3VA5140-4ED21-1AA0

Data sheet



circuit breaker 3VA5 UL frame 125 breaking capacity class S 25kA @ 480V 2-pole, line protection TM210, FTFM, In=40A overload protection Ir=40A fixed short-circuit protection Ii=10 x In UL 489 SB (naval), 50° C without connection

product brand name product designation product designation A coording to UL file SEAM Moded-case circuit breaker product designation / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type) design of the load switch / according to UL 489 / Hejh-Intensity-Discharge circuit breaker (HACR Type) design of the load switch / according to UL 489 / Switching Duty circuit breaker (HACR SWD Type) design of the load switch / according to UL 489 / Switching Duty circuit breaker (HACR SWD Type) design of the load switch / according to UL 489 / Switching Duty circuit breaker (HACR SWD Type) design of the overcurrent release TM210 protection function of the overcurrent release LL number of poles Quartic technical data operating voltage / at AC / rated value 415 V power loss [W] / for rated value of the current / at AC / in hot operating state / per pole mechanical service life (operating cycles) / at AC-1 / at 380 V 1 4 000 electrical endurance (operating cycles) / at AC-1 / at 680 V 2 4 000 electrical endurance (operating cycles) / at AC-1 / at 680 V 4 000 electrical endurance (operating cycles) / at 800 V 4 000 electrical endurance (operating cycles) / at 800 V 4 000 electrical endurance (operating cycles) / at 800 V 4 000 product feature / for neutral conductors / upgradable/retrofittable / short-circuit a / on reutral conductors / upgradable/retrofittable / short-circuit a / on reutral conductors / upgradable/retrofittable / short-circuit a / on reutral conductors / upgradable/retrofittable / short-circuit a / on reutral conductors / upgradable/retrofittable / short-circuit a / on entral conductors / upgradable/retrofittable / short-circuit a / on entral conductors / upgradable/retrofittable / short-circuit a / on entral conductors / upgradable/retrofittable / short-circuit a / on entral conductors / upgradable/retrofittable / short-circuit / on entral conductors / upgradable/retrofittable / short-circuit / on entral conductors / upgradable/retrofittable / short-circu	Model	
product designation / according to UL file SEAM design of the product System protection 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- bischarge circuit breaker (IM Type) design of the load switch / according to UL 489 / Switching Duty design of the load switch / according to UL 489 / Switching Duty design of the load switch / according to UL 489 / Switching Duty 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 415 V 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 V / at 480 V electrical endurance (operating cycles) / at AC V / at 480 V electrical endurance (operating cycles) / at 800 V electrical endurance (operating cycles) / at 80 V electrical endurance (operating cycles)	product brand name	SENTRON
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 / 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 voercurrent release TM210 protection function of the overcurrent release til the function of the overcurrent release protection function of the overcurrent release til the function of the function of the overcurrent release til the function of the function of the overcurrent release til the function of the function of the overcurrent release til the function of th	product designation	Molded-case circuit breaker
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 (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 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 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 380415 V electrical endurance (operating cycles) / at 480 V 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- bischarge circuit breaker (HHD Type) design of the load switch / according to UL 489 / High-Intensity- 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 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 AO-0 V electrical	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 Inumber of poles 2 Ceneral technical data operating voltage / at AC / rated value power loss [W] / for rated value of the current / at AC / in hot operating state / per pole mechanical service life (operating cycles) / typical electrical endurance (operating cycles) / at AC-1 / at 380/415 V electrical endurance (operating cycles) / at AC-1 / at 690 V electrical endurance (operating cycles) / at ABO V product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof ground-fault monitoring version product function • communication function • other measurement function No Not Weight Current marking / according to UL 489 / 100%-rated breaker operational current • at 40 °C • at 45 °C • at 60 °C • at 65 °C 37 A • at 65 °C 37 A		Yes
