



CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY CLASS S ICU=36KA @ 240 V 1-POLE, LINE PROTECTION TM210, FTFM, IN=20A OVERLOAD PROTECTION IR=20A FIXED SHORT CIRCUIT PROTECTION II=16 X IN BUSBAR CONNECTION

Model	
Product brand name	SENTRON
Product designation	Molded case circuit breaker
Design of the product	Line protection
Design of the overcurrent release	TM210
Protective function of the overcurrent release	LI
Number of poles	1

General technical data	
Tension assignée d'isolement Ui	500 V
Max. rated operational voltage Ue with AC 50/60Hz	415 V
Max. rated operational voltage Ue with DC	125 V
Active power loss / for rated value of the current / at AC / in hot operating state / per device	4 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	4 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	0.36 kg

Electricity

Max. rated operational voltage of the size of the circuit-breaker	160 A
Courant permanent assigné lu	20 A
Operating current	
• at 40 °C	20 A
• at 45 °C	20 A
• at 50 °C	20 A
• at 55 °C	20 A
• at 60 °C	19 A
• at 65 °C	19 A
• at 70 °C	19 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	36 kA
• at 415 V	6 kA
Operational short-circuit current breaking capacity (Ics)	
• at 240 V	36 kA
• at 415 V	6 kA
Short-circuit current making capacity (Icm)	
• at 240 V	76 kA
• at 415 V	9 kA

Adjustable parameters

Adjustable response value current / Ig min.	20 A
Adjustable response value current / Ig min.	20 A
Short-term delayed / tripping switchable / I2t=ON/OFF	No
Adjustable response value current / li min.	320 A
Adjustable response value current / li max.	320 A
Ground fault protection / tripping switchable / I2t=ON/OFF	No

Mechanical Design

Height [in]	5.1 in
Height	130 mm

Width [in]	1 in
Width	25.4 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
Type of connectable conductor cross-section, connection screw, width x thickness , min.	12 x 0
Type of connectable conductor cross-section, connection screw, width x thickness , max.	17 x 6.5

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

Certificates

Equipment marking / acc. to DIN EN 81346-2	Q
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General Product Approval		EMC	Declaration of Conformity	Test Certificates
 CCC	 VDE	 EAC	 RCM	 EG-Konf.
Type Test Certificates/Test Report				

Test Certificates		other
Miscellaneous	Special Test Certificate	Miscellaneous

Further information

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=3VA1120-4ED12-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1120-4ED12-0AA0>

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

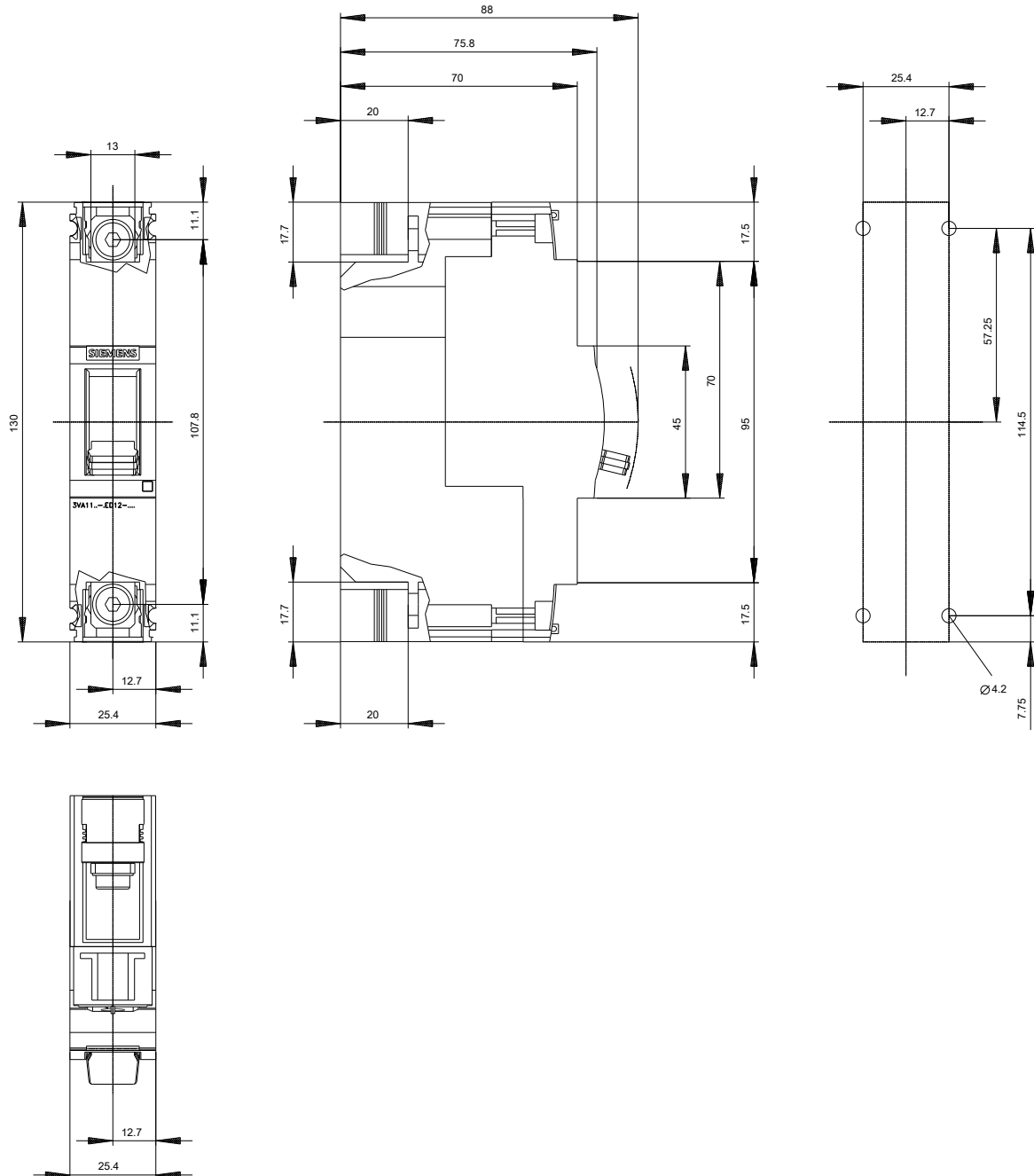
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1120-4ED12-0AA0

