# SIEMENS

#### Data sheet

### 3VA5220-6ED36-1AA0

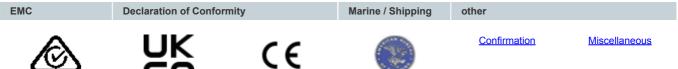


circuit breaker 3VA5 UL frame 250 breaking capacity class H 65kA @ 480 V 3-pole, line protection TM210, FTFM, In=200A overload protection Ir=200A fixed short-circuit protection Ii=10 x In UL489 SB (naval), 50 deg. cel. cable connection on both sides

product brand name         SENTRON           product designation / according to UL file         HFAM           design of the product         System protection           design of the doad witch / according to UL 489 / Heating Arr Conditioning, and Refrigeration circuit breaker (HACR Type)         Yes           design of the load switch / according to UL 489 / High-Intensity- Discharge circuit breaker (HACR Type)         No           design of the load switch / according to UL 489 / High-Intensity- Discharge circuit breaker (HACR Type)         No           design of the load switch / according to UL 489 / Switching Duty circuit breaker (WID Type)         No           design of the overcurrent release         TM210           protection function of the overcurrent release         U           number of poles         3           contral technical data         690 V           operating voltage / at AC / rated value         690 V           operating voltage / at AC / rated value         690 V           operating voltage / at AC / rated value         690 V           operating voltage / at AC / rated value         690 V           operating voltage / at AC / rated value         690 V           operating voltage / at AC / rated value         600 V           operating voltage / at AC / rated value         74 000           electricial endurance (operating voltagi / tayoch / at 80415	Model	
product designation / according to UL file         HFAM           design of the product         System protection           design of the load switch / according to UL 489 / Heating, Atr         Yes           Conditioning, and Refrigeration circuit breaker (HACR Type)         No           Discharge circuit breaker (INT Type)         No           design of the load switch / according to UL 489 / High-Intensity:         No           Discharge circuit breaker (INT Type)         No           design of the load switch / according to UL 489 / Switching Duty circuit breaker (INT Type)         No           design of the overcurrent release         Ll           number of poles         3           Ceneral technical data         690 V           power loss [W] / for rated value of the current / at AC / in hot operating state / per pole         43 W           mechanical service life (operating cycles) / typical         20 000           electrical endurance (operating cycles) / typical         20 000           electrical endurance (operating cycles) / typical         8 000           electrical endurance (operating cycles) / typical         8 000           electrical endurance (operating cycles) / typical         8 000           ground-fault monitoring version         without           product feature / for neutral conductors / upgradable/retrofitable         No	product brand name	SENTRON
design of the product     System protection       design of the load switch / according to UL 489 / Heating, Air Conditioning, and Refrigerative (HACR Type)     Yes       design of the load switch / according to UL 489 / High-Intensity- Discharge drive threaker (HIOT Type)     No       design of the load switch / according to UL 489 / Switching Duty drive threaker (HIOT Type)     No       design of the load switch / according to UL 489 / Switching Duty drive threaker (HIOT Type)     No       design of the overcurrent release     TM210       protection function of the overcurrent release     Ll       number of poles     3       Concret to Exhibit of the overcurrent release     HI       operating voltage / at AC / rated value     690 V       power toss [W] / reaximum     43 W       operating state / per pole     14.17 W       electrical endurance (operating cycles) / typical     20 000       electrical endurance (operating cycles) / typical     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       ground-fault monitoring cycles / at AC-1 / at 380/415 V     <	product designation	Molded-case circuit breaker
design of the load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type)     Yes       design of the load switch / according to UL 489 / High-Intensity- Discharge circuit breaker (HID Type)     No       design of the load switch / according to UL 489 / High-Intensity- Discharge circuit breaker (HID Type)     No       design of the overcurrent release     TM210       protection function of the overcurrent release     L1       number of poles     3       Concal tochnical data     690 V       operating voltage / at AC / rated value     690 V       power loss [W] / raximum     43 W       power loss [W] / raximum     43 W       power loss [W] / raximum     43 W       perating state / per pole     14.17 W       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 A0 V     8 000       electrical endurance (operating cycles) / at A0 V     8 000       electrical endurance (operating cycles) / at A0 V     8 000       ground-fault monitoring version     without       product feature / for neutral conductors / upgradable/retrofittable     No       / shot-fittid     2.2 kg       Current     200 A       eat 40 °C     200 A       eat 60 °C     1	product designation / according to UL file	HFAM
Conditioning, and Refrigeration circuit breaker (HACR Type)       No         design of the load switch / according to UL 489 / High-Intensity- Discharge circuit breaker (HND Type)       No         design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type)       No         design of the overcurrent release       Ll         number of poles       3         General technical data       600 V         operating voltage / at AC / rated value       600 V         power loss [W] / for rated value of the current / at AC / in hot operating state / per pole       20 000         electrical endurance (operating cycles) / typical       20 000         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 480 V       8 000         electrical endurance (operating cycles) / ta 480 V       8 000         electrical endurance (operating cycles) / ta 480 V       8 000         ground-fault monitoring version       without         product feature / for neutral conductors / upgradable/retrofittable       No         / statu / according to UL 489 / 100%-rated breaker       No         operating / according to UL 489 / 100%-rated breaker       No         other measurement function       No	design of the product	System protection
Discharge circuit breaker (HID Type)       No         design of the load switch / according to UL 489 / Switching Duty       No         design of the overcurrent release       TM210         protection function of the overcurrent release       Ll         number of poles       3         General technical data       690 V         power loss [W] / for rated value of the current / at AC / in hot operating soltae / at AC / rated value of the current / at AC / in hot operating soltae / at AC / rated value of the current / at AC / in hot operating state / per pole         mechanical service life (operating cycles) / ttpical       20 000         electrical endurance (operating cycles) / at AC-1 / at 380/415 V       8 000         electrical endurance (operating cycles) / at AC-1 / at 690 V       4 000         electrical endurance (operating cycles) / at AC0 / at 690 V       8 000         electrical endurance (operating cycles) / at AC0 / at 690 V       4 000         electrical endurance (operating cycles) / at AC0 / at 690 V       4 000         product feature / for neutral conductors / upgradable/retrofittable       No         / short-circuit and overload proof       without         ground-fault monitoring version       without         order the durance (operating cycles) / at AC1 / at 380/415 V       8 000         electrical endurance (operating cycles) / at 480 V       8 000		Yes
