## 3VA5190-4EC31-1AA0

**Data sheet** 



circuit breaker 3VA5 UL frame 125 breaking capacity class S 25kA @ 480V 3-pole, line protection TM230, FTAM, In=90A overload protection Ir=90A fixed short-circuit protection Ii=5...10 x In UL 489 SB (naval), 50° C without connection

product designation / according to UL file SEAM Molded-case circuit breaker product designation / according to UL file SEAM 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 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type) design of the load switch / according to UL 489 / High-Intensity-Discharge circuit breaker (HOT Type) design of the load switch / according to UL 489 / Switching Duty crub treaker (NVD Type) design of the Door State (SWD Type) design of the Overcurrent release TM230 protection function of the overcurrent release LL number of poles 3 Central technical data operating voltage / at AC / rated value 690 V power loss (M/) maximum 21.4 W power loss (M/) maximum 21.4 W power loss (M/) for rated value of the current / at AC / in hot operating voltage / at AC / rated value 0.000 desicrical endurance (operating cycles) / at AC-1 / at 580 V 4 000 described endurance (operating cycles) / at AC-1 / at 680 V 4 000 described endurance (operating cycles) / at AC-1 / at 680 V 4 000 described endurance (operating cycles) / at AC-1 / at 680 V 4 000 described endurance (operating cycles) / at AC-1 / at 680 V 4 000 described endurance (operating cycles) / at AC-1 / at 680 V 4 000 described endurance (operating cycles) / at AC-1 / at 680 V 7 8 000 described endurance (operating cycles) / at AC-1 / at 680 V 8 000 described endurance (operating cycles) / at AC-1 / at 680 V 9 8 000 described endurance (operating cycles) / at AC-1 / at 580 V 9 8 000 described endurance (operating cycles) / at 600 V 9 8 000 described endurance (operating cycles) / at 800 V 9 8 000 described endurance (operating cycles) / at 800 V 9 8 000 described endurance (operating cycles) / at 800 V 9 8 000 described endurance (operating cycles) / at 800 V 9 8 000 described endurance (operating cycles) / at 800 V 9 0 A 9 0 A 9 0 A 9 0 A 9 0 A 9 0 A 9 0 A 9 0 A 9 0 A 9 0 A 9 0 A 9	Model	
product designation / according to UL file SEAM system protection design of the product System protection System protection 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 (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 3  Ceneral technical data  operating voltage / at AC / rated value 690 V power loss [W] / maximum 21.4 W power loss [W] / maximum 21.4 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 380/415 V 8 000 electrical endurance (operating cycles) / at AB V 4 000 electrical endurance (operating cycles) / at AB V 4 000 electrical endurance (operating cycles) / at AB V 8 000 electrical endurance (operating cycles) / at AB V 8 000 electrical endurance (operating cycles) / at AB V 9 8 000 electrical endurance (operating cycles) / at AB V 9 8 000 electrical endurance (operating cycles) / at AB V 9 8 000 electrical endurance (operating cycles) / at AB V 9 8 000 electrical endurance (operating cycles) / at AB V 9 8 000 electrical endurance (operating cycles) / at AB V 9 8 000 electrical endurance (operating cycles) / at AB V 9 8 000 electrical endurance (operating cycles) / at AB V 9 8 000 electrical endurance (operating cycles) / at AB V 9 8 000 electrical endurance (operating cycles) / at AB V 9 8 000 electrical endurance (operating cycles) / at AB V 9 9 0 8 8 000 electrical endurance (operating cycles) / at AB V 9 9 0 A 8 8 A 8 8 A 8 8 A 8 8 A 8 8 A 8 8 A	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 (ID Type) design of the load switch / according to UL 489 / Switching Duty circuit breaker (ISWD Type) design of the overcurrent release TM230 protection function of the overcurrent release protection function of the overcurrent release LI number of poles 3  Ceneral technical data  operating voltage / at AC / rated value opower loss [W] / ranximum 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 380/415 V electrical endurance (operating cycles) / at AC-1 / at 380/4 V electrical endurance (operating cycles) / at 800 V electrical endurance (operating cycles) / at 800 V electrical endurance (operating cycles) / at 800 V product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof ground-fault monitoring version without  vommunication function vommunication function No vother measurement function No vother measurement function No vother measurement function vommunication funct	product designation	Molded-case circuit breaker
