



circuit breaker 3VA5 UL frame 250 breaking capacity class M 35kA @ 480 V 4-pole, line protection TM240, ATAM, In=200A overload protection Ir=160A...200A short-circuit protection Ii=5...10 x In N conductor protection 100% without connection

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	MFAS
design of the product	System protection
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 / Switching Duty circuit breaker (SWD Type)	No
design of the overcurrent release	TM240
protection function of the overcurrent release	LI
number of poles	4
General technical data	
insulation voltage / rated value	800 V
operating voltage / at DC / rated value	1 000 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 480 V	8 000
electrical endurance (operating cycles) / at 600 V	4 000
product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof	No
ground-fault monitoring version	without
product function	
• communication function	No
• other measurement function	No
Net Weight	2.7 kg
Current	
marking / according to UL 489 / 100%-rated breaker	No
operational 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

• at 70 °C	167 A
<b>Switching capacity according to IEC 60947</b>	
switching capacity class of the circuit breaker	M
maximum short-circuit current breaking capacity (I <sub>cu</sub> )	
• at 240 V	85 kA
• at 415 V	55 kA
• at 690 V	7 kA
operating short-circuit current breaking capacity (I <sub>cs</sub> )	
• at 240 V	85 kA
• at 415 V	55 kA
• at 690 V	7 kA
short-circuit current making capacity (I <sub>cm</sub> )	
• at 240 V	187 kA
• at 415 V	121 kA
• at 690 V	11.9 kA
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
<b>Switching capacity according to UL 489</b>	
current breaking capacity	
• at 240 V	85 kA
• at 480 V	35 kA
• at 600 V	18 kA
<b>Adjustable parameters</b>	
adjustable response value setting current (I <sub>r</sub> ) / of the L-trip / with I <sup>2</sup> t characteristic	
• minimum	160 A
• maximum	200 A
adjustable response value delay time (t <sub>r</sub> ) / for L-tripping / with I <sup>2</sup> t characteristic	
• minimum	1 s
• maximum	1 s
adjustable response value setting current (I <sub>i</sub> ) / for I-tripping	
• minimum	1 000 A
• maximum	2 000 A
adjustable absolute value setting current (I <sub>nN</sub> ) / for N-tripping	
• minimum	200 A
• maximum	200 A
adjustable current response value current / of the current-dependent overload release	140 ... 200 A
design of the N-conductor protection	100%
product function / grounding protection	No
<b>Mechanical Design</b>	
product component	
• undervoltage release	No
• voltage trigger	No
• trip indicator	No
height [in]	7.28 in
height	185 mm
width [in]	5.51 in
width	140 mm
depth [in]	3.27 in
depth	83 mm
<b>Connections</b>	
arrangement of electrical connectors / for main current circuit	Without connection
type of electrical connection / for main current circuit	Without
<b>Auxiliary circuit</b>	
number of CO contacts / for auxiliary contacts	0
<b>Accessories</b>	
product extension / optional / motor drive	Yes
<b>Environmental conditions</b>	
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**

reference code / according to IEC 81346-2	Q
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**General Product Approval**



[Confirmation](#)



[Miscellaneous](#)



**EMC Declaration of Conformity Marine / Shipping**



**Marine / Shipping other**



[Confirmation](#)

[Miscellaneous](#)

[Miscellaneous](#)

**Further information**

**Siemens has decided to exit the Russian market (see here).**  
<https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business>

