



circuit breaker 3VA6 UL Frame 800 breaking capacity class M 35 kA @ 480 V 4-pole, line protection ETU550, LSI, In=800 A overload protection Ir=315 A ...800 A short-circuit protection I<sub>sd</sub>=0.6..10x I<sub>n</sub>, I<sub>i</sub>=1.5..10x I<sub>n</sub> neutral conductor protection adjustable (OFF, up to 160%) cable connection on two sides

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	MMAE
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	ETU550
protection function of the overcurrent release	LSI
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	without
product function	
• communication function	Yes
• other measurement function	No
Net Weight	23.298 kg
Current	
marking / according to UL 489 / 100%-rated breaker	No
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	M
maximum short-circuit current breaking capacity (I <sub>cu</sub> )	

<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 25 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 19 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 53 kA
<b>Switching capacity according to UL 489</b>	
current breaking capacity <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 480 V</li> <li>• at 600 V</li> </ul>	100 kA 35 kA 25 kA
<b>Adjustable parameters</b>	
adjustable response value setting current (I <sub>r</sub> ) / of the L-trip / with I2t characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	315 A 800 A
adjustable response value delay time (t <sub>r</sub> ) / for L-tripping / with I2t characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	0.5 s 25 s
adjustable response value setting current (I <sub>sd</sub> ) / of S-trip / with I0t characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	480 A 8 000 A
adjustable response value setting current (I <sub>sd</sub> ) / of S-trip / with I2t characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	480 A 8 000 A
adjustable response value delay time (t <sub>sd</sub> ) / for S-tripping / with I0t characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	0.05 s 0.5 s
adjustable response value delay time (t <sub>sd</sub> ) / for S-tripping / with I2t characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	0.05 s 0.5 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>	1 200 A 8 000 A
adjustable setting current (I <sub>n</sub> ) / for N-tripping <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	160 A 800 A
design of the N-conductor protection	adjustable OFF; 20% to 100%
product function / grounding protection	No
<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]	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**



[Miscellaneous](#)

General Product Approval	EMV	Test Certificates	Maritime application
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[Type Test Certificates/Test Report](#)



Maritime application	other	Dangerous goods	Environment
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[Confirmation](#)

[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,...)**

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

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA6580-5JP46-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6580-5JP46-0AA0>

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

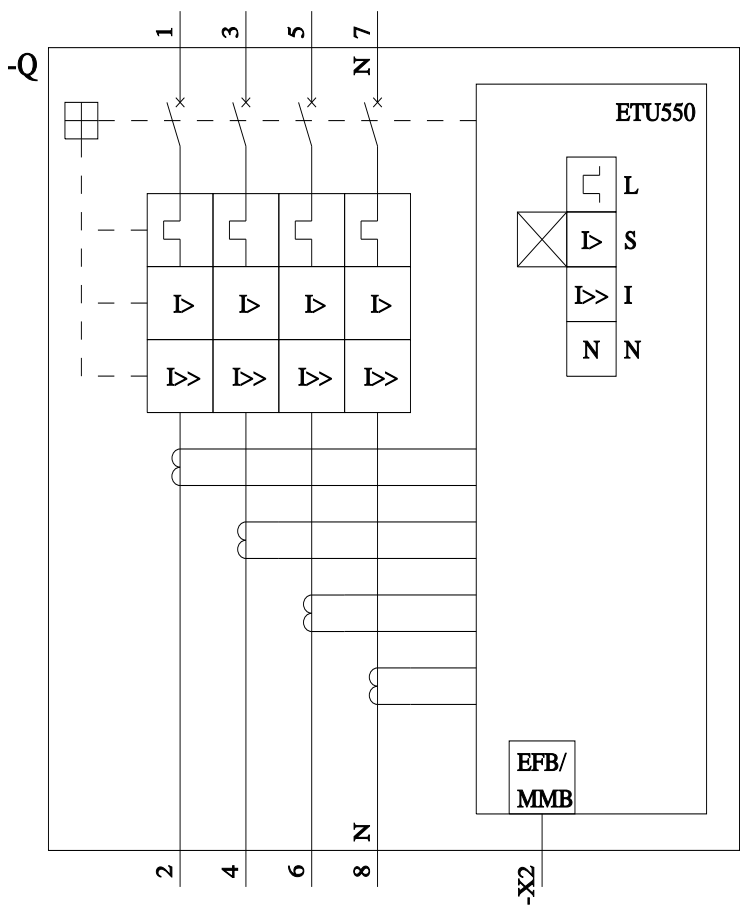
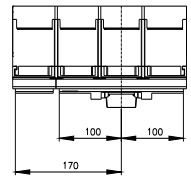
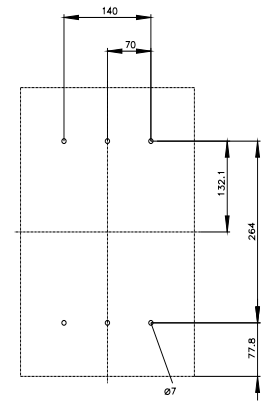
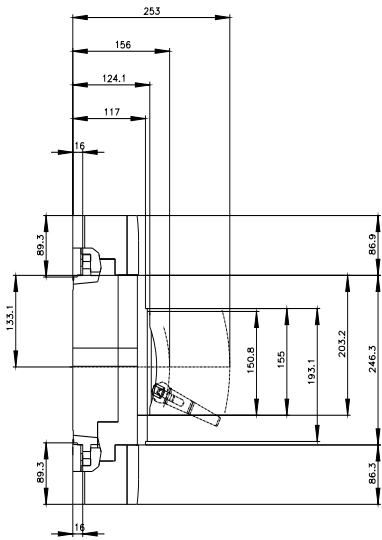
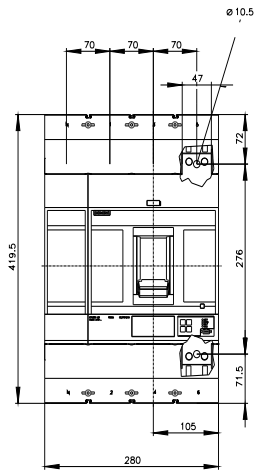
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA6580-5JP46-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6580-5JP46-0AA0)

