

Siemens
EcoTech



circuit breaker 3VA6 UL Frame 250 breaking capacity class H 65 kA @ 480 V 4-pole, line protection ETU330, LIG, $I_n=100$ A overload protection, 100% rated $I_r=40$ A...100 A short-circuit protection $I_i=1.5...12 \times I_n$ neutral conductor protection adjustable (OFF, 50%, 100%) ground-fault protection $I_g=0.2...1 \times I_n=$ tg=0.1/0.3s without connection



Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	HFAE
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	4
General technical data	
insulation voltage / rated value	800 V
operating voltage / at AC / rated value	690 V
power loss [W] / maximum	6.7 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	2.23 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 + N-conductor
product function	
• communication function	No
• other measurement function	No
Net Weight	2.9 kg
Current	
marking / according to UL 489 / 100%-rated breaker	Yes
operational current	
• at 40 °C	100 A
• at 45 °C	100 A
• at 50 °C	100 A
• at 55 °C	100 A
• at 60 °C	100 A
• at 65 °C	100 A

<ul style="list-style-type: none"> at 70 °C 	100 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	H
maximum short-circuit current breaking capacity (I _{cu}) <ul style="list-style-type: none"> at 240 V at 415 V at 690 V 	110 kA 85 kA 3 kA
operating short-circuit current breaking capacity (I _{cs}) <ul style="list-style-type: none"> at 240 V at 415 V at 690 V 	110 kA 85 kA 3 kA
short-circuit current making capacity (I _{cm}) <ul style="list-style-type: none"> at 240 V at 415 V at 690 V 	242 kA 187 kA 4.5 kA
Switching capacity according to UL 489	
current breaking capacity <ul style="list-style-type: none"> at 240 V at 480 V at 600 V 	100 kA 65 kA 22 kA
Adjustable parameters	
adjustable response value setting current (I _r) / of the L-trip / with I _{2t} characteristic <ul style="list-style-type: none"> minimum maximum 	40 A 100 A
adjustable response value delay time (t _r) / for L-tripping / with I _{2t} characteristic <ul style="list-style-type: none"> minimum maximum 	0.5 s 17 s
adjustable response value setting current (I _i) / for I-tripping <ul style="list-style-type: none"> minimum maximum 	150 A 1 200 A
adjustable current response value current / for G-tripping / with standard characteristic <ul style="list-style-type: none"> initial value full-scale value 	20 A 100 A
adjustable response value delay time (t _g) / for G-tripping / with I _{0t} characteristic <ul style="list-style-type: none"> minimum maximum 	0.1 s 0.3 s
adjustable setting current (I _{nN}) / for N-tripping <ul style="list-style-type: none"> minimum maximum 	50 A 100 A
design of the N-conductor protection	adjustable OFF; 50%; 100%
product function / grounding protection	Yes
Mechanical Design	
product component <ul style="list-style-type: none"> undervoltage release voltage trigger trip indicator 	No No No
height [in]	7.8 in
height	198 mm
width [in]	5.51 in
width	140 mm
depth [in]	3.39 in
depth	86 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	
• 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	61.814 kg
global warming potential [CO2 eq] / during manufacturing	14.6 kg
global warming potential [CO2 eq] / during operation	48.9 kg
global warming potential [CO2 eq] / after end of life	-2.2 kg
Siemens Eco Profile (SEP)	Siemens EcoTech
reference code / according to IEC 81346-2	Q

Approvals / Certificates

General Product Approval



[Miscellaneous](#)

General Product Approval	EMV	Maritime application
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other	Dangerous goods	Environment
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[Confirmation](#)

[Miscellaneous](#)

[Transport Information](#)



Siemens EcoTech



[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=3VA6210-6HM41-2AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6210-6HM41-2AA0>

