



circuit breaker 3VA6 UL Frame 1000 breaking capacity class M 35 kA @ 480 V 3-pole, line protection ETU320, LI, In=1000 A overload protection Ir=400 A ...1000 A short-circuit protection Ii=1.5...12 x In nut keeper kit

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	MMNAE
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 overcurrent release	ETU320
protection function of the overcurrent release	LI
number of poles	3
General technical data	
insulation voltage / rated value	800 V
operating voltage / at AC / rated value	690 V
power loss [W] / maximum	330 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	110 W
mechanical service life (operating cycles) / typical	10 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	4 900
electrical endurance (operating cycles) / at AC-1 / at 690 V	3 400
electrical endurance (operating cycles) / at 480 V	4 900
electrical endurance (operating cycles) / at 600 V	3 400
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	14.494 kg
Current	
marking / according to UL 489 / 100%-rated breaker	No
operational current	
• at 40 °C	1 000 A
• at 45 °C	940 A
• at 50 °C	880 A
• at 55 °C	840 A
• at 60 °C	800 A
• at 65 °C	750 A
• at 70 °C	700 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	M
maximum short-circuit current breaking capacity (Icu)	

<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 25 kA
operating short-circuit current breaking capacity (Ics) <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 (Icm) <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>	
current breaking capacity <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 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> <li>• maximum</li> </ul>	400 A 1 000 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> <li>• maximum</li> </ul>	0.5 s 17 s
adjustable response value setting current (I <sub>i</sub> ) / for I-tripping <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	1 500 A 10 000 A
adjustable setting current (I <sub>nN</sub> ) / for N-tripping <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	0 A 0 A
product function / grounding protection	No
<b>Mechanical Design</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
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
type of electrical connection / for main current circuit	nut keeper kit on both ends
type of connectable conductor cross-sections / for flat-bar terminal connection / minimum	20 x 4 mm
type of connectable conductor cross-sections / for flat-bar terminal connection / maximum	50 x 28 mm
<b>Auxiliary circuit</b>	
number of CO contacts / for auxiliary contacts	0
<b>Accessories</b>	
product extension / optional / motor drive	No
<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

## Approvals / Certificates

## General Product Approval



EG-Konf.


[Confirmation](#)


CCC



UL



UL

## General Product Approval

## EMV

## Test Certificates

## Marine / Shipping



VDE

[Miscellaneous](#)


RCM

[Type Test Certificates/Test Report](#)


ABS

## Marine / Shipping

## other

BUREAU  
VERITAS

DNV



LRS



RMRS

[Confirmation](#)
[Miscellaneous](#)

## other

## Dangerous goods

## Environment

[Miscellaneous](#)
[Transport Information](#)
[Environmental Confirmations](#)

## 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=3VA6610-5HL32-0AA0>

## Service&amp;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, ...)

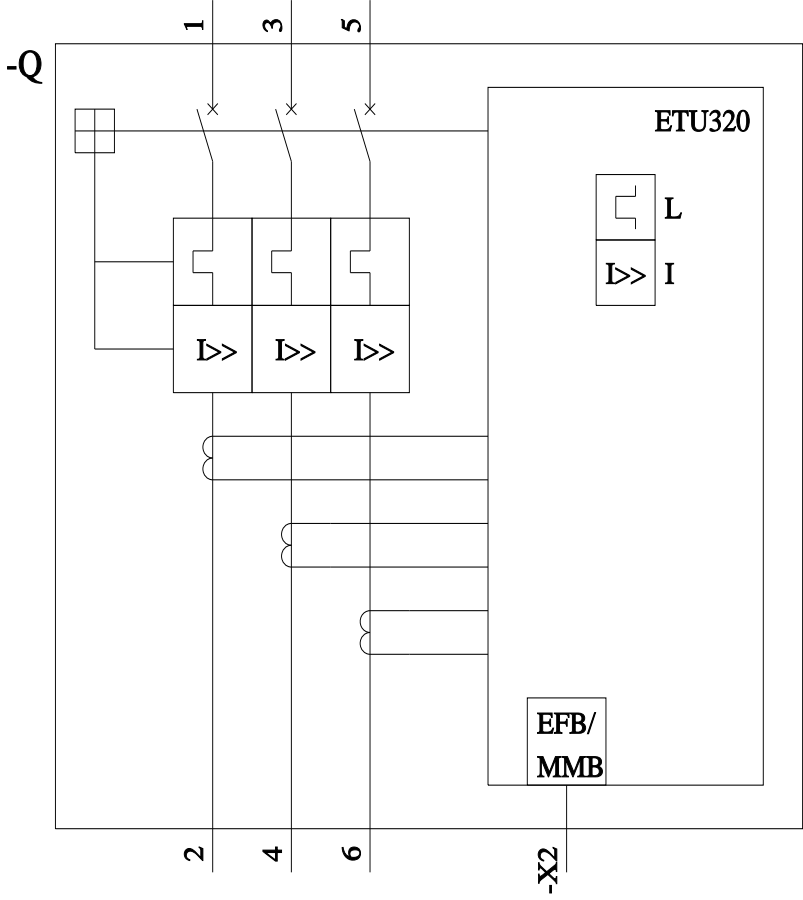
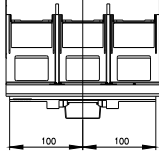
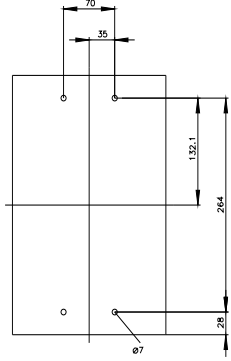
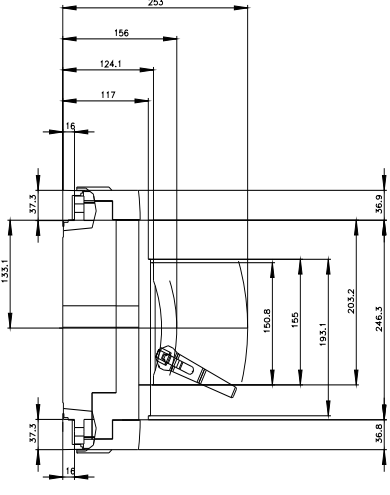
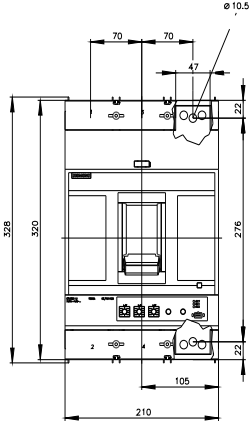
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA6610-5HL32-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6610-5HL32-0AA0)

