SIEMENS

Data sheet

3VA2116-8HL36-0AA0



CIRCUIT BREAKER 3VA2 IEC FRAME 160 BREAKING CAPACITY CLASS L ICU=150KA @ 415 V 3POLE, LINE PROTECTION ETU320, LI, IN=160A OVERLOAD PROTECTION IR=64A ...160A SHORT CIRCUIT PROTECTION II=10 X IN CABLE 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	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	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	17
Electrical endurance (switching cycles)	
• at AC-1 / at 380/415 V / at 50/60 Hz	12 000
circuit-breaker / Design	3VA
Mechanical service life (switching cycles) / typical	20 000

Voltage		
Insulation voltage / Rated value	V	800

Protection class

Protection class IP / on the front Protective function of the overcurrent release Switching capacity Switching capacity Switching capacity class of the circuit breaker L Dissipation Active power loss • maximum W 19.7 Electricity Continuous current / Rated value / maximum A 160 Adjustable response value current / of the instantaneous short-circuit release / initial value Main circuit Operating outlage • with AC / at 50/60 Hz / Rated value • at 40 °C / Rated value • at 60 °C / Rated value • at 70 °C / Rated	Protection class IP		IP40
Switching capacity Switching capacity class of the circuit breaker L Dissipation Active power loss • maximum W 19.7 Electricity Continuous current / Rated value / maximum A 160 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 value •	Protection class IP / on the front		IP40
Switching capacity class of the circuit breaker Dissipation Active power loss • maximum W 19.7 Electricity Continuous current / Rated value / maximum	Protective function of the overcurrent release		Ц
Switching capacity class of the circuit breaker Dissipation Active power loss • maximum W 19.7 Electricity Continuous current / Rated value / maximum	Switching canacity		
Dissipation Active power loss • maximum W 19.7 Electricity Continuous current / Rated value / maximum			L
Active power loss			-
Electricity Continuous current / Rated value / maximum			
Electricity Continuous current / Rated value / maximum A 160 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 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 • at 70 °C / Rated value A 160 Auxiliary circuit Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts Outstability Suitability Suitability for use Adjustable response value current • of 1-trip / Full-scale value A 10 Adjustable response value current / of the current-dependent overload release / initial value Product details Product details Product component • Trip indicator • display No			
Continuous current / Rated value / maximum	• maximum	W	19.7
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 60 °C / Rated value • at 65 °C / Rated value • at 65 °C / Rated value • at 65 °C / Rated value A 160 • at 70 °C / Rated value A 160 Auxiliary circuit Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts V 0 Suitability Suitability Suitabile parameters Adjustable parameters Adjustable response value current • of I-trip / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value Product details Product component • Trip indicator • display No	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 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 160 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 I-trip / Full-scale value A 10 Adjustable response value current / of the current-dependent overload release / initial value Product details Product component • Trip indicator • display No	Continuous current / Rated value / maximum	А	160
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 160 Auxillary 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 I-trip / Full-scale value A 10 Adjustable response value current / of the current-dependent overload release / initial value Product details Product component • Trip indicator • display No	Continuous current / Rated value	Α	160
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 60 °C / Rated value • at 65 °C / Rated value • at 65 °C / Rated value • at 70 °C / Rated value A 160 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 I-trip / Full-scale value A 10 Adjustable response value current / of the current-dependent overload release / initial value Product details Product component • Trip indicator • display No	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 60 °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 160 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 A 10 Adjustable response value current / of the current-dependent overload release / initial value Product details Product component • Trip indicator • display No	instantaneous short-circuit release / initial value		
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 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 160 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 A 10 Adjustable response value current / of the current-dependent overload release / initial value Product details Product component • Trip indicator • display No	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 160 Auxiliary circuit Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts O Suitability Suitability Suitabile parameters Adjustable parameters Adjustable parameters Adjustable response value current • of I-trip / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value Product details Product component • Trip indicator • display No			
at 40 °C / Rated value at 50 °C / Rated value A 160 at 60 °C / Rated value A 160 at 60 °C / Rated value A 160 at 65 °C / Rated value A 160 at 70 °C / Rated value A 160 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 A 10 Adjustable response value current / of the current-dependent overload release / initial value Product details Product component Trip indicator of display 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 At 65 °C / Rated value At 65 °C / Rated value At 60 °C / Rated valu	Operating current		
at 60 °C / Rated value at 65 °C / Rated value A 160 at 70 °C / Rated value A 160 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 A 10 Adjustable response value current / of the current-dependent overload release / initial value Product details Product component Trip indicator odd isplay No	• at 40 °C / Rated value	Α	160
at 65 °C / Rated value at 70 °C / Rated value A 160 Auxiliary circuit Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts 0 Suitability Suitability or use Adjustable parameters Adjustable response value current of I-trip / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value Product details Product component Trip indicator display A 160 A 160 A 160 A 10 A 10 A 394 A 10 A 394 A 10 A 394 A 10	• at 50 °C / Rated value	Α	160
at 70 °C / Rated value A 160 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 Adjustable response value current / of the current-dependent overload release / initial value Product details Product component • Trip indicator • display No	• at 60 °C / Rated value	Α	160
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 Adjustable response value current / of the current-dependent overload release / initial value Product details Product component • Trip indicator • display No	• at 65 °C / Rated value	Α	160
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 • of I-trip / Full-scale value 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	160
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 • of I-trip / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value Product details Product component • Trip indicator • display No	Auxiliany circuit		
Number of NO contacts / for auxiliary contacts Suitability Suitability for use system protection Adjustable parameters Adjustable response value current • of I-trip / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value Product details Product component • Trip indicator • display No			0
Suitability Suitability for use Adjustable parameters Adjustable response value current • of I-trip / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value Product details Product component • Trip indicator • display System protection A 10 A 0.394			
Suitability for use Adjustable parameters Adjustable response value current of I-trip / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value Product details Product component Trip indicator display System protection System protection No No No No No No No No No	·		
Adjustable parameters Adjustable response value current • of I-trip / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value Product details Product component • Trip indicator • display No			
Adjustable response value current of I-trip / Full-scale value A 10 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 A 10 Adjustable response value current / of the current-dependent overload release / initial value Product details Product component Trip indicator display No	Adjustable parameters		
Adjustable response value current / of the current- dependent overload release / initial value Product details Product component • Trip indicator • display No	Adjustable response value current		
Product details Product component • Trip indicator • display No	● of I-trip / Full-scale value	Α	10
Product details Product component • Trip indicator • display No		Α	0.394
Product component	dependent overload release / initial value		
 Trip indicator display No No 	Product details		
• display No	Product component		
	Trip indicator		No
• undervoltage release No	• display		No
	undervoltage release		No
Product property			

