SIEMENS

Data sheet

3VA5190-4EC36-1AA0

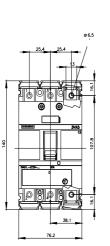


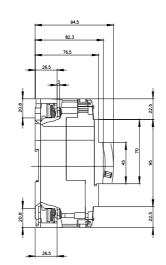
circuit breaker 3VA5 UL frame 125 breaking capacity class S 25kA @ 480 V 3-pole, line protection TM230, FTAM, In=90A overload protection Ir=90A fixed short-circuit protection Ii=5...10 x In UL489 SB (naval), 50 deg. cel. cable connection on both sides

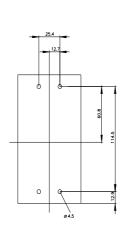
product brand name SENTRON product designation / according to UL file SEAM design of the bad switch / according to UL 489 / Heating, Ar System protection Conditioning, and Retrigeration circuit breaker (HACR Type) Yes design of the bad switch / according to UL 489 / High-Intensity- Discharge circuit breaker (HICR Type) No design of the bad switch / according to UL 489 / High-Intensity- Discharge circuit breaker (HOT Type) No design of the toad switch / according to UL 489 / Switching Duty circuit breaker (WID Type) No design of the corecurrent release Ll number of poles 3 General technical data 690 V operating voltage / at AC / rated value 690 V power loss (M) / for rated value of the current / at AC / in hot operating state / per pole 7.13 W mechanical service life (operating cycles) / typical 20 000 electrical endurance (operating cycles) / at AC-1 / at 809 V 8 000 electrical endurance (operating cycles) / at 800 V 8 000 electrical endurance (operating cycles) / at 800 V 8 000 electrical endurance (operating cycles) / at 800 V 8 000 ground-fault monitoring cycles) / at 800 V 8 000	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 Yes Discharge circuit breaker (HACR Type) No design of the load switch / according to UL 489 / High-Intensity No design of the load switch / according to UL 489 / High-Intensity No design of the load switch / according to UL 489 / Switching Duty No design of the overcurrent release TM230 protection function of the overcurrent release Ll number of poles 3 Ceneral technical data 690 V power loss [W] / for rated value 690 V power loss [W] / for rated value of the current / at AC / in tent 7.13 W operating voltage / at AC / rated value 690 V power loss [W] / for rated value of the current / at AC / in tent 7.13 W percenting state / per pole 7.13 W mechanical starvice life (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 Refrigeration iccuit breaker (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 / High-Intensity- Discharge circuit breaker (HACR Type) No design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type) No design of the overcurrent release TM230 protection function of the overcurrent release Ll number of poles 3 concral 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 operating state / per pole 7.13 W mechanical service life (operating cycles) / typical 20 000 electrical endurance (operating cycles) / ta AC-1 / at 690 V 4 000 electrical endurance (operating cycles) / at AC-1 / at 690 V 4 000 protuct feature / for neutral conductors / upgradable/retrofittable No / short-orcuit and overload prod without product feature / for neutral conductors / upgradable/retrofittable No / short-orcuit and overload prod without product function No • other measurement function No <td>product designation</td> <td>Molded-case circuit breaker</td>	product designation	Molded-case circuit breaker
design of the load switch / according to UL 489 / Heating, Air Conditioning, and Reingeration 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 / High-Intensity- Discharge circuit breaker (SWD Type) No design of the overcurrent release TM230 protection function of the overcurrent release Li number of poles 3 Goneral 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 operating state / per pole 7.13 W electrical endurance (operating cycles) / typical 20 000 electrical endurance (operating cycles) / at AO / 1 at 380/415 V 8 000 electrical endurance (operating cycles) / at AO / 1 at 380/415 V 8 000 electrical endurance (operating cycles) / at AO / V 8 000 electrical endurance (operating cycles) / at AO V 8 000 electrical endurance (operating cycles) / at AO 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	SEAM
