



circuit breaker 3VA6 UL Frame 800 breaking capacity class H 65 kA @ 480 V 4-pole, line protection ETU330, LIG, $I_n=800$ A overload protection, 100% rated $I_r=315$ A ...800 A short-circuit protection $I_i=1.5...10 \times I_n$ neutral conductor protection adjustable (OFF, 50%, 100%) ground-fault protection $I_G=0.2... 1 \times I_n$, $t_g=0.1/0.3$ s cable connection on two sides

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	HMAE
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	231 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	77 W
mechanical service life (operating cycles) / typical	10 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	5 800
electrical endurance (operating cycles) / at AC-1 / at 690 V	4 000
electrical endurance (operating cycles) / at 480 V	5 800
electrical endurance (operating cycles) / at 600 V	4 000
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	23.298 kg
Current	
marking / according to UL 489 / 100%-rated breaker	Yes
operational current	
• at 40 °C	800 A
• at 45 °C	800 A
• at 50 °C	800 A
• at 55 °C	776 A
• at 60 °C	752 A
• at 65 °C	708 A
• at 70 °C	664 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 35 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 19 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 74 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 	150 kA 65 kA 35 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 	315 A 800 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 _l) / for I-tripping	
<ul style="list-style-type: none"> ● minimum ● maximum 	1 200 A 8 000 A
adjustable current response value current / for G-tripping / with standard characteristic	
<ul style="list-style-type: none"> ● initial value ● full-scale value 	160 A 800 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 	400 A 800 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]	12.91 in
height	328 mm
width [in]	11.02 in
type of connectable conductor cross-sections / of the round conductor terminal / stranded	4 x (4/0 - 500 kcmil)
width	280 mm
depth [in]	4.72 in
depth	120 mm
Connections	
arrangement of electrical connectors / for main current circuit	Front connection
type of electrical connection / for main current circuit	circular conductor terminal on both sides
Auxiliary circuit	
number of CO contacts / for auxiliary contacts	0

Accessories	
product extension / optional / motor drive	No
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
reference code / according to IEC 81346-2	Q

Approvals / Certificates	
General Product Approval	EMV



EG-Konf.



UL

[Miscellaneous](#)



RCM

Test Certificates	Maritime application	other	Dangerous goods
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[Type Test Certificates/Test Report](#)



ABS



DNV

[Confirmation](#)

[Miscellaneous](#)

[Transport Information](#)

Environment

[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=3VA6580-6HM46-2AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6580-6HM46-2AA0>

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

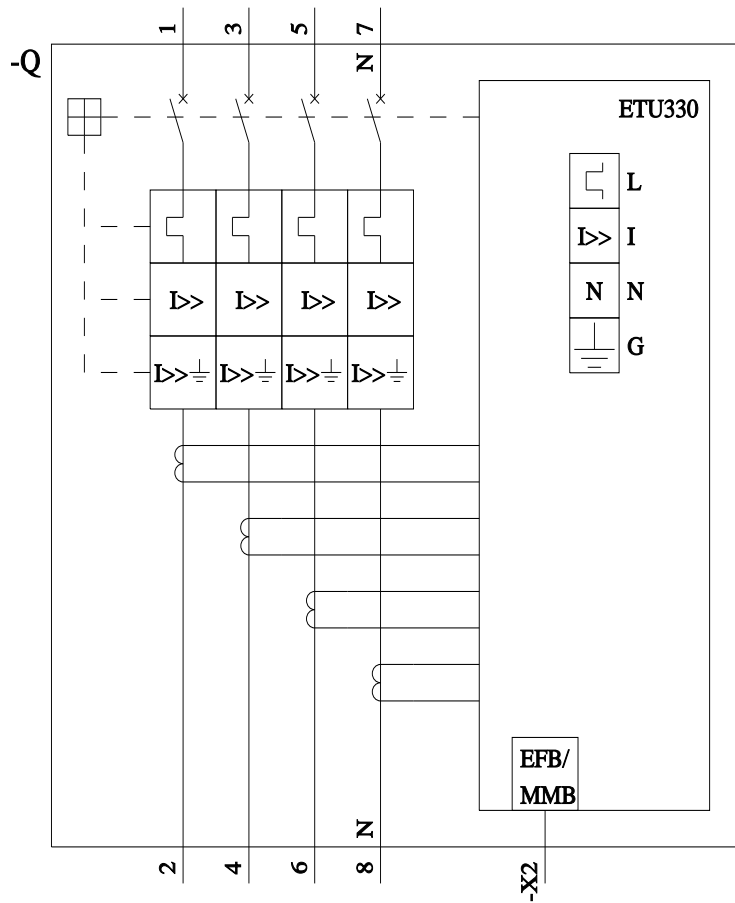
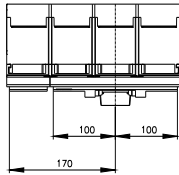
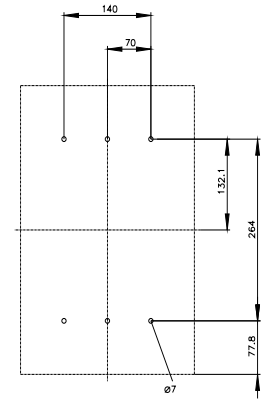
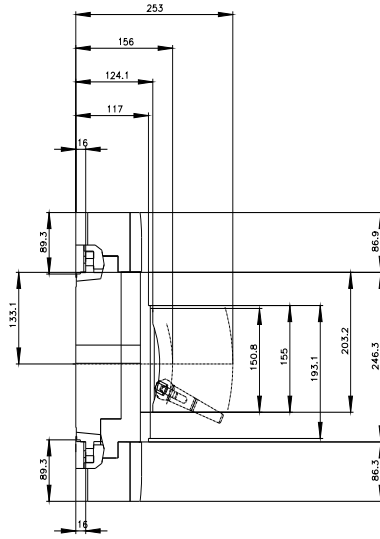
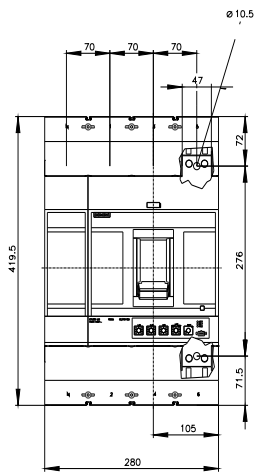
https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6580-6HM46-2AA0

