



circuit breaker 3VA5 UL frame 125 3-pole, starter protection TM120M, AM, In=80A without overload protection short-circuit protection Ii=3...7 x In nut keeper kit on both sides

Model	
product brand name	SETRON
product designation	Molded-case circuit breaker
product designation / according to UL file	HEAP
Product version	Starter 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	TM120M
protection function of the overcurrent release	I
number of poles	3
General technical data	
rated insulation voltage Ui	800 V
operating voltage / at AC / rated value	690 V
power loss [W] / maximum	14.2 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	4.73 W
mechanical service life (switching cycles) / typical	20 000
Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	8 000
Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz	4 000
electrical endurance (switching cycles) / at 480 V	8 000
electrical endurance (switching cycles) / at 600 V	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
Net Weight	1.034 kg
Current	
marking / according to UL 489 / 100%-rated breaker	No
operational current	
• at 40 °C	80 A
• at 45 °C	80 A
• at 50 °C	80 A

<ul style="list-style-type: none"> <li>• at 55 °C</li> <li>• at 60 °C</li> <li>• at 65 °C</li> <li>• at 70 °C</li> </ul>	80 A			
	80 A			
	80 A			
	80 A			
<b>Switching capacity according to IEC 60947</b>				
breaking capacity maximum short-circuit current (Icu)				
<ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 690 V</li> </ul>	150 kA			
	70 kA			
	10 kA			
breaking capacity operating short-circuit current (Ics)				
<ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 690 V</li> </ul>	150 kA			
	70 kA			
	5 kA			
short-circuit current making capacity (Icm)				
<ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 690 V</li> </ul>	330 kA			
	154 kA			
	17 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>Adjustable parameters</b>				
Ground fault protection / tripping switchable / I2t=ON/OFF	No			
<b>Mechanical Design</b>				
height [in]	5.51 in			
Height	140 mm			
width [in]	3 in			
Width	76.2 mm			
depth [in]	3.01 in			
depth	76.5 mm			
<b>Connections</b>				
arrangement of electrical connectors / for main current circuit	Front connection			
type of electrical connection / for main current circuit	nut keeper kit on both ends			
Type of connectable conductor cross-section, connection screw, width x thickness , min.	12 x 1 mm			
Type of connectable conductor cross-section, connection screw, width x thickness , max.	17 x 6.5 mm			
<b>Auxiliary circuit</b>				
product component				
<ul style="list-style-type: none"> <li>• undervoltage release</li> <li>• voltage trigger</li> <li>• trip indicator</li> </ul>	No			
	No			
	No			
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				
<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>	-25 °C			
	70 °C			
	-40 °C			
	80 °C			
<b>Certificates</b>				
reference code / according to IEC 81346-2	Q			
certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	Yes			
<b>General Product Approval</b>	<b>EMC</b>	<b>Marine / Shipping</b>	<b>other</b>	



[Confirmation](#)



[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?mfb=3VA5180-1MU32-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5180-1MU32-0AA0>

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

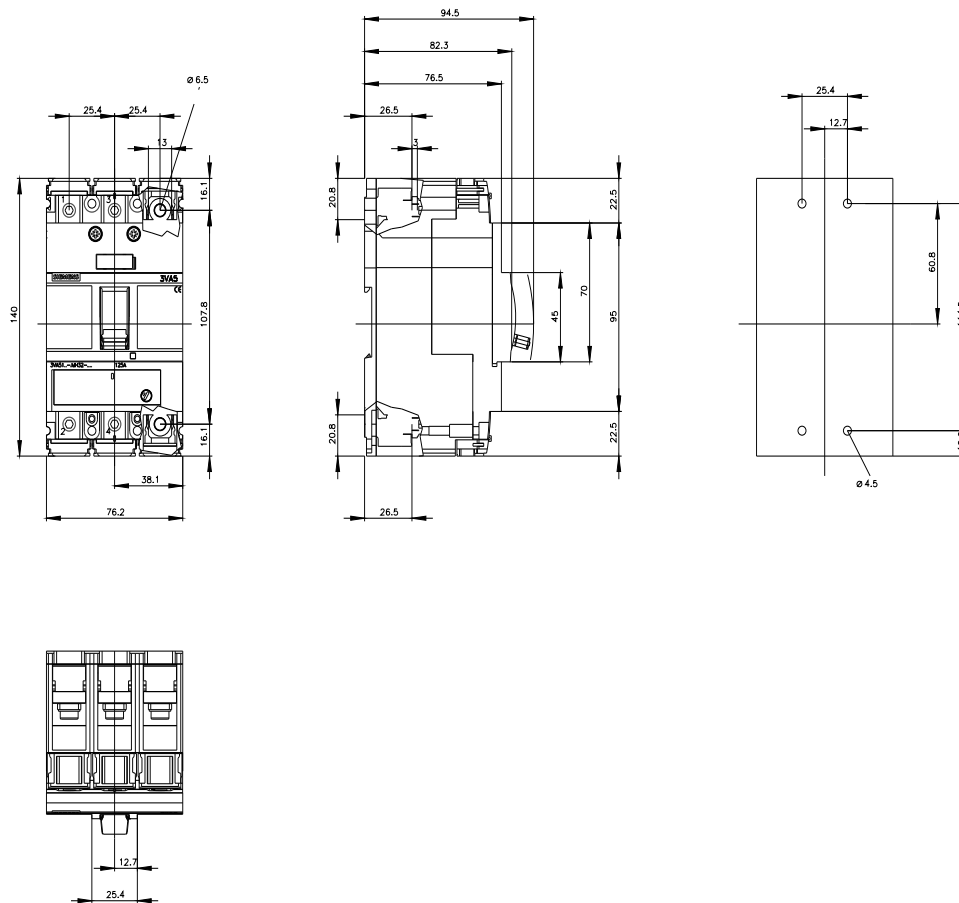
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mfb=3VA5180-1MU32-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=3VA5180-1MU32-0AA0)

