



circuit breaker 3VA5 UL frame 250 breaking capacity class M 35kA @ 480 V 3-pole, line protection TM210, FTFM, In=200A overload protection Ir=200A fixed short-circuit protection Ii=10 x In UL 489 SB (naval), 50° C without connection

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	MFAM
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	TM210
protection function of the overcurrent release	LI
number of poles	3
General technical data	
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 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

Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	M
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	
<ul style="list-style-type: none"> <li>at 240 V</li> </ul>	85 kA
<ul style="list-style-type: none"> <li>at 480 V</li> </ul>	35 kA
<ul style="list-style-type: none"> <li>at 600 V</li> </ul>	18 kA

Adjustable parameters	
adjustable response value setting current (I <sub>r</sub> ) / of the L-trip / with I <sub>2t</sub> characteristic	
<ul style="list-style-type: none"> <li>minimum</li> </ul>	200 A
<ul style="list-style-type: none"> <li>maximum</li> </ul>	200 A
adjustable response value delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic	
<ul style="list-style-type: none"> <li>minimum</li> </ul>	1 s
<ul style="list-style-type: none"> <li>maximum</li> </ul>	1 s
adjustable response value setting current (I <sub>i</sub> ) / for I-tripping	
<ul style="list-style-type: none"> <li>minimum</li> </ul>	2 000 A
<ul style="list-style-type: none"> <li>maximum</li> </ul>	2 000 A
adjustable setting current (I <sub>nN</sub> ) / for N-tripping	
<ul style="list-style-type: none"> <li>minimum</li> </ul>	0 A
<ul style="list-style-type: none"> <li>maximum</li> </ul>	0 A
product function / grounding protection	No

Mechanical Design	
product component	
<ul style="list-style-type: none"> <li>undervoltage release</li> </ul>	No
<ul style="list-style-type: none"> <li>voltage trigger</li> </ul>	No
<ul style="list-style-type: none"> <li>trip indicator</li> </ul>	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	Without connection
type of electrical connection / for main current circuit	Without

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	
<ul style="list-style-type: none"> <li>during operation / minimum</li> </ul>	-25 °C
<ul style="list-style-type: none"> <li>during operation / maximum</li> </ul>	70 °C
<ul style="list-style-type: none"> <li>during storage / minimum</li> </ul>	-40 °C
<ul style="list-style-type: none"> <li>during storage / maximum</li> </ul>	80 °C

Approvals / Certificates	
General Product Approval	



[Confirmation](#)



General Product Approval

EMV

Marine / Shipping

other



other Environment

Further information

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=3VA5220-5ED31-1AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5220-5ED31-1AA0>