design of the load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circulat 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 / High-Intensity-Discharge 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 21.4 W power loss [W] / Irrated 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) / a	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 (FMD Type)  design of the load switch / according to UL 489 / High-Intensity- circuit breaker (FWD Type)  design of the overcurrent release protection function of the overcurrent release LI number of poles  Ceneral technical data operating voltage / at AC / rated value opwer loss [W] / maximum opwer 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-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 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 electrical endurance (operating cycles) / at AC-1 / at 690 V electrical endurance (operating cycles) / at 600 V electrical endurance (operating cycles) / at 800 V electrical endurance (operating cycles) / at	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 880/415 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  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 21.4 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 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 other measurement function No other measurement function No operational current 950 g  Current marking / according to UL 489 / 100%-rated breaker No operational current • at 40 °C 88 A		No
protection function of the overcurrent release  II 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 380/415 V  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 600 V  electrical endurance (operating cycles) / at 600 V  electrical endurance (operating cycles) / at 600 V  for out 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  Current  marking / according to UL 489 / 100%-rated breaker  operational current  at 40 °C  at 45 °C  at 45 °C  at 55 °C  84 A  at 60 °C  at 65 °C  80 A		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 21.4 W  power loss [W] / maximum 7.13 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 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 950 g  Current  marking / according to UL 489 / 100%-rated breaker No  operational current  • at 40 °C 90 A  • at 55 °C 88 A  • at 55 °C 84 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 operating state / per pole 20000 electrical endurance (operating cycles) / typical 20000 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 • communication function No Net Weight 950 g  Current marking / according to UL 489 / 100%-rated breaker No operational current • at 40 °C 90 A at 45 °C 88 A • at 50 °C 84 A • at 60 °C 82 A • at 60 °C 82 A • at 60 °C 82 A	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 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 / at 690 V electrical endurance (operating cycles) / at AC-0 / at 690 V electrical endurance (operating cycles) / at 800 V electrical endurance (operating cycles) / at 800 V electrical endurance (operating cycles) / at 800 V product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof ground-fault monitoring version without product function e communication function No Net Weight 950 g  Current  marking / according to UL 489 / 100%-rated breaker operational current e at 40 °C e at 45 °C e at 65 °C 84 A e at 60 °C e at 65 °C 80 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 e other measurement function No Net Weight 950 g  Current marking / according to UL 489 / 100%-rated breaker No operational current e at 40 °C 90 A e at 45 °C 88 A e at 50 °C 84 A e at 60 °C 82 A e at 65 °C 80 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 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		7.13 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  marking / according to UL 489 / 100%-rated breaker  operational current  at 40 °C  at 45 °C  at 45 °C  at 45 °C  at 45 °C  at 65 °C  88 A  at 60 °C  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  product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof  ground-fault monitoring version  other measurement function  No  Net Weight  marking / according to UL 489 / 100%-rated breaker  operational current  other 40 °C  other 45 °C  other 45 °C  other 45 °C  other 55 °C  other 46 °C	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 950 g  Current marking / according to UL 489 / 100%-rated breaker No operational 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	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
<ul> <li>◆ communication function</li> <li>No</li> <li>Nother measurement function</li> <li>No</li> <li>Net Weight</li> <li>950 g</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>88 A</li> <li>at 50 °C</li> <li>86 A</li> <li>at 55 °C</li> <li>at 60 °C</li> <li>at 60 °C</li> <li>at 65 °C</li> <li>80 A</li> </ul>	ground-fault monitoring version	without
● other measurement function  No  Net Weight  950 g  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  ● 80 A	product function	
Net Weight   950 g	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         88 A           • at 55 °C         84 A           • at 60 °C         82 A           • at 65 °C         80 A	<ul> <li>other measurement function</li> </ul>	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	Net Weight	950 g
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	
<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>80 A</li> </ul>	marking / according to UL 489 / 100%-rated breaker	No
<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>80 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>82 A</li> <li>80 A</li> </ul>		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

