SIEMENS

Data sheet

3VA1140-6EF46-0AA0



CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY CLASS H ICU=70KA @ 415 V 4-POLE, LINE PROTECTION TM240, ATAM, IN=40A OVERLOAD PROTECTION IR=28A ...40A SHORT CIRCUIT PROTECTION II=5...10 X IN NEUTRAL UNPROTECTED CABLE CONNECTION

Figure similar

Model	
product brand name	SENTRON
Product designation	Molded case circuit breaker
Design of the product	Line protection
Product variations	General Applications
Ground fault monitoring version	Without
Design of the auxiliary release	Without auxiliary release
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	TM240

General technical data	
Number of poles	4
Trip class / of the L-trip / with I2t characteristic / initial value	1
Trip class / of the L-trip / with I2t characteristic / Full-scale value	1
Electrical endurance (switching cycles)	
• at AC-1 / at 380/415 V / at 50/60 Hz	8 000
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 Switching capacity Switching capacity class of the circuit breaker H Dissipation Active power loss • maximum W 10.8 Electricity Continuous current / Rated value / maximum Adjustable response value current • of the current-dependent overload release / Full-scale value • of the instantaneous short-circuit release / initial value Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value • of DC / Rated value Operating current • of DC / Rated value Operating current	
Switching capacity Switching capacity class of the circuit breaker Dissipation Active power loss • maximum W 10.8 Electricity Continuous current / Rated value / maximum A 160 Continuous current / Rated value Adjustable response value current • of the current-dependent overload release / Full-scale value • of the instantaneous short-circuit release / initial value Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value • for DC / Rated value V 690 Operating current	
Switching capacity class of the circuit breaker Dissipation Active power loss • maximum W 10.8 Electricity Continuous current / Rated value / maximum	
Switching capacity class of the circuit breaker Dissipation Active power loss • maximum W 10.8 Electricity Continuous current / Rated value / maximum	
Active power loss • maximum Electricity Continuous current / Rated value / maximum A 160 Continuous current / Rated value Adjustable response value current • of the current-dependent overload release / Full-scale value • of the instantaneous short-circuit release / initial value Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value • for DC / Rated value Operating current	
Active power loss • maximum Main circuit	
Continuous current / Rated value / maximum	
Continuous current / Rated value / maximum A 160 Continuous current / Rated value A 40 Adjustable response value current • of the current-dependent overload release / Full-scale value • of the instantaneous short-circuit release / initial value Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value V 690 • for DC / Rated value Operating current	
Continuous current / Rated value Adjustable response value current of the current-dependent overload release / Full-scale value of the instantaneous short-circuit release / initial value Main circuit Operating voltage with AC / at 50/60 Hz / Rated value of the instantaneous short-circuit release / initial value V 690 of or DC / Rated value V 600 Operating current	
Adjustable response value current of the current-dependent overload release / A 1 Full-scale value of the instantaneous short-circuit release / initial A 5 value Main circuit Operating voltage with AC / at 50/60 Hz / Rated value V 690 of the instantaneous short-circuit release / initial A 5 Value	
of the current-dependent overload release / Full-scale value of the instantaneous short-circuit release / initial value Main circuit Operating voltage with AC / at 50/60 Hz / Rated value for DC / Rated value Operating current Operating current	
Full-scale value • of the instantaneous short-circuit release / initial value Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value • for DC / Rated value Operating current	
Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value • for DC / Rated value Operating current V 690 V 600	
Operating voltage • with AC / at 50/60 Hz / Rated value • for DC / Rated value Operating current V 690 V 600	
 with AC / at 50/60 Hz / Rated value for DC / Rated value Operating current V 690 600	
• for DC / Rated value V 600 Operating current	
Operating current	
A 40 % O / Detailuralura	
• at 40 °C / Rated value A 40	
at 50 °C / Rated value A 40	
at 55 °C / Rated value A 39	
• at 60 °C / Rated value A 39	
• at 65 °C / Rated value A 38	
• at 70 °C / Rated value A 37	
Auxiliary circuit	
Number of CO contacts / for auxiliary contacts 0	
Suitability	
Suitability for use system protection	
Adjustable parameters	
Adjustable response value current	
• of I-trip / Full-scale value A 10	
• for N-conductor protection / initial value A 0	
• for N-conductor protection / Full-scale value A 0	
Adjustable response value current / of the current- A 0.7 dependent overload release / initial value	
Product details	
Product component	

		NI-
Trip indicator		No
• display		No
Voltage trigger		No
undervoltage release		No
 undervoltage release with leading contact 		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		3VA1140-6EF46-0AA0
switch		
Short circuit		
Operational short-circuit current breaking capacity		
(lcs)		
• at 240 V / Rated value	kA	100
● at 415 V / Rated value	kA	70
• at 440 V / Rated value	kA	36
• at 500 V / Rated value	kA	15
• at 690 V / Rated value	kA	5
Maximum short-circuit current breaking capacity (Icu)		
• at 240 V / Rated value	kA	100
• at 415 V / Rated value	kA	70
• at 440 V / Rated value	kA	36
● at 500 V / Rated value	kA	20
• at 690 V / Rated value	kA	10
Short-circuit current making capacity (lcm)		
• at 240 V / Rated value	kA	220
• at 415 V / Rated value	kA	154
• at 690 V / Rated value	kA	17
Connections		
Arrangement of electrical connectors / for main		Front terminal
		Front terminal

 of the round conductor terminal / s 	tranded		1 x (1.5 - 70 mm²)		
Type of electrical connection / for main of	current circuit		Box terminal		
Mechanical Design					
Height		mm	130		
Width		mm	101.6		
Depth		mm	70		
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 EMC	Declaration	n of	Shipping Approval		other

Further information

Product

Approval

Information- and Downloadcenter (Catalogs, Brochures,...)

other

http://www.siemens.com/lowvoltage/catalogs

Industry Mall (Online ordering system)

https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3VA11406EF460AA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3VA11406EF460AA0/all

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

Conformity

EG-Konf.

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA11406EF460AA0

CAx-Online-Generator

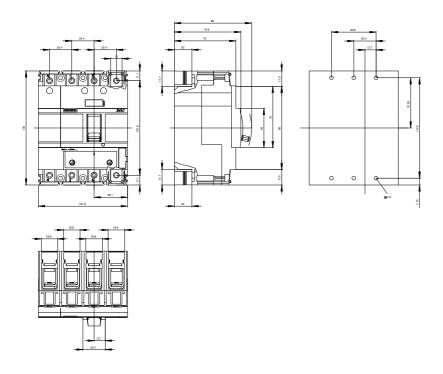
http://www.siemens.com/cax

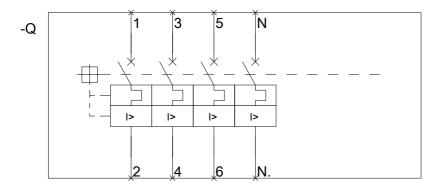
Tender specifications

http://ausschreibungstexte.siemens.com/tiplv

other

GL





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