

Siemens  
EcoTech



circuit breaker 3VA6 UL Frame 600 breaking capacity class E 200 kA @ 480 V 3-pole, line protection ETU330, LIG, In=600 A overload protection Ir=240 A ...600 A short-circuit protection li=1.5...9 x In ground-fault protection IG=0.2... 1xIn, tg=0.1/0.3s without connection



Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	ELAE
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	ETU330
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	151 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	50.33 W
mechanical service life (operating cycles) / typical	20 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	4 000
electrical endurance (operating cycles) / at AC-1 / at 690 V	3 500
electrical endurance (operating cycles) / at 480 V	4 000
electrical endurance (operating cycles) / at 600 V	3 500
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	No
• other measurement function	No
Net Weight	5.3 kg
Current	
marking / according to UL 489 / 100%-rated breaker	No
operational current	
• at 40 °C	600 A
• at 45 °C	600 A
• at 50 °C	593 A
• at 55 °C	575 A
• at 60 °C	557 A
• at 65 °C	538 A

<ul style="list-style-type: none"> <li>at 70 °C</li> </ul>	520 A
<b>Switching capacity according to IEC 60947</b>	
switching capacity class of the circuit breaker	E
maximum short-circuit current breaking capacity (I <sub>cu</sub> ) <ul style="list-style-type: none"> <li>at 415 V</li> <li>at 690 V</li> </ul>	150 kA 6.5 kA
operating short-circuit current breaking capacity (I <sub>cs</sub> ) <ul style="list-style-type: none"> <li>at 415 V</li> <li>at 690 V</li> </ul>	150 kA 6.5 kA
short-circuit current making capacity (I <sub>cm</sub> ) <ul style="list-style-type: none"> <li>at 415 V</li> <li>at 690 V</li> </ul>	440 kA 11 kA
<b>Switching capacity according to UL 489</b>	
current breaking capacity <ul style="list-style-type: none"> <li>at 480 V</li> <li>at 600 V</li> </ul>	200 kA 100 kA
<b>Adjustable parameters</b>	
adjustable response value setting current (I <sub>r</sub> ) / of the L-trip / with I <sub>2t</sub> characteristic <ul style="list-style-type: none"> <li>minimum</li> <li>maximum</li> </ul>	250 A 600 A
adjustable response value delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic <ul style="list-style-type: none"> <li>minimum</li> <li>maximum</li> </ul>	0.5 s 15 s
adjustable response value setting current (I <sub>l</sub> ) / for I-tripping <ul style="list-style-type: none"> <li>minimum</li> <li>maximum</li> </ul>	900 A 5 400 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>	120 A 600 A
adjustable response value delay time (t <sub>g</sub> ) / for G-tripping / with I <sub>0t</sub> characteristic <ul style="list-style-type: none"> <li>minimum</li> <li>maximum</li> </ul>	0.1 s 0.3 s
adjustable setting current (I <sub>nN</sub> ) / for N-tripping <ul style="list-style-type: none"> <li>minimum</li> <li>maximum</li> </ul>	0 A 0 A
product function / grounding protection	Yes
<b>Mechanical Design</b>	
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]	9.76 in
height	248 mm
width [in]	5.43 in
width	138 mm
depth [in]	4.33 in
depth	110 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

### Environmental footprint

Environmental Product Declaration (EPD)	Yes
global warming potential [CO2 eq] / total	495 kg
global warming potential [CO2 eq] / during manufacturing	28.7 kg
global warming potential [CO2 eq] / during operation	470 kg
global warming potential [CO2 eq] / after end of life	-4.07 kg
Siemens Eco Profile (SEP)	Siemens EcoTech
reference code / according to IEC 81346-2	Q

### Approvals / Certificates

#### General Product Approval



[Confirmation](#)



General Product Approval	EMV	Test Certificates	other
--------------------------	-----	-------------------	-------

[Miscellaneous](#)



[Type Test Certificates/Test Report](#)

[Confirmation](#)

other	Dangerous goods	Environment
-------	-----------------	-------------

[Miscellaneous](#)

[Transport Information](#)



[Environmental Confirmations](#)

### Further information

#### Information on the packaging

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

#### Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

#### Information- and Downloadcenter (Catalogs, Brochures,...)

<https://www.siemens.com/lowvoltage/catalogs>

#### Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA6460-0HM31-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6460-0HM31-0AA0>

