Data sheet

3VA2440-5JQ32-0AA0



CIRCUIT BREAKER 3VA2 IEC FRAME 630 BREAKING CAPACITY CLASS M ICU=55KA @ 415 V 3-POLE, LINE PROTECTION ETU560, LSIG, IN=400A OVERLOAD PROTECTION IR=160A ...400A SHORT CIRCUIT PROTECTION ISD=0,6..10X IN, II=1,5..15X IN NEUTRAL PROTECTION OPTIONAL WITH EXT. CT;UPTO 160% GROUND-FAULT, SWITCHABLE IG=0,2... 1 X IN, TG=0,05-0,8MS BUSBAR CONNECTION

Figure similar

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		4 000
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		15 000

Insulation voltage / Rated value Protection class Protection class IP IP40 Protection class IP / on the front IP40 Protection class IP / on the front IP40 Protection class IP / on the front IP40 Protective function of the overcurrent release LSIG Switching capacity Switching capacity Switching capacity class of the circuit breaker M Dissipation Active power loss maximum W 70 Electricity Confinuous current / Rated value / maximum A 630 Continuous current / Rated value Maximum A 400 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 A 400 • at 60 °C / Rated value A 400 • at 60 °C / Rated value A 400 • at 60 °C / Rated value A 380 • at 65 °C / Rated value A 380 • at 65 °C / Rated value A 368 • at 70 °C / Rated value A 352 Auxillary circuit Number of NC contacts / for auxillary contacts 0 Suitability Suifability for use system protection Adjustable parameters Adjustable parameters Adjustable response value current • for G-tripping / with 12t characteristic / initial value • for G-tripping / with 12t characteristic / Full-scale value • for G-tripping / with 12t characteristic / Full-scale value • for G-tripping / with standard characteristic / A 0.2 initial value • for G-tripping / with standard characteristic / A 0.2 initial value • for G-tripping / with standard characteristic / A 1	Voltage		
Protection class IP / on the front IP40 Protective function of the overcurrent release LSIG Switching capacity Switching capacity class of the circuit breaker M Dissipation Active power loss • maximum W 70 Electricity Continuous current / Rated value / maximum A 630 Continuous current / Rated value / maximum A 1.5 continuous current / Rated value A 400 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 400 • at 40 °C / Rated value A 400 • at 60 °C / Rated value A 400 • at 60 °C / Rated value A 380 • at 65 °C / Rated value A 368 • at 70 °C / Rated value A 352 Auxiliary circuit Number of NO contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts Outpring / with I2t characteristic / initial value • for G-tripping / with I2t characteristic / initial value • for G-tripping / with I2t characteristic / Full-scale value • for G-tripping / with I2t characteristic / Full-scale value • for G-tripping / with I2t characteristic / Full-scale value • for G-tripping / with I2t characteristic / Full-scale value • for G-tripping / with I2t characteristic / Full-scale value • for G-tripping / with I2t characteristic / Full-scale value • for G-tripping / with I2t characteristic / Full-scale value • for G-tripping / with I2t characteristic / Full-scale value • for G-tripping / with I2t characteristic / Full-scale value • for G-tripping / with I2t characteristic / Full-scale value • for G-tripping / with I2t characteristic / Full-scale value		V	800
Protection class IP / on the front IP40 Protective function of the overcurrent release LSIG Switching capacity Switching capacity class of the circuit breaker M Dissipation Active power loss • maximum W 70 Electricity Continuous current / Rated value / maximum A 630 Continuous current / Rated value / maximum A 1.5 continuous current / Rated value A 400 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 400 • at 40 °C / Rated value A 400 • at 60 °C / Rated value A 400 • at 60 °C / Rated value A 380 • at 65 °C / Rated value A 368 • at 70 °C / Rated value A 352 Auxiliary circuit Number of NO contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts Outpring / with I2t characteristic / initial value • for G-tripping / with I2t characteristic / initial value • for G-tripping / with I2t characteristic / Full-scale value • for G-tripping / with I2t characteristic / Full-scale value • for G-tripping / with I2t characteristic / Full-scale value • for G-tripping / with I2t characteristic / Full-scale value • for G-tripping / with I2t characteristic / Full-scale value • for G-tripping / with I2t characteristic / Full-scale value • for G-tripping / with I2t characteristic / Full-scale value • for G-tripping / with I2t characteristic / Full-scale value • for G-tripping / with I2t characteristic / Full-scale value • for G-tripping / with I2t characteristic / Full-scale value • for G-tripping / with I2t characteristic / Full-scale value	Drotaction class		
Protective function of the overcurrent release Switching capacity Switching capacity class of the circuit breaker M Dissipation Active power loss • maximum W 70 Electricity Continuous current / Rated value / maximum A 630 Continuous current / Rated value A 400 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 60 °C / Rated value • at 70 °C / Rated			IP40
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Switching capacity class of the circuit breaker Dissipation Active power loss • maximum W 70 Electricity Continuous current / Rated value / maximum A 630 Continuous current / Rated value A 400 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 40 °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 352 Auxiliary circuit Number of NC contacts / for auxiliary contacts O unber of NO contacts / for auxiliary contacts O unber of NO contacts / for auxiliary contacts Adjustable parameters Adjustable parameters Adjustable parameters Adjustable parameters Adjustable response value current • for G-tripping / with 12t characteristic / Full-scale value • for G-tripping / with 12t characteristic / Full-scale value • for G-tripping / with 12t characteristic / Full-scale value • for G-tripping / with 12t characteristic / Full-scale value • for G-tripping / with standard characteristic / A 0.2 initial value			LSIG
Switching capacity class of the circuit breaker Dissipation Active power loss • maximum W 70 Electricity Continuous current / Rated value / maximum A 630 Continuous current / Rated value A 400 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 40 °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 352 Auxiliary circuit Number of NC contacts / for auxiliary contacts O unber of NO contacts / for auxiliary contacts O unber of NO contacts / for auxiliary contacts Adjustable parameters Adjustable parameters Adjustable parameters Adjustable parameters Adjustable response value current • for G-tripping / with 12t characteristic / Full-scale value • for G-tripping / with 12t characteristic / Full-scale value • for G-tripping / with 12t characteristic / Full-scale value • for G-tripping / with 12t characteristic / Full-scale value • for G-tripping / with standard characteristic / A 0.2 initial value			
Dissipation Active power loss			M
Active power loss	Switching capacity class of the circuit breaker		IVI
