# SIEMENS

#### Data sheet

### 3VA5222-6ED32-1AA0



circuit breaker 3VA5 UL frame 250 breaking capacity class H 65kA @ 480 V 3-pole, line protection TM210, FTFM, In=225A overload protection Ir=225A fixed short-circuit protection Ii=10 x In UL489 SB (naval), 50 deg. cel. nut keeper kit on both sides

product brand name         SENTRON           product designation         Molded-case circuit breaker           product designation / according to UL file         HFAM           design of the product         System protection           design of the load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration 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 (SND Type)         No           design of the load switch / according to UL 489 / Switching Duty circuit breaker (SND Type)         No           design of the overcurrent release         L1           number of poles         3           design of the overcurrent release         Si W / On           power loss [W] / ror rated value         690 V           operating voltage / at AC / rated value         690 V           operating state / per pole         700 V           mechanical service life (operating cycles) / typical         20 000           electrical endurance (operating cycles) / ta AC-1 / at 3690 V         8000           electrical endurance (operating cycles) / ta AC-1 / at 3690 V         8000           electrical endurance (operating cycles) / ta KO-1 / at 3690 V         8000           gerat	Model	
product designation / according to UL file         HFAM           design of the product         System protection           design of the load switch / according to UL 489 / Heating, AT         Yes           design of the load switch / according to UL 489 / High-Intensity- Discharge drick (SWD Type)         No           design of the load switch / according to UL 489 / High-Intensity- Discharge drick (SWD Type)         No           design of the load switch / according to UL 489 / Switching Duty dricut breaker (HD Type)         No           design of the load switch / according to UL 489 / Switching Duty dricut breaker (SWD Type)         No           design 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 to V         17.07 W           perating stale / per pole         20 000           electrical endurance (operating cycles) / typical         20 000           electrical endurance (operating cycles) / typical         8 000           ground-fault monit	product brand name	SENTRON
design of the product         System protection           design of the load switch / according to UL 489 / Heating, Air Conditioning, and Refigreation circuit breaker (HACR Type)         Yes           design of the load switch / according to UL 489 / High-Intensity- Discharge drive breaker (HACR Type)         No           design of the load switch / according to UL 489 / High-Intensity- Discharge drive breaker (HACR Type)         No           design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type)         No           design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type)         No           operating voltage / at AC / rated value         690 V           operating voltage / at AC / rated value         690 V           power loss [W] / maximum         51 W           operating state / per pole         70 W           mechanical service life (operating cycles) / typical         20 000           electrical endurance (operating cycles) / typical         8000           electrical endurance (operating cycles) / at 80 V         8000           electrical endurance (operating cycles) / at 800 V         4000           yrout tature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof         without           orgound-fault monitoring version         without           ordommutation function         No           o	product designation	Molded-case circuit breaker
design of the load switch / according to LUL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type)       Yes         design of the load switch / according to LU 489 / High-Intensity- Discharge circuit breaker (HID Type).       No         design of the load switch / according to LU 489 / Switching Duty drout breaker (SWD Type)       No         design of the load switch / according to LU 489 / Switching Duty drout breaker (SWD Type)       No         design of the overcurrent release       Tul         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       17.07 W         metchaical service life (operating cycles) / typical       20 000         electrical endurance (operating cycles) / at AC-1 / at 800 V       8 000         electrical endurance (operating cycles) / at AC-1 / at 800 V       8 000         electrical endurance (operating cycles) / at AO-1 / at 800 V       8 000         ground-fault monitoring version       without         product function       No         / stot-forcuit ad overload prof       900         ground-fault monitoring version       without         • other measurement function       No         • other measurement function       No	product designation / according to UL file	HFAM
Conditioning, and Refigeration circuit breaker (HACR 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 / Switching Duty circuit breaker (SWD Type)         No           design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type)         No           design of the overcurrent release         LI           number of poles         3           General technical dat         690 V           operating voltage / at AC / rated value         690 V           power loss [W] / for rated value of the current / at AC / in tot         7000           operating voltage / group of the (operating cycles) / typical         20 000           electrical endurance (operating cycles) / typical         20 000           electrical endurance (operating cycles) / typical         8 000           / short-for neutral conductors / upgradable/retrofitable         No           / short-for neutral conductors / upgradable/retrofitable         No <tr< td=""><td>design of the product</td><td>System protection</td></tr<>	design of the product	System protection
Discarge circul breaker (HD Type)         No           design of the load switch / according to UL 489 / Switching Duty circul breaker (SWD Type)         No           design of the overcurrent release         TM210           protection function 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/) / for rated value of the current / at AC / in hot operating state / per pole         71.07 W           mechanical service life (operating cycles) / typical         20 000           electrical endurance (operating cycles) / ta 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 600 V         4 000           / short-circuit and overload proof         without           ground-fault monitoring version         without           product feature / for neutral conductors / upgradable/retrofittable         No           other measurement function         No           • other measurement function         No           • other measurement function         No           • at 40 °C         220 A		Yes
