



circuit breaker 3VA6 UL frame 1000 breaking capacity class M 35kA @ 480 V 3-pole, line protection ETU320, LI, In=1000A overload protection Ir=400A ...1000A short circuit protection Ii=1,5...12 x In

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	MMNAE
Product version	System 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	ETU320
protection function of the overcurrent release	LI
number of poles	3
General technical data	
rated insulation voltage $U_i$	800 V
power loss [W] / maximum	330 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	110 W
mechanical service life (switching cycles) / typical	10 000
Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	4 900
Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz	3 400
electrical endurance (switching cycles) / at 480 V	4 900
electrical endurance (switching cycles) / at 600 V	3 400
Neutral conductors / upgradeable/retrofitable	No
ground-fault monitoring version	Without
product function	
• communication function	No
• other measurement function	No
Current	
marking / acc. to UL 489 / 100%-rated breaker	No
operational current	
• at 40 °C	0 A
• at 50 °C	0 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	M
breaking capacity maximum short-circuit current (I <sub>cu</sub> )	
• at 240 V	85 kA
• at 415 V	55 kA
• at 690 V	25 kA
breaking capacity operating short-circuit current (I <sub>cs</sub> )	

<ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 690 V</li> </ul>	85 kA 55 kA 19 kA
short-circuit current making capacity (I <sub>cm</sub> )	
<ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 690 V</li> </ul>	187 kA 121 kA 53 kA
<b>Switching capacity according to UL 489</b>	
breaking capacity current	
<ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 480 V</li> <li>• at 600 V</li> </ul>	100 kA 35 kA 25 kA
<b>Adjustable parameters</b>	
Adjustable response value current / I <sub>g</sub> min.	0.5 s
Adjustable response value current / I <sub>g</sub> min.	17 s
Adjustable response value current / I <sub>i</sub> min.	1 500 A
Adjustable response value current / I <sub>i</sub> max.	10 000 A
Ground fault protection / tripping switchable / I <sub>2t</sub> =ON/OFF	No
<b>Mechanical Design</b>	
height [in]	12.91 in
Height	328 mm
width [in]	8.27 in
Width	210 mm
depth [in]	4.72 in
depth	120 mm
<b>Connections</b>	
arrangement of electrical connectors / for main current circuit	Front connection
<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>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 / acc. 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>



[Miscellaneous](#)



**Declaration of Conformity**

**Marine / Shipping**

**other**



[UK Declaration of Conformity](#)



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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=3VA6610-5HL32-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6610-5HL32-0AA0>

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

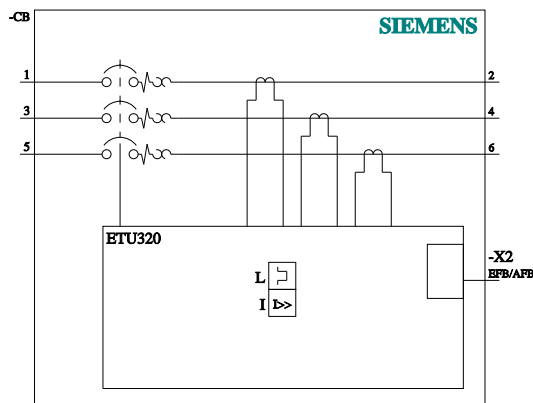
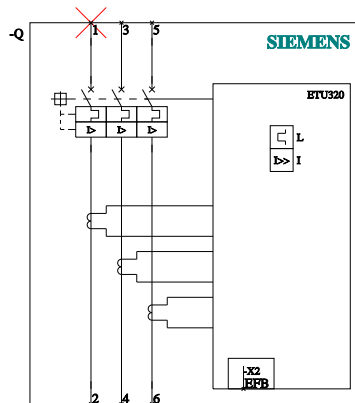
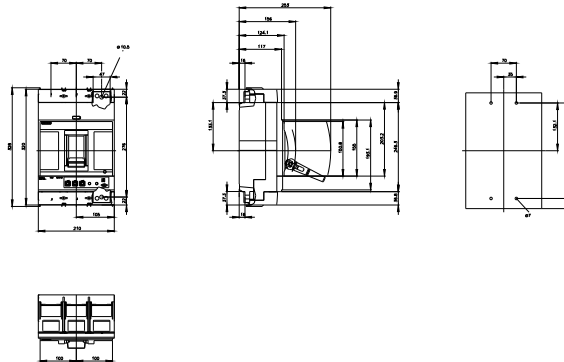
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mfb=3VA6610-5HL32-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=3VA6610-5HL32-0AA0)

CAx-Online-Generator

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

Tender specifications

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



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