

circuit breaker 3VA6 UL frame 1000 breaking capacity class M 35kA @ 480 V 3-pole, line protection ETU330, LIG,  $I_n=1000A$  overload protection  $I_r=400A \dots 1000A$  short circuit protection  $I_i=1,5\dots 10 \times I_n$



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	ETU330
Protective function of the overcurrent release	LIG
Number of poles	3

General technical data	
Rated insulation voltage $U_i$	600 V
Max. rated operational voltage $U_e$ with AC 50/60Hz	600 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 / at 50/60 Hz	4 900
Electrical endurance (switching cycles) / at 600 V / at 50/60 Hz	3 400
Neutral conductors / upgradeable/retrofitable	No
Ground fault monitoring version	Summation current formation L-conductor
Product function	
• communication function	No
• other measurement function	No

### Current

Marking / acc. to UL 489 / 100%-rated breaker	No
Max. rated operational current of the frame size	1 000 A
Rated continuous current I <sub>u</sub>	1 000 A

### Switching capacity according to IEC 60947

Switching capacity class of the circuit breaker	M
Maximum short-circuit current breaking capacity (I <sub>cu</sub> )	
• at 240 V	85 kA
• at 415 V	55 kA
• at 690 V	25 kA
Operational short-circuit current breaking capacity (I <sub>cs</sub> )	
• at 240 V	85 kA
• at 415 V	55 kA
• at 690 V	19 kA
Short-circuit current making capacity (I <sub>cm</sub> )	
• at 240 V	187 kA
• at 415 V	121 kA
• at 690 V	53 kA

### Switching capacity according to UL 489

Breaking capacity current	
• at 240 V	100 kA
• at 480 V	35 kA
• at 600 V	25 kA

### Adjustable parameters

Adjustable response value current / I <sub>r</sub> min.	400 A
Adjustable response value current / I <sub>r</sub> max.	1 000 A
Adjustable response value time / t <sub>r</sub> min.	0.5
Adjustable response value time / t <sub>r</sub> max.	17

Adjustable response value current / li min.	1 500 A
Adjustable response value current / li max.	10 000 A
Ground fault protection can be switched ON/OFF	Yes
Ground fault protection / tripping switchable / I2t=ON/OFF	Yes
Adjustable response value current / lg min.	200 A
Adjustable response value current / lg max.	1 000 A
Adjustable response value current / tg min.	0.1 s
Adjustable response value current / tg max.	0.3 s

### Mechanical Design

Height [in]	12.6 in
Height	328 mm
Width [in]	8.3 in
Width	210 mm
Depth [in]	4.7 in
Depth	120 mm

### Auxiliary circuit

Number of CO contacts / for auxiliary contacts	0
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### Environmental conditions

Protection class IP / on the front	IP40
Ambient temperature	
• during operation / minimum	-25 °C
• during operation / maximum	70 °C
• during storage / minimum	-40 °C
• during storage / maximum	80 °C

### Certificates

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

### General Product Approval

[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=3VA6610-5HM32-0AA0>

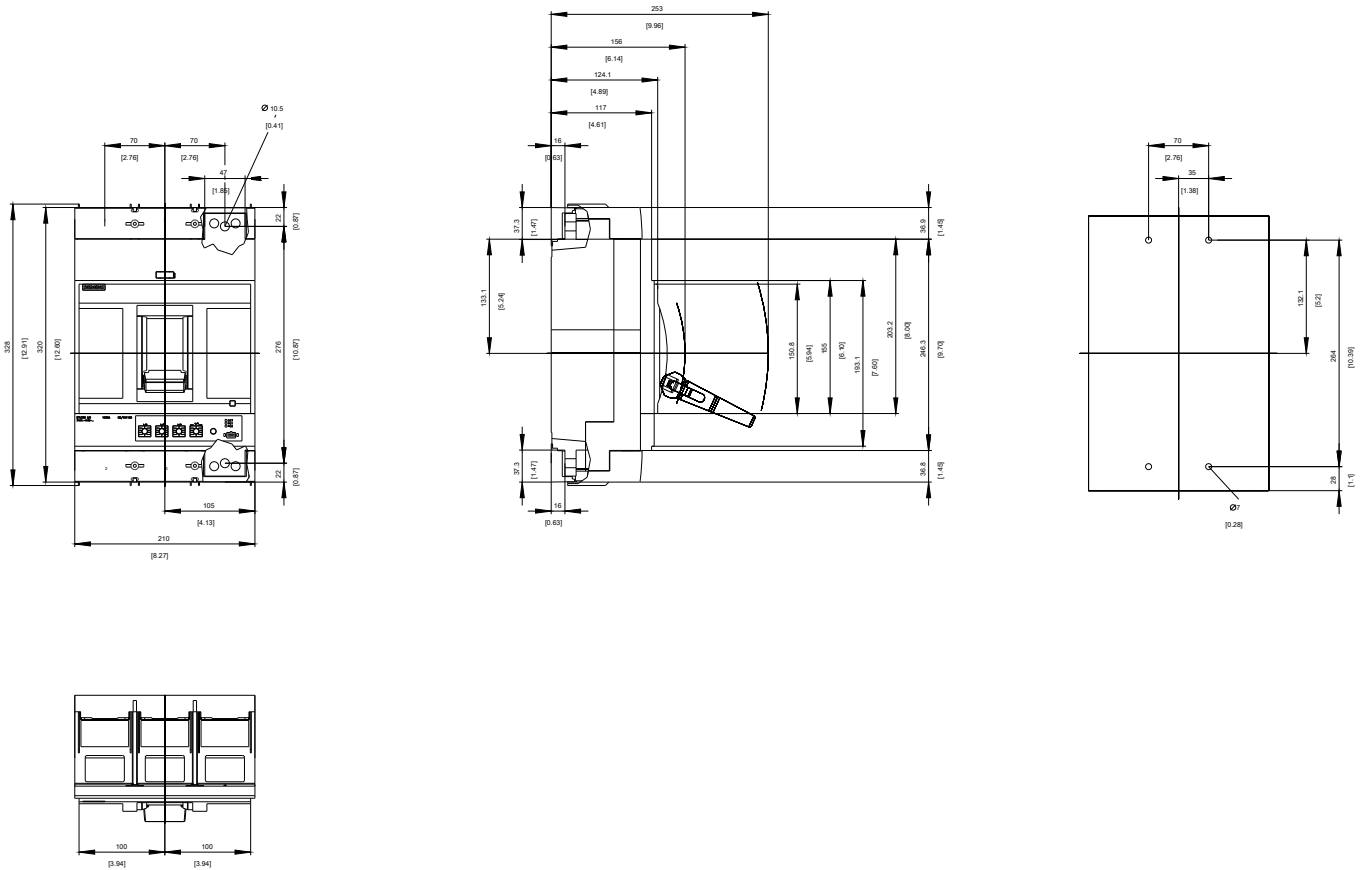
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6610-5HM32-0AA0>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)  
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA6610-5HM32-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6610-5HM32-0AA0)

CAx-Online-Generator  
<http://www.siemens.com/cax>

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



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