

circuit breaker 3VA6 UL frame 150 breaking capacity class H 65kA @ 480V 3-pole, line protection ETU560, LSIG,  $I_n=150A$  overload protection  $I_r=60A...150A$  short-circuit protection  $I_{sd}=0.6..10x I_n$ ,  $I_i=1.5..10x I_n$  N conductor protection optionally with external current transformer, up to 160% ground-fault protection  $I_g=0.2...1 x I_n$ ,  $t_g=0.05-0.8s$  without connection



Model	
Product brand name	SENTRON
Product designation	Molded-case circuit breaker
Product designation / according to UL file	HDAE
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	ETU560
Protective function of the overcurrent release	LSIG
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	29 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	9.67 W
Mechanical service life (switching cycles) / typical	20 000

Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	9 000
Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz	5 000
Electrical endurance (switching cycles) / at 480 V / at 50/60 Hz	9 000
Electrical endurance (switching cycles) / at 600 V / at 50/60 Hz	9 000
Neutral conductors / upgradeable/retrofitable	Yes
Ground fault monitoring version	Summation current formation L-conductor
Product function	
• communication function	Yes
• other measurement function	No

### Current

Marking / acc. to UL 489 / 100%-rated breaker	Yes
Max. rated operational current of the frame size	150 A
Rated continuous current I <sub>u</sub>	150 A
Operating current	
• at 40 °C	150 A
• at 45 °C	150 A
• at 50 °C	150 A
• at 55 °C	143 A
• at 60 °C	135 A
• at 65 °C	128 A
• at 70 °C	120 A

### Switching capacity according to IEC 60947

Switching capacity class of the circuit breaker	H
Maximum short-circuit current breaking capacity (I <sub>cu</sub> )	
• at 240 V	110 kA
• at 415 V	85 kA
• at 690 V	2.5 kA
Operational short-circuit current breaking capacity (I <sub>cs</sub> )	
• at 240 V	110 kA
• at 415 V	85 kA
• at 690 V	2.5 kA
Short-circuit current making capacity (I <sub>cm</sub> )	
• at 240 V	242 kA
• at 415 V	187 kA
• at 690 V	3.8 kA

### Switching capacity according to UL 489

Breaking capacity current	
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• at 240 V	100 kA
• at 480 V	65 kA
• at 600 V	22 kA

#### Adjustable parameters

Adjustable response value current / Ir min.	60 A
Adjustable response value current / Ir max.	150 A
Adjustable response value time / tr min.	0.5
Adjustable response value time / tr max.	20
Adjustable response value current / Isd min.	90 A
Adjustable response value current / Isd max.	1 500 A
Adjustable response value time / tsd min.	0.05 s
Adjustable response value time / tsd max.	0.5 s
Adjustable response value time / tsd min.	0.05 s
Adjustable response value time / tsd max.	0.5 s
Adjustable response value current / li min.	225 A
Adjustable response value current / li max.	1 500 A
Ground fault protection can be switched ON/OFF	Yes
Ground fault protection / tripping switchable / I2t=ON/OFF	Yes
Adjustable response value current / Ig min.	30 A
Adjustable response value current / Ig max.	150 A
Adjustable response value current / tg min.	0.05 s
Adjustable response value current / tg max.	0.8 s

#### Mechanical Design

Height [in]	7.8 in
Height	198 mm
Width [in]	4.1 in
Width	105 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

## EMC



CCC



CSA



UL



UL



RCM

## Declaration of Conformity

## Shipping Approval

## other



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?mfb=3VA6115-6JQ31-2AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6115-6JQ31-2AA0>