Conditioning, and Refrigeration circuit 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 (HID Type) design of the overcurrent release protection function of the overcurrent release L1 number of poles General technical data operating voltage / at AC / rated value operating voltage / at AC / rated value of the current / at AC / in hot operating cycles) / typical 20 000 electrical endurance (operating cycles) / typical 8000 electrical endurance (operating cycles) / typical 8000 ground-fault monitoring version without product faulter / for neutral conductors / upgra	design of the product	System protection
Discharge circuit breaker (HID Typé) No design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type) No design of the overcurrent release TM230 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 [W] / for rated value of the current / at AC / in hot operating state / per pole 7.13 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 AC0 V 8 000 electrical endurance (operating cycles) / at A60 V 8 000 electrical endurance (operating cycles) / at A60 V 8 000 electrical endurance (operating cycles) / at A60 V 8 000 electrical endurance (operating cycles) / at A60 V 8 000 ground-fault monitoring version without product feature / for neutral conductors / upgradable/retrofittable No / soft function No • other measurement function No • other measurement function 0.951 kg •		Yes
circuit breaker (SWD Type) TM230 design of the overcurrent release Ll number of poles 3 Ceneral technical data 690 V operating voltage / at AC / rated value 690 V power loss [W] / maximum 21.4 W power loss [W] / maximum 20.000 electrical endurance (operating cycles) / typical 20.000 electrical endurance (operating cycles) / at AC-1 / at 890 V 4.000 product fauturance (operating cycles) / at AC V 1 at 890 V 4.000 product fauture (onterate conductors / upgradable/retrofittable / shot-circuit and overload proof without	0 0 ,	No
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 [W] / maximum 21.4 W power loss [W] / for rated value of the current / at AC / in hot 7.13 W 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 380/415 V electrical endurance (operating cycles) / at AC-1 / at 690 V 4 000 900 electrical endurance (operating cycles) / at AC-1 / at 690 V 4 000 900 electrical endurance (operating cycles) / at AC-1 / at 690 V 4 000 900 electrical endurance (operating cycles) / at AC-1 / at 690 V 4 000 900 product feature / for neutral conductors / upgradable/retrofittable No 900 / stort-circuit and overload proof without 900 ground-fault monitoring version without 900 other measurement function No 90.51 kg Current marking / according to UL 489 / 100%-rated breaker 90 A		No
number of poles 3 General technical data 690 V power loss [W] / maximum 21.4 W power loss [W] / for rated value of the current / at AC / in hot operating state / per pole 7.13 W mechanical service life (operating cycles) / tt 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 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 • at 40 °C 90 A • at 45 °C 88 A • at 50 °C 86 A • at 55 °C 80 A	design of the overcurrent release	TM230
General technical data operating voltage / at AC / rated value 690 V power loss [W] / maximum 21.4 W power loss [W] / for rated value of the current / at AC / in hot operating state / per pole 7.13 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 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 NetWeight 0.951 kg Current marking / according to UL 489 / 100%-rated breaker • at 40 °C 90 A • at 55 °C 86 A • at 55 °C 80 A • at 60 °C 82 A • at 65 °C 80 A	protection function of the overcurrent release	LI
operating voltage / at AC / rated value 690 V power loss [W] / maximum 21.4 W power loss [W] / for rated value of the current / at AC / in hot operating state / per pole 7.13 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 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 Nottright 0.951 kg Current marking / according to UL 489 / 100%-rated breaker No operational current 90 A 86 A • at 40 °C 86 A 88 A • at 55 °C 84 A 64 A • at 65 °C 80 A <t< td=""><td>number of poles</td><td>3</td></t<>	number of poles	3
power loss [W] / maximum 21.4 W power loss [W] / for rated value of the current / at AC / in hot operating state / per pole 7.13 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 AC0 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 No ground-fault monitoring version without product function No • other measurement function No No No Net Weight 0.951 kg Current eat 40 °C 90 A • at 40 °C 88 A • at 50 °C 84 A • at 50 °C 84 A • at 60 °C 82 A • at 60 °C 80 A	General technical data	