 for neutral conductors / upgradeable/retrofittable / Short-circuit and overload proof 		No
Product expansion / optional / motor drive		Yes
Product function		
Product function		
 Intrinsic device protection 		Yes
 communication function 		No
Phase failure detection		No
 other measurement function 		No
Accessories		
Manufacturer article number / of the supplied basic		3VA2116-8HL36-0AA0
switch		
Short circuit		
Operational short-circuit current breaking capacity		
(Ics)		
• at 240 V / Rated value	kA	200
• at 415 V / Rated value	kA	150
• at 440 V / Rated value	kA	150
• at 500 V / Rated value	kA	100
• at 690 V / Rated value	kA	18
Maximum short-circuit current breaking capacity (Icu)		
• at 240 V / Rated value	kA	200
• at 415 V / Rated value	kA	150
• at 440 V / Rated value	kA	150
• at 500 V / Rated value	kA	100
• at 690 V / Rated value	kA	24
Short-circuit current making capacity (lcm)		
• at 240 V / Rated value	kA	440
• at 415 V / Rated value	kA	330
• at 440 V / Rated value	kA	330
• at 500 V / Rated value	kA	220
• at 690 V / Rated value	kA	48
Connections		
Arrangement of electrical connectors / for main		Front terminal
current circuit		
Type of connectable conductor cross-section		
• of the round conductor terminal / stranded		1 x (6-120 mm²)
Type of electrical connection / for main current circuit		Box 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
during operation / maximum	°C	70
• during storage / minimum	°C	-40
• during storage / maximum	°C	80
Certificates		
Equipment marking		
• acc. to DIN EN 61346-2		Q
● acc. to DIN EN 81346-2		Q





General Product Approval



other

EMC



Declaration of

Conformity



Shipping

Approval

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/3VA21168HL360AA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3VA21168HL360AA0/all

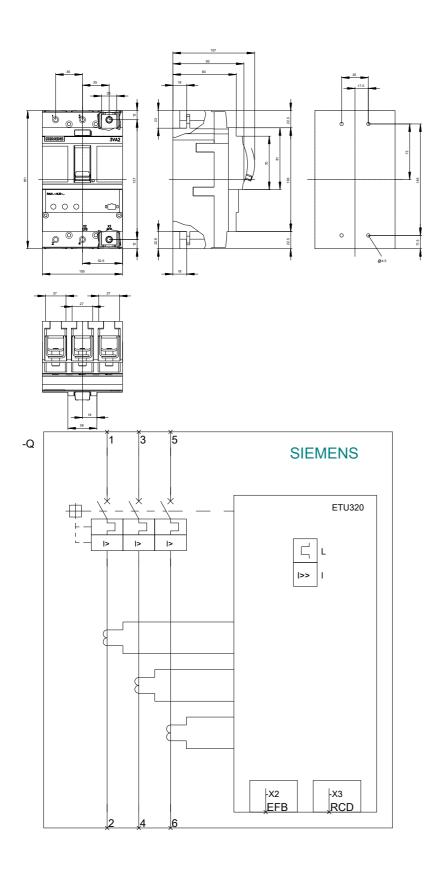
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA21168HL360AA0

CAx-Online-Generator

http://www.siemens.com/cax

Tender specifications

http://ausschreibungstexte.siemens.com/tiplv



last modified: 11.03.2015