circuit breaker (SWD Type)       TM210         design of the overcurrent release       Ll         number of poles       3         coperating voltage / at AC / rated value       690 V         power loss [W] / maximum       43 W         pertection function of the current / at AC / in hot       14.17 W         operating state / per pole       mechanical service life (operating cycles) / typical       20 000         electrical endurance (operating cycles) / typical       20 000       electrical endurance (operating cycles) / ta C-1 / at 380/415 V       8 000         electrical endurance (operating cycles) / at AC-1 / at 690 V       4 000       electrical endurance (operating cycles) / at AC V       8 000         electrical endurance (operating cycles) / at AC V       8 000       electrical endurance (operating cycles) / at 800 V       4 000         product feature / for neutral conductors / upgradable/retrofittable       No       ////////////////////////////////////		No
protection function of the overcurrent release       L1         number of poles       3         General technical data       690 V         operating voltage / at AC / rated value       690 V         power loss [W] / maximum       43 W         power loss [W] / for rated value of the current / at AC / in hot operating state / per pole       14.17 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 AC-1 / at 690 V       4 000         electrical endurance (operating cycles) / at AC-1 / at 690 V       4 000         electrical endurance (operating cycles) / at AO V       8 000         electrical endurance (operating cycles) / at AO V       8 000         electrical endurance (operating cycles) / at AO V       8 000         ground-fault monitoring version       without         product function       No         • other measurement function       No         • other measurement function       No         • other measurement function       200 A         • at 40 °C       200 A		No
number of poles       3         General technical data       690 V         power loss [W] / maximum       43 W         power loss [W] / maximum       43 W         power loss [W] / trated value of the current / at AC / in hot operating state / per pole       14.17 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 AO V       8 000         electrical endurance (operating cycles) / at AO V       8 000         electrical endurance (operating cycles) / at AO V       8 000         electrical endurance (operating cycles) / at AO V       8 000         electrical endurance (operating cycles) / at AO V       8 000         ground-fault monitoring version       without         product fination function       No         • other measurement function       No         • other measurement function       No         operating to UL 489 / 100%-rated breaker       No         operational current       200 A         • at 40 °C       200 A         • at 45 °C       183 A         • at 50 °C       178 A         <	design of the overcurrent release	TM210
General technical data         operating voltage / at AC / rated value       690 V         power loss [W] / for rated value of the current / at AC / in hot       43 W         operating state / per pole       14.17 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 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         ground-fault monitoring cycles) / at AC-1 / at 690 V       4 000         ground-fault monitoring cycles) / at AC-1 / at 690 V       4 000         ground-fault monitoring version       without         product function       No         • communication function       No         • communication function       No         • other measurement function       No         Net Weight       2.2 kg         Current       No         • at 40 °C       194 A         • at 50 °C       183 A	protection function of the overcurrent release	LI
operating voltage / at AC / rated value         690 V           power loss [W] / maximum         43 W           power loss [W] / for rated value of the current / at AC / in hot operating state / per pole         14.17 W           mechanical service life (operating cycles) / typical         20 000           electrical endurance (operating cycles) / typical         20 000           electrical endurance (operating cycles) / at AC-1 / at 380/415 V         8 000           electrical endurance (operating cycles) / at AC-1 / at 690 V         4 000           electrical endurance (operating cycles) / at ABO V         8 000           electrical endurance (operating cycles) / at ABO V         4 000           product feature / for neutral conductors / upgradable/retrofittable         No           / short-circuit and overload proof         No           ground-fault monitoring version         without           product function         No           • communication function         No           • other measurement function         No           Net Weight         2.2 kg           Current         eat 40 °C           • at 40 °C         194 A           • at 50 °C         194 A           • at 50 °C         183 A           • at 60 °C         178 A           • at 65 °C         172	number of poles	3
power loss [W] / maximum       43 W         power loss [W] / for rated value of the current / at AC / in hot operating state / per pole       14.17 W         mechanical service life (operating cycles) / typical       20 000         electrical endurance (operating cycles) / at AC-1 / at 380/415 V       8 000         electrical endurance (operating cycles) / at AC-1 / at 690 V       4 000         electrical endurance (operating cycles) / at AC0 V       8 000         electrical endurance (operating cycles) / at 600 V       4 000         product feature / for neutral conductors / upgradable/retrofittable /short-circuit and overload proof       No         ground-fault monitoring version       without         product function       No         • other measurement function       No         Net Weight       2.2 kg         Current       at 40 °C         • at 40 °C       194 A         • at 40 °C       194 A         • at 45 °C       194 A         • at 55 °C       183 A         • at 60 °C       178 A         • at 65 °C       172 A	General technical data	
power loss [W] / for rated value of the current / at AC / in hot       14.17 W         operating state / per pole       14.17 W         mechanical service life (operating cycles) / typical       20 000         electrical endurance (operating cycles) / at AC-1 / at 380/415 V       8 000         electrical endurance (operating cycles) / at AC 1 / at 690 V       4 000         electrical endurance (operating cycles) / at AC V       8 000         electrical endurance (operating cycles) / at 600 V       4 000         product feature / for neutral conductors / upgradable/retrofittable       No         / short-circuit and overload proof       without         ground-fault monitoring version       without         product function       No         • other measurement function       No         • other measurement function       No         operational current       200 A         • at 40 °C       200 A         • at 45 °C       194 A         • at 45 °C       183 A         • at 50 °C       183 A         • at 60 °C       178 A         • at 65 °C       172 A	operating voltage / at AC / rated value	690 V