For switching power values in TC networks, see the 3VA moded case circumber of vice and in the last character device annual; link to be found under Service & Support in the last character device annual; link to be found under Service & Support in the last character device annual; link to be found under Service & Support in the last characteristic at 426 V	switching capacity class of the circuit breaker	S
current breaking capacity         65 kA           • at 240 V         25 kA           • at 480 V         25 kA           • at 600 V/347 V         14 kA           Valustable paramoters		· · · · · · · · · · · · · · · · · · ·
• 12 40 V	Switching capacity according to UL 489	
* at 480 V	current breaking capacity	
**al 600 Y/347 V	• at 240 V	65 kA
Adjustable parameters  adjustable response value setting current (ir) / of the L-trip / with IZI characteristic  inininum inaximum gova inaximum gova ininimum ininum ininum ininum ininum inimum ininum ininum ininum ininum inimum inim	● at 480 V	25 kA
adjustable response value setting current (ir) / of the L-trip / with 12t characteristic  • minimum  • maximum  adjustable response value delay time (tr) / for L-tripping / with 12t characteristic  • minimum  • maximum  • maximum  • minimum  • during operation / minimum  • during operation / minimum  • during operation / maximum	● at 600 Y/347 V	14 kA
adjustable response value setting current (ir) / of the L-trip / with 12t characteristic  • minimum  • maximum  adjustable response value delay time (ir) / for L-tripping / with 12t characteristic  • minimum  • notarimum  • minimum  • notarimum  • minimum  • minimum  • minimum  • minimum  • minimum  • notarimum  • minimum  • notarimum  • minimum  • minimum  • notarimum  • minimum  • minimum  • notarimum  • minimum  • notarimum  • minimum  • notarimum  • minimum  • notarimum  • notarimum  • minimum  • notarimum  • notarimum  • minimum  • during operation / minimum  • during operation / minimum  • during operation / maximum  • during operation / maximum  • during operation / maximum  • during storage / minimum  • during storage / maximum  • during storage / maximum  • during storage / maximum	Adjustable parameters	
maximum     adjustable response value delay time (tr) / for L-tripping / with 12t characteristic	adjustable response value setting current (Ir) / of the L-trip / with	
adjustable response value delay time (tr) / for L-tripping / with 12t characteristic	• minimum	90 A
characteristic  • minimum  • minimum  • maximum  adjustable response value setting current (ii) / for I-tripping  • minimum  • during operation / minimum  • during storage / minimum  • during	• maximum	90 A
adjustable response value setting current (ii) / for I-tripping		
adjustable response value setting current (ii) / for I-tripping	• minimum	1 s
<ul> <li>minimum</li> <li>maximum</li> <li>goo A</li> <li>maximum</li> <li>o A</li> <li>minimum</li> <li>o A</li> <li>maximum</li> <li>o A</li> <li>maximum</li> <li>o A</li> <li>maximum</li> <li>o A</li> <li>adjustable current response value current / of the current-dependent overload release</li> <li>product function / grounding protection</li> <li>No</li> <li>Mechanical Design</li> <li>product component</li> <li>undervoltage release</li> <li>voltage trigger</li> <li>trip indicator</li> <li>height [in]</li> <li>5.51 in</li> <li>height [in]</li> <li>depth</li> <li>140 mm</li> <li>width [in]</li> <li>3.in</li> <li>width [in]</li> <li>3.01 in</li> <li>depth</li> <li>76.5 mm</li> <li>Connections</li> <li>arrangement of electrical connectors / for main current circuit</li> <li>Without connection</li> <li>type of electrical connectors / for main current circuit</li> <li>Without</li> <li>vuntilary circuit</li> <li>mumber of CO contacts / for auxiliary contacts</li> <li>0</li> <li>Accessories</li> <li>product extension / optional / motor drive</li> <li>protection class IP / on the front</li> <li>protection class IP / on the front</li> <li>ambient temperature</li> <li>during operation / minimum</li> <li>during storage / maximum</li> <li>eduring storage / minimum</li> <li>during storage / maximum</li> <li>eduring storage / maximum</li> </ul>	• maximum	1s
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 product function / grounding protection  Mochanical Design product component undervoltage release voltage trigger vitip indicator height [in] 5.51 in height 140 mm width [in] 3 in width 76.2 mm depth [in] 3.01 in depth [in] 3.01 in depth 76.5 mm  Connections  arrangement of electrical connectors / for main current circuit without connection of pelectrical connector / for main current circuit without connection / spread of suitability / se approval for NAVAL (no combat of suitability / se approval for NAVAL (no combat of suitability / se sproval for NAVAL (no combat of suitability / se sproval for NAVAL (no combat of suitability / se sproval for NAVAL (no combat of suitability / se sproval for NAVAL (no combat of sections or suitable versions and suitability / se sproval for NAVAL (no combat of suitability / se sproval for NAVAL (no combat of suitability / se sections can be suitability / se sproval for NAVAL (no combat of suitability / se sections can be suitability / se section suitability / section suit	adjustable response value setting current (li) / for I-tripping	