circuit breaker (SWD Type)         Image: Constraint of the overcurrent release         TM210           protection function of the overcurrent release         Ll           number of poles         3           Ceneral technical data         690 V           power loss [W] / maximum         51 W           power loss [W] / for rated value of the current / at AC / in hot operating state / per pole         17.07 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 600 V         4 000           electrical endurance (operating cycles) / at AC0 V         8 000           electrical endurance (operating cycles) / at 600 V         4 000           product feature / for neutral conductors / upgradable/retrofittable         No           / short-ficitual and overload proof         without           product function         No           • communication function         No           • other measurement function         No           operating / according to UL 489 / 100%-rated breaker         No           operating / according to UL 489 / 100%-rated breaker         No           operational current         225 A           at 45 °C         220 A	6 6 <i>7</i>	No
protection function of the overcurrent release         Li           number of poles         3           General technical data         690 V           operating voltage / at AC / rated value         690 V           power loss [W] / maximum         51 W           power loss [W] / for rated value of the current / at AC / in hot operating state / per pole         17.07 W           mechanical service life (operating cycles) / typical         20 000           electrical endurance (operating cycles) / typical         8 000           electrical endurance (operating cycles) / ta AC-1 / at 380/415 V         8 000           electrical endurance (operating cycles) / ta AC-1 / at 380/415 V         8 000           electrical endurance (operating cycles) / ta AC-1 / at 380/415 V         8 000           electrical endurance (operating cycles) / ta AD V         8 000           electrical endurance (operating cycles) / ta AD V         8 000           electrical endurance (operating cycles) / ta AD V         8 000           ground-fault monitoring version         without           product fault conductors / upgradable/retrofittable / short-circuit and overload proof         No           other measurement function         No           Notter measurement function         No           other measurement function         No           operating / according to		No
number of poles         3           General technical data         690 V           operating voltage / at AC / rated value         690 V           power loss [W] / maximum         51 W           power loss [W] / for rated value of the current / at AC / in hot operating state / per pole         70.7 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 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 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 380/415 V         8 000           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 / short-circuit and overload proof         No           extored function         No         No           • other measurement function         No           operational current         225 A           • at 40 °C         2	design of the overcurrent release	TM210
General tochnical data       operating voltage / at AC / rated value     690 V       power loss [W] / maximum     51 W       power loss [W] / for rated value of the current / at AC / in hot operating state / per pole     17.07 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       electrical endurance (operating cycles) / at 600 V     4 000       product feature / for neutral conductors / upgradable/retrofittable / stort-circuit and overload proof     No       ground-fault monitoring version     without       product function     No       • communication function     No       • other measurement function     No       • other measurement function     No       • other of a conding to UL 489 / 100%-rated breaker     No       operational current     225 A       • at 40 °C     226 A       • at 40 °C     226 A       • at 40 °C     216 A       • at 55 °C     216 A       • at 55 °C     216 A       • at 65 °C     206 A	protection function of the overcurrent release	Ц
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         17.07 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 AC-1 / at 690 V         4 000           electrical endurance (operating cycles) / at AC-0 / at 690 V         4 000           product feature / for neutral conductors / upgradable/retrofittable         No           / short-circuit and overload proof         without           product function         vithout           • communication function         No           • other measurement function         No           • other measurement function         No           operational current         225 A           • at 40 °C         220 A           • at 50 °C         216 A           • at 50 °C         216 A           • at 50 °C         216 A           • at 60 °C         206 A           • at 60 °C         206 A           • at 65 °C	number of poles	3
power loss [W] / maximum51 Wpower loss [W] / for rated value of the current / at AC / in hot operating state / per pole17.07 Wmechanical service life (operating cycles) / typical20 000electrical endurance (operating cycles) / at AC-1 / at 380/415 V8 000electrical endurance (operating cycles) / at AC-1 / at 690 V4 000electrical endurance (operating cycles) / at AC-1 / at 690 V4 000electrical endurance (operating cycles) / at AC0 V8 000electrical endurance (operating cycles) / at 600 V4 000product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proofNoground-fault monitoring versionwithoutproduct function.• communication functionNo• other measurement functionNoNet Weight2.192 kgCurrent.• at 40 °C.• at 40 °C.• at 40 °C.• at 50 °C.• at 55 °C.• at 55 °C.• at 60 °C.• at 65 °	General technical data	
