



circuit breaker 3VA6 UL frame 250 breaking capacity class M 35kA @ 480V 3-pole, line protection ETU560, LSIG,  $I_n=100A$  overload protection  $I_r=40A...100A$  short-circuit protection  $I_{sd}=0.6...10 \times I_n$ ,  $I_i=1.5...12 \times I_n$  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	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	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	6.7 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	2.23 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	6 000
electrical endurance (switching cycles) / at 600 V	7 500
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	100 A
• at 60 °C	100 A
• at 65 °C	100 A
• at 70 °C	100 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 3 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 3 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 4.5 kA
<b>Switching capacity according to UL 489</b>	
breaking capacity current <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 480 V</li> <li>• at 600 Y/347 V</li> <li>• at 600 V</li> </ul>	100 kA 35 kA 18 kA 18 kA
<b>Adjustable parameters</b>	
Adjustable response value current / I <sub>g</sub> min.	40 A
Adjustable response value current / I <sub>g</sub> min.	100 A
Adjustable response value current / I <sub>g</sub> min.	60 A
Adjustable response value current / I <sub>g</sub> min.	1 000 A
Adjustable response value current / I <sub>g</sub> min.	0.05 s
Adjustable response value current / I <sub>g</sub> min.	0.5 s
Adjustable response value current / I <sub>g</sub> min.	0.05 s
Adjustable response value current / I <sub>g</sub> min.	0.5 s
Adjustable response value current / I <sub>i</sub> min.	150 A
Adjustable response value current / I <sub>i</sub> max.	1 200 A
Ground fault protection / tripping switchable / I <sub>2t</sub> =ON/OFF	Yes
Adjustable response value current / I <sub>g</sub> min.	20 A
Adjustable response value current / I <sub>g</sub> max.	100 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
<b>Mechanical Design</b>	
height [in]	7.8 in
Height	198 mm
width [in]	4.1 in
Width	105 mm
depth [in]	3.4 in
depth	86 mm
<b>Connections</b>	
arrangement of electrical connectors / for main current circuit	Without connection
type of electrical connection / for main current circuit	Without
<b>Auxiliary circuit</b>	
number of CO contacts / for auxiliary contacts	0
<b>Accessories</b>	
product extension / optional / motor drive	Yes
<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
<b>Certificates</b>	
reference code / acc. to IEC 81346-2	Q
certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	Yes

## General Product Approval



## General Product Approval

## EMC

## Declaration of Conformity

## Shipping Approval

[Miscellaneous](#)



## Shipping Approval

other



[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=3VA6210-5JQ31-0AA0>

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

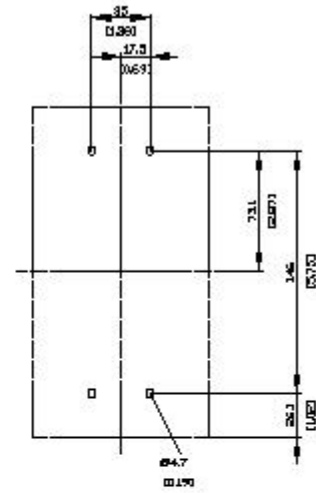
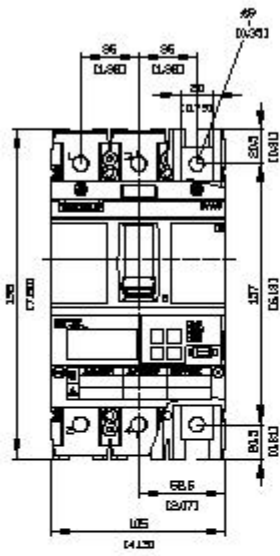
<https://support.industry.siemens.com/cs/ww/en/ps/3VA6210-5JQ31-0AA0>

