



Circuit breaker 3VA6 UL frame 250 breaking capacity class M 35kA @ 480V 3-pole, Line protection ETU830, LIG, In=250A overload protection, 100% rated Ir=100A...250A Short-circuit protection Ii=1.5...10 x In Ground-fault protection Ig=0.2...1 x In, tg=0.05-0.8s without connection

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	MFAE
design of the product	System protection
design of the load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type)	Yes
design of the overcurrent release	ETU830
protection function of the overcurrent release	LIG
number of poles	3
General technical data	
insulation voltage / rated value	800 V
operating voltage / at AC / rated value	690 V
power loss [W] / maximum	42 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	14 W
mechanical service life (operating cycles) / typical	25 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	12 000
electrical endurance (operating cycles) / at AC-1 / at 690 V	8 400
electrical endurance (operating cycles) / at 480 V	12 000
electrical endurance (operating cycles) / at 600 V	8 400
product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof	No
ground-fault monitoring version	Summation current formation L-conductor
product function	
• communication function	Yes
• other measurement function	Yes
Net Weight	2.3 kg
Current	
marking / according to UL 489 / 100%-rated breaker	Yes
operational current	
• at 40 °C	250 A
• at 45 °C	250 A
• at 50 °C	250 A
• at 55 °C	238 A
• at 60 °C	225 A
• at 65 °C	213 A
• at 70 °C	200 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	M
maximum short-circuit current breaking capacity (Icu)	

<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
operating short-circuit current breaking capacity (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

#### Switching capacity according to UL 489

current breaking capacity <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
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#### Adjustable parameters

adjustable response value setting current (I <sub>r</sub> ) / of the L-trip / with I <sub>2</sub> t characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	100 A 250 A
adjustable response value delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2</sub> t characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	0.5 s 13 s
adjustable response value setting current (I <sub>i</sub> ) / for I-tripping <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	375 A 2 500 A
adjustable current response value current / for G-tripping / with standard characteristic <ul style="list-style-type: none"> <li>• initial value</li> <li>• full-scale value</li> </ul>	50 A 250 A
adjustable response value delay time (t <sub>g</sub> ) / for G-tripping / with I <sub>0</sub> t characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	0.05 s 0.8 s
adjustable response value setting current (I <sub>g</sub> ) / for G-tripping / with I <sub>2</sub> t characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	50 A 250 A
adjustable response value delay time (t <sub>g</sub> ) / for G-tripping / with I <sub>2</sub> t characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	0.05 s 0.8 s
adjustable setting current (I <sub>n</sub> ) / for N-tripping <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	0 A 0 A
adjustable current response value current / of instantaneous short-circuit trip unit <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	375 A 2 500 A
product function / grounding protection	Yes
total break time / for G-tripping / with standard characteristic <ul style="list-style-type: none"> <li>• initial value</li> <li>• full-scale value</li> </ul>	0.05 s 0.8 s

#### Mechanical Design

product component <ul style="list-style-type: none"> <li>• undervoltage release</li> <li>• voltage trigger</li> <li>• trip indicator</li> </ul>	No No No
height [in]	7.8 in
height	198 mm

width [in]	4.13 in
width	105 mm
depth [in]	3.39 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	
• during operation / minimum	-25 °C
• during operation / maximum	70 °C
• during storage / minimum	-40 °C
• during storage / maximum	80 °C
<b>Certificates</b>	
reference code / according to IEC 81346-2	Q
certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	Yes
<b>General Product Approval</b>	

[Confirmation](#)



[Miscellaneous](#)



EMC	Declaration of Conformity	Marine / Shipping	other
RCM	EG-Konf.	UKCA	ABS
			DNV

[Miscellaneous](#)

other	Dangerous Good
<a href="#">Confirmation</a>	<a href="#">Miscellaneous</a>
	<a href="#">Transport Information</a>

#### Further information

Siemens has decided to exit the Russian market (see here).

