Data sheet

## 3VA2163-5JQ32-0AA0



CIRCUIT BREAKER 3VA2 IEC FRAME 160 BREAKING CAPACITY CLASS M ICU=55KA @ 415 V 3POLE, LINE PROTECTION ETU560, LSIG, IN=63A OVERLOAD PROTECTION IR=25A ...63A SHORT CIRCUIT PROTECTION ISD=0,6..10X IN, II=1,5...12X IN NEUTRAL PROTECTION OPTIONAL WITH EXT. CT,UPTO 160% GROUNDFAULT, SWITCHABLE IG=0,2... 1 X IN, TG=0,050,8MS BUSBAR CONNECTION

Model	
product brand name	SENTRON
Product designation	Molded case circuit breaker
Design of the product	Line protection
Product variations	Selective Applications
Ground fault monitoring version	Summation current formation L-conductor
Design of the auxiliary release	without auxiliaryrelease
Design of the auxiliary switch	Without
Design of the operating mechanism	toggle handle
Type of the driving mechanism / motor drive	No
Design of the overcurrent release	ETU560

General technical data		
Number of poles		3
Trip class / of the L-trip / with I2t characteristic / initial value		0.5
Trip class / of the L-trip / with I2t characteristic / Full-scale value		25
Electrical endurance (switching cycles)		
• at AC-1 / at 380/415 V / at 50/60 Hz		12 000
Total disconnection time / for G-tripping / with standard characteristic / initial value	S	0.05
Total disconnection time / for G-tripping / with standard characteristic / Full-scale value	S	0.8
circuit-breaker / Design		3VA
Mechanical service life (switching cycles) / typical		20 000