maximum W 70 Electricity Continuous current / Rated value / maximum A 630 Continuous current / Rated value A 400 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 A 400 at 50 °C / Rated value A 400 at 60 °C / Rated value A 380 at 60 °C / Rated value A 380 at 60 °C / Rated value A 368 at 70 °C / Rated value A 352 Auxiliary circuit Number of NC contacts / for auxiliary contacts D 0 Suitability Suitability Suitability for use Adjustable parameters Adjustable parameters Adjustable parameters Adjustable response value current of or G-tripping / with 12t characteristic / initial value of or G-tripping / with 12t characteristic / Full-scale value of or G-tripping / with standard characteristic / initial value • for G-tripping / with standard characteristic / initial value • for G-tripping / with standard characteristic / initial value			
Electricity Continuous current / Rated value / maximum A 630 Continuous current / Rated value A 400 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 65 °C / Rated value • at 70 °C / Rated value • at	Active power loss		
Continuous current / Rated value / maximum	• maximum	W	70
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 40 °C / Rated value • at 50 °C / Rated value • at 60 °C / Rated value • at 65 °C / Rated value • at 70 °C / Rated value A 380 • at 70 °C / Rated value A 352 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 • for G-tripping / with l2t 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	Electricity		
Adjustable response value current / of the instantaneous short-circuit release / initial value Main circuit		Α	630
instantaneous short-circuit release / initial value Main circuit	Continuous current / Rated value	Α	400
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 A 400 • at 60 °C / Rated value A 380 • at 65 °C / Rated value A 368 • at 70 °C / Rated value A 352 Auxiliary circuit Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts O Suitability Suitability for use Adjustable parameters Adjustable response value current • for G-tripping / with 12t characteristic / initial value • for G-tripping / with standard characteristic / Full-scale 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	Adjustable response value current / of the	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 60 °C / Rated value • at 65 °C / Rated value • at 65 °C / Rated value • at 65 °C / Rated value • at 70 °C / Rated value A 368 • at 70 °C / Rated value A 352 Auxiliary circuit Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts 0 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 / initial value	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 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 368 at 70 °C / Rated value A 352 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 of or G-tripping / with 12t characteristic / initial value of or G-tripping / with standard characteristic / and an accordance in the standard characteristic / and a standard charac	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 70 °C / Rated value • at 70 °C / Rated value A 388 • at 70 °C / Rated value A 352 Auxiliary circuit Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts 0 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 / Full-scale value • for G-tripping / with standard characteristic / initial value	Operating voltage		
at 40 °C / Rated value at 50 °C / Rated value A 400 at 60 °C / Rated value A 380 at 65 °C / Rated value A 368 at 70 °C / Rated value A 352 Auxiliary circuit Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts O Suitability Suitability Suitability or use 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 / initial value of or G-tripping / with standard characteristic / initial value of or G-tripping / with standard characteristic / initial value of or G-tripping / with standard characteristic / initial value of or G-tripping / with standard characteristic / initial value of or G-tripping / with standard characteristic / initial value	• with AC / at 50/60 Hz / Rated value	V	690
at 50 °C / Rated value at 60 °C / Rated value A 380 at 65 °C / Rated value A 368 at 70 °C / Rated value A 352 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 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 at 400 A 380 A 380 A 368 B 352 A 368 A 352 A 368 A 368 A 352 A 368 A 352 A 368 A 352 A 368 A 352 A 368 A 368 A 368 A 368 A 368 A 352 A 368 A 352 A 368 A 368 A 368 A 368 A 352 A 368 A 368 A 368 A 352 A 368 A 368 A 352 A 368 A 368 A 368 A 352 A 368 A 368 A 352 A 368 A 352 A 368 A 368 A 368 A 352 A 368 A 368 A 352 A 368 A 368 A 352 A 368 A	Operating current		
at 60 °C / Rated value at 65 °C / Rated value A 368 at 70 °C / Rated value A 352 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 / initial value • for G-tripping / with standard characteristic / initial value	● at 40 °C / Rated value	Α	400
at 65 °C / Rated value at 65 °C / Rated value A 368 at 70 °C / Rated value A 352 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 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 at 65 °C / Rated value 0 368 A 352	• at 50 °C / Rated value	Α	400
at 70 °C / Rated value 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 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 / initial value	• at 60 °C / Rated value	Α	380
Auxiliary circuit Number of NC contacts / for auxiliary contacts 0 Number of NO contacts / for auxiliary contacts 0 Suitability Suitability for use Adjustable parameters Adjustable response value current • for G-tripping / with I2t characteristic / initial value • for G-tripping / with standard characteristic / A initial value	• at 65 °C / Rated value	Α	368
Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts O Suitability Suitability for use system protection Adjustable parameters 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 / A initial value	• at 70 °C / Rated value	Α	352
Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts O Suitability Suitability for use system protection Adjustable parameters 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 / A initial value	Auxiliary circuit		
Suitability Suitability for use Adjustable parameters Adjustable response value current • for G-tripping / with l2t characteristic / initial value • for G-tripping / with standard characteristic / A			0
Suitability for use Adjustable parameters 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 / A initial value	Number of NO contacts / for auxiliary contacts		0
Suitability for use Adjustable parameters 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 / A initial value	Cuitability		
Adjustable parameters Adjustable response value current • for G-tripping / with I2t characteristic / initial A 0.2 value • for G-tripping / with I2t characteristic / Full-scale A 1 value • for G-tripping / with standard characteristic / A 0.2 initial value			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 / initial value	_		
 for G-tripping / with l2t characteristic / initial value for G-tripping / with l2t characteristic / Full-scale value for G-tripping / with standard characteristic / initial value for G-tripping / with standard characteristic / initial value 			
value • for G-tripping / with I2t characteristic / Full-scale A 1 value • for G-tripping / with standard characteristic / A 0.2 initial value		۸	0.2
value • for G-tripping / with standard characteristic / A 0.2 initial value		A	U.Z
initial value		Α	1
		А	0.2
Full-scale value	• for G-tripping / with standard characteristic /	Α	1