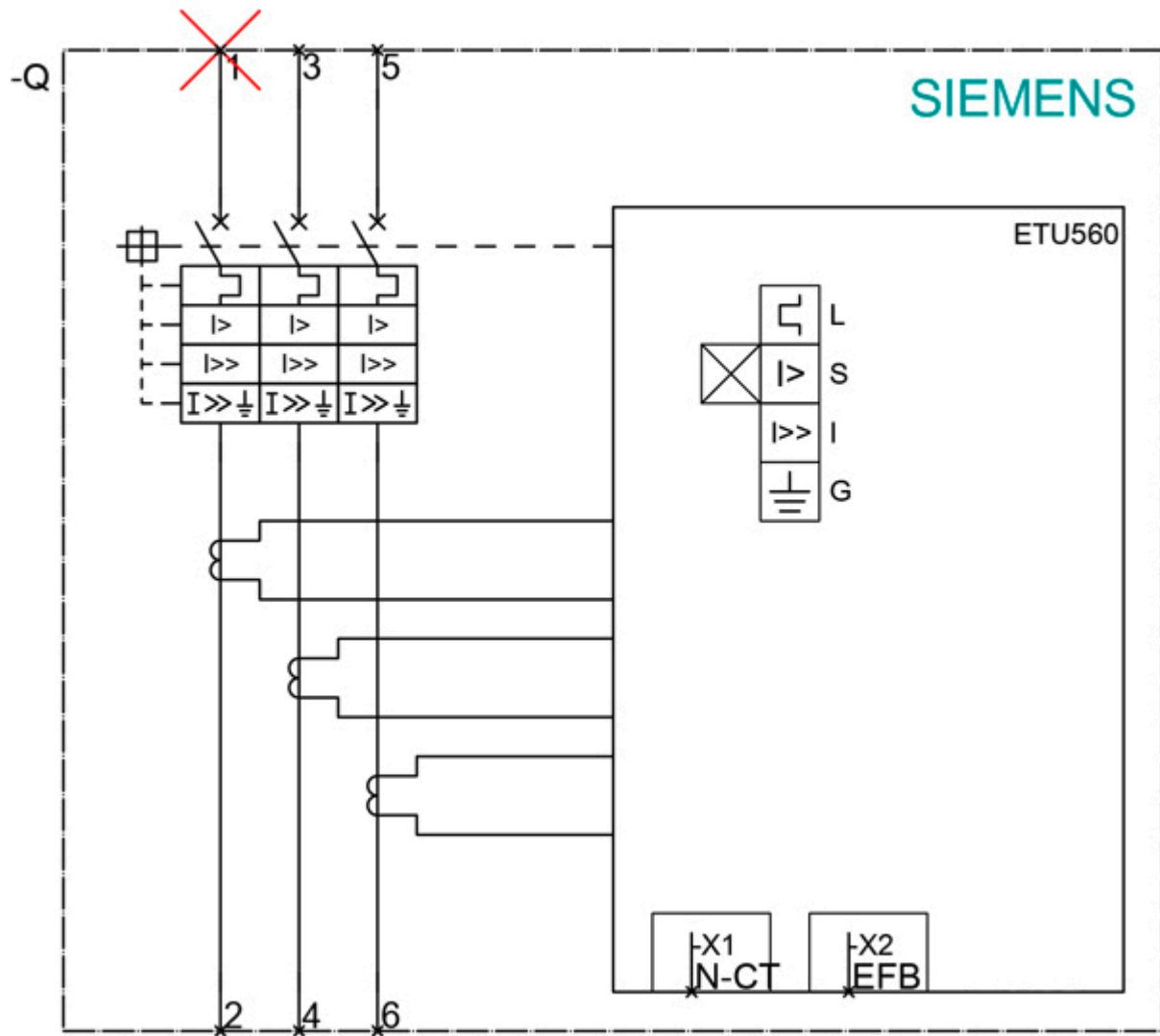
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