Insulation voltage / Rated value  Protection class Protection class IP Protection class IP   IP40 Protective function of the overcurrent release LSIG  Switching capacity Switching capacity class of the circuit breaker  M  Dissipation  Active power loss • maximum W 4  Electricity Continuous current / Rated value / maximum A 160 Continuous current / Rated value   A 63 Adjustable response value current / of the A 1.5 instantaneous short-circuit release / initial value  Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value Operating querent • at 40 °C / Rated value A 63 • at 50 °C / Rated value A 63 • at 60 °C / Rated value A 63	Voltage		
Protection class IP / on the front IP40 Protective function of the overcurrent release LSIG  Switching capacity class of the circuit breaker M  Dissipation  Active power loss  • maximum W 4  Electricity  Continuous current / Rated value / maximum A 160  Continuous current / Rated value A 63  Adjustable response value current / of the instantaneous short-circuit release / initial value  Main circuit  Operating voltage  • with AC / at 50/60 Hz / Rated value A 63  at 40 °C / Rated value A 63  at 60 °C / Rated value A 63  Auxitiary circuit  Number of NC contacts / for auxiliary contacts  Output for use system protection  Adjustable parameters		V	800
Protection class IP / on the front IP40 Protective function of the overcurrent release LSIG  Switching capacity class of the circuit breaker M  Dissipation  Active power loss  • maximum W 4  Electricity  Continuous current / Rated value / maximum A 160  Continuous current / Rated value A 63  Adjustable response value current / of the instantaneous short-circuit release / initial value  Main circuit  Operating voltage  • with AC / at 50/60 Hz / Rated value A 63  at 40 °C / Rated value A 63  at 60 °C / Rated value A 63  Auxitiary circuit  Number of NC contacts / for auxiliary contacts  Output for use system protection  Adjustable parameters	Protection class		
Protective function of the overcurrent release  Switching capacity  Switching capacity  Switching capacity class of the circuit breaker  M  Dissipation  Active power loss  • maximum  W  4  Electricity  Continuous current / Rated value / maximum  Continuous current / Rated value — A  Adjustable response value current / of the instantaneous short-circuit release / initial value  Main circuit  Operating current  • at 40 °C / Rated value  • at 50 °C / Rated value  • at 50 °C / Rated value  • at 63 °C / Rated value  • at 70 °C / Rated va			IP40
Switching capacity  Switching capacity dass of the circuit breaker  Dissipation  Active power loss  • maximum  W  4  Electricity  Continuous current / Rated value / maximum  A 160  Continuous current / Rated value A 63  Adjustable response value current / of the instantaneous short-circuit release / initial value  Main circuit  Operating voltage  • with AC / at 50/60 Hz / Rated value  • at 40 °C / Rated value  • at 40 °C / Rated value  • at 65 °C / Rated value  • at 65 °C / Rated value  • at 70 °C / Rated v			
Switching capacity class of the circuit breaker  Dissipation  Active power loss  • maximum  W  4  Electricity  Continuous current / Rated value / maximum  A  Adjustable response value current / of the instantaneous short-circuit release / initial value  Main circuit  Operating voltage  • with AC / at 50/60 Hz / Rated value  Operating current  • at 40 °C / Rated value  • at 50 °C / Rated value  • at 65 °C / Rated value  • at 65 °C / Rated value  • at 70 °C			LSIG
Switching capacity class of the circuit breaker  Dissipation  Active power loss  • maximum  W  4  Electricity  Continuous current / Rated value / maximum  A  Adjustable response value current / of the instantaneous short-circuit release / initial value  Main circuit  Operating voltage  • with AC / at 50/60 Hz / Rated value  Operating current  • at 40 °C / Rated value  • at 50 °C / Rated value  • at 65 °C / Rated value  • at 65 °C / Rated value  • at 70 °C			
Dissipation Active power loss			NA .
Active power loss	Switching capacity class of the circuit breaker		IVI
• maximum    • maximum   W   4			
Continuous current / Rated value / maximum	Active power loss		
Continuous current / Rated value / maximum	• maximum	W	4
Continuous current / Rated value  Adjustable response value current / of the instantaneous short-circuit release / initial value  Main circuit  Operating voltage  • with AC / at 50/60 Hz / Rated value  V 690  Operating current  • at 40 °C / Rated value  • at 50 °C / Rated value  • at 65 °C / Rated value  A 63  • at 65 °C / Rated value  A 63  • at 70 °C / Rated value  A 63  Auxiliary circuit  Number of NC contacts / for auxililary contacts  Number of NO contacts / for auxililary contacts  O  Suitability  Suitability  Suitabile parameters  Adjustable parameters  Adjustable response value current  • for G-tripping / with 12t characteristic / initial value  • for G-tripping / with standard characteristic / initial value  • for G-tripping / with standard characteristic / initial value  • for G-tripping / with standard characteristic / initial value  • for G-tripping / with standard characteristic / initial value  • for G-tripping / with standard characteristic / initial value  • for G-tripping / with standard characteristic / initial value  • for G-tripping / with standard characteristic / A 0.25	Electricity		
