



circuit breaker 3VA6 UL Frame 800 breaking capacity class M 35 kA @ 480 V 4-pole, line protection ETU560, LSIG, $I_n=600$ A overload protection $I_r=240$ A ...600 A short-circuit protection $I_{sd}=0.6..12 \times I_n$, $I_i=1.5..12 \times I_n$ neutral conductor protection adjustable (OFF, up to 130%) ground-fault protection $I_G=0.2... 1 \times I_n$, $t_g=0.05-0.8$ s 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	ETU560
protection function of the overcurrent release	LSIG
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	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	10 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	5 100
electrical endurance (operating cycles) / at AC-1 / at 690 V	3 500
electrical endurance (operating cycles) / at 480 V	5 100
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 + N-conductor
product function	
• communication function	Yes
• other measurement function	No
Net Weight	19.089 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	600 A
• at 55 °C	600 A
• at 60 °C	600 A
• at 65 °C	555 A
• at 70 °C	510 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	M
maximum short-circuit current breaking capacity (I _{cu})	

<ul style="list-style-type: none"> • at 240 V • at 415 V • at 690 V 	<p>85 kA</p> <p>55 kA</p> <p>25 kA</p>
operating short-circuit current breaking capacity (Ics) <ul style="list-style-type: none"> • at 240 V • at 415 V • at 690 V 	<p>85 kA</p> <p>55 kA</p> <p>19 kA</p>
short-circuit current making capacity (Icm) <ul style="list-style-type: none"> • at 240 V • at 415 V • at 690 V 	<p>187 kA</p> <p>121 kA</p> <p>53 kA</p>

Switching capacity according to UL 489

current breaking capacity <ul style="list-style-type: none"> • at 240 V • at 480 V • at 600 V 	<p>100 kA</p> <p>35 kA</p> <p>25 kA</p>
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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 	<p>250 A</p> <p>600 A</p>
adjustable response value delay time (t _r) / for L-tripping / with I _{2t} characteristic <ul style="list-style-type: none"> • minimum • maximum 	<p>0.5 s</p> <p>25 s</p>
adjustable response value setting current (I _{sd}) / of S-trip / with I _{0t} characteristic <ul style="list-style-type: none"> • minimum • maximum 	<p>360 A</p> <p>7 200 A</p>
adjustable response value setting current (I _{sd}) / of S-trip / with I _{2t} characteristic <ul style="list-style-type: none"> • minimum • maximum 	<p>360 A</p> <p>7 200 A</p>
adjustable response value delay time (t _{sd}) / for S-tripping / with I _{0t} characteristic <ul style="list-style-type: none"> • minimum • maximum 	<p>0.05 s</p> <p>0.5 s</p>
adjustable response value delay time (t _{sd}) / for S-tripping / with I _{2t} characteristic <ul style="list-style-type: none"> • minimum • maximum 	<p>0.05 s</p> <p>0.5 s</p>
adjustable response value setting current (I _i) / for I-tripping <ul style="list-style-type: none"> • minimum • maximum 	<p>900 A</p> <p>7 200 A</p>
adjustable current response value current / for G-tripping / with standard characteristic <ul style="list-style-type: none"> • initial value • full-scale value 	<p>120 A</p> <p>600 A</p>
adjustable response value delay time (t _g) / for G-tripping / with I _{0t} characteristic <ul style="list-style-type: none"> • minimum • maximum 	<p>0.05 s</p> <p>0.8 s</p>
adjustable response value setting current (I _g) / for G-tripping / with I _{2t} characteristic <ul style="list-style-type: none"> • minimum • maximum 	<p>120 A</p> <p>600 A</p>
adjustable response value delay time (t _g) / for G-tripping / with I _{2t} characteristic <ul style="list-style-type: none"> • minimum • maximum 	<p>0.05 s</p> <p>0.8 s</p>
adjustable setting current (I _{nN}) / for N-tripping <ul style="list-style-type: none"> • minimum • maximum 	<p>120 A</p> <p>800 A</p>
design of the N-conductor protection	adjustable OFF; 20% to 130%

product function / grounding protection	Yes
Mechanical Design	
product component	
• undervoltage release	No
• voltage trigger	No
• trip indicator	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	2 x (4/0 - 600 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	
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General Product Approval



[Confirmation](#)



General Product Approval	EMV	Test Certificates	Marine / Shipping
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[Miscellaneous](#)



[Type Test Certificates/Test Report](#)



Marine / Shipping	other
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[Miscellaneous](#)

[Confirmation](#)

[Miscellaneous](#)

Dangerous goods	Environment
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[Transport Information](#)

[Environmental Confirmations](#)

Further information

Information on the packaging

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

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=3VA6560-5JQ46-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6560-5JQ46-0AA0>