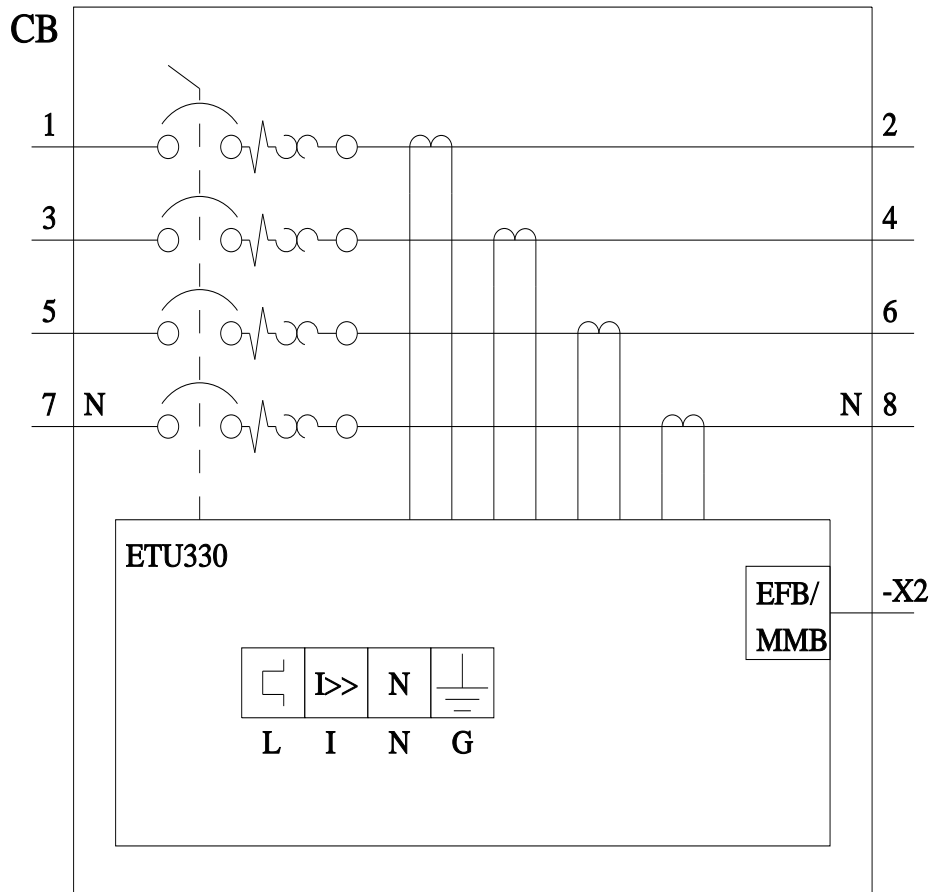
CAX-Online-Generator

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

Tender specifications

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





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