# **SIEMENS**

## Data sheet

## 3VA1116-3ED42-0AA0



CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY CLASS N ICU=25KA @ 415 V 4-POLE, LINE PROTECTION TM210, FTFM, IN=160A OVERLOAD PROTECTION IR=160A FIXED SHORT CIRCUIT PROTECTION II=10 X IN NEUTRAL UNPROTECTED BUSBAR CONNECTION

Figure similar

Model		
product brand name	SI	ENTRON
Product designation	М	lolded case circuit breaker
Design of the product	Li	ine protection
Product variations	G	eneral Applications
Ground fault monitoring version	W	/ithout
Design of the auxiliary release	W	/ithout auxiliary release
Design of the auxiliary switch	W	/ithout
Design of the operating mechanism	to	oggle handle
Type of the driving mechanism / motor drive	N	0
Design of the overcurrent release	TI	M210

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		
	tage	
Insulation voltage / Rated value V 800	sulation voltage / Rated value	V

#### Protection class

Protection class IP		IP40
Protection class IP / on the front		IP40
Protective function of the overcurrent release		Ц
Cuitabina canacity		
Switching capacity Switching capacity class of the circuit breaker		N
		·
Dissipation		
Active power loss	W	38
• maximum	VV	36
Electricity		
Continuous current / Rated value / maximum	Α	160
Continuous current / Rated value	Α	160
Adjustable response value current		
<ul> <li>of the current-dependent overload release / Full-scale value</li> </ul>	Α	1
<ul> <li>of the instantaneous short-circuit release / initial value</li> </ul>	Α	10
Main circuit		
Operating voltage		
• with AC / at 50/60 Hz / Rated value	V	690
• for DC / Rated value	V	600
Operating current		
• at 40 °C / Rated value	Α	160
• at 50 °C / Rated value	Α	160
• at 55 °C / Rated value	Α	158
• at 60 °C / Rated value	Α	155
• at 65 °C / Rated value	Α	153
• at 70 °C / Rated value	Α	150
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	Α	10
• for N-conductor protection / initial value	Α	0
• for N-conductor protection / Full-scale value	Α	0
Adjustable response value current / of the current- dependent overload release / initial value	Α	1
Product details		
Product component		

		Nie
Trip indicator		No
<ul><li>display</li></ul>		No
<ul> <li>Voltage trigger</li> </ul>		No
undervoltage release		No
<ul> <li>undervoltage release with leading contact</li> </ul>		No
Product property		
<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
communication function		No
Phase failure detection		No
<ul> <li>other measurement function</li> </ul>		No
Accessories		
Manufacturer article number / of the supplied basic		3VA1116-3ED42-0AA0
switch		
Short circuit		
Operational short-circuit current breaking capacity		
(Ics)	I. A	20
• at 240 V / Rated value	kA	36
• at 415 V / Rated value	kA	25
• at 440 V / Rated value	kA	16
• at 500 V / Rated value	kA	8
at 690 V / Rated value	kA	5
Maximum short-circuit current breaking capacity (Icu)		
• at 240 V / Rated value	kA	36
• at 415 V / Rated value	kA	25
• at 440 V / Rated value	kA	16
● at 500 V / Rated value	kA	8
• at 690 V / Rated value	kA	7
Short-circuit current making capacity (lcm)		
• at 240 V / Rated value	kA	75.6
● at 415 V / Rated value	kA	52.5
• at 690 V / Rated value	kA	7.5
Connections		
Arrangement of electrical connectors / for main		Front terminal
current circuit		
Type of connectable conductor cross-section		

• for flat-bar terminal connection / minimum	12 x 0
• for flat-bar terminal connection / maximum	17 x 6.5
Type of electrical connection / for main current circuit	Lug terminal

Mechanical Design				
Height	mm	130		
Width	mm	101.6		
Depth	mm	70		
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		
<ul> <li>during storage / minimum</li> </ul>	°C	-40		
during storage / maximum	°C	80		

Equipment marking Q • acc. to DIN EN 61346-2 Q • acc. to DIN EN 81346-2

General Product Approval	EMC	Declaration of	Shipping Approval
		Conformity	











 $\mathsf{GL}$ 

### 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/3VA11163ED420AA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3VA11163ED420AA0/all

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

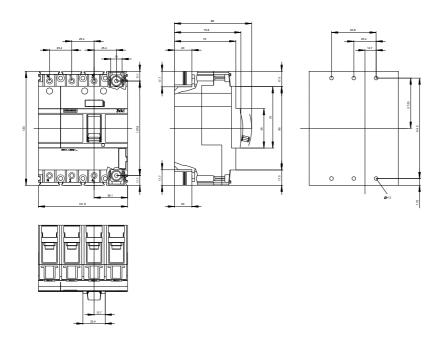
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA11163ED420AA0

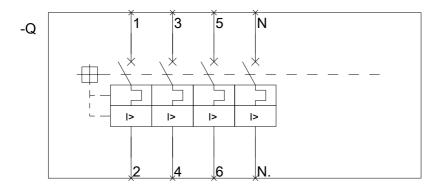
**CAx-Online-Generator** 

http://www.siemens.com/cax

**Tender specifications** 

http://ausschreibungstexte.siemens.com/tiplv





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