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole17.07 Wmechanical service life (operating cycles) / tyckal20 000electrical endurance (operating cycles) / at AC-1 / at 380/415 V8 000electrical endurance (operating cycles) / at AC / in to 500 V4 000electrical endurance (operating cycles) / at AC V8 000electrical endurance (operating cycles) / at AO V8 000electrical endurance (operating cycles) / at AO V4 000electrical endurance (operating cycles) / at AO V4 000product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proofNoground-fault monitoring versionwithoutproduct functionNo• other measurement functionNo• other measurement functionNo• other measurement functionNooperational current225 A• at 40 °C225 A• at 40 °C220 A• at 45 °C211 A• at 50 °C211 A• at 60 °C206 A• at 60 °C206 A• at 65 °C201 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 AC 0V         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           • communication function         No           • other measurement function         No           • other measurement function         No           operational current         225 A           • at 40 °C         220 A           • at 40 °C         220 A           • at 45 °C         216 A           • at 45 °C         216 A           • at 55 °C         211 A           • at 60 °C         206 A           • at 60 °C         206 A           • at 65 °C         201 A	power loss [W] / maximum	51 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-1 / at 690 V       8 000         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       No         ground-fault monitoring version       without         product function       No         • communication function       No         • other measurement function       No         Net Weight       2.192 kg         Current       at 40 °C         • at 40 °C       225 A         • at 45 °C       220 A         • at 45 °C       216 A         • at 55 °C       211 A         • at 60 °C       206 A         • at 65 °C       201 A		17.07 W
electrical endurance (operating cycles) / at AC-1 / at 690 V4 000electrical endurance (operating cycles) / at 480 V8 000electrical endurance (operating cycles) / at 600 V4 000product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proofNoground-fault monitoring versionwithoutproduct functionNoo communication functionNoo ther measurement functionNoNet Weight2.192 kgCurrent- eat 40 °C225 A- eat 45 °C220 A- eat 50 °C216 A- eat 55 °C211 A- eat 60 °C206 A- eat 65 °C201 A	mechanical service life (operating cycles) / typical	20 000
electrical endurance (operating cycles) / at 480 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 functionNoNet Weight2.192 kgCurrentVmarking / according to UL 489 / 100%-rated breakerNooperational current225 A• at 40 °C220 A• at 50 °C216 A• at 50 °C211 A• at 60 °C206 A• at 65 °C201 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 / short-circuit and overload proof       No         ground-fault monitoring version       without         product function       without         • communication function       No         • other measurement function       No         • other measurement function       No         • other measurement function       No         Operational current       2.192 kg         marking / according to UL 489 / 100%-rated breaker       No         operational current       225 A         • at 40 °C       220 A         • at 45 °C       210 A         • at 55 °C       211 A         • at 60 °C       206 A         • at 65 °C       201 A	electrical endurance (operating cycles) / at AC-1 / at 690 V	4 000
Induct feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proofNoground-fault monitoring versionwithoutproduct functionNo• communication functionNo• other measurement functionNoNet Weight2.192 kgCurrentmarking / according to UL 489 / 100%-rated breakerNo• at 40 °C225 A• at 40 °C220 A• at 45 °C216 A• at 55 °C211 A• at 60 °C206 A• at 65 °C201 A	electrical endurance (operating cycles) / at 480 V	8 000
i short-circuit and overload proof       without         ground-fault monitoring version       without         product function       No         • communication function       No         • other measurement function       No         Net Weight       2.192 kg         Current       Mo         marking / according to UL 489 / 100%-rated breaker       No         operational current       225 A         • at 40 °C       220 A         • at 45 °C       216 A         • at 55 °C       211 A         • at 60 °C       206 A         • at 65 °C       201 A	electrical endurance (operating cycles) / at 600 V	4 000
product functionNo• communication functionNo• other measurement functionNoNet Weight2.192 kgCurrentImage: State S		Νο
• communication function         No           • other measurement function         No           Net Weight         2.192 kg           Current         Current           marking / according to UL 489 / 100%-rated breaker         No           operational current         225 A           • at 40 °C         220 A           • at 45 °C         216 A           • at 50 °C         211 A           • at 60 °C         206 A           • at 65 °C         201 A	ground-fault monitoring version	without
• other measurement functionNoNet Weight2.192 kgCurrentmarking / according to UL 489 / 100%-rated breakerNooperational current225 A• at 40 °C220 A• at 45 °C220 A• at 50 °C216 A• at 55 °C211 A• at 60 °C206 A• at 65 °C201 A	product function	
Net Weight         2.192 kg           Current         Current           marking / according to UL 489 / 100%-rated breaker         No           operational current         225 A           • at 40 °C         225 A           • at 45 °C         220 A           • at 50 °C         216 A           • at 55 °C         211 A           • at 60 °C         206 A           • at 65 °C         201 A	<ul> <li>communication function</li> </ul>	No
Current       No         marking / according to UL 489 / 100%-rated breaker       No         operational current       225 A         • at 40 °C       220 A         • at 45 °C       220 A         • at 50 °C       216 A         • at 55 °C       211 A         • at 60 °C       206 A         • at 65 °C       201 A	<ul> <li>other measurement function</li> </ul>	No
marking / according to UL 489 / 100%-rated breaker         No           operational current         -           • at 40 °C         225 A           • at 45 °C         220 A           • at 50 °C         216 A           • at 60 °C         211 A           • at 60 °C         206 A           • at 65 °C         201 A	Net Weight	2.192 kg
operational current         225 A           • at 40 °C         225 A           • at 45 °C         220 A           • at 50 °C         216 A           • at 55 °C         211 A           • at 60 °C         206 A           • at 65 °C         201 A	Current	
• at 40 °C       225 A         • at 45 °C       220 A         • at 50 °C       216 A         • at 55 °C       211 A         • at 60 °C       206 A         • at 65 °C       201 A	marking / according to UL 489 / 100%-rated breaker	No
• at 45 °C       220 A         • at 50 °C       216 A         • at 55 °C       211 A         • at 60 °C       206 A         • at 65 °C       201 A	operational current	
• at 50 °C       216 A         • at 55 °C       211 A         • at 60 °C       206 A         • at 65 °C       201 A	● at 40 °C	225 A
• at 55 °C 211 A • at 60 °C 206 A • at 65 °C 201 A	● at 45 °C	220 A
• at 60 °C 206 A 201 A 201 A	● at 50 °C	216 A
• at 65 °C 201 A	● at 55 °C	211 A
	● at 60 °C	206 A
• at 70 °C 197 A	● at 65 °C	201 A
	● at 70 °C	197 A