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

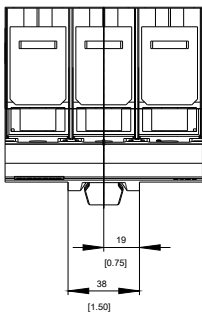
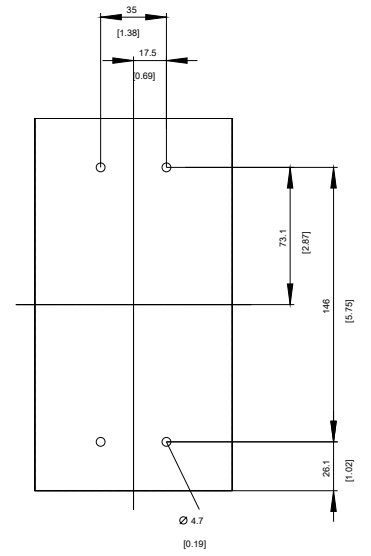
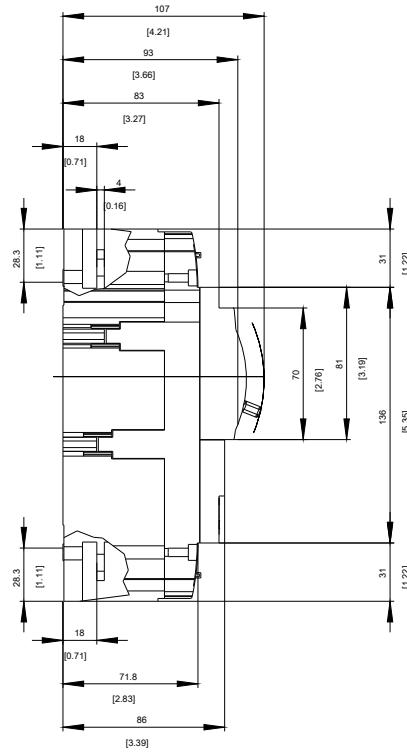
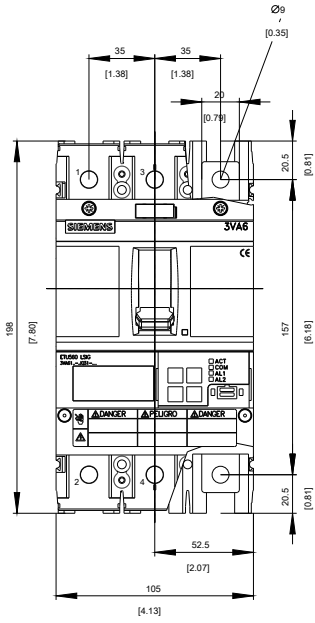
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mfb=3VA6115-6JQ31-2AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=3VA6115-6JQ31-2AA0)

