °C at 65 °C 85.5 A 82.8 A 	• at 40 °C	90 A
• at 55 °C 87.3 A • at 60 °C 85.5 A • at 65 °C 82.8 A	• at 45 °C	90 A
• at 60 °C 85.5 A • at 65 °C 82.8 A	• at 50 °C	90 A
• at 65 °C 82.8 A	● at 55 °C	87.3 A
	• at 60 °C	85.5 A
• at 70 °C 79.2 A	• at 65 °C	82.8 A
	● at 70 °C	79.2 A

Switching capacity according to IEC 60947	
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 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	200 kA
• at 480 V	100 kA
• at 600 V	35 kA
Adjustable parameters	
adjustable response value setting current (Ir) / of the L-trip / with	
12t characteristic	
• minimum	90 A
maximum	90 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	450 A
• maximum	900 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	90 90 A
product function / grounding protection	No
Mechanical Design	
product component	
 undervoltage release 	No
 voltage trigger 	No
• trip indicator	No
height [in]	7.28 in
height	185 mm
width [in]	4.13 in
type of connectable conductor cross-sections / of the round conductor terminal / stranded	1 x (6 AWG - 350 kcmil)
width	105 mm
depth [in]	3.27 in
depth	83 mm
Connections	
arrangement of electrical connectors / for main current circuit	Front connection
type of electrical connection / for main current circuit	circular conductor terminal on both sides
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	



Confirmation





Miscellaneous



EMC Declaration of Conformity

Marine / Shipping

other









Confirmation

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=3VA5290-7EC36-1AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA5290-7EC36-1AA0

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

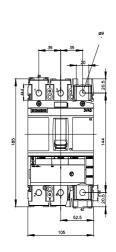
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5290-7EC36-1AA0

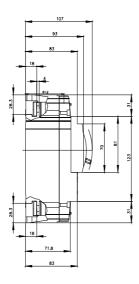
CAx-Online-Generator

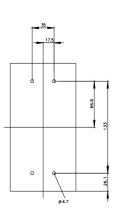
http://www.siemens.com/cax

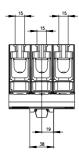
Tender specifications

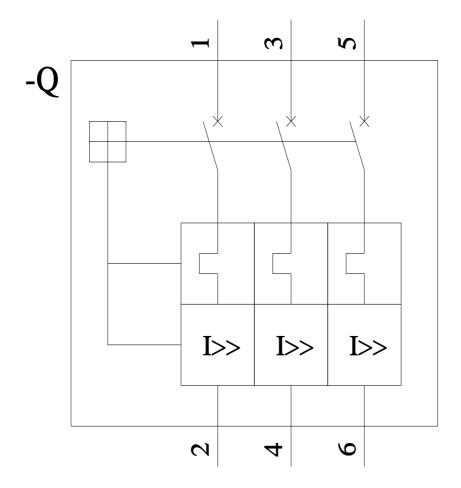
http://www.siemens.com/specifications

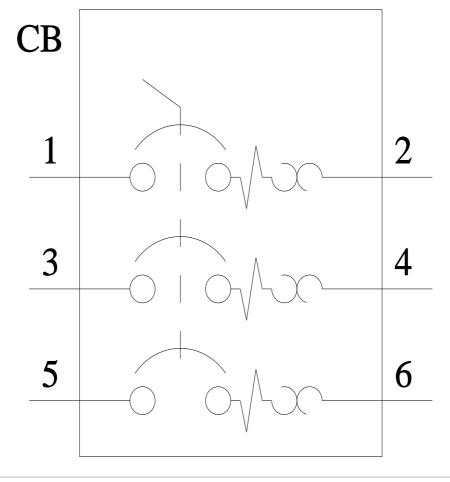












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Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Siemens:

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