

circuit breaker 3VA5 UL frame 250 3-pole, starter protection  
 TM120M, AM, In=150A without overload protection short-circuit  
 protection Ii=6...12 x In without connection



Model	
Product brand name	SENTRON
Product designation	Molded-case circuit breaker
Product designation / according to UL-File	HFAP
Product version	Starter protection
Design of the load switch / acc. to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type)	Yes
Design of the overcurrent release	TM120M
Protective function of the overcurrent release	I
Number of poles	3
General technical data	
Rated insulation voltage Ui	800 V
Max. rated operational voltage Ue with AC 50/60Hz	690 V
Power loss [W] / maximum	19.6 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	6.53 W
Latching - endurance	15 000

Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	8 000
Electrical endurance (switching cycles) / at 480 V / at 50/60 Hz	8 000
Electrical endurance (switching cycles) / at 600 V / at 50/60 Hz	4 000
Neutral conductors / upgradeable/retrofitable	No
Ground fault monitoring version	Without
Product function	
• communication function	No
• Phase failure detection	No
• other measurement function	No

### Electricity

Marking / acc. to UL 489 / 100%-rated breaker	No
Max. rated operational voltage of the size of the circuit-breaker	250 A
Rated continuous current I <sub>u</sub>	150 A
Operating current	
• at 40 °C	150 A
• at 45 °C	150 A
• at 50 °C	150 A
• at 55 °C	150 A
• at 60 °C	150 A
• at 65 °C	150 A
• at 70 °C	150 A

### Switching capacity according to IEC 60947

Maximum short-circuit current breaking capacity (I <sub>cu</sub> )	
• at 240 V	100 kA
• at 415 V	70 kA
• at 690 V	10 kA
Operational short-circuit current breaking capacity (I <sub>cs</sub> )	
• at 240 V	100 kA
• at 415 V	70 kA
• at 690 V	10 kA
Short-circuit current making capacity (I <sub>cm</sub> )	
• at 240 V	220 kA
• at 415 V	154 kA
• at 690 V	17 kA

### Adjustable parameters

Ground fault protection / tripping switchable / I <sub>2t</sub> =ON/OFF	No
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Mechanical Design	
Height [in]	7.3 in
Height	185 mm
Width [in]	4.1 in
Width	105 mm
Depth [in]	3.3 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> <li>during operation / maximum</li> <li>during storage / minimum</li> <li>during storage / maximum</li> </ul>	<ul style="list-style-type: none"> <li>-25 °C</li> <li>70 °C</li> <li>-40 °C</li> <li>80 °C</li> </ul>

Certificates	
Reference code / acc. to DIN EN 81346-2	Q
Certificate of suitability / as approval for NAVAL (no combat vessels) / Supplement SB	No

### General Product Approval



EMC	Declaration of Conformity	Shipping Approval	other
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[Miscellaneous](#)

### Further information

**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=3VA5215-0MH31-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5215-0MH31-0AA0>

