SIEMENS

Data sheet

3VA1116-3ED32-0AA0



circuit breaker 3VA1 IEC frame 160 breaking capacity class N Icu=25kA @ 415V 3-pole, line protection TM210, FTFM, In=160A overload protection Ir=160A fixed short-circuit protection Ii=10 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	TM210
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	38 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/retrofittable / short-circuit and overload proof	No
ground-fault monitoring version	Without
product function	
 communication function 	No
 other measurement function 	No
Net Weight	989 g
Current	
operational current	
● at 40 °C	160 A
● at 45 °C	160 A
● at 50 °C	160 A
● at 55 °C	158 A
● at 60 °C	155 A
• at 65 °C	153 A
• at 70 °C	150 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	Ν
maximum short-circuit current breaking capacity (Icu)	
• at 240 V	36 kA
• at 415 V	25 kA
• at 440 V	16 kA
• at 500 V	7 kA
• at 690 V	7 kA
operating short-circuit current breaking capacity (lcs)	

 at 240 V at 415 V at 440 V at 500 V at 690 V 	36 kA 25 kA
● at 440 V ● at 500 V ● at 690 V	25 kA
● at 500 V ● at 690 V	
• at 690 V	16 kA
	5 kA
short-circuit current making capacity (Icm)	5 kA
• at 240 V	75.6 kA
• at 415 V	52.5 kA
• at 440 V	32 kA
• at 500 V	11.9 kA
• at 690 V	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 (Ir) / of the L-trip / with	
l2t characteristic	
• minimum	160 A
• maximum	160 A
adjustable response value delay time (tr) / for L-tripping / with I2t characteristic	
● minimum	1 s
maximum	1 s
adjustable response value setting current (li) / for I-tripping	
• minimum	1 600 A
• maximum	1 600 A
adjustable setting current (InN) / for N-tripping	
• minimum	0 A
• maximum	0 A
product function / grounding protection	No
Mechanical Design	
product component	
undervoltage release	No
voltage trigger	No
• trip indicator	No
height [in]	5.12 in
height	130 mm
width [in]	3 in
·	76.2 mm
width	0.70 :
depth [in]	2.76 in
depth [in] depth	2.76 in 70 mm
depth [in] depth Connections	70 mm
depth [in] depth Connections arrangement of electrical connectors / for main current circuit	70 mm Front terminal
depth [in] depth Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit	70 mm Front terminal nut keeper kit on both ends
depth [in] depth Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar terminal connection / minimum	70 mm Front terminal nut keeper kit on both ends 12 x 1 mm
depth [in] depth Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum	70 mm Front terminal nut keeper kit on both ends 12 x 1 mm 17 x 6,5 mm
depth [in] depth Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)	70 mm Front terminal nut keeper kit on both ends 12 x 1 mm 17 x 6,5 mm Silver
depth [in] depth Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)	70 mm Front terminal nut keeper kit on both ends 12 x 1 mm 17 x 6,5 mm
depth [in] depth Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit	70 mm Front terminal nut keeper kit on both ends 12 x 1 mm 17 x 6,5 mm Silver Tin
depth [in] depth Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts	70 mm Front terminal nut keeper kit on both ends 12 x 1 mm 17 x 6,5 mm Silver
depth [in] depth Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts Accessories	70 mm Front terminal nut keeper kit on both ends 12 x 1 mm 17 x 6,5 mm Silver Tin 0
depth [in] depth Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts Accessories product extension / optional / motor drive	70 mm Front terminal nut keeper kit on both ends 12 x 1 mm 17 x 6,5 mm Silver Tin
depth [in] depth Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts Accessories product extension / optional / motor drive Environmental conditions	70 mm Front terminal nut keeper kit on both ends 12 x 1 mm 17 x 6,5 mm Silver Tin 0 Yes
depth [in] depth Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts Accessories product extension / optional / motor drive Environmental conditions protection class IP / on the front	70 mm Front terminal nut keeper kit on both ends 12 x 1 mm 17 x 6,5 mm Silver Tin 0
depth [in] depth Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts Accessories product extension / optional / motor drive Environmental conditions protection class IP / on the front ambient temperature	70 mm Front terminal nut keeper kit on both ends 12 x 1 mm 17 x 6,5 mm Silver Tin 0 Yes IP40
depth [in] depth Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts Accessories product extension / optional / motor drive Environmental conditions protection class IP / on the front ambient temperature • during operation / minimum	70 mm Front terminal nut keeper kit on both ends 12 x 1 mm 17 x 6,5 mm Silver Tin 0 0 Yes IP40 -25 °C
depth [in] depth Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts Accessories product extension / optional / motor drive Environmental conditions protection class IP / on the front ambient temperature	70 mm Front terminal nut keeper kit on both ends 12 x 1 mm 17 x 6,5 mm Silver Tin 0 Yes IP40

 during storage / m 	aximum	8	0°C			
Environmental footprint						
Environmental Product Declaration(EPD)		Y	es			
Global Warming Potential [CO2 eq] / total		1	190 kg			
Global Warming Potential [CO2 eq] / during manufacturing		ufacturing 4	.67 kg			
Global Warming Potential [CO2 eq] / during operation		ration 1	86 kg			
global warming potential [CO2 eq] / after end of life		life -().826 kg			
reference code / according to IEC 81346-2		G	2			
Approvals / Certificates						
General Product Appro	oval				EMC	
<u>Confirmation</u>			<u>Miscellaneous</u>	EHC	RCM	
Declaration of Conform	nity	Test Certificates			Marine / Shipping	
CE EG-Konf.	UK CA	<u>Miscellaneous</u>	Special Test Certific- ate	Type Test Certific- ates/Test Report	ABS	
Marine / Shipping					other	
BUREAU VERITAS		Llovd's Register us	RMRS	CCS / China Classific- ation Society	<u>Confirmation</u>	
other		Environment				
<u>Miscellaneous</u>	<u>Miscellaneous</u>	Environmental Cor firmations	Ŀ			

information	

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=3VA1116-3ED32-0AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA1116-3ED32-0AA0

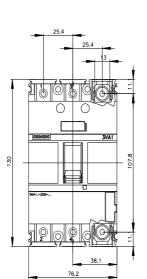
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1116-3ED32-0AA0

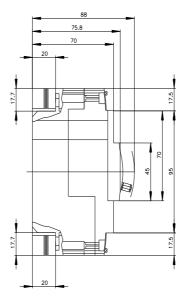
CAx-Online-Generator

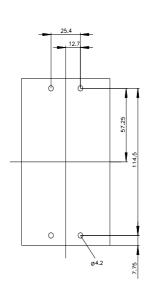
http://www.siemens.com/cax

Tender specifications

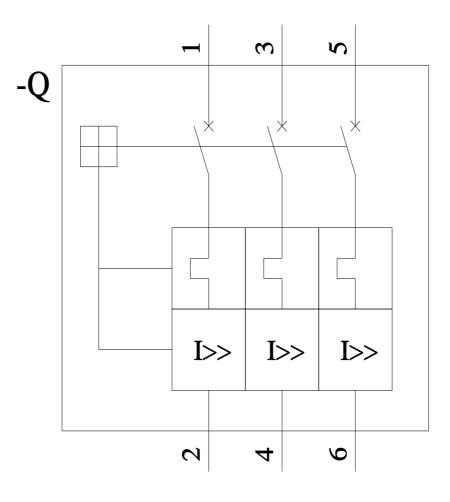
http://www.siemens.com/specifications







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