# **SIEMENS**

## Data sheet

## 3VA2440-7HL42-0AA0



CIRCUIT BREAKER 3VA2 IEC FRAME 630 BREAKING CAPACITY CLASS C ICU=110KA @ 415 V 4-POLE, LINE PROTECTION ETU320, LI, IN=400A OVERLOAD PROTECTION IR=160A ...400A SHORT CIRCUIT PROTECTION II=12 X IN NEUTRAL PROTECTION ADJUSTABLE(OFF,50%,100%) 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	Without			
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	ETU320			

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		17		
Electrical endurance (switching cycles)				
• at AC-1 / at 380/415 V / at 50/60 Hz		4 000		
circuit-breaker / Design		3VA		
Mechanical service life (switching cycles) / typical		15 000		

Voltage		
Insulation voltage / Rated value	V	800

#### Protection class

Protection class IP / on the front Protective function of the overcurrent release  LI  Switching capacity Switching capacity class of the circuit breaker  C  Dissipation  Active power loss  • maximum  W  70  Electricity  Continuous current / Rated value / maximum Active power loss  • maximum  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 50 °C / Rated value • at 50 °C / Rated value • at 65 °C / Rated value • at 65 °C / Rated value • at 70 °C	Protection class IP		IP40
Switching capacity Switching capacity class of the circuit breaker  C  Dissipation  Active power loss  • maximum  W  70  Electricity  Continuous current / Rated value / maximum  A  A  A  A  A  A  A  A  A  A  A  A  A	Protection class IP / on the front		IP40
Switching capacity class of the circuit breaker  C  Dissipation  Active power loss  • maximum  W  70  Electricity  Continuous current / Rated value / maximum  A  Gontinuous current / Rated value  A  A  A  A  A  Continuous current / Rated value  A  A  A  A  A  A  A  A  A  A  A  A  A	Protective function of the overcurrent release		Ц
Switching capacity class of the circuit breaker  C  Dissipation  Active power loss  • maximum  W  70  Electricity  Continuous current / Rated value / maximum  A  Gontinuous current / Rated value  A  A  A  A  A  Continuous current / Rated value  A  A  A  A  A  A  A  A  A  A  A  A  A	Switching capacity		
Active power loss			С
Active power loss	Dissipation		
Electricity  Continuous current / Rated value / maximum  A 630  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 60 °C / Rated value • at 65 °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 NC contacts / for auxiliary contacts  O 50  Suitability  Suitability  Suitability  Suitabile parameters  Adjustable parameters  Adjustable response value current • of I-trip / Full-scale value • for N-conductor protection / initial value • for N-conductor protection / Full-scale value A 100  Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component • Trip indicator • display			
Continuous current / Rated value / maximum	• maximum	W	70
Continuous current / Rated value / maximum	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  • at 40 °C / Rated value  • at 50 °C / Rated value  • at 65 °C / Rated value  • at 70 °C / Rated value  Adjustable response value current  • of 1-trip / Full-scale value  • for N-conductor protection / Full-scale value  • for N-conductor protection / Full-scale value  • for N-conductor protection / Full-scale value  Adjustable response value current / of the current-dependent overload release / Initial value  Product details  Product component  • Trip indicator  • display		Α	630
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 50 °C / Rated value  • at 60 °C / Rated value  • at 65 °C / Rated value  • at 65 °C / Rated value  • at 70 °C / Rated value  A 3880  • at 70 °C / Rated value  A 368  • at 70 °C / Rated value  Number of NC contacts / for auxiliary contacts  Number of NO contacts / for auxiliary contacts  O  Suitability  Suitability for use  Suitability for use  Adjustable parameters  Adjustable parameters  Adjustable parameters  Adjustable response value current  • of I-trip / Full-scale value  • for N-conductor protection / initial value  • for N-conductor protection / Full-scale value  A 100  Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component  • Trip indicator  • display	Continuous current / Rated value	А	400
Operating voltage  • 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  A 388  • 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  System protection  Adjustable parameters  Adjustable response value current  • of I-trip / Full-scale value  • for N-conductor protection / initial value  • for N-conductor protection / Full-scale value  A 10  Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component  • Trip indicator  • display	-	А	1.5
with AC / at 50/60 Hz / Rated value     Operating current	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 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 for use  Adjustable parameters  Adjustable parameters  Adjustable response value current • of I-trip / Full-scale value • for N-conductor protection / initial value • for N-conductor protection / Full-scale value A 100  Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component • Trip indicator • display	Operating voltage		
at 40 °C / Rated value at 50 °C / Rated value at 60 °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  Number of NO contacts / for auxiliary contacts  O  Suitability  Suitability  Suitability for use  Adjustable parameters  Adjustable parameters  Adjustable response value current of I-trip / Full-scale value for N-conductor protection / initial value for N-conductor protection / Full-scale value A 100  Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component Trip indicator odisplay No	• with AC / at 50/60 Hz / Rated value	V	690
at 50 °C / Rated value at 60 °C / Rated value at 65 °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  of I-trip / Full-scale value for N-conductor protection / initial value for N-conductor protection / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component Trip indicator display  No	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  O Suitability  Suitability  Suitability for use  Adjustable parameters  Adjustable response value current of I-trip / Full-scale value for N-conductor protection / initial value of or N-conductor protection / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component Trip indicator odd isplay	• at 40 °C / Rated value	Α	400
at 70 °C / Rated value  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  of I-trip / Full-scale value  for N-conductor protection / Initial value  of or N-conductor protection / Full-scale value  Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component  Trip indicator  display	• at 50 °C / Rated value	Α	400
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  • of I-trip / Full-scale value  • for N-conductor protection / initial value  • for N-conductor protection / Full-scale value  A 100  Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product details  Product component  • Trip indicator  • display  No	• at 60 °C / Rated value	Α	380
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  • of I-trip / Full-scale value  • for N-conductor protection / initial value  A 50  • for N-conductor protection / Full-scale value  A 100  Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component  • Trip indicator  • display	• at 65 °C / Rated value	Α	368
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  • of I-trip / Full-scale value  • for N-conductor protection / initial value  • for N-conductor protection / Full-scale value  A 100  Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component  • Trip indicator  • display  No	• at 70 °C / Rated value	Α	352
Number of NO contacts / for auxiliary contacts  Suitability  Suitability for use  Adjustable parameters  Adjustable response value current  • of I-trip / Full-scale value  • for N-conductor protection / initial value  • for N-conductor protection / Full-scale value  Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component  • Trip indicator  • display  O  System protection  A  12  50  40  100  A  0.4	Auxiliary circuit		
Suitability for use system protection  Adjustable parameters  Adjustable response value current  • of I-trip / Full-scale value  • for N-conductor protection / initial value  • for N-conductor protection / Full-scale value  A 100  Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component  • Trip indicator  • display  System protection  A 12  0.4  0.4  100  No	Number of NC contacts / for auxiliary contacts		0
Suitability for use  Adjustable parameters  Adjustable response value current  of I-trip / Full-scale value for N-conductor protection / initial value  of or N-conductor protection / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component Trip indicator odds display  System protection  A 12  A 12  A 50  A 100  Adjustable response value current / of the current-dependent overload release / initial value  No No	Number of NO contacts / for auxiliary contacts		0
Adjustable parameters  Adjustable response value current  of I-trip / Full-scale value for N-conductor protection / initial value for N-conductor protection / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component Trip indicator display No	Suitability		
Adjustable response value current  of I-trip / Full-scale value for N-conductor protection / initial value for N-conductor protection / Full-scale value for N-conductor protection / Full-scale value A 100  Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component Trip indicator display No	Suitability for use		system protection
of I-trip / Full-scale value     for N-conductor protection / initial value     for N-conductor protection / Full-scale value     for N-conductor protection / Full-scale value     A 100  Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component     Trip indicator     display  No	Adjustable parameters		
for N-conductor protection / initial value     for N-conductor protection / Full-scale value     for N-conductor protection / Full-scale value     A 100  Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component     Trip indicator     display  No	Adjustable response value current		
for N-conductor protection / Full-scale value  A 100  Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component      Trip indicator     display  No	• of I-trip / Full-scale value	Α	12
Adjustable response value current / of the current- dependent overload release / initial value  Product details  Product component  • Trip indicator  • display  No	• for N-conductor protection / initial value	Α	50
Product details  Product component  Trip indicator  display  No	• for N-conductor protection / Full-scale value	Α	100
Product details  Product component  • Trip indicator  • display  No	Adjustable response value current / of the current-	Α	0.4
Product component	dependent overload release / initial value		
<ul><li>Trip indicator</li><li>display</li><li>No</li><li>No</li></ul>	Product details		
• display No	Product component		
2.06.00	Trip indicator		No
undervoltage release     No	• display		No
	• undervoltage release		No