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

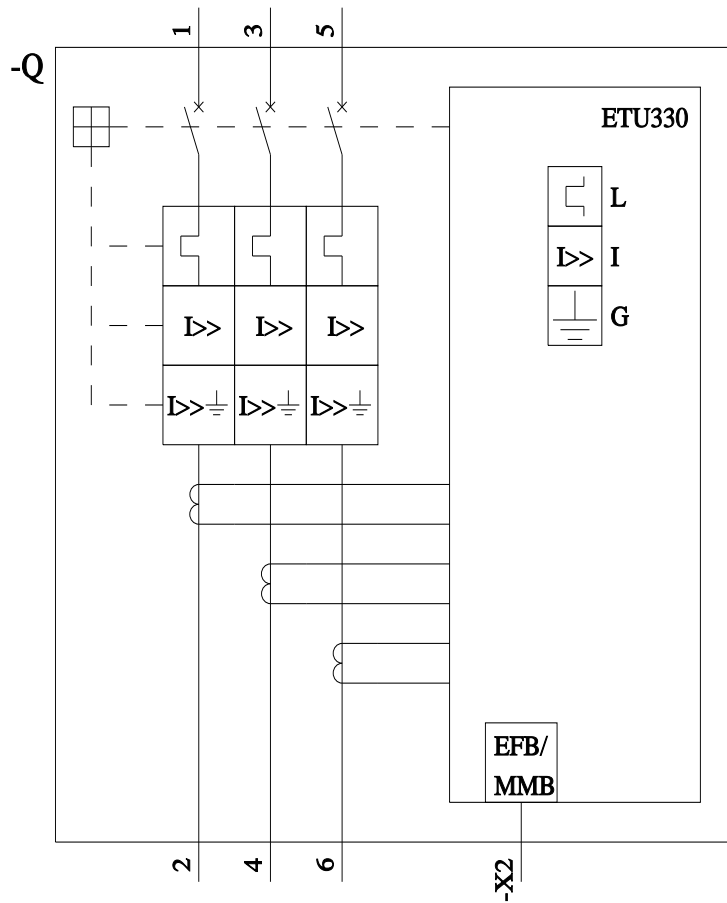
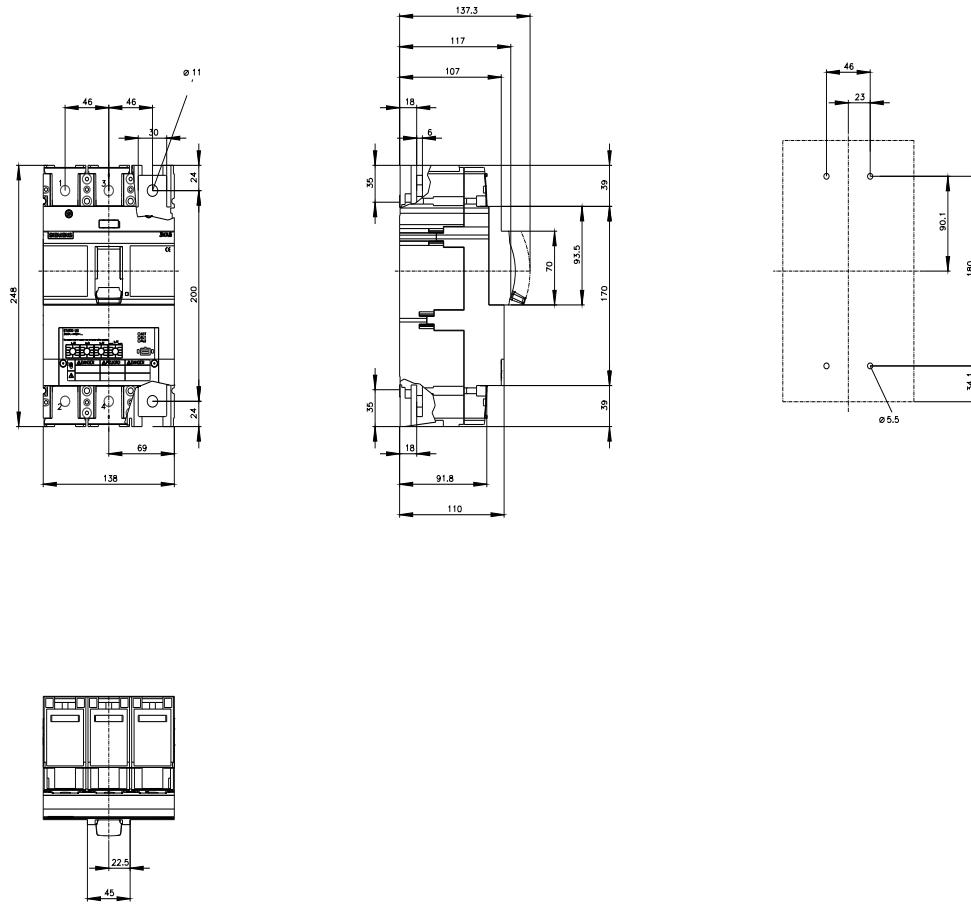
[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA6460-0HM31-0AA0](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6460-0HM31-0AA0)

#### CAX-Online-Generator

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

#### Tender specifications

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





last modified:

5/2/2025