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 415 V power loss [W] / maximum 7.46 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 product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof ground-fault monitoring version without product function • communication function No Net Weight 621 g Current marking / according to UL 489 / 100%-rated breaker No operational current • at 40 °C 40 A • at 50 °C 39 A • at 50 °C 37 A • at 60 °C 37 A • at 60 °C 37 A		No
Description of the overcurrent release Li		No
number of poles 2	design of the overcurrent release	TM210
Ceneral technical data	protection function of the overcurrent release	LI
operating voltage / at AC / rated value	number of poles	2
Dower loss [W] / maximum	General technical data	
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole mechanical service life (operating cycles) / typical 20 000 electrical endurance (operating cycles) / at AC-1 / at 380/415 V 8 000 electrical endurance (operating cycles) / at AC-1 / at 690 V 4 000 electrical endurance (operating cycles) / at 480 V 8 000 electrical endurance (operating cycles) / at 480 V 4 000 product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof ground-fault monitoring version without product function • communication function No • other measurement function No Net Weight 621 g Current marking / according to UL 489 / 100%-rated breaker No operational current • at 40 °C 40 A • at 45 °C 39 A • at 50 °C 39 A • at 55 °C 38 A • at 60 °C 37 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	7.46 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		3.73 W
electrical endurance (operating cycles) / at AC-1 / at 690 V electrical endurance (operating cycles) / at 480 V electrical endurance (operating cycles) / at 600 V electrical endurance (operating cycles) / at 600 V product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof ground-fault monitoring version • 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 55 °C • at 65 °C at 65 °C at 40 A • at 65 °C at 65 °C at 40 °C • at 65 °C at 60 °C • at 60 °C • at 65 °C at 60 °C • at 60 °C • at 60 °C • at 65 °C	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 ocommunication function No No Net Weight Current marking / according to UL 489 / 100%-rated breaker operational current o at 40 °C o at 45 °C o at 55 °C o at 65 °C o at 65 °C overational current other measurement function at 000 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 55 °C at 60 °C at 65 °C at 65 °C at 65 °C At 00 No No At 000 No No No No No At 000 At 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 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 40 A • at 45 °C 39 A • at 50 °C 39 A • at 55 °C 38 A • at 60 °C 37 A • at 65 °C 37 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 • 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 50 °C • at 55 °C • at 60 °C • at 60 °C • at 65 °C 37 A		No
 ● communication function No Not Weight 621 g Current marking / according to UL 489 / 100%-rated breaker No operational current ● at 40 °C ● at 45 °C ● at 50 °C ● at 55 °C ● at 60 °C ● at 65 °C 37 A ● at 65 °C 	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 37 A	product function	
Net Weight 621 g Current marking / according to UL 489 / 100%-rated breaker No operational current 40 A • at 40 °C 40 A • at 50 °C 39 A • at 55 °C 38 A • at 60 °C 37 A • at 65 °C 37 A	 communication function 	No
Current marking / according to UL 489 / 100%-rated breaker No operational current 40 A • at 40 °C 40 A • at 50 °C 39 A • at 55 °C 38 A • at 60 °C 37 A • at 65 °C 37 A	 other measurement function 	No
marking / according to UL 489 / 100%-rated breaker No operational current 40 A • at 40 °C 40 A • at 50 °C 39 A • at 55 °C 38 A • at 60 °C 37 A • at 65 °C 37 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 37 A	Current	
 at 40 °C at 45 °C at 50 °C at 55 °C at 60 °C at 65 °C 37 A 	marking / according to UL 489 / 100%-rated breaker	No
 at 45 °C at 50 °C at 55 °C 39 A at 55 °C 38 A at 60 °C at 65 °C 37 A 	operational current	
 at 50 °C at 55 °C at 60 °C at 65 °C 39 A 38 A 37 A 37 A 	• at 40 °C	40 A
• at 55 °C 38 A • at 60 °C 37 A • at 65 °C 37 A	• at 45 °C	39 A
• at 60 °C 37 A • at 65 °C 37 A	• at 50 °C	39 A
• at 65 °C 37 A	• at 55 °C	38 A
	• at 60 °C	37 A
• at 70 °C 36 A	● at 65 °C	37 A
	● at 70 °C	36 A