Adjustable response value current / of the instantaneous short-circuit release / initial value  Main circuit  Operating voltage  • with AC / at 50/60 Hz / Rated value  V 690  Operating current  • at 40 °C / Rated value  • at 50 °C / Rated value  • at 60 °C / Rated value  • at 60 °C / Rated value  • at 60 °C / Rated value  • at 70 °C / Rated value  A 63  Auxiliary circuit  Number of NC contacts / for auxiliary contacts  Number of NO contacts / for auxiliary contacts  O Suitability  Suitability  Suitability  Suitable parameters  Adjustable parameters  Adjustable response value current  • for G-tripping / with 12t characteristic / initial value  • for G-tripping / with standard characteristic / initial value  • for G-tripping / with standard characteristic / initial value  • for G-tripping / with standard characteristic / A 1		Α	160
instantaneous short-circuit release / initial value  Main circuit  Operating voltage  • with AC / at 50/60 Hz / Rated value  • at 40 °C / Rated value  • at 40 °C / Rated value  • at 60 °C / Rated value  • at 70 °C / Rated value  • at 70 °C / Rated value  A 63  Auxiliary circuit  Number of NC contacts / for auxiliary contacts  Number of NO contacts / for auxiliary contacts  0  Suitability  Suitability for use  System protection  Adjustable parameters  Adjustable response value current  • for G-tripping / with I2t characteristic / initial value  • for G-tripping / with standard characteristic / initial value  • for G-tripping / with standard characteristic / initial value  • for G-tripping / with standard characteristic / A  0.25  initial value  • for G-tripping / with standard characteristic / A  1	Continuous current / Rated value	Α	63
Main circuit  Operating voltage  • with AC / at 50/60 Hz / Rated value  V 690  Operating current  • at 40 °C / Rated value  • at 50 °C / Rated value  • at 60 °C / Rated value  • at 60 °C / Rated value  • at 65 °C / Rated value  • at 65 °C / Rated value  • at 70 °C / Rated value  A 63  • at 70 °C / Rated value  A 63  Auxiliary circuit  Number of NC contacts / for auxiliary contacts  Number of NO contacts / for auxiliary contacts  0  Suitability  Suitability for use  Adjustable parameters  Adjustable parameters  Adjustable response value current  • for G-tripping / with 12t characteristic / initial value  • for G-tripping / with standard characteristic / initial value  • for G-tripping / with standard characteristic / initial value  • for G-tripping / with standard characteristic / A 0.25  initial value  • for G-tripping / with standard characteristic / A 1		Α	1.5
Operating voltage  • with AC / at 50/60 Hz / Rated value  Operating current  • at 40 °C / Rated value  • at 50 °C / Rated value  • at 50 °C / Rated value  • at 63  • at 60 °C / Rated value  • at 65 °C / Rated value  • at 65 °C / Rated value  • at 70 °C / Rated value  • at 70 °C / Rated value  A 63  Auxiliary circuit  Number of NC contacts / for auxiliary contacts  Number of NO contacts / for auxiliary contacts  O  Suitability  Suitability  Suitability for use  Adjustable parameters  Adjustable response value current  • for G-tripping / with 12t characteristic / initial value  • for G-tripping / with standard characteristic / initial value  • for G-tripping / with standard characteristic / A  1  10  690  690  690  690  690  690  6	instantaneous short-circuit release / initial value		
with AC / at 50/60 Hz / Rated value  Operating current      at 40 °C / Rated value     at 50 °C / Rated value     at 60 °C / Rated value     at 65 °C / Rated value     at 65 °C / Rated value     at 65 °C / Rated value     at 70 °C / Rated value     at 70 °C / Rated value     at 70 °C / Rated value     A 63  Auxiliary circuit  Number of NC contacts / for auxiliary contacts  Number of NO contacts / for auxiliary contacts  O  Suitability  Suitability  Suitabile parameters  Adjustable parameters  Adjustable response value current     of or G-tripping / with 12t characteristic / initial value     of or G-tripping / with standard characteristic / initial value     of or G-tripping / with standard characteristic / A 1  occupance of NO 25  A 1	Main circuit		
Operating current  • at 40 °C / Rated value  • at 50 °C / Rated value  • at 60 °C / Rated value  • at 60 °C / Rated value  • at 65 °C / Rated value  • at 65 °C / Rated value  • at 70 °C / Rated value  A 63  • at 70 °C / Rated value  A 63  Auxiliary circuit  Number of NC contacts / for auxiliary contacts  Number of NO contacts / for auxiliary contacts  O  Suitability  Suitability  Suitability  Suitabile parameters  Adjustable parameters  Adjustable response value current  • for G-tripping / with 12t characteristic / initial value  • for G-tripping / with standard characteristic / initial value  • for G-tripping / with standard characteristic / A 1  • for G-tripping / with standard characteristic / A 1	Operating voltage		
<ul> <li>at 40 °C / Rated value</li> <li>at 50 °C / Rated value</li> <li>at 60 °C / Rated value</li> <li>at 60 °C / Rated value</li> <li>at 65 °C / Rated value</li> <li>at 65 °C / Rated value</li> <li>at 70 °C / Rated value</li> <li>A 63</li> </ul> Auxiliary circuit Number of NC contacts / for auxiliary contacts <ul> <li>Number of NO contacts / for auxiliary contacts</li> <li>0</li> </ul> Suitability Suitability Suitability for use <ul> <li>system protection</li> </ul> Adjustable parameters Adjustable response value current <ul> <li>for G-tripping / with 12t characteristic / initial value</li> <li>for G-tripping / with standard characteristic / initial value</li> <li>for G-tripping / with standard characteristic / initial value</li> <li>for G-tripping / with standard characteristic / A 0.25</li> </ul>	• with AC / at 50/60 Hz / Rated value	V	690
at 50 °C / Rated value  at 60 °C / Rated value  A 63  at 65 °C / Rated value  A 63  at 65 °C / Rated value  A 63  A 63  A 63  Auxiliary circuit  Number of NC contacts / for auxiliary contacts  Number of NO contacts / for auxiliary contacts  Suitability  Suitability  Suitability system protection  Adjustable parameters  Adjustable response value current  for G-tripping / with 12t characteristic / initial value  for G-tripping / with standard characteristic / initial value  for G-tripping / with standard characteristic / initial value  for G-tripping / with standard characteristic / A 0.25  initial value  for G-tripping / with standard characteristic / A 1	Operating current		
