



circuit breaker 3VA1 IEC frame 160 breaking capacity class N Icu=25kA @ 415V 3-pole, line protection TM220, ATFM, In=16A overload protection Ir=11A...16A short-circuit protection Ii=20 x In 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	TM220
protection function of the overcurrent release	LI
number of poles	3
General technical data	
insulation voltage / rated value	800 V
operating voltage / at DC / rated value	500 V
operating voltage / at AC / rated value	690 V
power loss [W] / maximum	10.6 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	3.53 W
mechanical service life (operating cycles) / typical	20 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	9 000
electrical endurance (operating cycles) / at AC-1 / at 690 V	6 300
product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof	No
ground-fault monitoring version	Without
product function	
• communication function	No
• other measurement function	No
Net Weight	950 g
Current	
continuous current / rated value / maximum	160 A
continuous current / rated value	16 A
operational 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	N
maximum short-circuit current breaking capacity (Icu)	
• at 240 V	36 kA
• at 415 V	25 kA
• at 440 V	16 kA

<ul style="list-style-type: none"> • at 500 V • at 690 V 	7 kA
operating short-circuit current breaking capacity (Ics)	7 kA
<ul style="list-style-type: none"> • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V 	36 kA
	25 kA
	16 kA
	5 kA
	5 kA
short-circuit current making capacity (Icm)	
<ul style="list-style-type: none"> • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V 	75.6 kA
	52.5 kA
	32 kA
	11.9 kA
	11.9 kA
design of short-circuit protection	For switching power values in DC networks, see the 3VA molded case circuit breaker device manual; link to be found under Service & Support in the last chapter

Adjustable parameters

product feature / for L-tripping / can be switched on/off	No
adjustable response value setting current (I _r) / of the L-trip / with I _{2t} characteristic	
<ul style="list-style-type: none"> • minimum • maximum 	11 A
	16 A
adjustable response value delay time (t _r) / for L-tripping / with I _{2t} characteristic	
<ul style="list-style-type: none"> • minimum • maximum 	1 s
	1 s
adjustable response value setting current (I _i) / for I-tripping	
<ul style="list-style-type: none"> • minimum • maximum 	320 A
	320 A
adjustable absolute value setting current (I _{nN}) / for N-tripping	
<ul style="list-style-type: none"> • minimum • maximum 	0 A
	0 A
adjustable current response value current / of instantaneous short-circuit trip unit	
<ul style="list-style-type: none"> • minimum • maximum 	320 A
	320 A
product function / grounding protection	No

Mechanical Design

product component	
<ul style="list-style-type: none"> • undervoltage release • voltage trigger • trip indicator 	No
	No
	No
height [in]	5.12 in
height	130 mm
width [in]	3 in
width	76.2 mm
depth [in]	2.76 in
depth	70 mm

Connections

arrangement of electrical connectors / for main current circuit	Front terminal
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	12 x 1 mm
type of connectable conductor cross-sections / for flat-bar terminal connection / maximum	17 x 6,5 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)	Tin

Auxiliary circuit

number of CO contacts / for auxiliary contacts	0
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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

reference code / according to IEC 81346-2 Q

General Product Approval EMC



[Confirmation](#)



[Miscellaneous](#)



Declaration of Conformity Test Certificates Marine / Shipping



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

[Miscellaneous](#)



Marine / Shipping other



[CCS / China Classification Society](#)

[Confirmation](#)

[Miscellaneous](#)

other Environment

[Miscellaneous](#)

[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?mifb=3VA1196-3EE32-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1196-3EE32-0AA0>