power loss [W] / for rated value of the current / at AC / in hot 7.13 W operating state / per pole 7.13 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 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 90 A • at 40 °C 90 A • at 45 °C 88 A • at 45 °C 86 A • at 55 °C 84 A • at 60 °C 82 A • at 65 °C 80 A	operating voltage / at AC / rated value	690 V
operating staté / 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 600 V4 000product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proofNoground-fault monitoring versionwithoutproduct functionNo• communication functionNo• other measurement functionNo• other measurement functionNoother at 45 °C90 A• at 45 °C86 A• at 55 °C84 A• at 66 °C80 A	power loss [W] / maximum	21.4 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 AO V 8 000 electrical endurance (operating cycles) / at AO 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 0.951 kg Current marking / according to UL 489 / 100%-rated breaker No operational current 90 A • at 40 °C 90 A • at 50 °C 86 A • at 55 °C 84 A • at 60 °C 82 A • at 65 °C 80 A		7.13 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 0.951 kg Current marking / according to UL 489 / 100%-rated breaker operational current 90 A • at 40 °C 90 A • at 50 °C 86 A • at 55 °C 84 A • at 60 °C 82 A • at 65 °C 80 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 No ground-fault monitoring version without product function No • communication function No • other measurement function No Net Weight 0.951 kg Current marking / according to UL 489 / 100%-rated breaker No • at 40 °C 90 A • at 45 °C 88 A • at 50 °C 86 A • at 55 °C 84 A • at 60 °C 82 A • at 65 °C 80 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 0.951 kg Current No marking / according to UL 489 / 100%-rated breaker No operational current 90 A • at 40 °C 90 A • at 45 °C 88 A • at 55 °C 84 A • at 60 °C 82 A • at 65 °C 80 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 • other measurement function No Net Weight 0.951 kg Current marking / according to UL 489 / 100%-rated breaker • at 40 °C 90 A • at 45 °C 88 A • at 50 °C 86 A • at 65 °C 80 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 0.951 kg Current Output 489 / 100%-rated breaker marking / according to UL 489 / 100%-rated breaker No operational current 90 A • at 40 °C 90 A • at 45 °C 88 A • at 55 °C 84 A • at 60 °C 80 A	electrical endurance (operating cycles) / at 600 V	4 000
product function No • communication function No • other measurement function No Net Weight 0.951 kg Current Imarking / according to UL 489 / 100%-rated breaker marking / according to UL 489 / 100%-rated breaker No operational current 90 A • at 40 °C 90 A • at 50 °C 88 A • at 55 °C 84 A • at 60 °C 82 A • at 65 °C 80 A		No
• communication functionNo• other measurement functionNoNet Weight0.951 kgcurrentmarking / according to UL 489 / 100%-rated breakerNooperational current90 A• at 40 °C90 A• at 45 °C88 A• at 55 °C86 A• at 60 °C82 A• at 60 °C80 A	ground-fault monitoring version	without
• other measurement functionNoNet Weight0.951 kgCurrentNomarking / according to UL 489 / 100%-rated breakerNooperational current90 A• at 40 °C90 A• at 45 °C88 A• at 55 °C86 A• at 60 °C82 A• at 60 °C80 A	product function	
Net Weight0.951 kgCurrentmarking / according to UL 489 / 100%-rated breakerNooperational currentNo• at 40 °C90 A• at 45 °C88 A• at 55 °C86 A• at 60 °C82 A• at 65 °C80 A	communication function	No
Current No marking / according to UL 489 / 100%-rated breaker No operational current 90 A • at 40 °C 90 A • at 45 °C 88 A • at 50 °C 86 A • at 55 °C 84 A • at 60 °C 82 A • at 65 °C 80 A	other measurement function	No
marking / according to UL 489 / 100%-rated breakerNooperational current90 A• at 40 °C90 A• at 45 °C88 A• at 50 °C86 A• at 55 °C84 A• at 60 °C82 A• at 65 °C80 A	Net Weight	0.951 kg
operational current 90 A • at 40 °C 90 A • at 45 °C 88 A • at 50 °C 86 A • at 55 °C 84 A • at 60 °C 82 A • at 65 °C 80 A	Current	
• at 40 °C 90 A • at 45 °C 88 A • at 50 °C 86 A • at 55 °C 84 A • at 60 °C 82 A • at 65 °C 80 A	marking / according to UL 489 / 100%-rated breaker	No
• at 45 °C 88 A • at 50 °C 86 A • at 55 °C 84 A • at 60 °C 82 A • at 65 °C 80 A	operational current	
• at 50 °C 86 A • at 55 °C 84 A • at 60 °C 82 A • at 65 °C 80 A	● at 40 °C	90 A
• at 55 °C 84 A • at 60 °C 82 A • at 65 °C 80 A	● at 45 °C	88 A
• at 60 °C 82 A • at 65 °C 80 A	● at 50 °C	86 A
• at 65 °C 80 A	● at 55 °C	84 A
	● at 60 °C	82 A
• at 70 °C 79 A	● at 65 °C	80 A
	● at 70 °C	79 A