at 60 °C / Rated value  at 65 °C / Rated value  at 65 °C / Rated value  at 70 °C / Rated value  A 63  A 63  A 63  A 63  Auxiliary circuit  Number of NC contacts / for auxiliary contacts  Number of NO contacts / for auxiliary contacts  0  Suitability  Suitability  Suitabile parameters  Adjustable parameters  Adjustable response value current  at for G-tripping / with 12t characteristic / initial value  for G-tripping / with standard characteristic / initial value  for G-tripping / with standard characteristic / initial value  for G-tripping / with standard characteristic / A 1  at 63  A	● at 40 °C / Rated value	Α	63
at 65 °C / Rated value  at 65 °C / Rated value  A 63  at 70 °C / Rated value  A 63  Auxiliary circuit  Number of NC contacts / for auxiliary contacts  Number of NO contacts / for auxiliary contacts  0  Suitability  Suitability for use  Suitabile parameters  Adjustable parameters  Adjustable response value current  a for G-tripping / with 12t characteristic / initial value  for G-tripping / with standard characteristic / initial value  for G-tripping / with standard characteristic / initial value  for G-tripping / with standard characteristic / A 1  for G-tripping / with standard characteristic / A 1  for G-tripping / with standard characteristic / A 1  for G-tripping / with standard characteristic / A 1	● at 50 °C / Rated value	Α	63
at 70 °C / Rated value  A 63  Auxiliary circuit  Number of NC contacts / for auxiliary contacts  Number of NO contacts / for auxiliary contacts  0  Suitability  Suitability for use  Adjustable parameters  Adjustable response value current  • for G-tripping / with l2t characteristic / initial value  • for G-tripping / with standard characteristic / initial value  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A	• at 60 °C / Rated value	Α	63
Auxiliary circuit  Number of NC contacts / for auxiliary contacts  Number of NO contacts / for auxiliary contacts  0  Suitability  Suitability for use  Adjustable parameters  Adjustable response value current  • for G-tripping / with l2t characteristic / initial value  • for G-tripping / with standard characteristic / initial value  • for G-tripping / with standard characteristic / A  1  0.25	● at 65 °C / Rated value	Α	63
Number of NC contacts / for auxiliary contacts  Number of NO contacts / for auxiliary contacts  Suitability  Suitability for use  Adjustable parameters  Adjustable response value current  • for G-tripping / with 12t characteristic / initial value  • for G-tripping / with standard characteristic / initial value  • for G-tripping / with standard characteristic / A  initial value  • for G-tripping / with standard characteristic / A  1	● at 70 °C / Rated value	Α	63
Number of NC contacts / for auxiliary contacts  Number of NO contacts / for auxiliary contacts  Suitability  Suitability for use  Adjustable parameters  Adjustable response value current  • for G-tripping / with 12t characteristic / initial value  • for G-tripping / with standard characteristic / initial value  • for G-tripping / with standard characteristic / A  initial value  • for G-tripping / with standard characteristic / A  1	Auxiliary circuit		
Suitability Suitability for use  Adjustable parameters  Adjustable response value current  • for G-tripping / with 12t characteristic / initial value  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A			0
Suitability for use  Adjustable parameters  Adjustable response value current  • for G-tripping / with l2t characteristic / initial value  • for G-tripping / with standard characteristic / initial value  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A  • for G-tripping / with standard characteristic / A	Number of NO contacts / for auxiliary contacts		0
Suitability for use  Adjustable parameters  Adjustable response value current  • for G-tripping / with l2t characteristic / initial value  • for G-tripping / with standard characteristic / initial value  • for G-tripping / with standard characteristic / A 0.25  initial value  • for G-tripping / with standard characteristic / A 1	Suitability		
Adjustable parameters  Adjustable response value current  • for G-tripping / with I2t characteristic / initial A 0.25  value  • for G-tripping / with I2t characteristic / Full-scale A 1  value  • for G-tripping / with standard characteristic / A 0.25  initial value  • for G-tripping / with standard characteristic / A 1			system protection
Adjustable response value current  • for G-tripping / with I2t characteristic / initial value  • for G-tripping / with I2t characteristic / Full-scale value  • for G-tripping / with standard characteristic / initial value  • for G-tripping / with standard characteristic / A  1  0.25	·		
<ul> <li>for G-tripping / with I2t characteristic / initial value</li> <li>for G-tripping / with I2t characteristic / Full-scale value</li> <li>for G-tripping / with standard characteristic / initial value</li> <li>for G-tripping / with standard characteristic / A 1</li> <li>for G-tripping / with standard characteristic / A 1</li> </ul>			
value  • for G-tripping / with I2t characteristic / Full-scale A 1  value  • for G-tripping / with standard characteristic / A 0.25  initial value  • for G-tripping / with standard characteristic / A 1		۸	0.25
value  • for G-tripping / with standard characteristic / A 0.25 initial value  • for G-tripping / with standard characteristic / A 1		A	0.20
initial value  ● for G-tripping / with standard characteristic / A 1		Α	1.
• for G-tripping / with standard characteristic / A 1		Α	0.25
r uii-scale value		Α	1