operating state / per polemechanical service life (operating cycles) / typical20 000electrical endurance (operating cycles) / at AC-1 / at 380/15 V8 000electrical endurance (operating cycles) / at 480 V8 000electrical endurance (operating cycles) / at 600 V4 000electrical endurance (operating cycles) / at 600 V4 000product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proofNoground-fault monitoring versionwithoutproduct functionNo• communication functionNo• other measurement functionNo• other measurement functionNooperating / according to UL 489 / 100%-rated breakerNooperational current200 A• at 40 °C200 A• at 55 °C189 A• at 60 °C178 A• at 65 °C172 A	power loss [W] / maximum	43 W
electrical endurance (operating cycles) / at AC-1 / at 380/415 V       8 000         electrical endurance (operating cycles) / at AC-1 / at 690 V       4 000         electrical endurance (operating cycles) / at AC V       8 000         electrical endurance (operating cycles) / at AO V       8 000         electrical endurance (operating cycles) / at AO V       8 000         electrical endurance (operating cycles) / at 600 V       4 000         product feature / for neutral conductors / upgradable/retrofittable       No         / short-circuit and overload proof       without         ground-fault monitoring version       without         product function       No         • communication function       No         • other measurement function       No         Net Weight       2.2 kg         Current       at 40 °C         • at 40 °C       200 A         • at 40 °C       194 A         • at 50 °C       189 A         • at 55 °C       183 A         • at 60 °C       178 A         • at 65 °C       172 A		14.17 W
electrical endurance (operating cycles) / at AC-1 / at 690 V       4 000         electrical endurance (operating cycles) / at 480 V       8 000         electrical endurance (operating cycles) / at 600 V       4 000         product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof       No         ground-fault monitoring version       without         product function       No         • communication function       No         • other measurement function       No         Net Weight       2.2 kg         Current       V         marking / according to UL 489 / 100%-rated breaker       No         operational current       194 A         • at 40 °C       200 A         • at 45 °C       194 A         • at 55 °C       183 A         • at 60 °C       178 A         • at 65 °C       172 A	mechanical service life (operating cycles) / typical	20 000
electrical endurance (operating cycles) / at 480 V       8 000         electrical endurance (operating cycles) / at 600 V       4 000         product feature / for neutral conductors / upgradable/retrofittable       No         / short-circuit and overload proof       without         ground-fault monitoring version       without         product function       No         • communication function       No         • other measurement function       No         Net Weight       2.2 kg         Current       Maximum         marking / according to UL 489 / 100%-rated breaker       No         operational current       194 A         • at 40 °C       194 A         • at 50 °C       189 A         • at 55 °C       183 A         • at 65 °C       172 A	electrical endurance (operating cycles) / at AC-1 / at 380/415 V	8 000
electrical endurance (operating cycles) / at 600 V       4 000         product feature / for neutral conductors / upgradable/retrofittable       No         / short-circuit and overload proof       without         ground-fault monitoring version       without         product function       No         • communication function       No         • other measurement function       No         Net Weight       2.2 kg         Current       No         marking / according to UL 489 / 100%-rated breaker       No         operational current       200 A         • at 40 °C       200 A         • at 45 °C       194 A         • at 55 °C       183 A         • at 65 °C       172 A	electrical endurance (operating cycles) / at AC-1 / at 690 V	4 000
product feature / for neutral conductors / upgradable/retrofittable       No         / short-circuit and overload proof       without         ground-fault monitoring version       without         product function       No         • communication function       No         • other measurement function       No         Net Weight       2.2 kg         Current       Mo         marking / according to UL 489 / 100%-rated breaker       No         operational current       200 A         • at 40 °C       200 A         • at 45 °C       194 A         • at 55 °C       183 A         • at 60 °C       178 A         • at 65 °C       172 A	electrical endurance (operating cycles) / at 480 V	8 000
/ short-circuit and overload proof       without         ground-fault monitoring version       without         product function       No         • communication function       No         • other measurement function       No         Net Weight       2.2 kg         Current       No         marking / according to UL 489 / 100%-rated breaker       No         operational current       200 A         • at 40 °C       200 A         • at 45 °C       194 A         • at 50 °C       189 A         • at 65 °C       178 A         • at 65 °C       172 A	electrical endurance (operating cycles) / at 600 V	4 000
product functionNo• communication functionNo• other measurement functionNoNet Weight2.2 kgCurrentmarking / according to UL 489 / 100%-rated breakerNoNooperational currentNo• at 40 °C200 A• at 45 °C194 A• at 50 °C189 A• at 55 °C183 A• at 60 °C178 A• at 65 °C172 A		No
• communication functionNo• other measurement functionNoNet Weight2.2 kgCurrentCurrentmarking / according to UL 489 / 100%-rated breakerNooperational current200 A• at 40 °C200 A• at 55 °C194 A• at 55 °C183 A• at 60 °C178 A• at 65 °C172 A	ground-fault monitoring version	without
• other measurement functionNoNet Weight2.2 kgCurrentmarking / according to UL 489 / 100%-rated breakerNooperational currentNo• at 40 °C200 A• at 45 °C194 A• at 55 °C189 A• at 55 °C183 A• at 60 °C178 A• at 65 °C172 A	product function	
Net Weight2.2 kgCurrentmarking / according to UL 489 / 100%-rated breakerNooperational current• at 40 °C200 A• at 45 °C194 A• at 55 °C189 A• at 65 °C178 A• at 65 °C172 A	<ul> <li>communication function</li> </ul>	No
Currentmarking / according to UL 489 / 100%-rated breakerNooperational current200 A• at 40 °C200 A• at 45 °C194 A• at 50 °C189 A• at 55 °C183 A• at 60 °C178 A• at 65 °C172 A	<ul> <li>other measurement function</li> </ul>	No
marking / according to UL 489 / 100%-rated breakerNooperational current200 A• at 40 °C200 A• at 45 °C194 A• at 50 °C189 A• at 55 °C183 A• at 60 °C178 A• at 65 °C172 A	Net Weight	2.2 kg
operational current         200 A           • at 40 °C         200 A           • at 45 °C         194 A           • at 50 °C         189 A           • at 55 °C         183 A           • at 60 °C         178 A           • at 65 °C         172 A	Current	
• at 40 °C       200 A         • at 45 °C       194 A         • at 50 °C       189 A         • at 55 °C       183 A         • at 60 °C       178 A         • at 65 °C       172 A	marking / according to UL 489 / 100%-rated breaker	No
• at 45 °C       194 A         • at 50 °C       189 A         • at 55 °C       183 A         • at 60 °C       178 A         • at 65 °C       172 A	operational current	
• at 50 °C       189 A         • at 55 °C       183 A         • at 60 °C       178 A         • at 65 °C       172 A	• at 40 °C	200 A
• at 55 °C 183 A • at 60 °C 178 A • at 65 °C 172 A	• at 45 °C	194 A
• at 60 °C 178 A • at 65 °C 172 A	• at 50 °C	189 A
• at 65 °C 172 A	● at 55 °C	183 A
	● at 60 °C	178 A
• at 70 °C 167 A	● at 65 °C	172 A
	● at 70 °C	167 A