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

**Information on the packaging**  
<https://support.industry.siemens.com/cs/ww/en/view/109813875>

**Information- and Downloadcenter (Catalogs, Brochures,...)**  
<http://www.siemens.com/lowvoltage/catalogs>

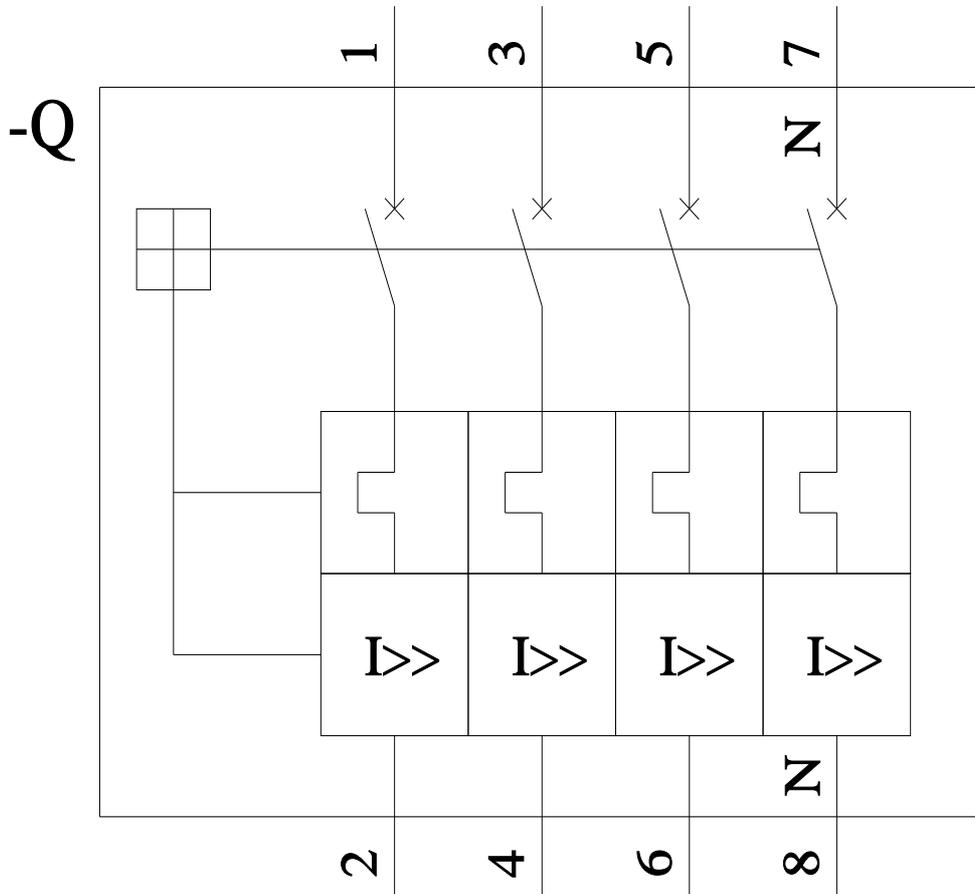
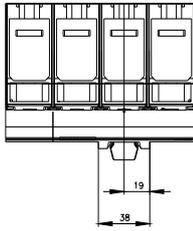
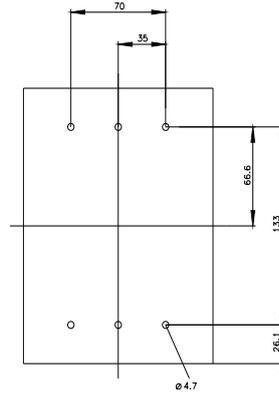
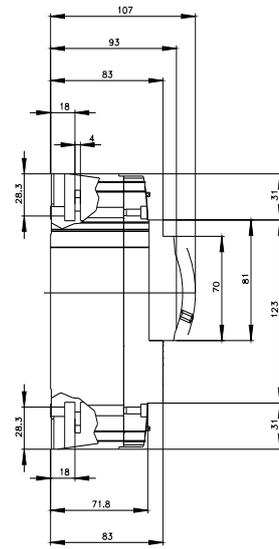
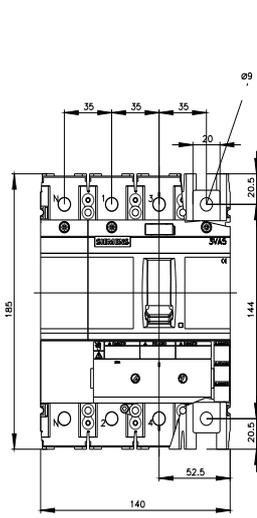
**Industry Mall (Online ordering system)**  
<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA5220-5GF41-0AA0>

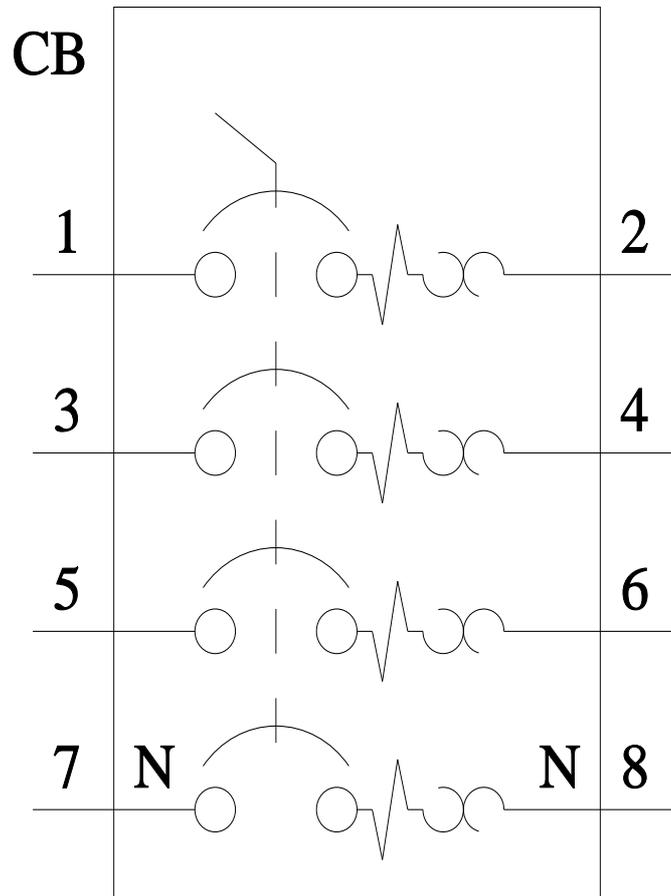
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**  
<https://support.industry.siemens.com/cs/ww/en/ps/3VA5220-5GF41-0AA0>

**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)**  
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA5220-5GF41-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5220-5GF41-0AA0)

**CAx-Online-Generator**  
<http://www.siemens.com/cax>

**Tender specifications**  
<http://www.siemens.com/specifications>





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