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

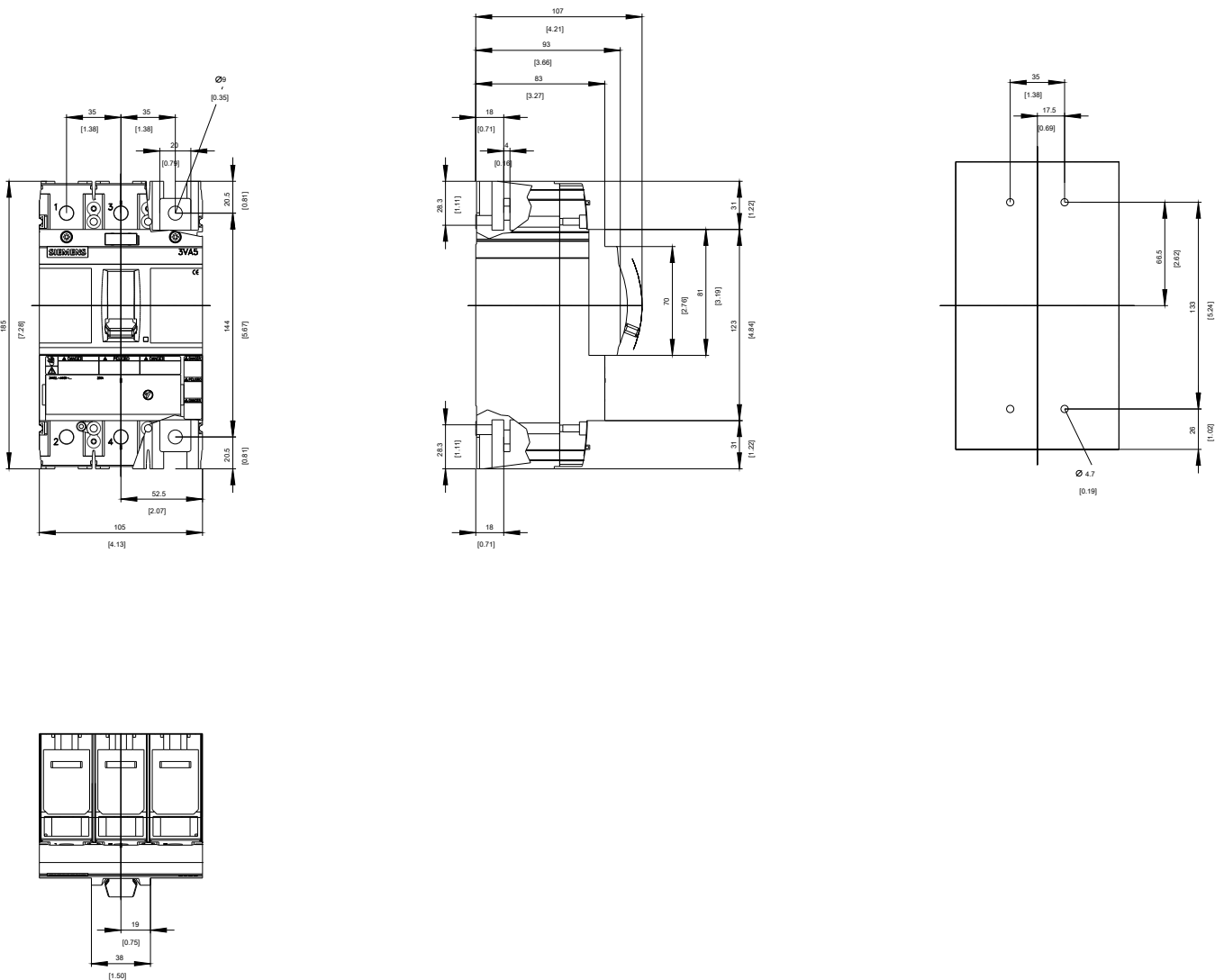
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA5215-0MH31-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5215-0MH31-0AA0)