Switching capacity according to IEC 60947	
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 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	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	200 A
• minimum	200 A
maximum     divetable reasonable value delay time (tr) (for L tripping (with 12t	200 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	2 000 A
● maximum	2 000 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	200 200 A
product function / grounding protection	No
Mechanical Design	
product component	
<ul> <li>undervoltage release</li> </ul>	No
<ul> <li>voltage trigger</li> </ul>	No
trip indicator	No
height [in]	7.28 in
height	185 mm
width [in]	4.13 in
type of connectable conductor cross-sections / of the round conductor terminal / stranded	1 x (6 AWG - 350 kcmil)
width	105 mm
depth [in]	3.27 in
depth	83 mm
Connections	
arrangement of electrical connectors / for main current circuit	Front connection
type of electrical connection / for main current circuit	circular conductor terminal on both sides
Auxiliary circuit	
number of CO contacts / for auxiliary contacts	0
Accessories	
product extension / optional / motor drive	Yes
Environmental conditions	
protection class IP / on the front	IP40
ambient temperature	
during operation / minimum	-25 °C
during operation / maximum	70 °C
during storage / minimum	-40 °C
during storage / maximum	80 °C
Certificates certificate of suitability / as approval for NAVAL (no combat	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)

 $\underline{https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA5220-6ED36-1AA0}$ 