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

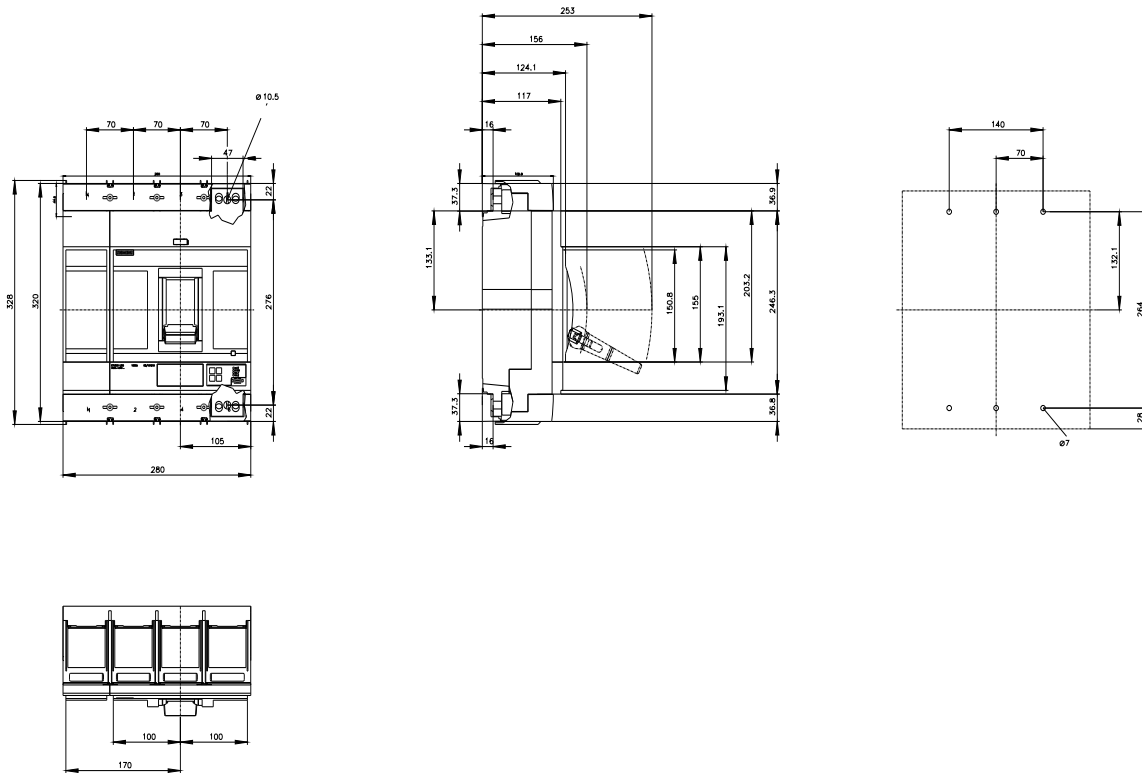
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6560-5JQ46-0AA0

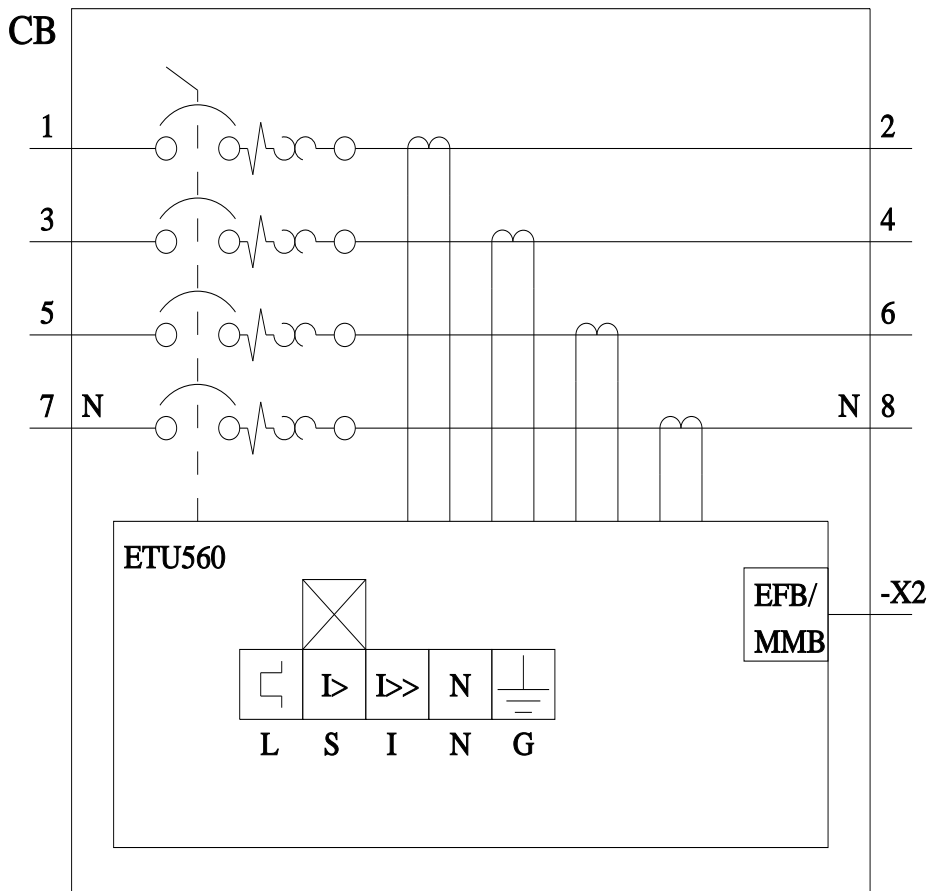
CAx-Online-Generator

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

Tender specifications

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





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