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

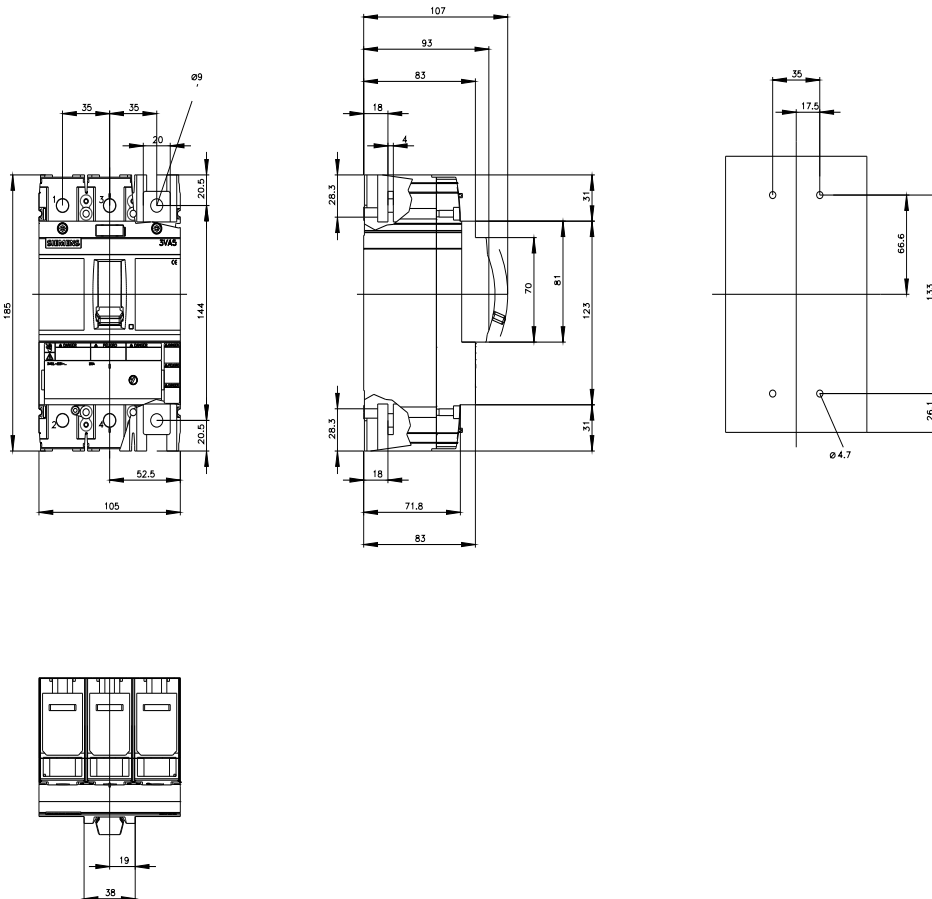
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA5220-5ED31-1AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5220-5ED31-1AA0)

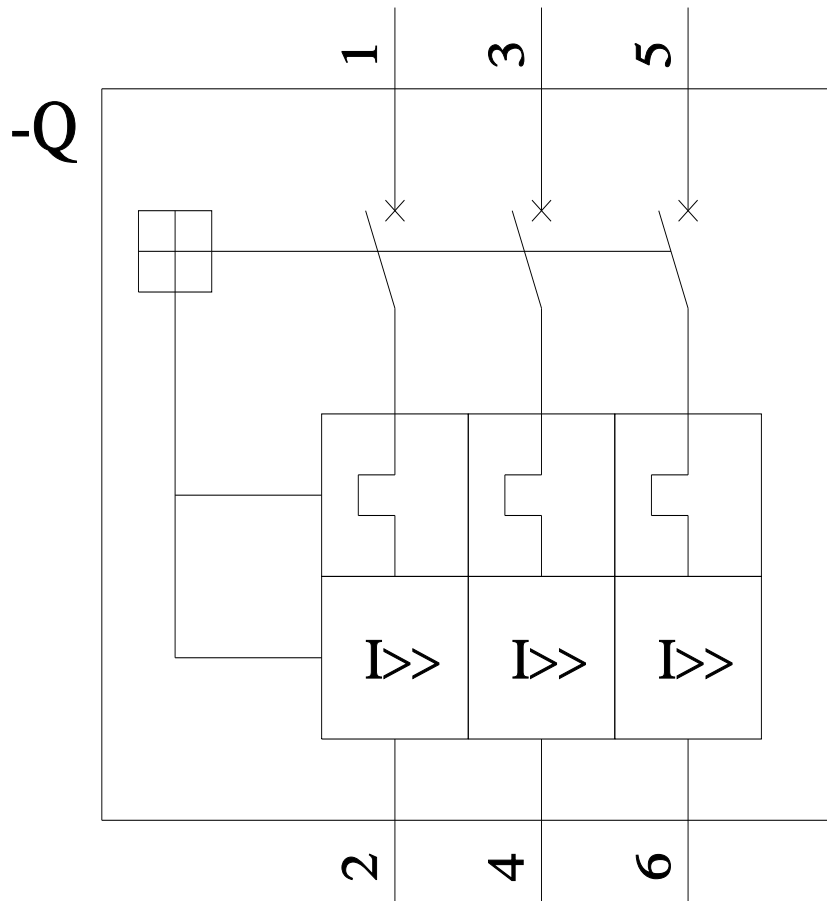
CAX-Online-Generator

<http://www.siemens.com/cax>

Tender specifications

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





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