• of I-trip / Full-scale value	Α	15
• of the short-time delayed short-circuit release /	Α	0.6
initial value		
 of the short-time delayed short-circuit release / Full-scale value 	Α	10
 of S-trip / with standard characteristic / initial value 	Α	0.6
 of S-trip / with standard characteristic / Full- scale value 	Α	10
• for N-conductor protection / initial value	Α	0.2
• for N-conductor protection / Full-scale value	Α	2
Adjustable delay time	_	
 for G-tripping / with I2t characteristic / initial value 	S	0.05
 for G-tripping / with I2t characteristic / Full-scale value 	S	0.8
• of S-trip / with I2t characteristic / initial value	s	0.05
 of S-trip / with I2t characteristic / Full-scale value 	S	0.5
 of S-trip / with standard characteristic / initial value 	S	0.05
 of S-trip / with standard characteristic / Full- scale value 	S	0.5
Adjustable response value current / of the current- dependent overload release / initial value	А	0.4
Product details		
Product component		
Trip indicator		No
• display		Yes
undervoltage release		No
Product property		
of the circuit breaker with tripping unit / Tripping characteristic adjustable		No
 for neutral conductors / upgradeable/retrofittable / Short-circuit and overload proof 		Yes
Product expansion / optional / motor drive		Yes
Product function		
Product function		
Intrinsic device protection		Yes
• communication function		Yes
Phase failure detection		No
other measurement function		No