adjustable setting current (InN) / for N-tripping	• minimum	450 A
• minimum • maximum • dijustable current response value current/ of the current- dependent overload release product function / grounding protection  Mochanical Dosign  Product component • undervoltage release • voltage trigger • trip indicator • leight [in] • fight 140 mm  width [in] • depth [in] • dep	• maximum	900 A
• minimum • maximum • maximum • adjustable current response value current / of the current-dependent overload release  product function / grounding protection  **Mechanical Design**  product component • undervoltage release • voltage trigger • trip indicator • height [in] • fight in the provided to th	adjustable setting current (InN) / for N-tripping	
adjustable current response value current / of the current- dependent overload release product function / grounding protection  No  Mechanical Design  Product component  • undervoltage release • voltage trigger • 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  Auxiliary circuit  number of CO contacts / for auxiliary contacts  product extension / optional / motor drive  every control of the front   1940    ambient temperature • during operation / maximum • during storage / minimum • during storage / minimum • during storage / minimum • during storage / maximum  To "C  eurifficate of suitability / as approval for NAVAL (no combat  Yes  certificate of suitability / as approval for NAVAL (no combat  Yes  certificate of suitability / as approval for NAVAL (no combat  Yes  certificate of suitability / as approval for NAVAL (no combat  Yes  certificate of suitability / as approval for NAVAL (no combat  Yes		0 A
adjustable current response value current / of the current- dependent overload release product function / grounding protection  No  Mechanical Design  Product component  • undervoltage release • voltage trigger • trip indicator  No  height [in] 5.51 in  height [in] 40 mm  width [in] 3 in  depth 76.2 mm  depth [in] 40.5 mm  Connections  arrangement of electrical connection / for main current circuit type of electrical connection / for main current circuit  Visition to Contacts / for auxiliary contacts  product extension / optional / motor drive  eventuring poreation / maximum  • during operation / minimum • during storage / maximum  Correlificates  coertificates  certificate of suitability / as approval for NAVAL (no combat  Yes	• maximum	0 A
product component  undervoltage release voltage trigger vir indicator height [in] height height   140 mm width [in] depth   76.2 mm depth [in] depth   76.5 mm   Connections  arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit with virye of electrical connection / for main current circuit number of CO contacts / for auxiliary contacts  Connections  arrangement of electrical connection / for main current circuit virye of electrical connection / for main current circuit  number of CO contacts / for auxiliary contacts  Control of CO contacts / for auxili		90 90 A
product component  • undervoltage release • voltage trigger • trip indicator No height [in] height lin] width [in]	product function / grounding protection	No
undervoltage release voltage trigger trip indicator No height [in] 5.51 in height width [in] 3 in width 76.2 mm depth [in] 3.01 in depth [in] 4.05 mm  Connections  arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit without extension / optional / motor drive  product extension / optional / motor drive  protection class IP / on the front ambient temperature during operation / maximum during storage / minimum during storage / maximum during storage / minimum during storage / maximum during storage / maximum during storage / minimum during storage / minimum during storage / minimum during storage / maximum during storage / minimum during storage	Mechanical Design	
• undervoltage release • voltage trigger • trip indicator No height [in] 5.51 in height width [in] 3 in width 76.2 mm depth [in] 3.01 in depth [in] 40 your fill for some second	product component	
voltage trigger		No
e trip indicator  height [in]  height [in]  height [in]  width [in]  width 76.2 mm  depth [in]  depth [in]  depth [in]  3.01 in  depth [in]  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  coccessories  product extension / optional / motor drive Yes  convictions   P / on the front   IP40    ambient temperature  e during operation / maximum	-	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  • during operation / minimum • during storage / minimum • during storage / minimum • during storage / maximum • 80 °C  Certificates  certificate of suitability / as approval for NAVAL (no combat  Yes		No
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  • during operation / minimum -25 °C • during operation / maximum -40 °C • during storage / minimum -40 °C • during storage / minimum -40 °C • during storage / maximum -40 °C • certificates  certificate of suitability / as approval for NAVAL (no combat Yes	•	5.51 in
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  rumber 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	- · · ·	140 mm
width 76.2 mm  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  • during operation / maximum  • during storage / minimum  • during storage / minimum  • during storage / maximum  • Ves  Certificates  certificate of suitability / as approval for NAVAL (no combat	<u> </u>	