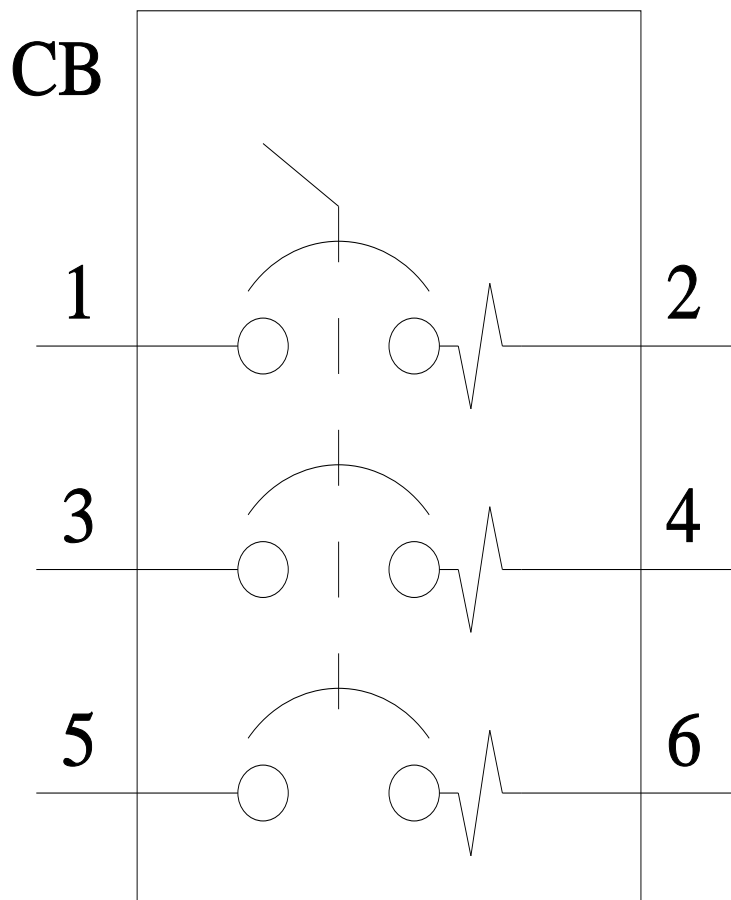
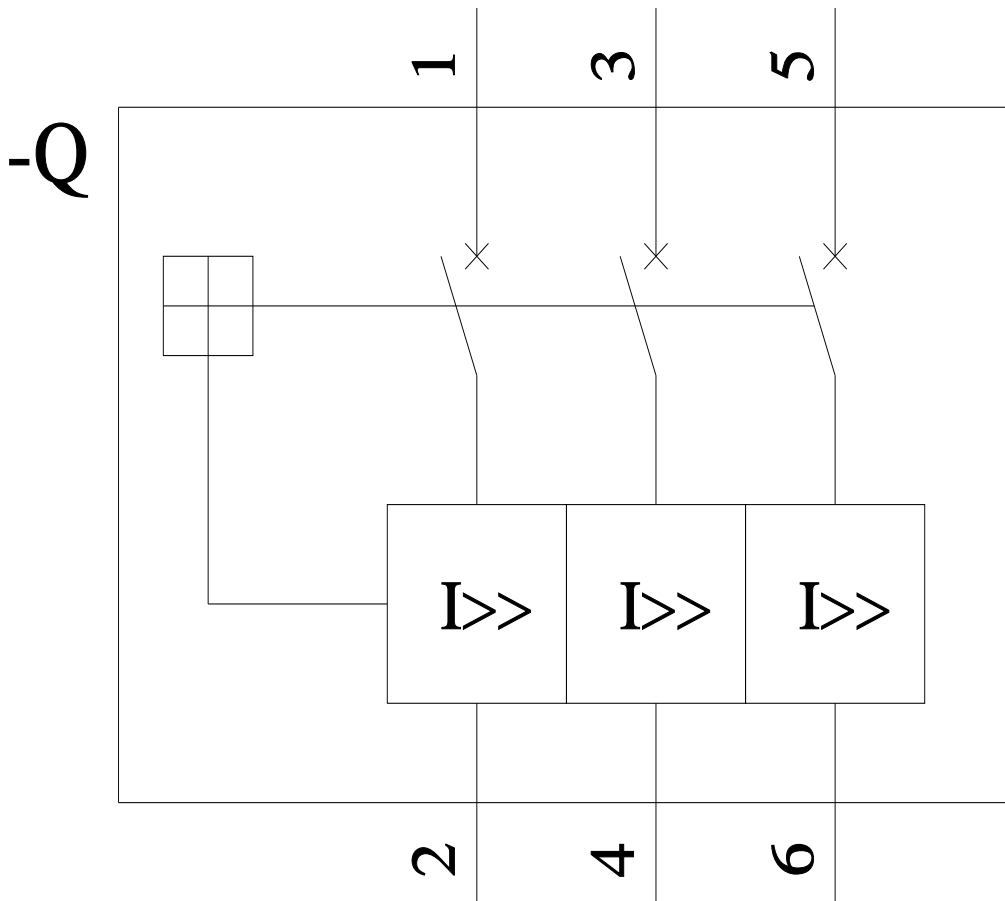
**CAX-Online-Generator**

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

**Tender specifications**

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





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