3VA5145-6ED21-1AA0

Data sheet



circuit breaker 3VA5 UL frame 125 breaking capacity class H 65kA @ 480V 2-pole, line protection TM210, FTFM, In=45A overload protection Ir=45A fixed short-circuit protection Ii=10 x In UL 489 SB (naval), 50° C without connection

product brand name product designation product designation / according to UL file design of the product design and Refrigeration circuit breaker (HACR Type) design of the load switch / according to UL 489 / Hearling, Air Conditioning, and Refrigeration circuit breaker (HACR Type) design of the load switch / according to UL 489 / High-intensity- Discharge circuit breaker (ID Type) design of the load switch / according to UL 489 / Switching Duty circuit breaker (IO Type) design of the load switch / according to UL 489 / Switching Duty circuit breaker (IO Type) design of the overcurrent release ILI number of poles Ceneral technical data operating voltage / at AC / rated value protection function of the overcurrent release LI number of poles Question of the current / at AC / in hot operating voltage / at AC / rated value power loss [W] / for rated value of the current / at AC / in hot operating slate / per pole mechanical service life (operating cycles) / ttypical electrical endurance (operating cycles) / at AC-1 / at 380 V 4 000 electrical endurance (operating cycles) / at AC-1 / at 680 V 4 000 electrical endurance (operating cycles) / at 80 V 4 000 electrical endurance (operating cycles) / at 80 V 4 000 electrical endurance (operating cycles) / at 80 V 4 000 electrical endurance (operating cycles) / at 80 V 4 000 electrical endurance (operating cycles) / at 80 V 4 000 electrical endurance (operating cycles) / at 80 V 4 000 electrical endurance (operating cycles) / at 80 V 4 000 electrical endurance (operating cycles) / at 80 V 4 000 electrical endurance (operating cycles) / at 80 V 4 000 electrical endurance (operating cycles) / at 80 V 4 000 electrical endurance (operating cycles) / at 80 V 4 000 electrical endurance (operating cycles) / at 80 V 4 000 electrical endurance (operating cycles) / at 80 V 4 000 electrical endurance (operating cycles) / at 80 V 4 000 electrical endurance (operating cycles) / at 80 V 4 000 electrical endurance (operating cycles) / at 80 V 4 000 electrical endurance (operating cycle	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 Retrigeration circuit breaker (HACR Type) design of the load switch / according to UL 489 / High-Intensity- Discharge circuit breaker (BVD 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 TM210 protection function of the overcurrent release LI number of poles 2 Ceneral 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) / at AC-1 / at 380/415 V electrical endurance (operating cycles) / at AC-1 / at 690 V electrical endurance (operating cycles) / at 480 V electrical endurance (operating cycles) / at 480 V product feature / for neutral conductors / upgradable/retrofittable short-incurrent o communication function o communication function o their measurement function No No operational current o at 40 °C at 45 °C ot 45 A at 45 °C ot 45 6 °C ot 45 6 °C ot 42 A ot 45 6 °C ot 42 A ot 45 6 °C ot 42 A ot 42 A	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 / High-Intensity-Discharge circuit breaker (FID Type) design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type) design of the overcurrent release TM210 protection function of the overcurrent release LI number of poles 2 Ceneral technical data operating voltage / at AC / rated value power loss [W] / maximum 7,6 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 (operating cycles) / at	product designation / according to UL file	HEAM
Conditioning, and Refrigeration circuit breaker (HACR Type) design of the load switch / according to UL 489 / High-Intensity- bischarage circuit breaker (HND 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 LI number of poles Ceneral technical data operating voltage / at AC / rated value 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 800 V electrical en	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 TM210 protection function of the overcurrent release I TM210 protection function of the overcurrent release I I I I I I I I I I I I I I I I I I I		Yes
design of the overcurrent release TM210 protection function of the overcurrent release LI number of poles 2 General technical data operating voltage / at AC / rated value 415 V power loss [W] / maximum 7.6 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 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 Net Weight 621 g Current marking / according to UL 489 / 100%-rated breaker No operational current • at 40 °C 45 A • at 55 °C 44 A • at 55 °C 43 A • at 60 °C 42 A		Yes