CAX-Online-Generator

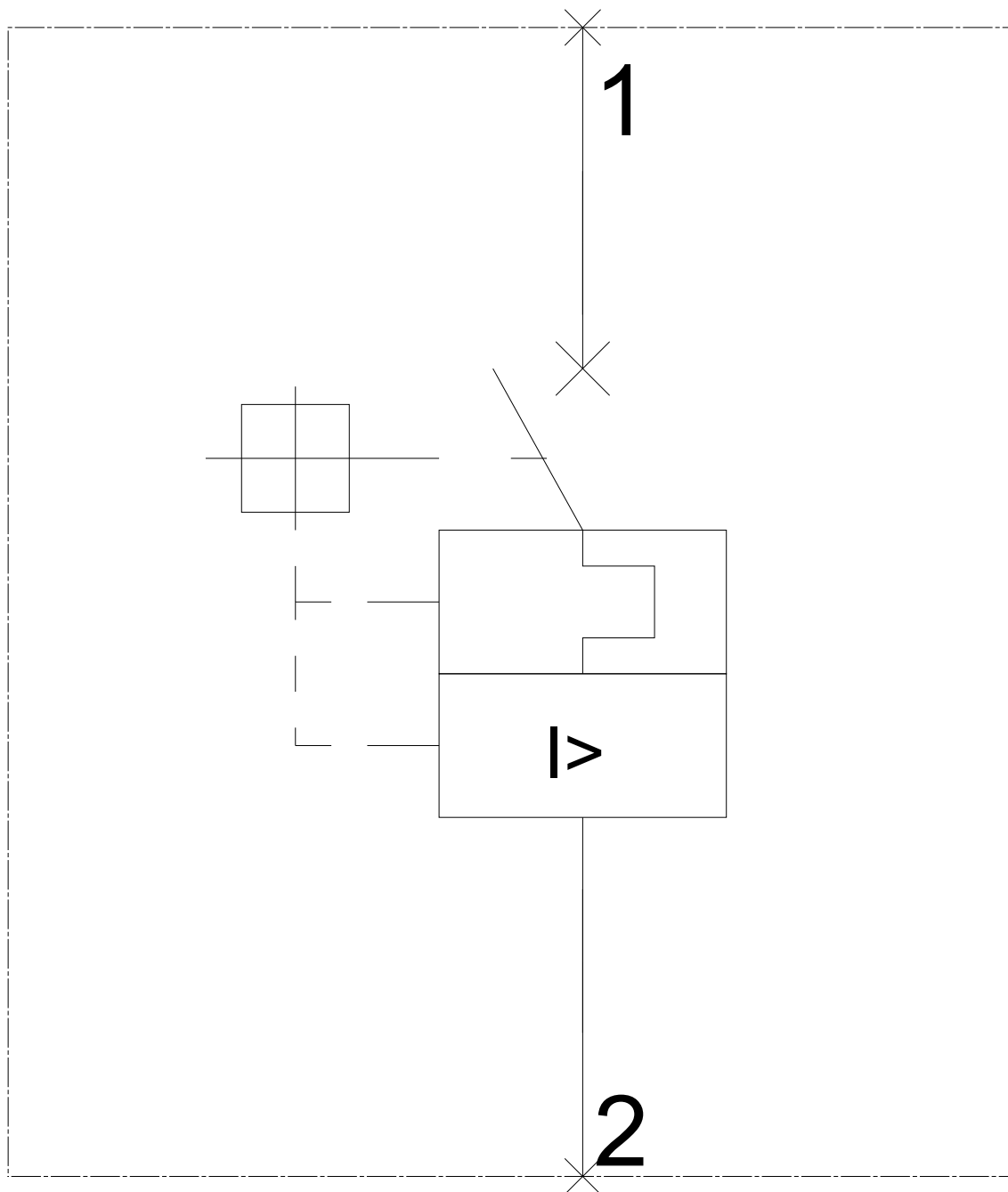
<http://www.siemens.com/cax>

Tender specifications

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



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