breaker device	
design of short-circuit protection For switching breaker device	
chapter	power values in DC networks, see the 3VA molded case circuit e manual; link to be found under Service & Support in the last
Switching capacity according to UL 489	
current breaking capacity	
• at 240 V 100 kA	
• at 480 V 65 kA	
• at 600 V 25 kA	
Adjustable parameters	
adjustable response value setting current (Ir) / of the L-trip / with I2t characteristic	
• minimum 225 A	
• maximum 225 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 2 250 A	
• maximum 2 250 A	
adjustable setting current (InN) / for N-tripping	
• minimum 0 A	
maximum     O A	
adjustable current response value current / of the current-     225 225 A       dependent overload release     225 225 A	
product function / grounding protection No	
Mechanical Design	
product component	
undervoltage release     No	
voltage trigger     No	
trip indicator     No	
height [in] 7.28 in	
height 185 mm	
width [in] 4.13 in	
width 105 mm	
depth [in] 3.27 in	
depth 83 mm	
Connections	
arrangement of electrical connectors / for main current circuit Front connect	
type of electrical connection / for main current circuit nut keeper kit	on both ends
type of connectable conductor cross-sections / for flat-bar 13 x 1 mm terminal connection / minimum	
type of connectable conductor cross-sections / for flat-bar 25 x 8 mm terminal connection / maximum	
design of the surface / of the connections / on the bottom of the silver switch (N, 2, 4, 6)	
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 Yes	
vessels) / supplement SB	
General Product Approval	