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

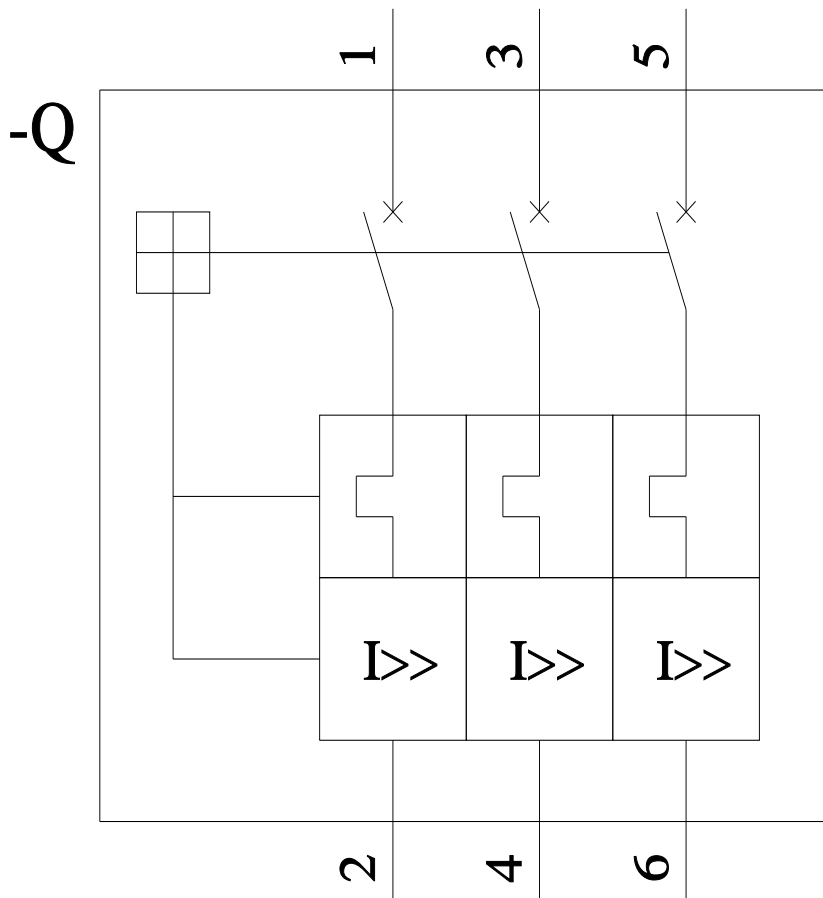
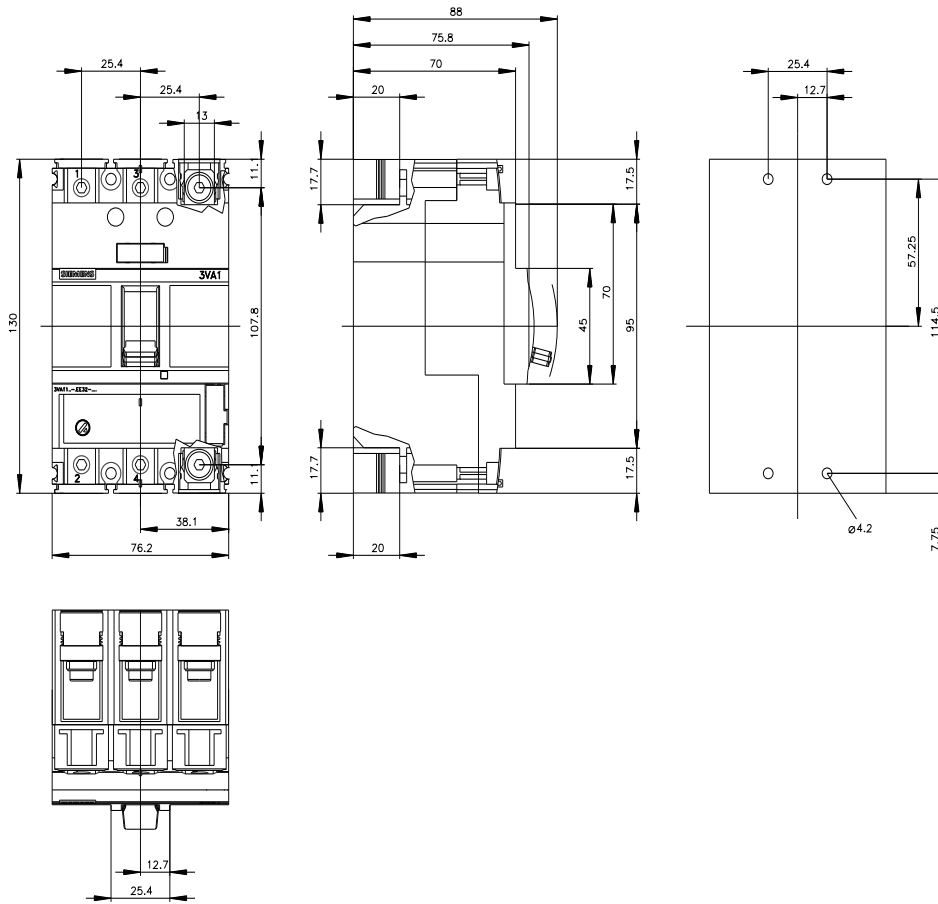
http://www.automation.siemens.com/bilddb/cax_en.aspx?mifb=3VA1196-3EE32-0AA0

CAX-Online-Generator

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

Tender specifications

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



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