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

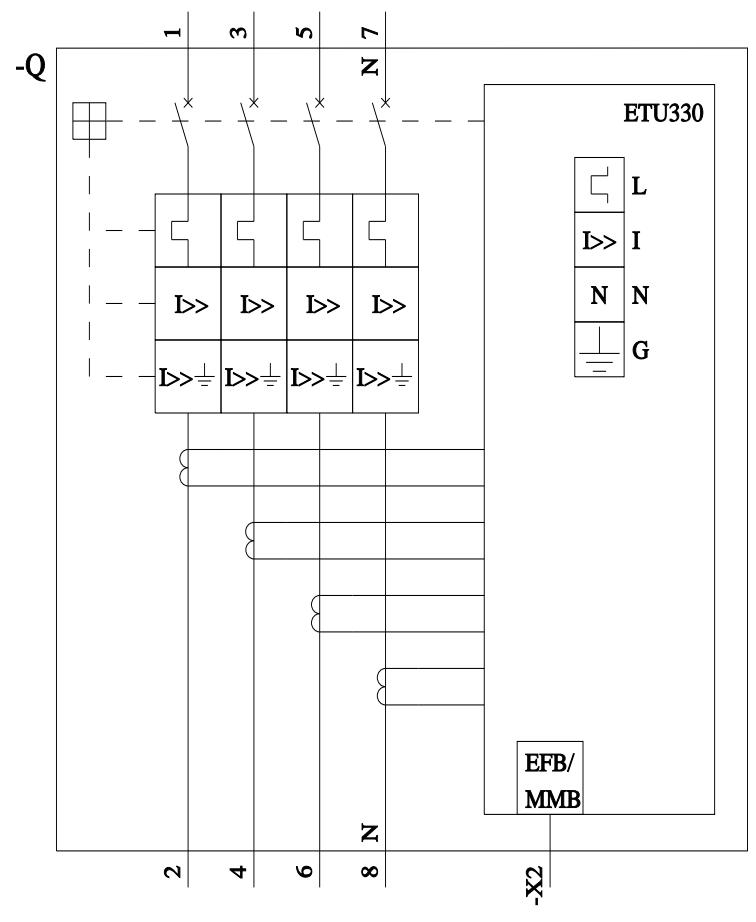
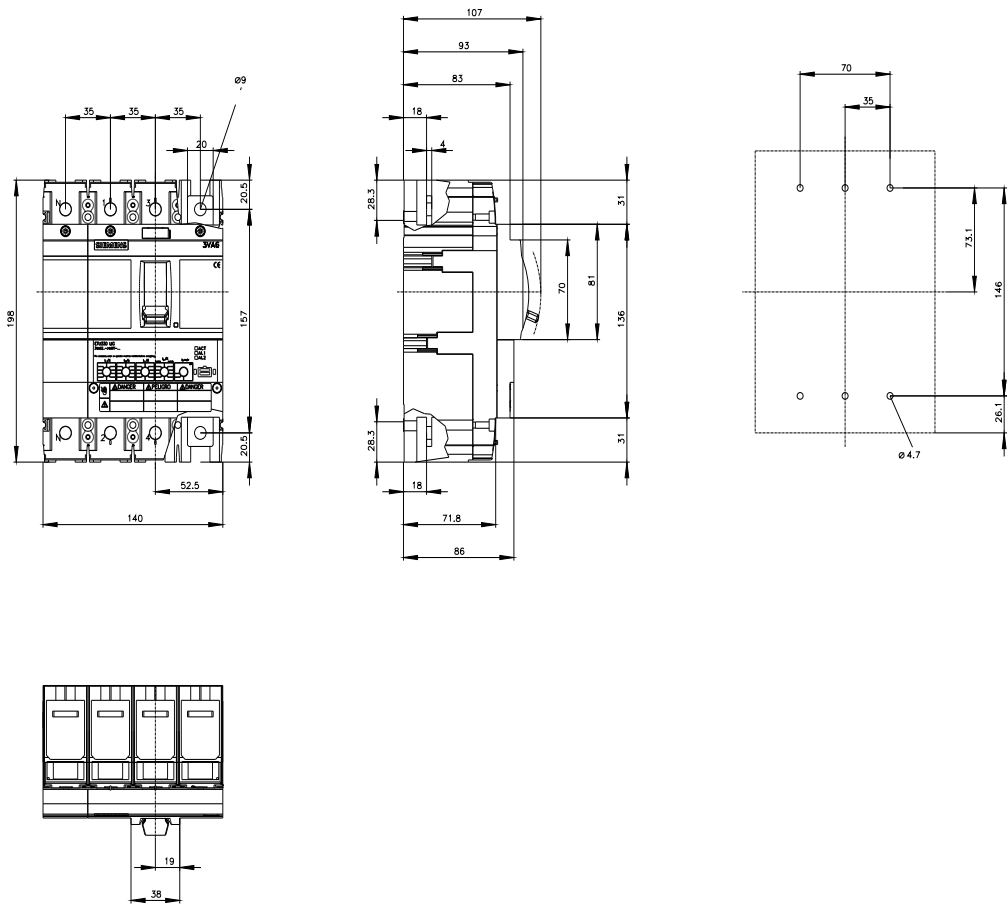
https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6210-6HM41-2AA0

CAX-Online-Generator

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

Tender specifications

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





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