**CAX-Online-Generator**

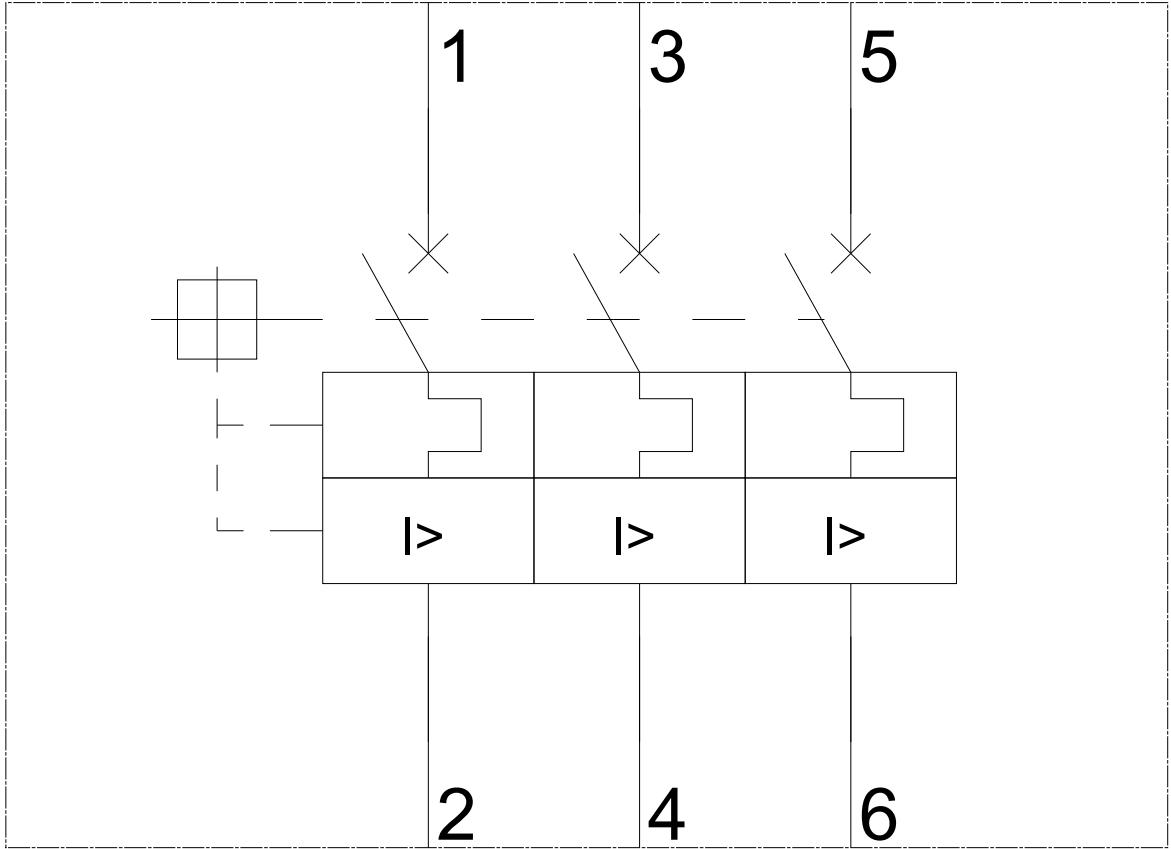
<http://www.siemens.com/cax>

**Tender specifications**

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

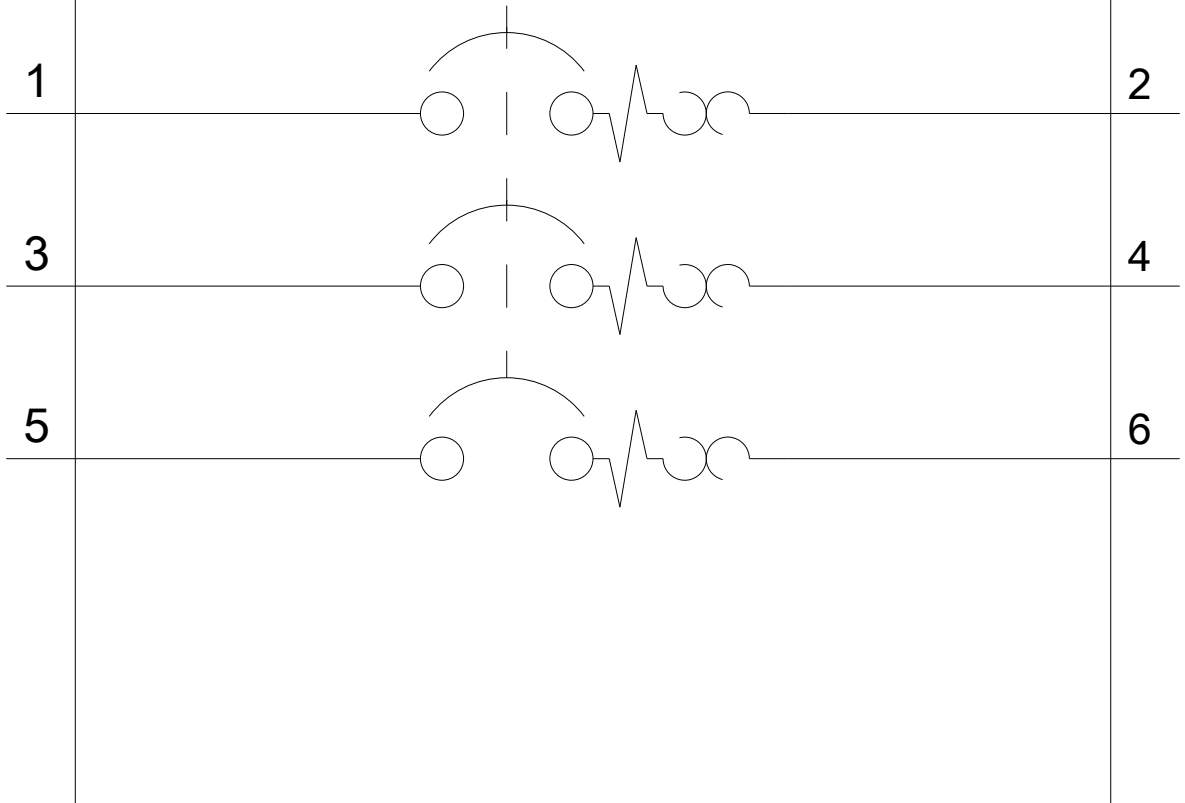


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