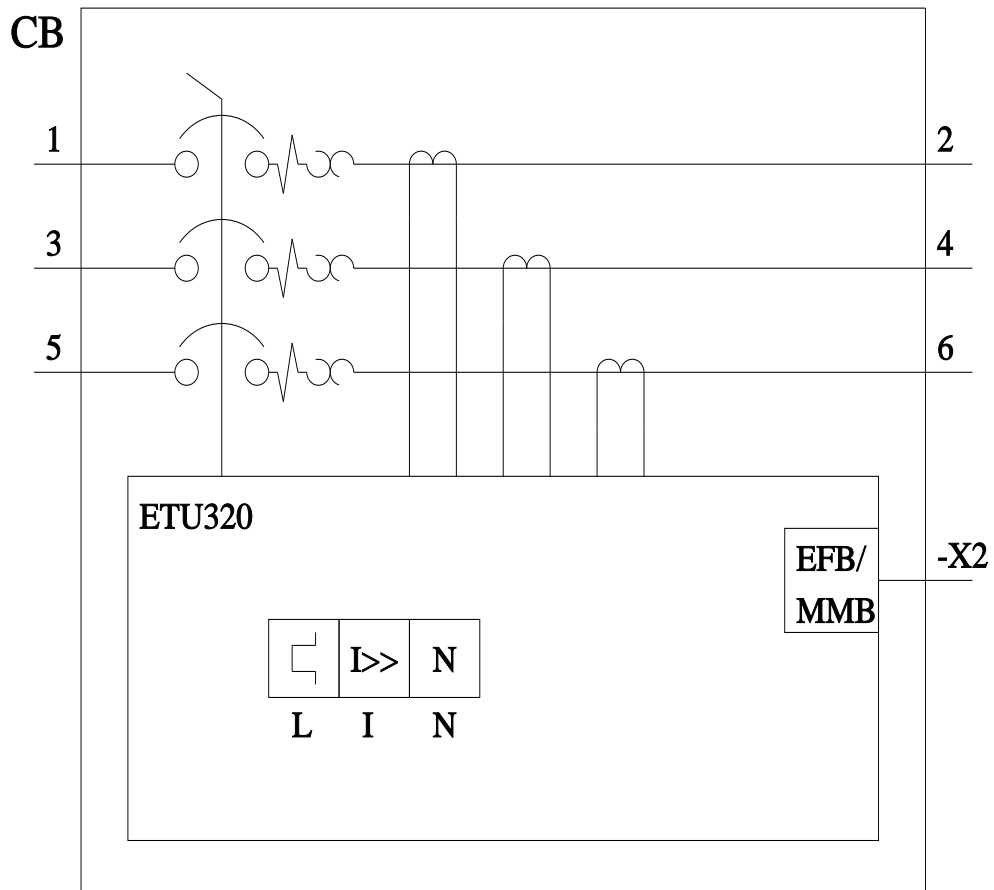
## CAx-Online-Generator

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

## Tender specifications

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





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