



circuit breaker 3VA2 IEC Frame 1000 breaking capacity class M Icu=55 kA @ 415 V 4-pole, line protection ETU860, LSIG, In=800 A overload protection Ir=320 A...800 A short-circuit protection Isd=0.6..10x In, li=1.5..10x In neutral conductor protection adjustable (OFF, up to 160%) ground-fault protection, can be switched off Ig=0.2...1 x In= tg=0.05-0.8s nut keeper kit

Model	
product brand name	SENTRON
product designation	Molded case circuit breaker
design of the product	Line protection
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	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	4 600
electrical endurance (operating cycles) / at AC-1 / at 690 V	3 200
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	17.57 kg
Current	
operational current	
• at 40 °C	800 A
• at 45 °C	800 A
• at 50 °C	800 A
• at 55 °C	800 A
• at 60 °C	800 A
• at 65 °C	767 A
• at 70 °C	703 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	M
maximum short-circuit current breaking capacity (Icu)	
• at 240 V	85 kA
• at 415 V	55 kA
• at 440 V	55 kA
• at 500 V	36 kA
• at 690 V	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 440 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul>	85 kA 55 kA 55 kA 36 kA 19 kA
short-circuit current making capacity (I <sub>cm</sub> ) <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 440 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul>	187 kA 121 kA 121 kA 75.6 kA 52.5 kA

### Adjustable parameters

product feature / for L-tripping / can be switched on/off	No
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>	320 A 800 A
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>	0.5 s 25 s
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>	480 A 8 000 A
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>	480 A 8 000 A
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>	0.05 s 0.5 s
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>	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 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>	160 A 800 A
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>• maximum</li> </ul>	0.8 s
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>	160 A 800 A
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>	0.05 s 0.8 s
adjustable setting current (I <sub>nN</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	Yes

### Mechanical Design

product component <ul style="list-style-type: none"> <li>• undervoltage release</li> <li>• voltage trigger</li> </ul>	No No
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• trip indicator	No
height [in]	12.6 in
height	320 mm
width [in]	11.02 in
width	280 mm
depth [in]	4.72 in
depth	120 mm

### Connections

arrangement of electrical connectors / for main current circuit	Front terminal
type of electrical connection / for main current circuit	on both sides nut keeper kit
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
design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)	silver
design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)	silver

### Auxiliary circuit

number of CO contacts / for auxiliary contacts	0
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### Accessories

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

### Approvals / Certificates

#### General Product Approval



[Confirmation](#)



EG-Konf.



[Miscellaneous](#)

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

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



Marine / Shipping	other
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LRS



[CCS \(China Classification Society\)](#)

[Confirmation](#)

other	Dangerous Good	Environment
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[Miscellaneous](#)

[Miscellaneous](#)

[Transport Information](#)

[Environmental Confirmations](#)

[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=3VA2580-5KQ42-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA2580-5KQ42-0AA0>