• of I-trip / Full-scale value	Α	12
<ul> <li>of the short-time delayed short-circuit release / initial value</li> </ul>	Α	0.6
<ul> <li>of the short-time delayed short-circuit release / Full-scale value</li> </ul>	Α	10
<ul> <li>of S-trip / with standard characteristic / initial value</li> </ul>	Α	0.6
<ul> <li>of S-trip / with standard characteristic / Full- scale value</li> </ul>	Α	10
Adjustable delay time	_	
<ul> <li>for G-tripping / with l2t characteristic / initial value</li> </ul>	S	0.05
<ul> <li>for G-tripping / with I2t characteristic / Full-scale value</li> </ul>	S	0.8
• of S-trip / with I2t characteristic / initial value	s	0.05
<ul> <li>of S-trip / with I2t characteristic / Full-scale value</li> </ul>	S	0.5
<ul> <li>of S-trip / with standard characteristic / initial value</li> </ul>	S	0.05
<ul> <li>of S-trip / with standard characteristic / Full- scale value</li> </ul>	S	0.5
Adjustable response value current / of the current- dependent overload release / initial value	Α	0.4
Product details		
Product component		
Trip indicator		No
• display		Yes
• undervoltage release		No
Product property	_	
<ul> <li>of the circuit breaker with tripping unit / Tripping characteristic adjustable</li> </ul>		Yes
<ul> <li>for neutral conductors / upgradeable/retrofittable / Short-circuit and overload proof</li> </ul>		Yes
Product expansion / optional / motor drive		Yes
Product function		
Product function		
<ul> <li>Intrinsic device protection</li> </ul>		Yes
<ul> <li>communication function</li> </ul>		Yes