Description of the overcurrent release Li		No
number of poles 2	design of the overcurrent release	TM210
General technical data operating voltage / at AC / rated value	protection function of the overcurrent release	Ц
Operating voltage / at AC / rated value	number of poles	2
power loss [W] / maximum 7.6 W	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 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 621 g Current marking / according to UL 489 / 100%-rated breaker No operational current • at 40 °C 45 A • at 45 °C 44 A • at 50 °C 43 A • at 60 °C 42 A • at 65 °C 42 A	operating voltage / at AC / rated value	415 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	power loss [W] / maximum	7.6 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 • communication function • other measurement function No Net Weight 621 g Current marking / according to UL 489 / 100%-rated breaker operational current • at 40 °C • at 45 °C • at 60 °C • at 60 °C • at 65 °C 42 A • at 65 °C		3.8 W
electrical endurance (operating cycles) / at AC-1 / at 690 V electrical endurance (operating cycles) / at 480 V 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 without product function • communication function • other measurement function No Net Weight 621 g Current marking / according to UL 489 / 100%-rated breaker operational current • at 40 °C • at 45 °C • at 45 °C • at 45 °C • at 55 °C • at 3 A • at 60 °C • at 65 °C • at 65 °C • at 65 °C • at 65 °C • at 60 °C	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 / short-circuit and overload proof ground-fault monitoring version without product function • communication function • other measurement function No Net Weight 621 g Current marking / according to UL 489 / 100%-rated breaker No operational current • at 40 °C 45 A • at 45 °C 44 A • at 50 °C 43 A • at 60 °C 43 A • at 60 °C 42 A • at 65 °C 42 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 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 45 °C 44 A at 55 °C 43 A at 60 °C at 65 °C 42 A at 65 °C 42 A	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 621 g Current marking / according to UL 489 / 100%-rated breaker No operational current • at 40 °C 45 A • at 45 °C 44 A • at 50 °C 44 A • at 55 °C 43 A • at 60 °C 42 A • at 65 °C 42 A	electrical endurance (operating cycles) / at 480 V	8 000
// short-circuit and overload proof ground-fault monitoring version ocommunication function other measurement function No Net Weight Current marking / according to UL 489 / 100%-rated breaker operational current oat 40 °C oat 45 °C oat 55 °C oat 65 °C oat 65 °C vithout without without without No No No A A A A A A A A A A A A A	electrical endurance (operating cycles) / at 600 V	4 000
product function		No
 ● communication function No Noter measurement function No Net Weight 621 g Current marking / according to UL 489 / 100%-rated breaker No operational current at 40 °C at 45 °C at 44 A at 50 °C 44 A at 55 °C 43 A at 60 °C at 65 °C 42 A 	ground-fault monitoring version	without
● other measurement function No Net Weight 621 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 ● 42 A ● at 65 °C No 621 g	product function	
Net Weight 621 g Current marking / according to UL 489 / 100%-rated breaker No operational current 45 A • at 40 °C 45 A • at 45 °C 44 A • at 50 °C 44 A • at 55 °C 43 A • at 60 °C 42 A • at 65 °C 42 A	• communication function	No
Current marking / according to UL 489 / 100%-rated breaker No operational current 45 A • at 40 °C 45 A • at 50 °C 44 A • at 55 °C 43 A • at 60 °C 42 A • at 65 °C 42 A	 other measurement function 	No
marking / according to UL 489 / 100%-rated breaker No operational current 45 A • at 40 °C 45 A • at 45 °C 44 A • at 50 °C 44 A • at 55 °C 43 A • at 60 °C 42 A • at 65 °C 42 A	Net Weight	621 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	
 at 40 °C at 45 °C at 50 °C 44 A at 55 °C 43 A at 60 °C at 65 °C 42 A 	marking / according to UL 489 / 100%-rated breaker	No
 at 45 °C at 50 °C 44 A at 55 °C 43 A at 60 °C at 65 °C 42 A 	operational current	
 at 50 °C at 55 °C 44 A at 60 °C at 65 °C 42 A 42 A 	• at 40 °C	45 A
• at 55 °C 43 A • at 60 °C 42 A • at 65 °C 42 A	• at 45 °C	44 A
• at 60 °C	• at 50 °C	44 A
• at 65 °C 42 A	● at 55 °C	43 A
	• at 60 °C	42 A
• at 70 °C 41 A	• at 65 °C	42 A
	• at 70 °C	41 A