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	40 A
• maximum	40 A
adjustable response value delay time (tr) / for L-tripping / with I2t characteristic	
• minimum	1 s
maximum	1s
adjustable response value setting current (li) / for I-tripping	
• minimum	400 A
• maximum	400 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	28 40 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]	2 in
width	50.8 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
uxiliary circuit	
number of CO contacts / for auxiliary contacts	0
<u> </u>	
·	
·	No
Accessories product extension / optional / motor drive	No
product extension / optional / motor drive	No IP40
product extension / optional / motor drive	
product extension / optional / motor drive nvironmental conditions protection class IP / on the front	
product extension / optional / motor drive invironmental conditions protection class IP / on the front ambient temperature	IP40
product extension / optional / motor drive invironmental conditions protection class IP / on the front ambient temperature during operation / minimum during operation / maximum	IP40 -25 °C
product extension / optional / motor drive invironmental conditions protection class IP / on the front ambient temperature • during operation / minimum • during operation / maximum • during storage / minimum	-25 °C 70 °C -40 °C
product extension / optional / motor drive Environmental conditions protection class IP / on the front ambient temperature • during operation / minimum • during storage / minimum • during storage / maximum	IP40 -25 °C 70 °C
product extension / optional / motor drive Environmental conditions protection class IP / on the front ambient temperature • during operation / minimum • during operation / maximum • during storage / minimum	-25 °C 70 °C -40 °C



Confirmation







Miscellaneous

General Product Approval

EMC

Declaration of Conformity

Test Certificates

Marine / Shipping









Type Test Certificates/Test Report



Marine / Shipping

other









Miscellaneous

Confirmation

other

Miscellaneous

Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

Information- and Downloadcenter (Catalogs, Brochures,...)

http://www.siemens.com/lowvoltage/catalogs

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA5140-4ED21-1AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA5140-4ED21-1AA0

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

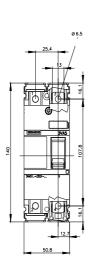
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5140-4ED21-1AA0

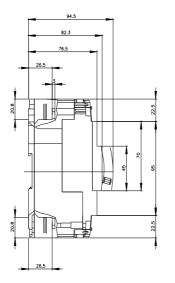
CAx-Online-Generator

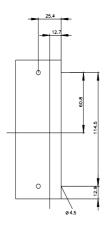
http://www.siemens.com/cax

Tender specifications

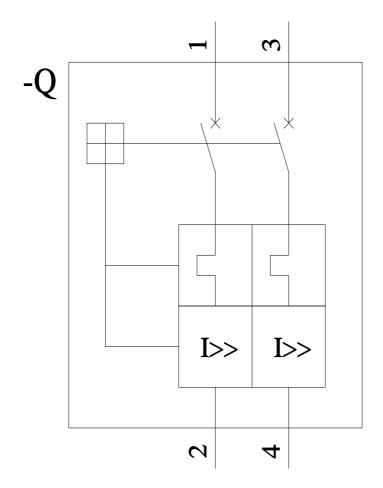
http://www.siemens.com/specifications

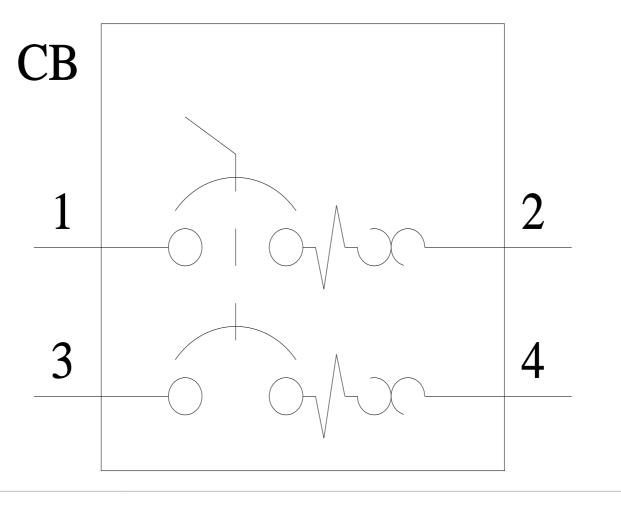












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Authorized Distributor

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Siemens:

3VA51404ED211AA0