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  • during operation / maximum -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 Yes		
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  • during operation / maximum 70 °C  • during storage / minimum -40 °C  • during storage / maximum 80 °C  Certificates  certificates  certificate of suitability / as approval for NAVAL (no combat Yes		
arrangement of electrical connectors / for main current circuit  type of electrical connection / for main current circuit  Auxiliary circuit  number of CO contacts / for auxiliary contacts  o  Accessories  product extension / optional / motor drive  Environmental conditions  protection class IP / on the front  ambient temperature  o during operation / maximum  during operation / maximum  during storage / minimum  during storage / minimum  during storage / maximum  eduring storage / maximum  during storage / maximum  eduring storage / maximum  storage / maximum  storage / storage		
arrangement of electrical connectors / for main current circuit  type of electrical connection / for main current circuit  Without  Accessories  Product extension / for auxiliary contacts  Product extension / optional / motor drive  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  Yes	•	10.0 mill
type of electrical connection / for main current circuit  Auxiliary circuit  number of CO contacts / for auxiliary contacts  0  Accessories  product extension / optional / motor drive  Environmental conditions  protection class IP / on the front  ambient temperature  • during operation / maximum  -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  Yes		Without connection
number of CO contacts / for auxiliary contacts  Accessories  product extension / optional / motor drive  Environmental conditions  protection class IP / on the front  ambient temperature  • during operation / minimum  -25 °C  • during operation / maximum  other during storage / minimum  -40 °C  • during storage / maximum  80 °C  Certificates  certificate of suitability / as approval for NAVAL (no combat  Yes	<del></del>	
number of CO contacts / for auxiliary contacts  Accessories  product extension / optional / motor drive  Environmental conditions  protection class IP / on the front  ambient temperature  • during operation / minimum  -25 °C  • during operation / maximum  function of the firent of	•	vvitilout
product extension / optional / motor drive  Environmental conditions  protection class IP / on the front  ambient temperature  • during operation / minimum  • during operation / maximum  • during storage / minimum  • during storage / maximum  • during storage / maximum  • conditions  P40  Certificates  certificate of suitability / as approval for NAVAL (no combat  Yes		
product extension / optional / motor drive  Environmental conditions  protection class IP / on the front  ambient temperature  • during operation / minimum  • during operation / maximum  • during storage / minimum  • during storage / maximum  80 °C  Certificates  certificate of suitability / as approval for NAVAL (no combat  Yes	·	0
protection class IP / on the front  ambient temperature  • during operation / minimum  • during operation / maximum  • during storage / minimum  • during storage / maximum  • curing storage / maximum  • curing storage / maximum  • curing storage / maximum  Sertificates  certificate of suitability / as approval for NAVAL (no combat  Yes		
protection class IP / on the front  ambient temperature  • during operation / minimum  • during operation / maximum  • during storage / minimum  • during storage / maximum  • curing storage / maximum  • curing storage / maximum  • during storage / maximum  • during storage / maximum  • during storage / maximum  • ves	·	Yes
ambient temperature  • during operation / minimum  • during operation / maximum  70 °C  • during storage / minimum  • during storage / maximum  80 °C  Certificates  certificate of suitability / as approval for NAVAL (no combat  Yes	nvironmental conditions	
<ul> <li>during operation / minimum</li> <li>during operation / maximum</li> <li>0 °C</li> <li>during storage / minimum</li> <li>40 °C</li> <li>during storage / maximum</li> <li>Certificates</li> <li>certificate of suitability / as approval for NAVAL (no combat</li> </ul> Yes	protection class IP / on the front	IP40
during operation / maximum     during storage / minimum     during storage / maximum     80 °C  Certificates  certificate of suitability / as approval for NAVAL (no combat Yes	ambient temperature	
• during storage / minimum     • during storage / maximum     80 °C  Certificates  certificate of suitability / as approval for NAVAL (no combat  Yes	<ul><li>during operation / minimum</li></ul>	-25 °C
during storage / maximum     80 °C  Certificates  certificate of suitability / as approval for NAVAL (no combat  Yes	<ul><li>during operation / maximum</li></ul>	70 °C
Certificates  certificate of suitability / as approval for NAVAL (no combat  Yes	during storage / minimum	-40 °C
certificate of suitability / as approval for NAVAL (no combat	during storage / maximum	80 °C
	Certificates	
	certificate of suitability / as approval for NAVAL (no combat	Yes

