



circuit breaker 3VA6 UL frame 600 breaking capacity class M 35kA @ 480V 3-pole, line protection ETU560, LSIG,  $I_n=600A$  overload protection  $I_r=240A...600A$  short-circuit protection  $I_{sd}=0.6...9 \times I_n$ ,  $I_i=1.5...9 \times I_n$  N conductor protection optionally with external current transformer, up to 160% ground-fault protection  $I_g=0.2...1 \times I_n$ ,  $t_g=0.05-0.8s$  without connection

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	MLAE
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
protection function of the overcurrent release	LSIG
number of poles	3
General technical data	
Tension assignée d'isolement $U_i$	600 V
power loss [W] / maximum	151 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	50.33 W
mechanical service life (operating cycles) / typical	15 000
Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	4 000
Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz	2 500
electrical endurance (switching cycles) / at 480 V	4 000
electrical endurance (switching cycles) / at 600 V	3 000
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	No
operational current	
• at 55 °C	540 A
• at 60 °C	510 A
• at 65 °C	480 A
• at 70 °C	450 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	M
breaking capacity maximum short-circuit current ( $I_{cu}$ )	
• at 240 V	85 kA

<ul style="list-style-type: none"> <li>• at 415 V</li> <li>• at 690 V</li> </ul>	55 kA 6 kA
breaking capacity operating short-circuit current (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 6 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 9 kA

#### Switching capacity according to UL 489

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 18 kA
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#### Adjustable parameters

Adjustable response value current / I <sub>g</sub> min.	0.5 s
Adjustable response value current / I <sub>i</sub> min.	900 A
Adjustable response value current / I <sub>i</sub> max.	5 400 A
Ground fault protection / tripping switchable / I <sub>2t</sub> =ON/OFF	Yes
Adjustable response value current / I <sub>g</sub> min.	120 A
Adjustable response value current / I <sub>g</sub> max.	600 A
Adjustable response value current / t <sub>g</sub> min.	0.05 s
Adjustable response value current / I <sub>g</sub> min.	0.8 s

#### Mechanical Design

height [in]	9.8 in
Height	248 mm
width [in]	5.4 in
Width	138 mm
depth [in]	4.3 in
depth	110 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 <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

#### Certificates

reference code / acc. to IEC 81346-2	Q
certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	Yes

#### General Product Approval



[Miscellaneous](#)

General Product Approval	EMC	Declaration of Conformity	Shipping Approval	other
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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=3VA6460-5JQ31-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6460-5JQ31-0AA0>

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

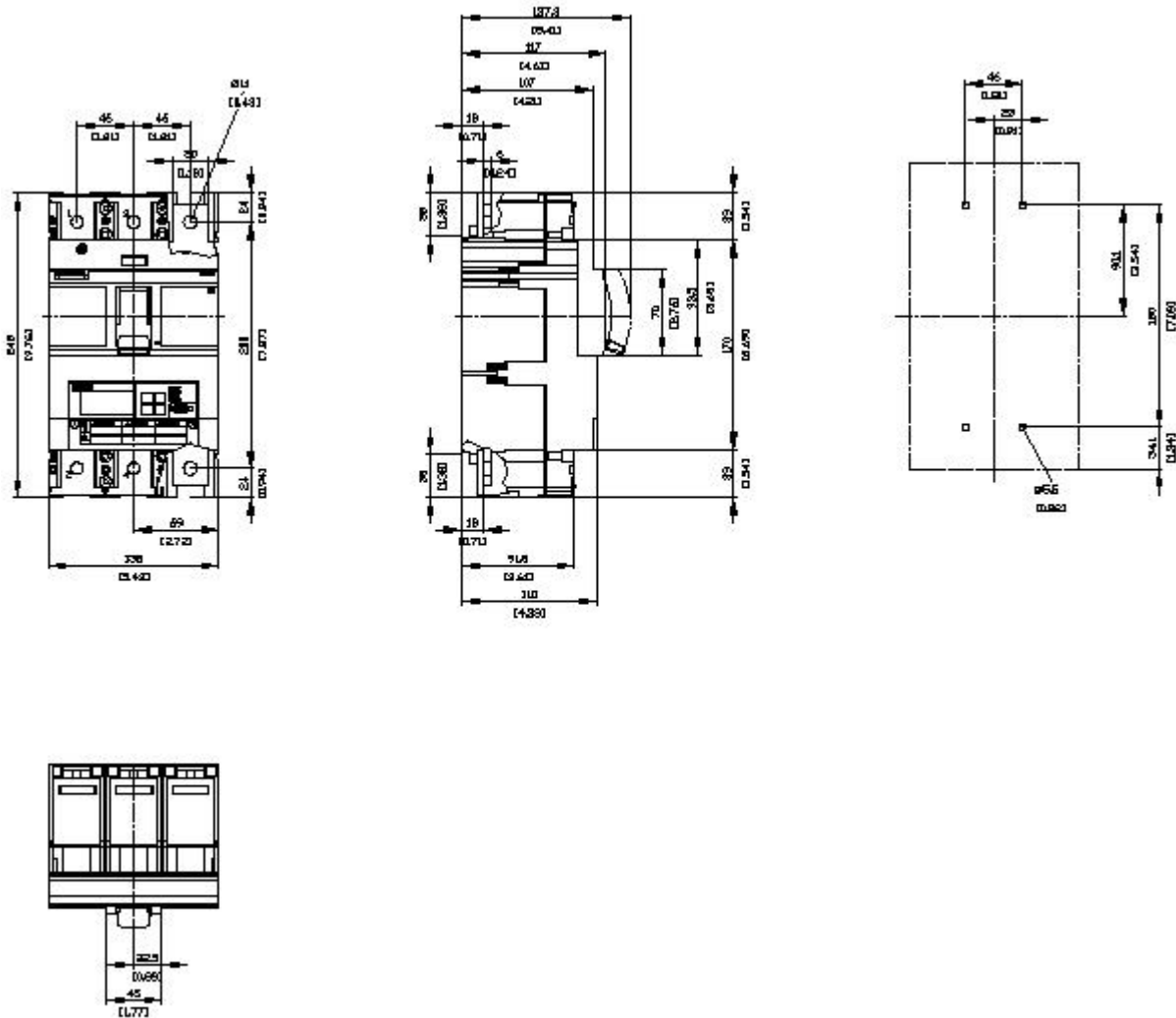
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mfb=3VA6460-5JQ31-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=3VA6460-5JQ31-0AA0)

