



circuit breaker 3VA6 UL Frame 800 breaking capacity class C 100 kA @ 480 V 4-pole, line protection ETU860, LSIG, In=600 A overload protection Ir=240 A ...600 A short-circuit protection I<sub>sd</sub>=0.6..12x I<sub>n</sub>, I<sub>i</sub>=1.5..12x I<sub>n</sub> neutral conductor protection adjustable (OFF, up to 130%) ground-fault protection IG=0.2... 1xI<sub>n</sub>, t<sub>g</sub>=0.05-0.8s nut keeper kit

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	CMAE
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	ETU860
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	Yes
Net Weight	16.32 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	C
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>	<p>200 kA</p> <p>110 kA</p> <p>35 kA</p>
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>	<p>150 kA</p> <p>85 kA</p> <p>19 kA</p>
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>	<p>440 kA</p> <p>242 kA</p> <p>74 kA</p>

**Switching capacity according to UL 489**

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>	<p>200 kA</p> <p>100 kA</p> <p>50 kA</p>
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**Adjustable parameters**

adjustable response value setting current (I <sub>r</sub> ) / of the L-trip / with I <sub>2t</sub> characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	<p>250 A</p> <p>600 A</p>
adjustable response value delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	<p>0.5 s</p> <p>25 s</p>
adjustable response value setting current (I <sub>sd</sub> ) / of S-trip / with I <sub>0t</sub> characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	<p>360 A</p> <p>7 200 A</p>
adjustable response value setting current (I <sub>sd</sub> ) / of S-trip / with I <sub>2t</sub> characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	<p>360 A</p> <p>7 200 A</p>
adjustable response value delay time (t <sub>sd</sub> ) / for S-tripping / with I <sub>0t</sub> characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	<p>0.05 s</p> <p>0.5 s</p>
adjustable response value delay time (t <sub>sd</sub> ) / for S-tripping / with I <sub>2t</sub> characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	<p>0.05 s</p> <p>0.5 s</p>
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>	<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"> <li>• initial value</li> <li>• full-scale value</li> </ul>	<p>120 A</p> <p>600 A</p>
adjustable response value delay time (t <sub>g</sub> ) / for G-tripping / with I <sub>0t</sub> characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	<p>0.05 s</p> <p>0.8 s</p>
adjustable response value setting current (I <sub>g</sub> ) / for G-tripping / with I <sub>2t</sub> characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	<p>120 A</p> <p>600 A</p>
adjustable response value delay time (t <sub>g</sub> ) / for G-tripping / with I <sub>2t</sub> characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	<p>0.05 s</p> <p>0.8 s</p>
adjustable setting current (I <sub>nN</sub> ) / for N-tripping <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	<p>120 A</p> <p>800 A</p>
design of the N-conductor protection	adjustable OFF; 20% to 130%

product function / grounding protection	Yes
<b>Mechanical Design</b>	
product component	
• undervoltage release	No
• voltage trigger	No
• trip indicator	No
height [in]	12.91 in
height	328 mm
width [in]	11.02 in
width	280 mm
depth [in]	4.72 in
depth	120 mm

<b>Connections</b>	
arrangement of electrical connectors / for main current circuit	Front connection
type of electrical connection / for main current circuit	nut keeper kit on both ends
type of connectable conductor cross-sections / for flat-bar terminal connection / minimum	20 x 4 mm
type of connectable conductor cross-sections / for flat-bar terminal connection / maximum	50 x 28 mm

<b>Auxiliary circuit</b>	
number of CO contacts / for auxiliary contacts	0

<b>Accessories</b>	
product extension / optional / motor drive	No

<b>Environmental conditions</b>	
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

<b>Approvals / Certificates</b>	
<b>General Product Approval</b>	



[Confirmation](#)



<b>General Product Approval</b>	<b>EMV</b>	<b>Test Certificates</b>
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[Miscellaneous](#)



[Type Test Certificates/Test Report](#)

<b>Marine / Shipping</b>	<b>other</b>
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[Confirmation](#)

<b>other</b>	<b>Dangerous goods</b>	<b>Environment</b>
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[Miscellaneous](#)

[Miscellaneous](#)

[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)

<http://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA6560-7KQ42-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6560-7KQ42-0AA0>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA6560-7KQ42-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6560-7KQ42-0AA0)

### CAX-Online-Generator

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

### Tender specifications

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