<https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business>

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

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=3VA6225-5KM31-2AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6225-5KM31-2AA0>

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

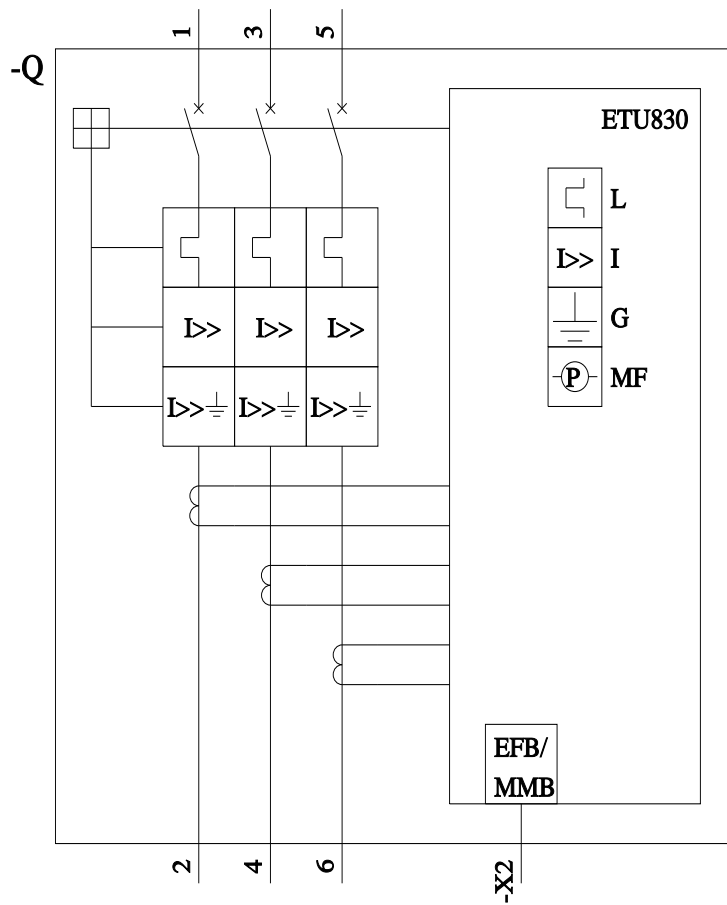
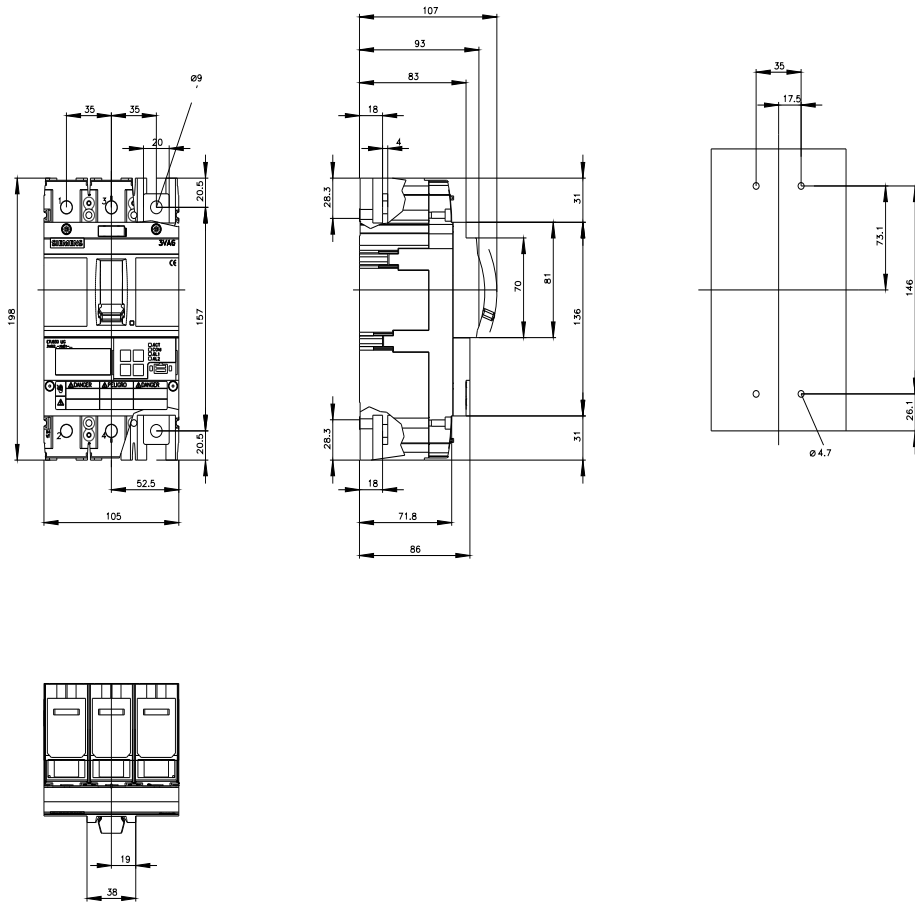
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA6225-5KM31-2AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6225-5KM31-2AA0)