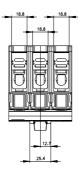
Switching capacity according to IEC 60947				
switching capacity class of the circuit breaker	S			
design of short-circuit protection	For switching power values in DC networks, see the 3VA molded case circuit breaker device manual; link to be found under Service & Support in the last chapter			
Switching 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	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	0.0			
• minimum	0 A 0 A			
maximum 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]	5.51 in			
height	140 mm			
width [in]	3 in			
type of connectable conductor cross-sections / of the round conductor terminal / stranded	1 x (8 AWG - 3/0)			
width	76.2 mm			
depth [in]	3.01 in			
depth	76.5 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				

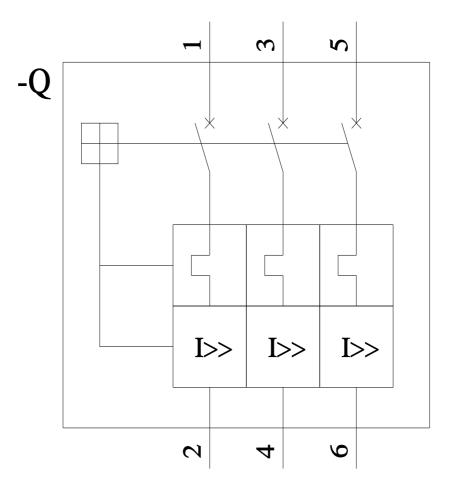
	<u>Confirmation</u>	(UL) III	(UL)	VDE	<u>Miscellaneous</u>
General Product Approval	EMC	Declaration of Conformity		Test Certificates	Marine / Shipping
EHC	RCM	UK CA	CE EG-Konf.	Type Test Certific- ates/Test Report	ABS
Marine / Shipping	other				
RMRS RMRS	Miscellaneous	<u>Confirmation</u>			
Further information					
https://press.siemens.co Siemens is working o Please contact your loc EAC relevant market (c Information on the pa https://support.industry Information- and Dow http://www.siemens.co Industry Mall (Online https://mall.industry.sie Service&Support (Ma https://support.industry Image database (prod	n the renewal of the cu cal Siemens office on the other than the sanctioned ickaging .siemens.com/cs/ww/en/ rnloadcenter (Catalogs, m/lowvoltage/catalogs ordering system) mens.com/mall/en/en/Ca nuals, Certificates, Cha .siemens.com/cs/ww/en/ luct images, 2D dimens siemens.com/bilddb/cax r m/cax	se/siemens-wind-down-russian-b inrent EAC certificates. e status of validity of the EAC certi d EAEU member states Russia or view/109813875 , Brochures,)	ification if you inte Belarus). C36-1AA0 ce circuit diagra		ply these products to an

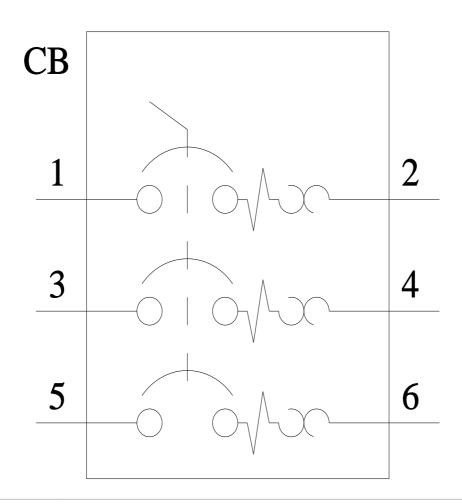












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Mouser Electronics

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Siemens: 3VA51904EC361AA0