## **SIEMENS**

## Data sheet

## 3VA2450-7KQ42-0AA0



CIRCUIT BREAKER 3VA2 IEC FRAME 630 BREAKING CAPACITY CLASS C ICU=110KA @ 415 V 4-POLE, LINE PROTECTION ETU860, LSIG, IN=500A OVERLOAD PROTECTION IR=200A ...500A SHORT CIRCUIT PROTECTION ISD=0,6..10X IN, II=1,5..14X IN NEUTRAL PROTECTION ADJUSTABLE (OFF, UPTO 100%) 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 + N 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	ETU860

General technical data			
Number of poles		4	
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		20	
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	

Voltage		
Insulation voltage / Rated value	V	800
Protection class		
Protection class IP		IP40
Protection class IP / on the front		IP40
Protective function of the overcurrent release		LSIG
Switching capacity Switching capacity class of the circuit breaker		C
Switching capacity class of the circuit breaker		C
Dissipation		
Active power loss		
• maximum	W	105
Electricity		
Continuous current / Rated value / maximum	А	630
Continuous current / Rated value	Α	500
Adjustable response value current / of the	Α	1.5
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	Α	500
● at 50 °C / Rated value	Α	500
● at 60 °C / Rated value	Α	475
● at 65 °C / Rated value	Α	460
● at 70 °C / Rated value	Α	440
Auxiliary circuit		
Number of NC contacts / for auxiliary contacts		0
Number of NO contacts / for auxiliary contacts		0
Suitability		
Suitability for use		system protection
A divide le la constant		
Adjustable parameters  Adjustable response value current		
for G-tripping / with I2t characteristic / initial	Α	0.2
value	, ,	
for G-tripping / with I2t characteristic / Full-scale	Α	1
value		
• for G-tripping / with standard characteristic /	Α	0.2
initial value		
• for G-tripping / with standard characteristic /	Α	1
Full-scale value		

	٨	40
<ul><li>• of I-trip / Full-scale value</li></ul>	Α	13
<ul> <li>of the short-time delayed short-circuit release / initial value</li> </ul>	Α	0.6
• of the short-time delayed short-circuit release / Full-scale value	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
• for N-conductor protection / initial value	Α	0.2
• for N-conductor protection / Full-scale value	Α	1
Adjustable delay time		
<ul> <li>for G-tripping / with I2t characteristic / initial value</li> </ul>	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
<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-	Α	0.4
dependent overload release / initial value		
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
<ul> <li>for neutral conductors / upgradeable/retrofittable / Short-circuit and overload proof</li> </ul>		No
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
Phase failure detection		No

Accessories		
Manufacturer article number / of the supplied basic		3VA2450-7KQ42-0AA0
switch		
Short circuit		
Operational short-circuit current breaking capacity		
(Ics)		
• at 240 V / Rated value	kA	150
● at 415 V / Rated value	kA	110
• at 690 V / Rated value	kA	6
Maximum short-circuit current breaking capacity (Icu)		
• at 240 V / Rated value	kA	150
• at 415 V / Rated value	kA	110
• at 690 V / Rated value	kA	6
Short-circuit current making capacity (lcm)		
• at 240 V / Rated value	kA	330
• at 415 V / Rated value	kA	242
• at 690 V / Rated value	kA	9
Connections		
Arrangement of electrical connectors / for main		Front terminal
current circuit		
Type of connectable conductor cross-section		
• 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	184
Depth	mm	137
Mounting type		fixed mounting
Environmental conditions		
Ambient temperature	0.0	
<ul><li>during operation / minimum</li></ul>	°C	-25
<ul><li>during operation / maximum</li></ul>	°C	70
during storage / minimum	°C	-40
during storage / maximum	°C	80
Certificates		
Equipment marking		0
• 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)
<a href="https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3VA24507KQ420AA0">https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3VA24507KQ420AA0</a>

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

http://support.automation.siemens.com/WW/view/en/3VA24507KQ420AA0/all

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

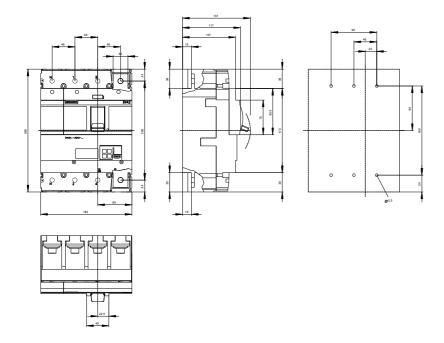
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA24507KQ420AA0

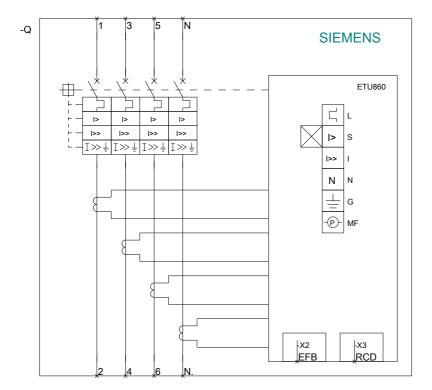
**CAx-Online-Generator** 

http://www.siemens.com/cax

**Tender specifications** 

http://ausschreibungstexte.siemens.com/tiplv





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