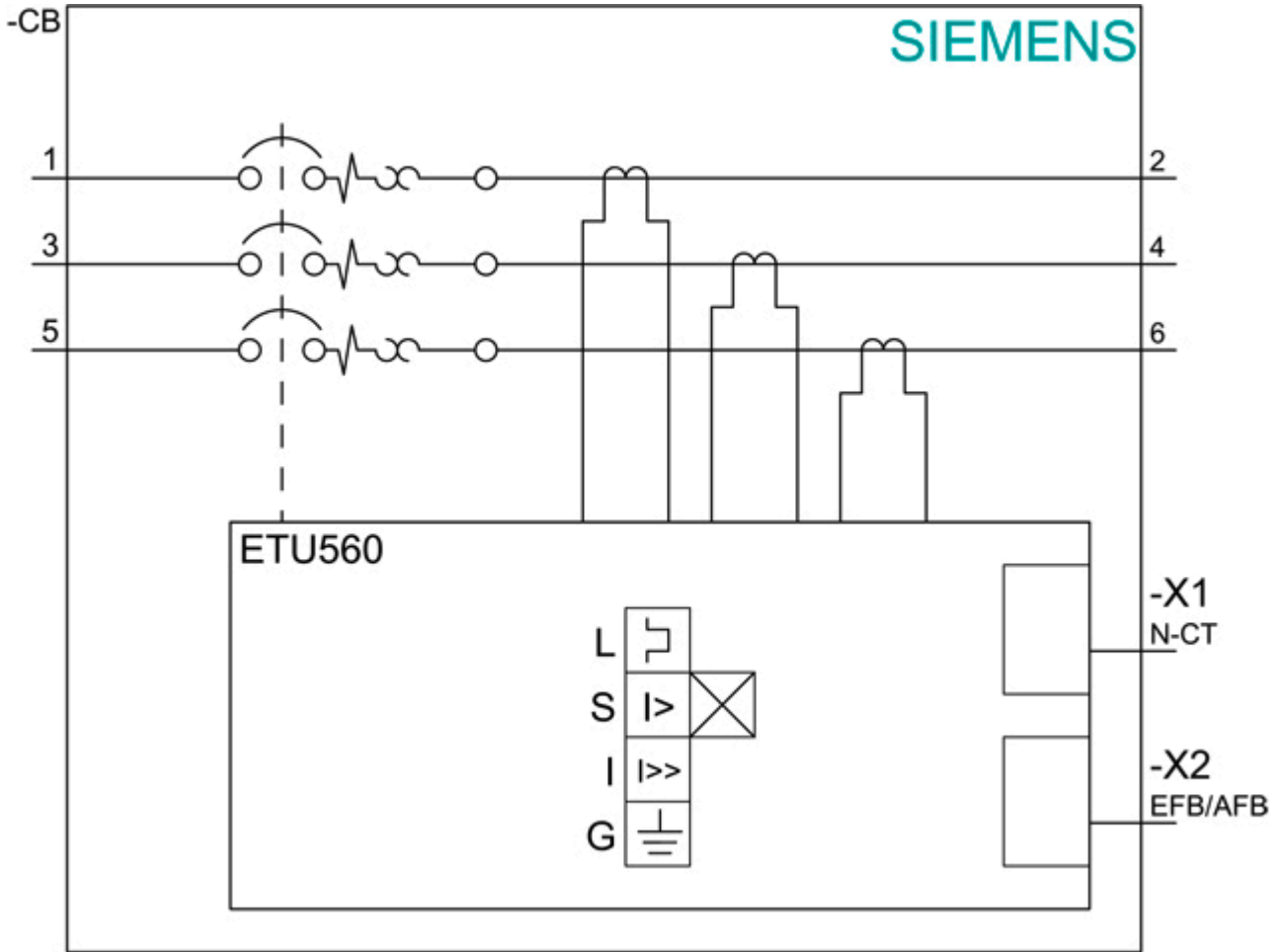
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA6210-5JQ31-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6210-5JQ31-0AA0)

Tender specifications

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







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12/18/2020