switching capacity class of the circuit breaker	Н
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	150 kA
• at 480 V	65 kA
● at 600 Y/347 V	25 kA
djustable parameters	
adjustable response value setting current (Ir) / of the L-trip / with l2t characteristic	
• minimum	45 A
• maximum	45 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	450 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	32 45 A
product function / grounding protection	No
lechanical Design	
product component	
undervoltage release	No
voltage trigger	No
trip indicator	No
height [in]	5.51 in
height	140 mm
width [in]	2 in
width	50.8 mm
depth [in]	3.01 in
depth depth	76.5 mm
Connections	70.0 11111
	Without connection
arrangement of electrical connectors / for main current circuit	Without connection Without
type of electrical connection / for main current circuit	vvitilout
auxiliary circuit	
number of CO contacts / for auxiliary contacts	0
ccessories	
product extension / optional / motor drive	No
nvironmental 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
Pertificates	
- Incates	



Confirmation







Miscellaneous

General Product Approval

EMC

Declaration of Conformity

Test Certificates

Marine / Shipping









Type Test Certificates/Test Report



Marine / Shipping

ĴÅ





Miscellaneous

other

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=3VA5145-6ED21-1AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA5145-6ED21-1AA0

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

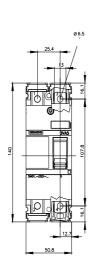
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5145-6ED21-1AA0

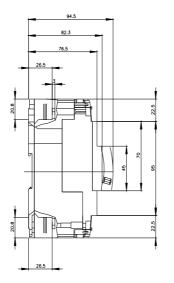
CAx-Online-Generator

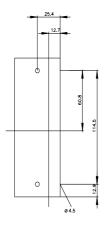
http://www.siemens.com/cax

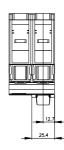
Tender specifications

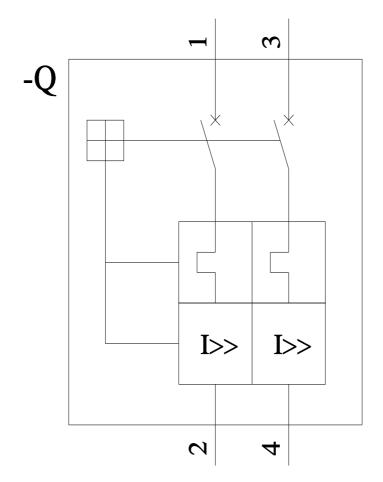
http://www.siemens.com/specifications

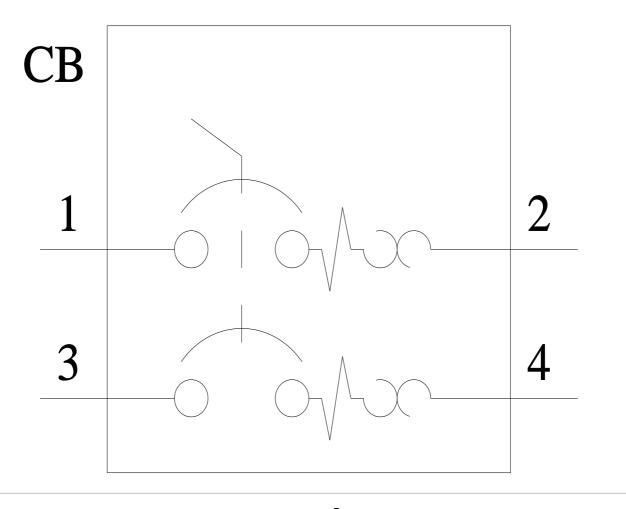












last modified: 7/15/2022 🖸

Mouser Electronics

Authorized Distributor

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

Siemens:

3VA51456ED211AA0