

circuit breaker 3VA6 UL frame 250 breaking capacity class M 35kA @ 480V 4-pole, line protection ETU320, LI,  $I_n=250A$  overload protection  $I_r=100A...250A$  short-circuit protection  $i_i=1.5...10 \times I_n$  N conductor protection adjustable (OFF, 50%, 100%) without connection



Model	
Product brand name	SENTRON
Product designation	Molded-case circuit breaker
Product designation / according to UL file	MFAE-Y
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
Protective function of the overcurrent release	LI
Number of poles	4
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	42 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	14 W
Mechanical service life (switching cycles) / typical	20 000

Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	6 000
Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz	3 000
Electrical endurance (switching cycles) / at 480 V / at 50/60 Hz	6 000
Electrical endurance (switching cycles) / at 600 V / at 50/60 Hz	7 500
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
Max. rated operational current of the frame size	250 A
Rated continuous current I <sub>u</sub>	250 A
Operating current	
• at 40 °C	250 A
• at 45 °C	250 A
• at 50 °C	250 A
• at 55 °C	250 A
• at 60 °C	250 A
• at 65 °C	250 A
• at 70 °C	250 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	3 kA
Operational short-circuit current breaking capacity (I <sub>cs</sub> )	
• at 240 V	85 kA
• at 415 V	55 kA
• at 690 V	3 kA
Short-circuit current making capacity (I <sub>cm</sub> )	
• at 240 V	187 kA
• at 415 V	121 kA
• at 690 V	4.5 kA

### Switching capacity according to UL 489

Breaking capacity current	
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• at 240 V	100 kA
• at 480 V	35 kA
• at 600 Y/347 V	18 kA

#### Adjustable parameters

Adjustable response value current / I <sub>r</sub> min.	100 A
Adjustable response value current / I <sub>r</sub> max.	250 A
Adjustable response value time / t <sub>r</sub> min.	0.5
Adjustable response value time / t <sub>r</sub> max.	13
Adjustable response value current / I <sub>i</sub> min.	375 A
Adjustable response value current / I <sub>i</sub> max.	2 500 A
Ground fault protection / tripping switchable / I <sub>2t</sub> =ON/OFF	No

#### Mechanical Design

Height [in]	7.8 in
Height	198 mm
Width [in]	5.5 in
Width	140 mm
Depth [in]	3.4 in
Depth	86 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
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#### Accessories

Product extension / optional / motor drive	Yes
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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



CCC



CSA



UL



UL



VDE

**CB**

CB

General Product Approval	EMC	Declaration of Conformity	Shipping Approval	other
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RCM



EG-Konf.



ABS



LRS

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=3VA6225-5HL41-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6225-5HL41-0AA0>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA6225-5HL41-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6225-5HL41-0AA0)

### CAX-Online-Generator

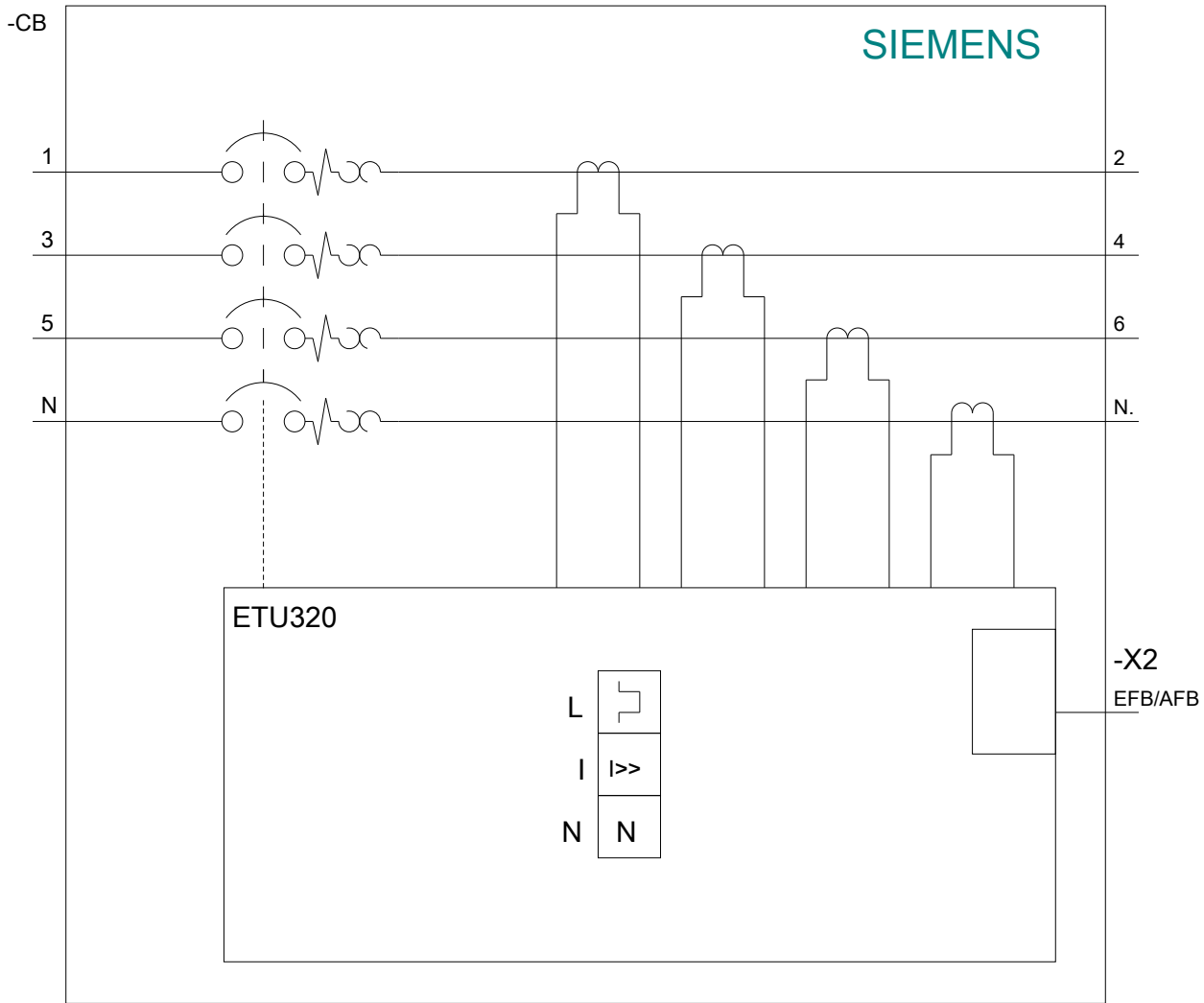
<http://www.siemens.com/cax>

### Tender specifications

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







**last modified:**

04/02/2020