## SIEMENS

## Data sheet

## 3VA1096-2ED42-0AA0



circuit breaker 3VA1 IEC Frame 100 breaking capacity class B Icu=16 kA @ 415 V 4-pole, line protection TM210, FTFM, In=16 A overload protection Ir=16 A permanently set short-circuit protection Ii=20 x In N conductor unprotected 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	4
General technical data	
insulation voltage / rated value	800 V
operating voltage / at DC / rated value	600 V
operating voltage / at AC / rated value	690 V
power loss [W] / maximum	10.6 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	
<ul> <li>communication function</li> </ul>	No
<ul> <li>other measurement function</li> </ul>	No
Net Weight	1.2 kg
Current	
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	В
maximum short-circuit current breaking capacity (Icu)	
• at 240 V	25 kA
• at 415 V	16 kA
• at 440 V	8 kA
• at 500 V	5 kA
• at 690 V	5 kA
operating short-circuit current breaking capacity (Ics)	

(0.0.)	
• at 240 V	25 kA
• at 415 V	16 kA
• at 440 V	8 kA
• at 500 V	5 kA
• at 690 V	5 kA
short-circuit current making capacity (Icm)	
• at 240 V	52.5 kA
• at 415 V	32 kA
• at 440 V	13.6 kA
● at 500 V	7.5 kA
• at 690 V	7.5 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	
I2t characteristic	
● minimum	16 A
● maximum	16 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	320 A
• maximum	320 A
adjustable setting current (InN) / for N-tripping	
• minimum	0 A
• maximum	0 A
design of the N-conductor protection	without
product function / grounding protection	No
Mechanical Design	
Mechanical Design product component	
	No
product component	No No
product component <ul> <li>undervoltage release</li> </ul>	
product component <ul> <li>undervoltage release</li> <li>voltage trigger</li> </ul>	No
product component • undervoltage release • voltage trigger • trip indicator	No No
product component • undervoltage release • voltage trigger • trip indicator height [in]	No No 5.12 in
product component • undervoltage release • voltage trigger • trip indicator height [in] height	No No 5.12 in 130 mm
product component • undervoltage release • voltage trigger • trip indicator height [in] height width [in]	No No 5.12 in 130 mm 4 in
product component • undervoltage release • voltage trigger • trip indicator height [in] height width [in] width	No No 5.12 in 130 mm 4 in 101.6 mm
product component <ul> <li>undervoltage release</li> <li>voltage trigger</li> <li>trip indicator</li> </ul> <li>height [in] <ul> <li>height</li> <li>width [in]</li> <li>width</li> <li>depth [in]</li> </ul> </li>	No No 5.12 in 130 mm 4 in 101.6 mm 2.76 in
product component  • undervoltage release  • voltage trigger  • trip indicator  height [in]  height width [in] width depth [in] depth	No No 5.12 in 130 mm 4 in 101.6 mm 2.76 in
product component	No No 5.12 in 130 mm 4 in 101.6 mm 2.76 in 70 mm
product component	No         5.12 in         130 mm         4 in         101.6 mm         2.76 in         70 mm
product component	No No 5.12 in 130 mm 4 in 101.6 mm 2.76 in 70 mm Front terminal nut keeper kit on both ends
product component         • undervoltage release         • voltage trigger         • trip indicator         height [in]         height         width         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	No         5.12 in         130 mm         4 in         101.6 mm         2.76 in         70 mm
product component	No         5.12 in         130 mm         4 in         101.6 mm         2.76 in         70 mm
product component	No         5.12 in         130 mm         4 in         101.6 mm         2.76 in         70 mm         Front terminal         nut keeper kit on both ends         12 x 1 mm         17 x 6,5 mm         Silver
product component	No         5.12 in         130 mm         4 in         101.6 mm         2.76 in         70 mm         Front terminal         nut keeper kit on both ends         12 x 1 mm         17 x 6,5 mm         Silver
product component         • undervoltage release         • voltage trigger         • trip indicator         height [in]         height         width         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	No         5.12 in         130 mm         4 in         101.6 mm         2.76 in         70 mm         Front terminal         nut keeper kit on both ends         12 x 1 mm         17 x 6,5 mm         Silver         Tin
product component         • undervoltage release         • voltage trigger         • trip indicator         height [in]         height         width         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	No         5.12 in         130 mm         4 in         101.6 mm         2.76 in         70 mm         Front terminal         nut keeper kit on both ends         12 x 1 mm         17 x 6,5 mm         Silver         Tin
product component         • undervoltage release         • voltage trigger         • trip indicator         height [in]         height         width         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	No         5.12 in         130 mm         4 in         101.6 mm         2.76 in         70 mm         Front terminal         nut keeper kit on both ends         12 x 1 mm         17 x 6,5 mm         Silver         Tin         0
product component         • undervoltage release         • voltage trigger         • trip indicator         height [in]         height         width         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	No         5.12 in         130 mm         4 in         101.6 mm         2.76 in         70 mm         Front terminal         nut keeper kit on both ends         12 x 1 mm         17 x 6,5 mm         Silver         Tin         0
product component         • undervoltage release         • voltage trigger         • trip indicator         height [in]         height         width         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 / 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	No         5.12 in         130 mm         4 in         101.6 mm         2.76 in         70 mm         Front terminal         nut keeper kit on both ends         12 x 1 mm         17 x 6,5 mm         Silver         Tin         0         No
product component         • undervoltage release         • voltage trigger         • trip indicator         height [in]         height         width         depth         Connections         arrangement of electrical connectors / for main current circuit         type of electrical connection / 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	No         5.12 in         130 mm         4 in         101.6 mm         2.76 in         70 mm         Front terminal         nut keeper kit on both ends         12 x 1 mm         17 x 6,5 mm         Silver         Tin         0         No
product component         • undervoltage release         • voltage trigger         • trip indicator         height [in]         height         width         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	No         No         5.12 in         130 mm         4 in         101.6 mm         2.76 in         70 mm         Front terminal         nut keeper kit on both ends         12 x 1 mm         17 x 6,5 mm         Silver         0         No         IP40