### CAX-Online-Generator

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

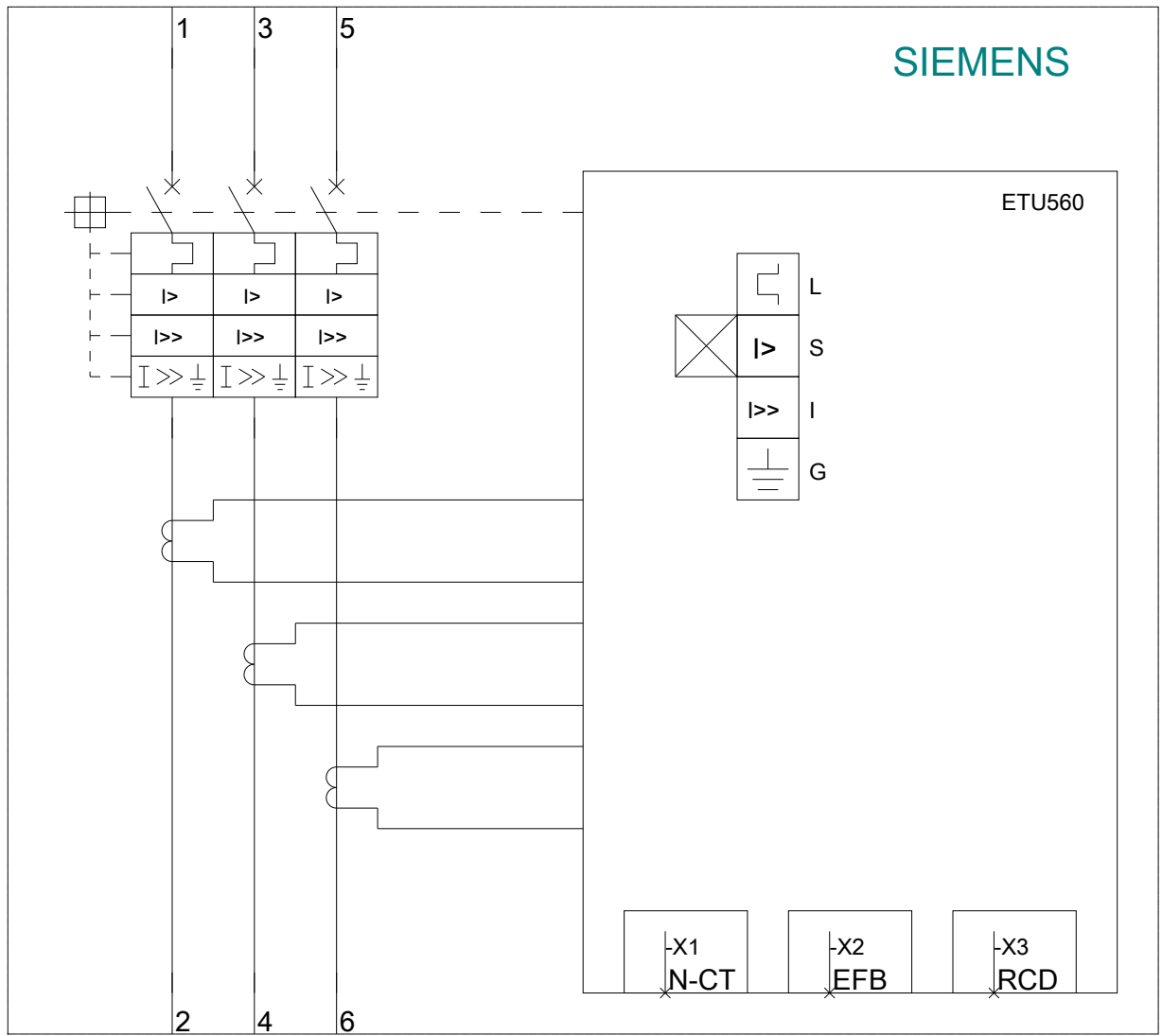
### Tender specifications

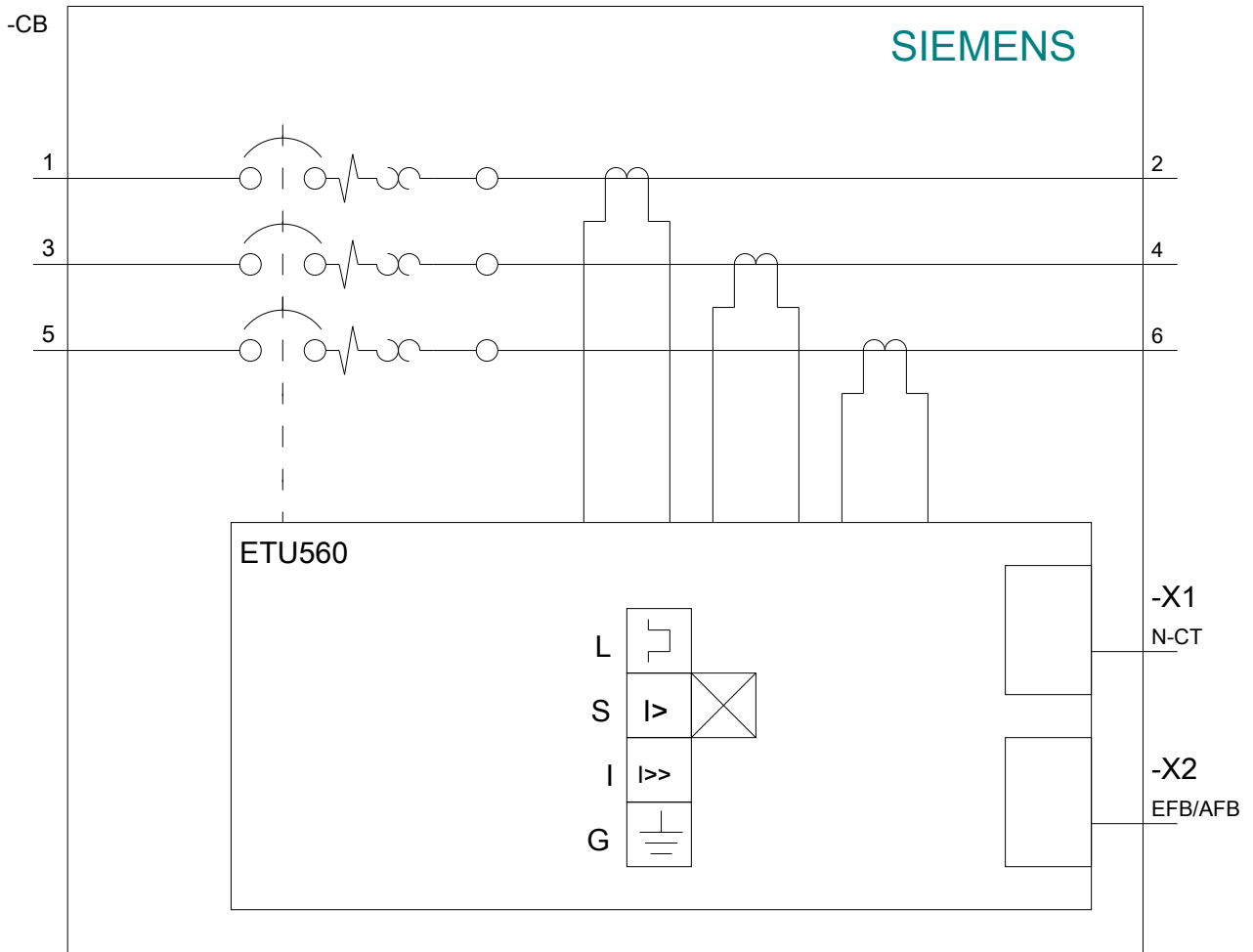
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