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA5220-6ED36-1AA0

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

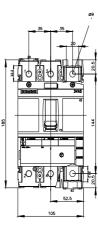
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA5220-6ED36-1AA0

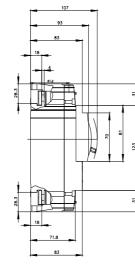
CAx-Online-Generator

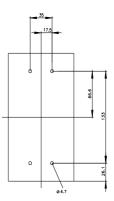
http://www.siemens.com/cax

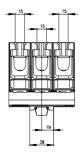
**Tender specifications** 

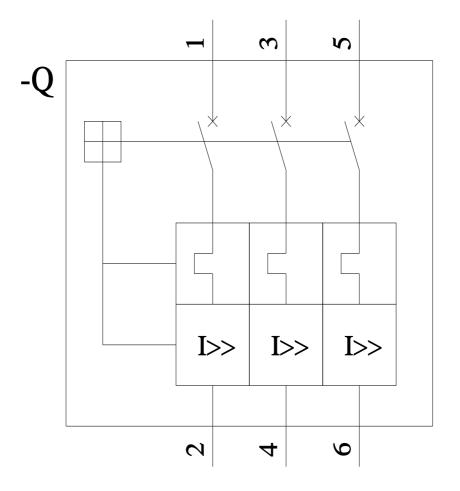
http://www.siemens.com/specifications

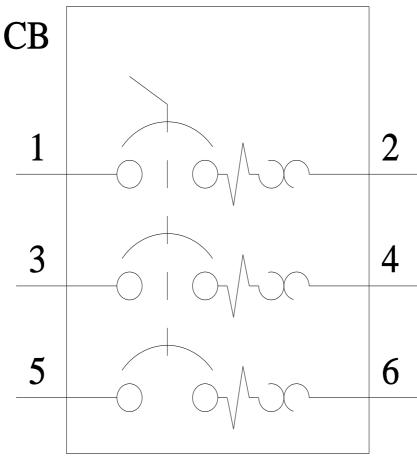












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## **Mouser Electronics**

Authorized Distributor

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

Siemens: 3VA52206ED361AA0