#### 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)

 $\underline{https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA5222-6ED32-1AA0}$ 

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA5222-6ED32-1AA0

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

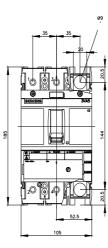
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA5222-6ED32-1AA0

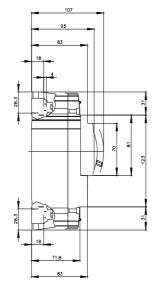
CAx-Online-Generator

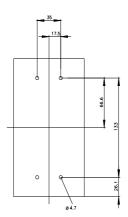
http://www.siemens.com/cax

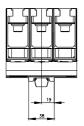
**Tender specifications** 

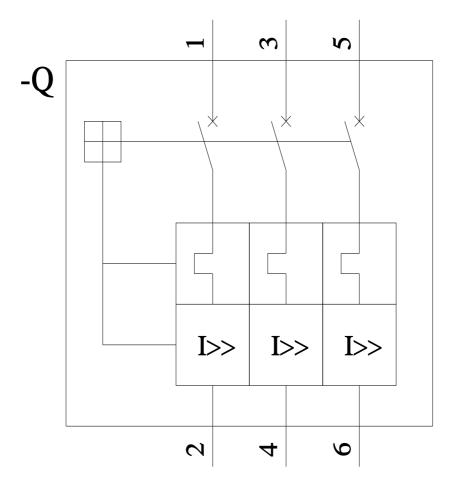
http://www.siemens.com/specifications

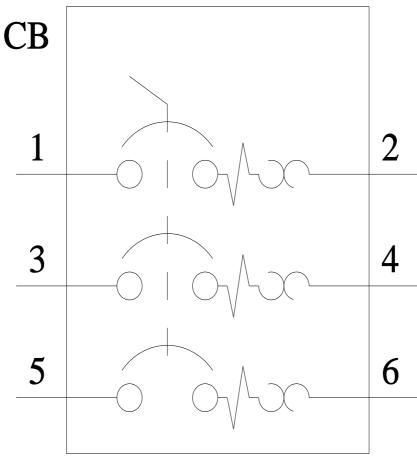












last modified:

7/15/2022 🖸

## **Mouser Electronics**

Authorized Distributor

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

Siemens: 3VA52226ED321AA0