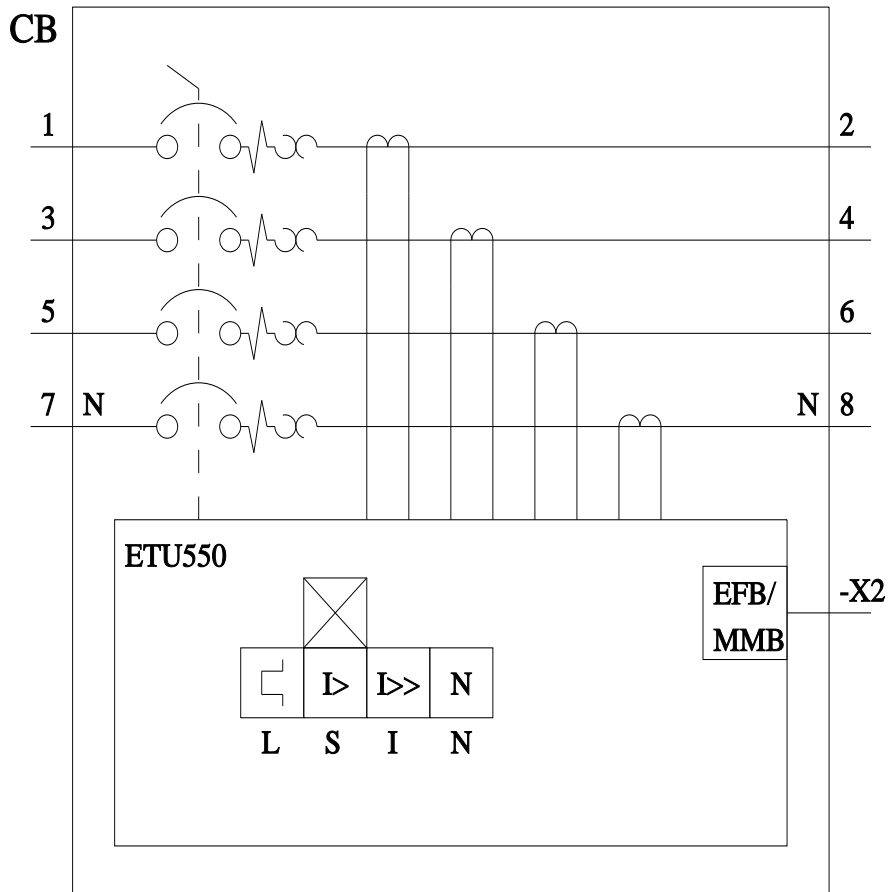
**CAX-Online-Generator**

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

**Tender specifications**

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





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