



circuit breaker 3VA6 UL Frame 600 breaking capacity class E 200 kA @ 480 V 3-pole, line protection ETU330, LIG, $I_n=600$ A overload protection $I_r=240$ A ...600 A short-circuit protection $I_i=1.5...9 \times I_n$ in ground-fault protection $I_G=0.2...1 \times I_n$, $t_g=0.1/0.3$ s 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

• at 70 °C	520 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	E
maximum short-circuit current breaking capacity (I _{cu})	
• at 415 V	150 kA
• at 690 V	6.5 kA
operating short-circuit current breaking capacity (I _{cs})	
• at 415 V	150 kA
• at 690 V	6.5 kA
short-circuit current making capacity (I _{cm})	
• at 415 V	440 kA
• at 690 V	11 kA
Switching capacity according to UL 489	
current breaking capacity	
• at 480 V	200 kA
• at 600 V	100 kA
Adjustable parameters	
adjustable response value setting current (I _r) / of the L-trip / with I _{2t} characteristic	
• minimum	250 A
• maximum	600 A
adjustable response value delay time (t _r) / for L-tripping / with I _{2t} characteristic	
• minimum	0.5 s
• maximum	15 s
adjustable response value setting current (I _l) / for I-tripping	
• minimum	900 A
• maximum	5 400 A
adjustable current response value current / for G-tripping / with standard characteristic	
• initial value	120 A
• full-scale value	600 A
adjustable response value delay time (t _g) / for G-tripping / with I _{0t} characteristic	
• minimum	0.1 s
• maximum	0.3 s
adjustable setting current (I _{nN}) / for N-tripping	
• minimum	0 A
• maximum	0 A
product function / grounding protection	Yes
Mechanical Design	
product component	
• undervoltage release	No
• voltage trigger	No
• trip indicator	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
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
Accessories	
product extension / optional / motor drive	Yes
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

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](#)



[Miscellaneous](#)

General Product Approval	EMV	Test Certificates	other
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[Miscellaneous](#)



[Type Test Certificates/Test Report](#)

[Confirmation](#)

other	Dangerous goods	Environment
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[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

CAx-Online-Generator

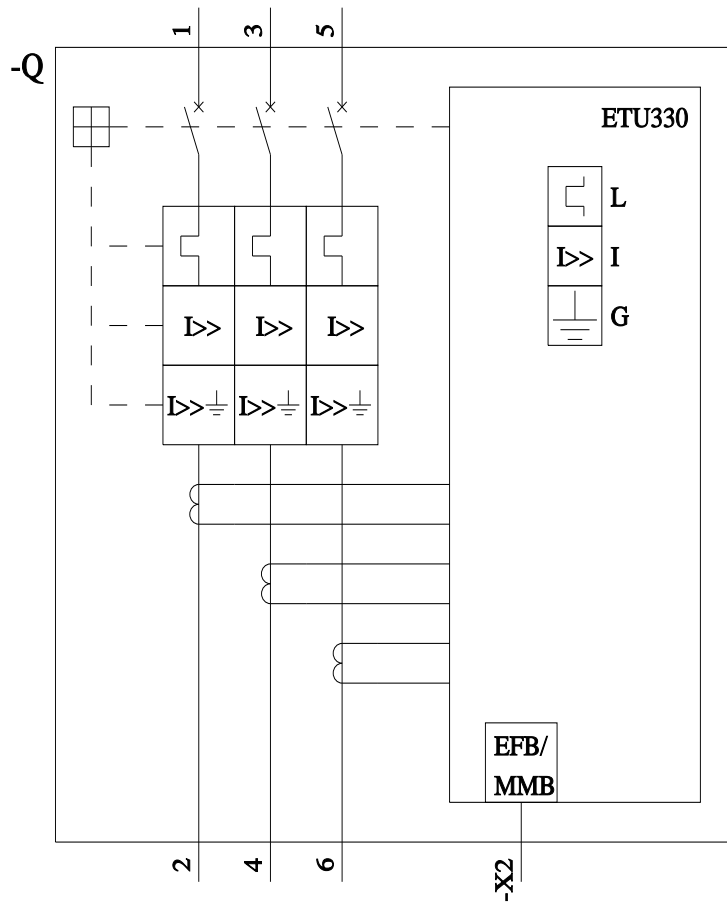
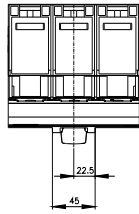
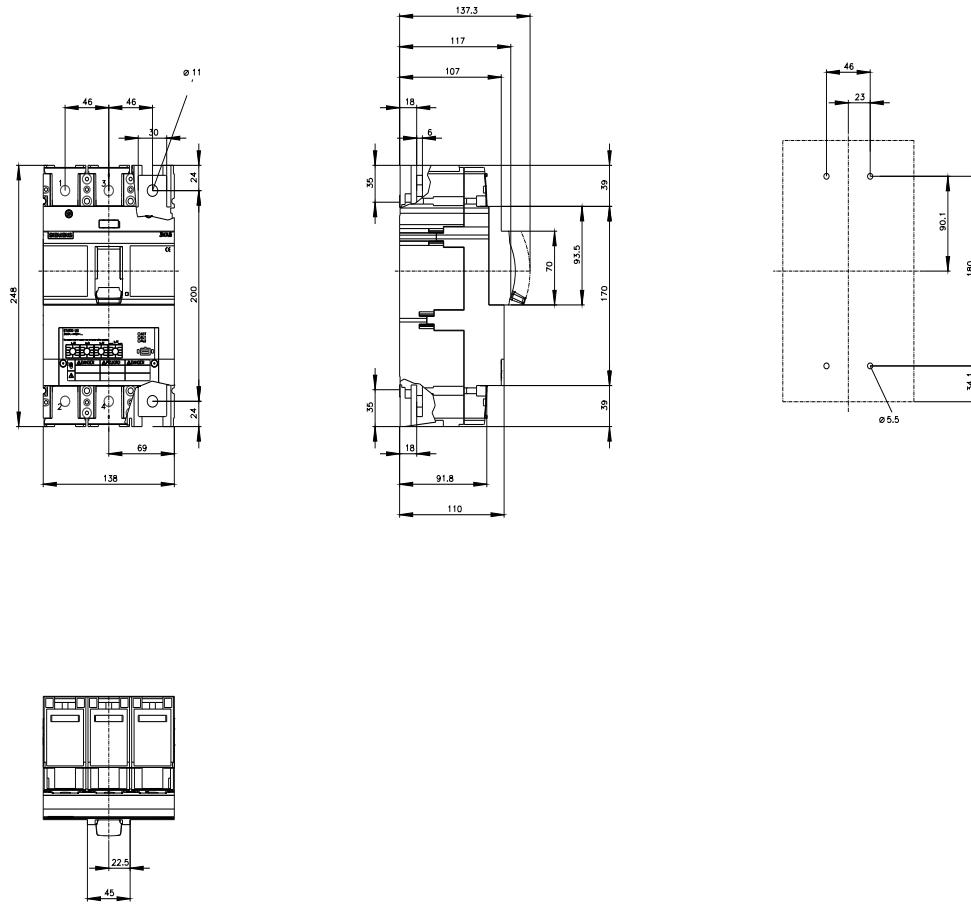
<https://www.siemens.com/cax>

Tender specifications

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

Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP="HAUPT"></mmp_prod_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP=)





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