# Accessories

• Phase failure detection

• other measurement function

No No

Manufacturer article number / of the supplied basic switch		3VA2163-5JQ32-0AA0
Short circuit		
Operational short-circuit current breaking capacity (Ics)		
• at 240 V / Rated value	kA	85
• at 415 V / Rated value	kA	55
• at 440 V / Rated value	kA	55
• at 500 V / Rated value	kA	36
• at 690 V / Rated value	kA	2.5
Maximum short-circuit current breaking capacity (Icu)		
• at 240 V / Rated value	kA	85
• at 415 V / Rated value	kA	55
• at 440 V / Rated value	kA	55
• at 500 V / Rated value	kA	36
• at 690 V / Rated value	kA	2.5
Short-circuit current making capacity (lcm)		
• at 240 V / Rated value	kA	187
● at 415 V / Rated value	kA	121
• at 440 V / Rated value	kA	121
• at 500 V / Rated value	kA	79
● at 690 V / Rated value	kA	3.75
Connections		
Arrangement of electrical connectors / for main current circuit		Front terminal
Type of connectable conductor cross-section		
<ul><li>for flat-bar terminal connection / minimum</li></ul>		13 x 1 mm
<ul><li>for flat-bar terminal connection / maximum</li></ul>		25 x 8.5
Type of electrical connection / for main current circuit		Lug terminal
Mechanical Design		
Height	mm	181
Width	mm	105
Depth	mm	107
Mounting type		fixed mounting
Environmental conditions		
Ambient temperature		
during operation / minimum	°C	-25
<ul><li>during operation / maximum</li></ul>	°C	70
during storage / minimum	°C	-40
<ul><li>during storage / maximum</li></ul>	°C	80

### Certificates **Equipment marking** • acc. to DIN EN 61346-2 Q Q • acc. to DIN EN 81346-2 **EMC General Product Approval** Declaration of **Shipping** Conformity **Approval** other

Shipping	other
Approval	

other

GL

## 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/3VA21635JQ320AA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3VA21635JQ320AA0/all

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

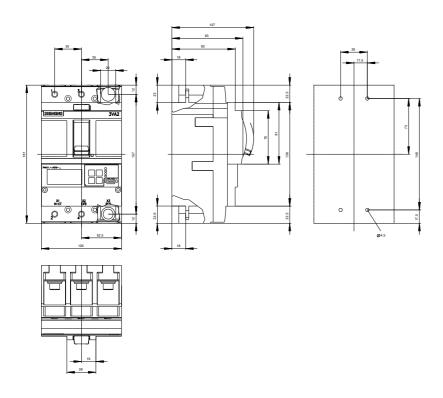
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA21635JQ320AA0

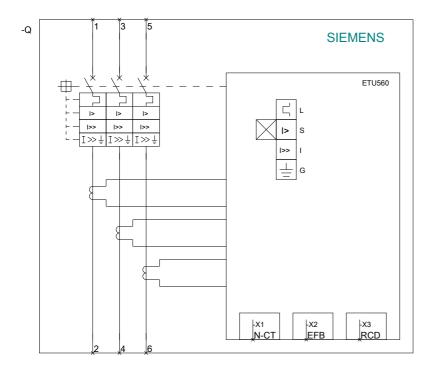
**CAx-Online-Generator** 

http://www.siemens.com/cax

**Tender specifications** 

http://ausschreibungstexte.siemens.com/tiplv





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