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

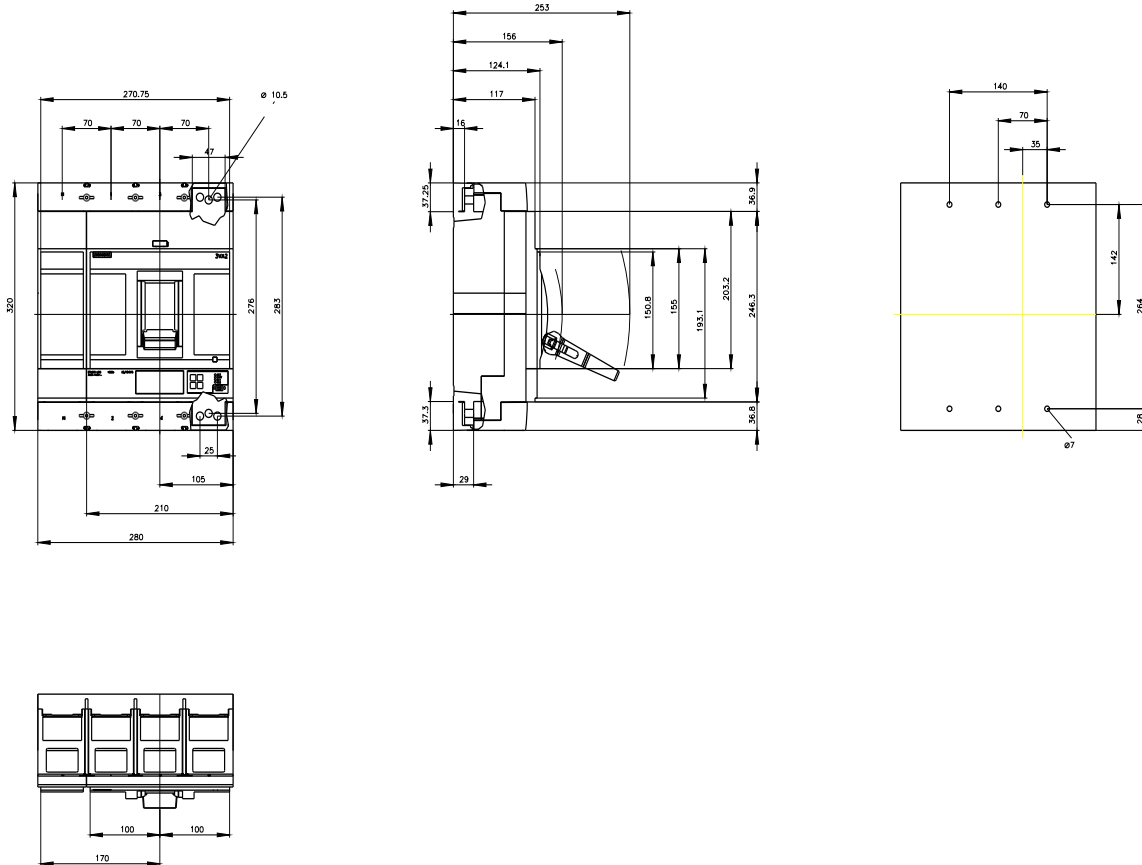
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA2580-5KQ42-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2580-5KQ42-0AA0)

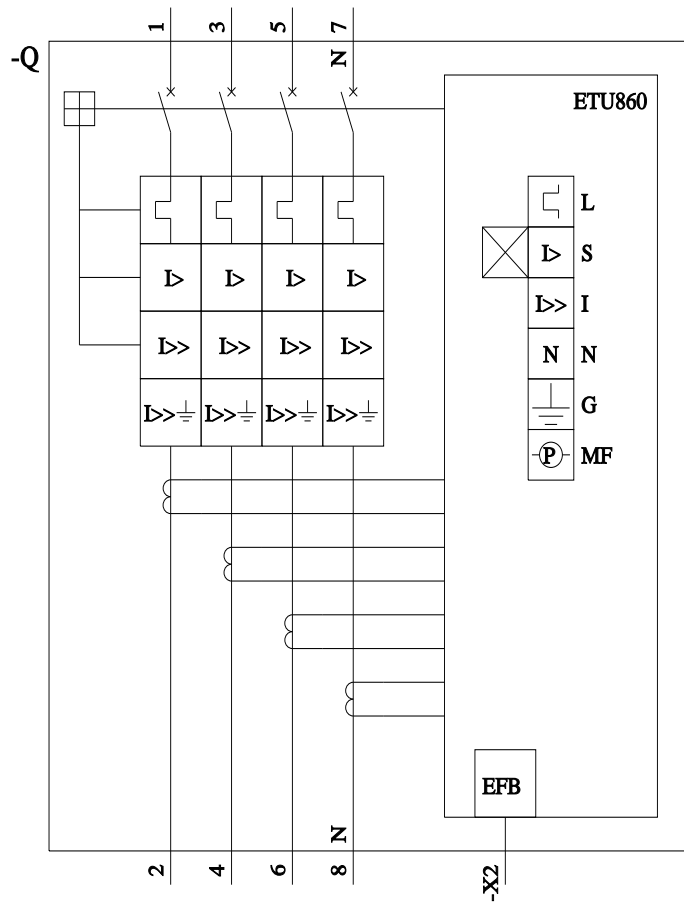
CAX-Online-Generator

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

Tender specifications

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





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