Accessories		
Manufacturer article number / of the supplied basic		3VA2440-5JQ32-0AA0
switch		
Short circuit		
Operational short-circuit current breaking capacity		
(Ics)		
at 240 V / Rated value	kA	85
● at 415 V / Rated value	kA	55
• at 690 V / Rated value	kA	6
Maximum short-circuit current breaking capacity (Icu)		
• at 240 V / Rated value	kA	85
• at 415 V / Rated value	kA	55
• at 690 V / Rated value	kA	6
Short-circuit current making capacity (lcm)		
• at 240 V / Rated value	kA	187
• at 415 V / Rated value	kA	121
• at 690 V / Rated value	kA	9
Connections		
Arrangement of electrical connectors / for main		Front terminal
current circuit		
Type of connectable conductor cross-section		22.4
• for flat-bar terminal connection / minimum		20 x 1
for flat-bar terminal connection / maximum		35 x 10
Type of electrical connection / for main current circuit		Lug terminal
Mechanical Design		
Height	mm	248
Width	mm	138
Depth	mm	137
Mounting type		fixed mounting
Environmental conditions		
Ambient temperature	0.0	
during operation / minimum	°C	-25
during operation / maximum	°C	70
during storage / minimum	°C	-40
during storage / maximum	°C	80
Certificates		
Equipment marking		2
• acc. to DIN EN 61346-2		Q
• acc. to DIN EN 81346-2		Q

General Product Approval	EMC	Declaration of	other
		Conformity	





other



other

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/3VA24405JQ320AA0

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

http://support.automation.siemens.com/WW/view/en/3VA24405JQ320AA0/all

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

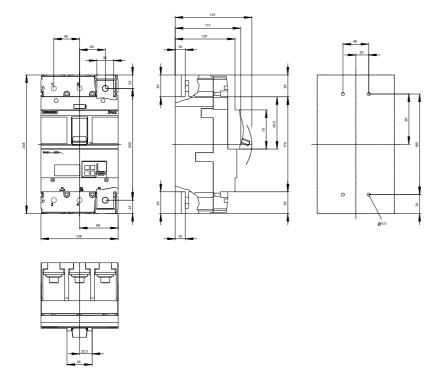
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA24405JQ320AA0

CAx-Online-Generator

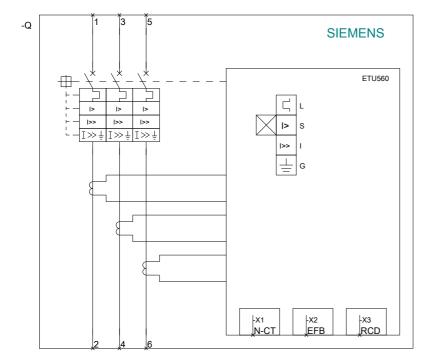
http://www.siemens.com/cax

Tender specifications

http://ausschreibungstexte.siemens.com/tiplv



3VA2440-5JQ32-0AA0 Changes preserved 21.03.2015 © Copyright Siemens AG Page 5/6



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