during storage / m			O° C		
• during storage / m	laximum	80	°C		
Environmental footprint					
Environmental Product Declaration(EPD)			Yes		
Global Warming Potentia			0 kg		
Global Warming Potentia			67 kg		
Global Warming Potentia			6 kg		
-	bal Warming Potential [CO2 eq] / after end of life		-0.826 kg		
reference code / accordi	ng to IEC 81346-2	Q			
Approvals / Certificates					
General Product Appro	oval				
UK CA	CE EG-Konf.		<u>Confirmation</u>		<u>Miscellaneous</u>
General Product Approval	EMV	Test Certificates			Marine / Shipping
EHC	RCM	<u>Miscellaneous</u>	<u>Type Test Certific-</u> ates/Test Report	<u>Special Test Certific-</u> <u>ate</u>	ABS
Marine / Shipping					other
B U REAU VERITAS		Lloyd's Register uis	RMRS	<u>CCS (China Classifica-</u> <u>tion Society)</u>	<u>Miscellaneous</u>

**Confirmation** 

other



Environment



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=3VA1096-2ED42-0AA0

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

**Miscellaneous** 

https://support.industry.siemens.com/cs/ww/en/ps/3VA1096-2ED42-0AA0

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

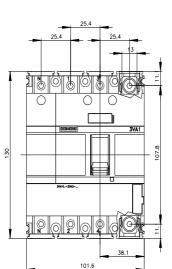
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA1096-2ED42-0AA0

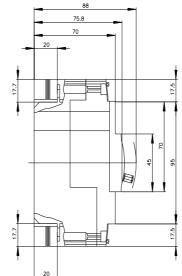
CAx-Online-Generator

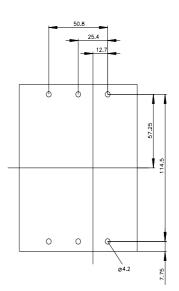
http://www.siemens.com/cax

Tender specifications

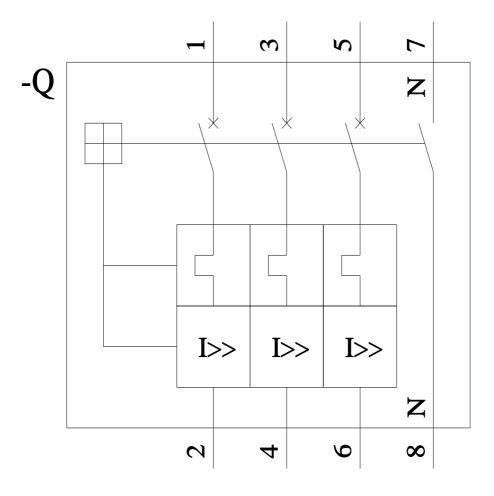
http://www.siemens.com/specifications







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