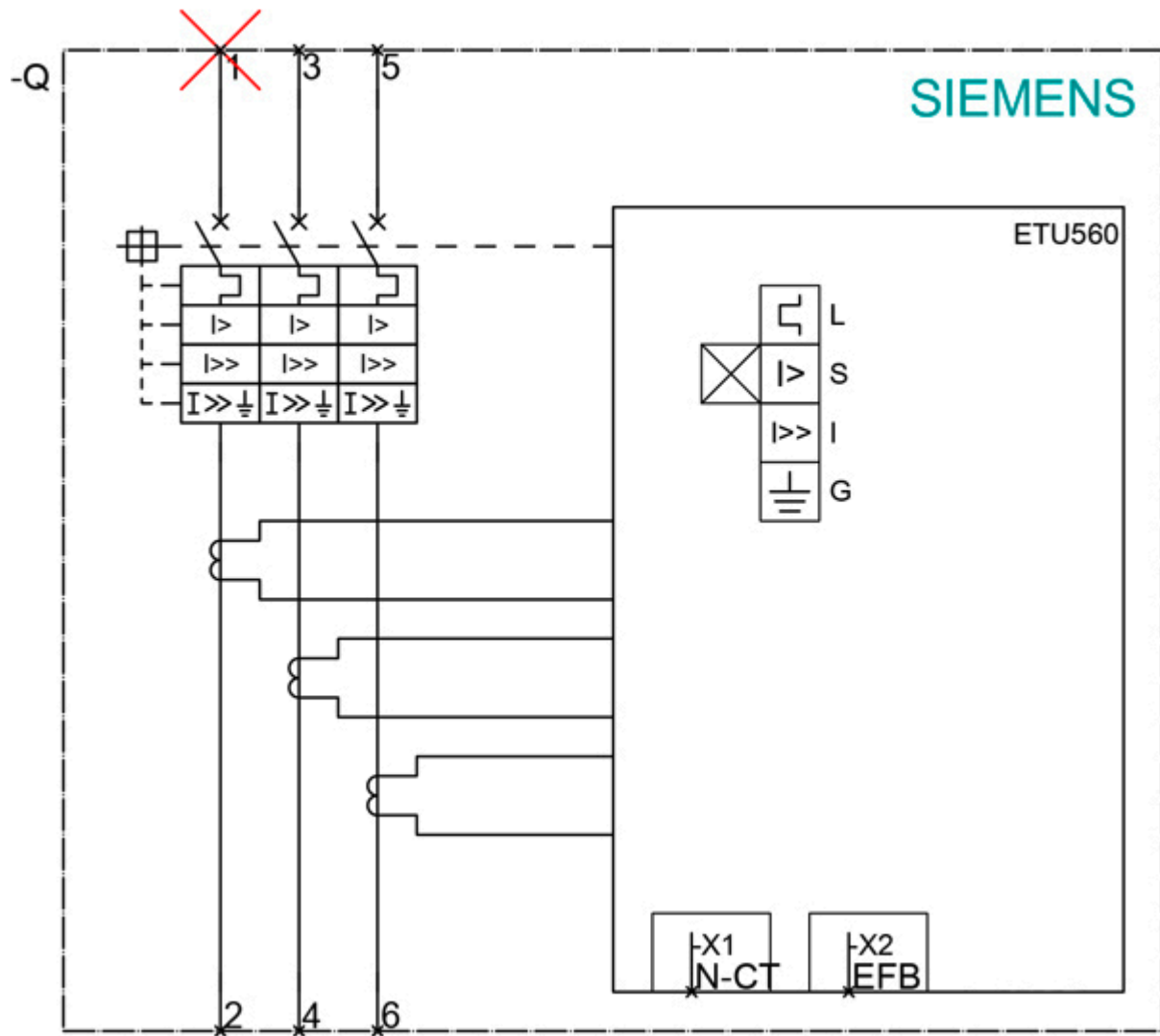
CAX-Online-Generator

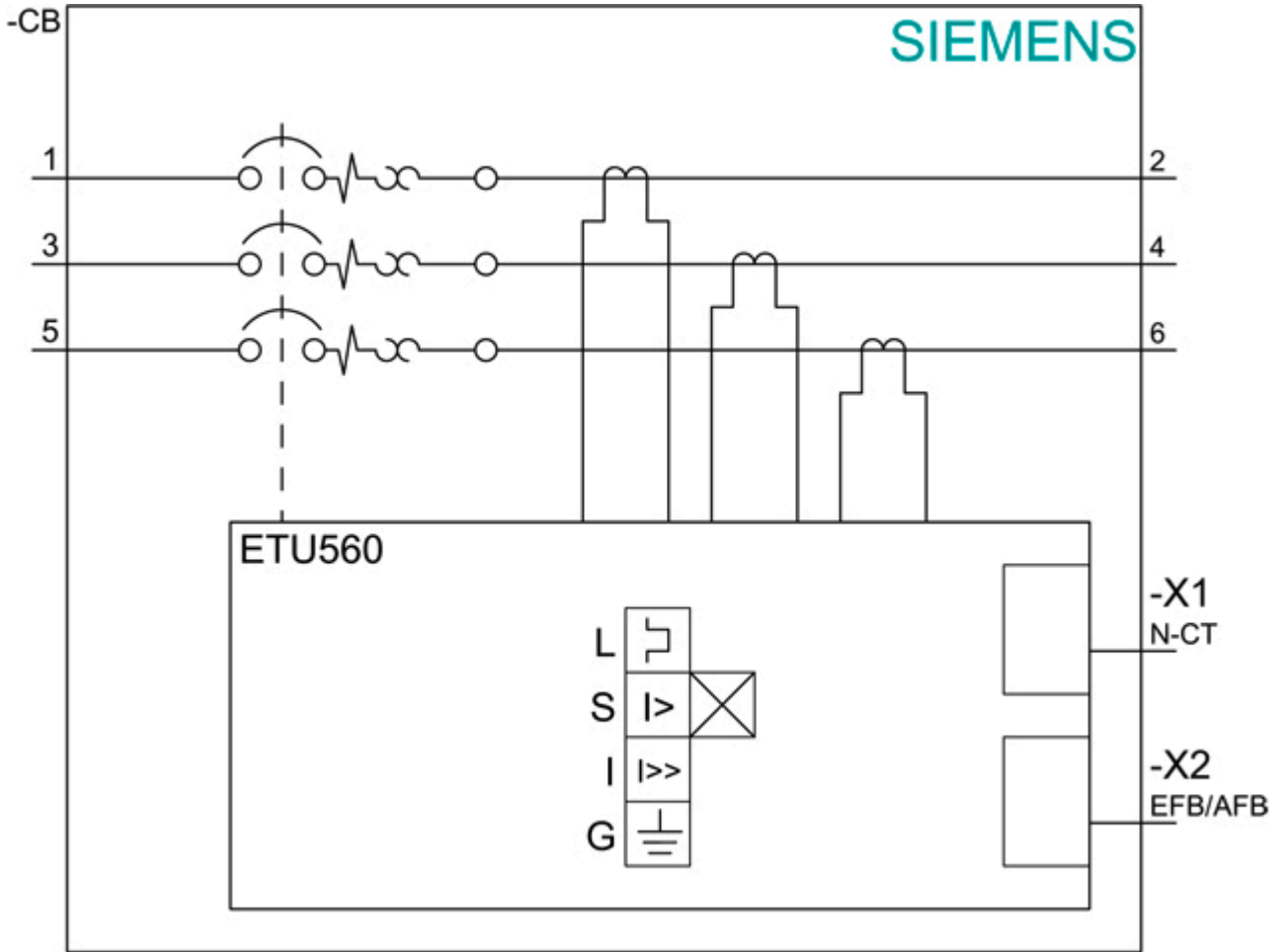
<http://www.siemens.com/cax>

Tender specifications

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







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