Product property		
• for neutral conductors /		No
upgradeable/retrofittable / Short-circuit and		
overload proof		
Product expansion / optional / motor drive		Yes
Product function		
Product function		
<ul> <li>Intrinsic device protection</li> </ul>		Yes
<ul> <li>communication function</li> </ul>		No
Phase failure detection		No
<ul> <li>other measurement function</li> </ul>		No
Accessories		
Manufacturer article number / of the supplied basic switch		3VA2440-7HL42-0AA0
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 (Icm)		
• 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
Type of connectable conductor cross-section		
Type of connectable conductor cross-section  • for flat-bar terminal connection / minimum		20 x 1
		35 x 10
• for flat-bar terminal connection / maximum  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			
<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	

$\sim$		11.00		
G	er	Ш	ca	tes

## **Equipment marking**

• 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/3VA24407HL420AA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3VA24407HL420AA0/all

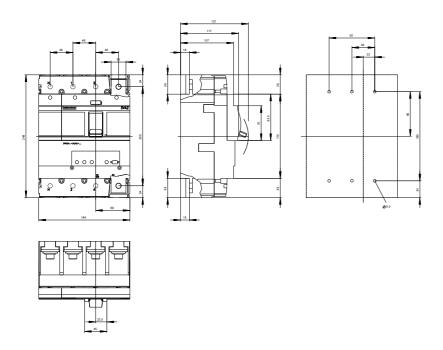
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA24407HL420AA0">http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA24407HL420AA0</a>

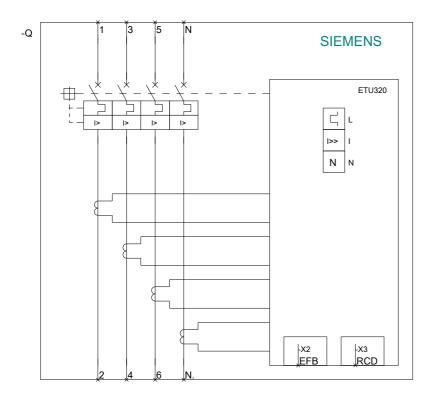
**CAx-Online-Generator** 

http://www.siemens.com/cax

**Tender specifications** 

http://ausschreibungstexte.siemens.com/tiplv





last modified: 11.03.2015