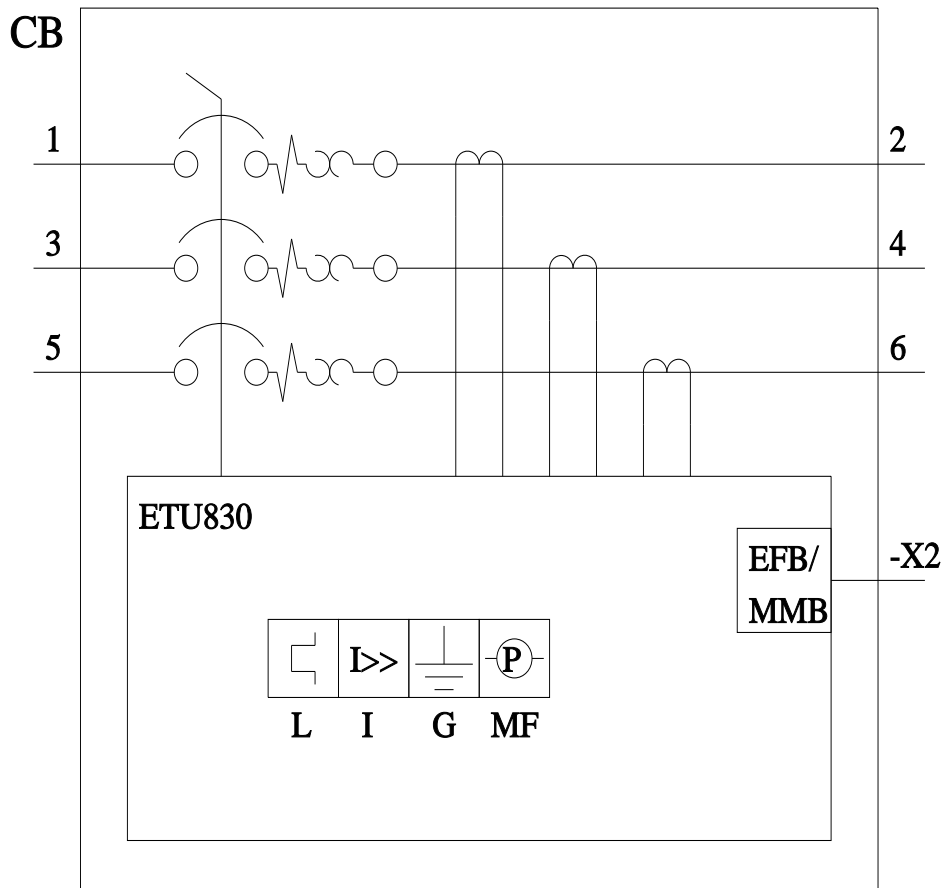
CAX-Online-Generator

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

Tender specifications

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





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