Confirmation









Miscellaneous

General Product Approval

EMC

**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping









Type Test Certificates/Test Report



Marine / Shipping

other



Confirmation

**Miscellaneous** 

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)

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA5190-4EC31-1AA0

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

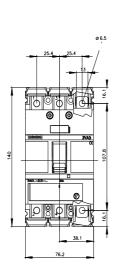
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA5190-4EC31-1AA0

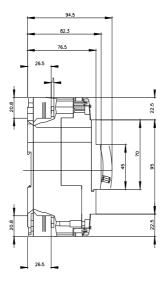
**CAx-Online-Generator** 

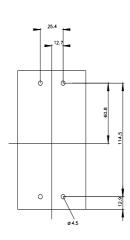
http://www.siemens.com/cax

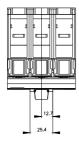
**Tender specifications** 

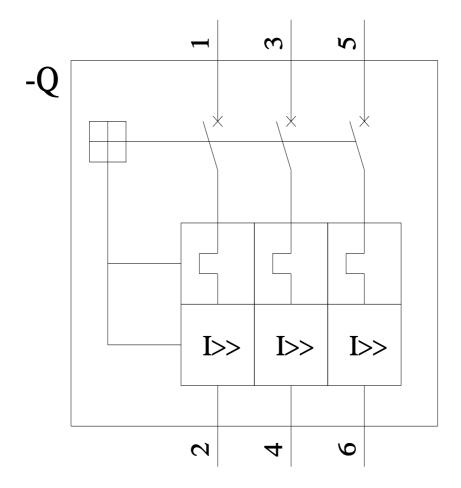
http://www.siemens.com/specifications

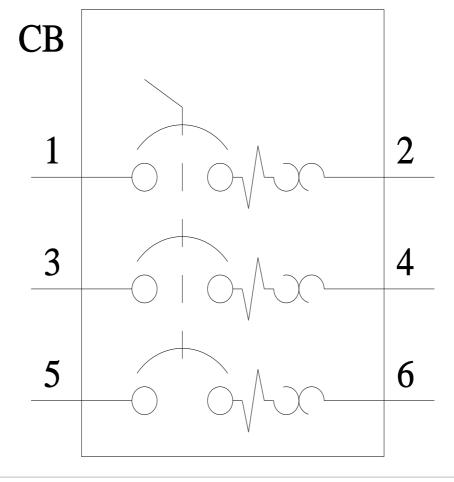












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3VA51904EC311AA0