



CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY CLASS S ICU=36KA @ 415 V 4-POLE, LINE PROTECTION TM220, ATFM, IN=16A OVERLOAD PROTECTION IR=11,2A ...16A SHORT CIRCUIT PROTECTION II=20 X IN NEUTRAL PROTECTION 100% BUSBAR CONNECTION

Model	
product brandname	SENTRON
Product designation	Molded case circuit breaker
Design of the product	Line protection
Type of load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type)	Yes
Design of the overcurrent release	TM220
Protective function of the overcurrent release	LI
Number of poles	4

General technical data	
Tension assignée d'isolement Ui	800 V
Max. rated operational voltage Ue with AC 50/60Hz	690 V
Max. rated operational voltage Ue with DC	600 V
Active power loss / for rated value of the current / at AC / in hot operating state / per device	10.6 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	3.53 W
Mechanical service life (switching cycles) / typical	15 000

Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	8 000
Neutral conductors / upgradeable/retrofitable	No
Ground fault monitoring version	Without
Product function	
• communication function	No
• other measurement function	No
Net weight	1.2 kg

### Electricity

Marking / according to UL 489 / 100%-rated breaker	No
Max. rated operational voltage of the size of the circuit-breaker	160 A
Courant permanent assigné Iu	16 A
Operating current	
• at 40 °C	16 A
• at 45 °C	16 A
• at 50 °C	16 A
• at 55 °C	16 A
• at 60 °C	15 A
• at 65 °C	15 A
• at 70 °C	15 A

### Switching capacity according to IEC 60947

Switching capacity class of the circuit breaker	S
Maximum short-circuit current breaking capacity (Icu)	
• at 240 V	55 kA
• at 415 V	36 kA
• at 440 V	25 kA
• at 500 V	16 kA
• at 690 V	7 kA
Operational short-circuit current breaking capacity (Ics)	
• at 240 V	55 kA
• at 415 V	36 kA
• at 440 V	25 kA
• at 500 V	15 kA
• at 690 V	5 kA
Short-circuit current making capacity (Icm)	
• at 240 V	121 kA
• at 415 V	76 kA
• at 440 V	53 kA
• at 500 V	32 kA
• at 690 V	11.9 kA

Adjustable parameters	
Adjustable response value current / I <sub>g</sub> min.	11 A
Adjustable response value current / I <sub>g</sub> min.	16 A
Adjustable response value current / I <sub>g</sub> min.	1
Adjustable response value current / I <sub>g</sub> min.	1
Short-term delayed / tripping switchable / I <sub>2t</sub> =ON/OFF	No
Adjustable response value current / I <sub>i</sub> min.	320 A
Adjustable response value current / I <sub>i</sub> max.	320 A
Design of the N-conductor protection	100%
Ground fault protection / tripping switchable / I <sub>2t</sub> =ON/OFF	No
Mechanical Design	
Height [in]	5.1 in
Height	130 mm
Width [in]	4 in
Width	101.6 mm
Depth [in]	2.8 in
Depth	70 mm
Connections	
Arrangement of electrical connectors / for main current circuit	Front terminal
Type of electrical connection / for main current circuit	lug terminal
Auxiliary circuit	
Number of CO contacts / for auxiliary contacts	0
Accessories	
Product extension / optional / motor drive	Yes
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
Certificates	
Equipment marking / acc. to DIN EN 81346-2	Q
Certificate of suitability / as approval for NAVAL (no combat vessels) / Supplement SB	No

General Product Approval		EMC	Declaration of Conformity	Test Certificates
 CCC	 VDE	<a href="#">sonstig</a>	 RCM	 EG-Konf.
				<a href="#">Typprüfbescheinigung/Werkszeugnis</a>

Test Certificates	Shipping Approval
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#### Further information

**Information- and Downloadcenter (Catalogs, Brochures,...)**

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

**Industry Mall (Online ordering system)**

<https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3VA1196-4GE42-0AA0>

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

<http://support.automation.siemens.com/WW/view/en/3VA1196-4GE42-0AA0/all>

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

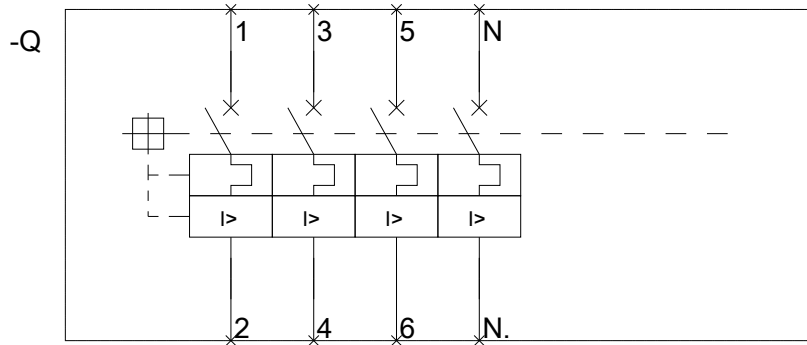
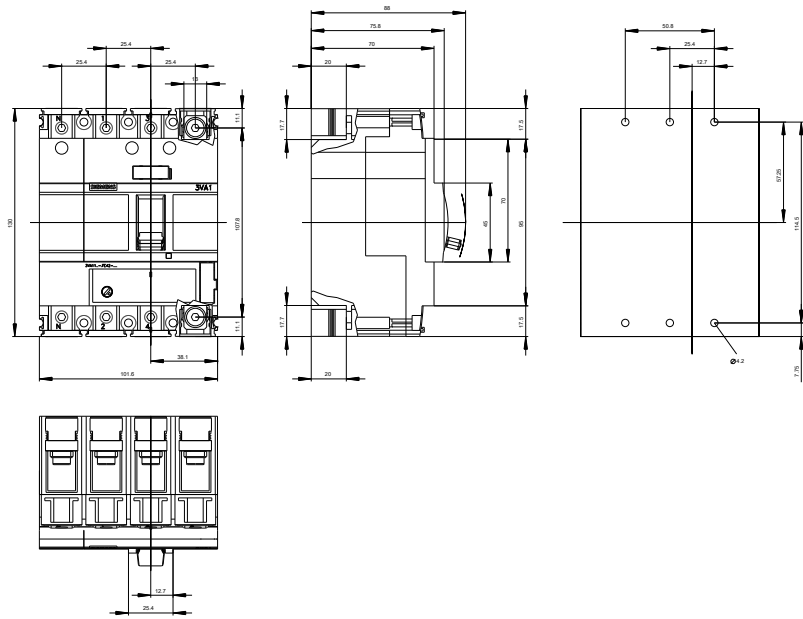
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mfb=3VA1196-4GE42-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=3VA1196-4GE42-0AA0)

**CAX-Online-Generator**

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

**Tender specifications**

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



**last modified:**

10/29/2016