# **SIEMENS**

## Data sheet

# 3VA1116-3ED36-0AA0



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

General technical data			
Number of poles		3	
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 / on the front IP40 Protective function of the overcurrent release LI  Switching capacity Switching capacity class of the circuit breaker N  Dissipation Active power loss  • maximum W 38  Electricity Continuous current / Rated value / maximum A 160 Continuous current / Rated value M A 160 Adjustable response value current  • of the current-dependent overload release / Full-scale value  • of the instantaneous short-circuit release / initial value  • of the instantaneous short-circuit release / initial value  • of the for Dr / Rated value  • of the Dr / Rated value  • at 40 °C / Rated value  • at 50 °C / Rated value  • at 50 °C / Rated value  • at 65 °C / Rated value  • at 70 °C / Rated val	Protection class IP		IP40			
Switching capacity  Switching capacity class of the circuit breaker  Dissipation  Active power loss  • maximum  W 38  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  • of the instantaneous short-circuit release / initial value  • of the instantaneous short-circuit release / initial value  • of the instantaneous short-circuit release / initial value  • of the instantaneous short-circuit release / initial value  • of the instantaneous short-circuit release / initial value  • of the instantaneous short-circuit release / initial value  • of the instantaneous short-circuit release / initial value  • of the instantaneous short-circuit release / initial value  • of the instantaneous short-circuit release / initial value  • of the instantaneous short-circuit release / initial value  • of the instantaneous short-circuit release / initial value  • of Instantantaneous short-circuit release / initial value  • of Instantantaneous short-circuit release / initial value  • of Instantantantaneous short-circuit release / initial value  • of Instantantaneous short-cir	Protection class IP / on the front		IP40			
Switching capacity class of the circuit breaker    Dissipation	Protective function of the overcurrent release		Ц			
Switching capacity class of the circuit breaker    Dissipation	Switching canacity					
Active power loss  • maximum    Maximum   Maxi			N			
Active power loss  • maximum    Maximum   Maxi	Dissipation					
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  • of the instantaneous short-circuit release / initial value  Main circuit  Operating voltage  • with AC / at 50/60 Hz / Rated value  • for DC / Rated value  • of or DC / Rated value  • at 40 °C / Rated value  • at 50 °C / Rated value  • at 55 °C / Rated value  • at 65 °C / Rated value  • at 65 °C / Rated value  • at 65 °C / Rated value  • at 67 °C / Rated value  • at 70 °C / Rated value  • at 70 °C / Rated value  Auxiliary circuit  Number of CO contacts / for auxiliary contacts  O  Suitability  Suitability for use  Adjustable response value current  • of I-trip / Full-scale value  • for N-conductor protection / Full-scale value  Adjustable response value current / of the current-						
Continuous current / Rated value / maximum  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  of the instantaneous short-circuit release / initial value  Main circuit  Operating voltage  with AC / at 50/60 Hz / Rated value  of or DC / Rated value  volue  Operating current  at 40 °C / Rated value  A 160  at 55 °C / Rated value  at 60 °C / Rated value  A 158  at 60 °C / Rated value  A 155  at 60 °C / Rated value  A 155  at 60 °C / Rated value  A 155  At 10  Auxiliary circuit  Number of CO contacts / for auxiliary contacts  Osultability  Suitability for use  Adjustable parameters  Adjustable response value current  of I-trip / Full-scale value  A 0  Adjustable response value current  of or N-conductor protection / Full-scale value  A 0  Adjustable response value current of the current-	• maximum	W	38			
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 cr DC / Rated value  of Cr / Rated value  A 160  Operating current  at 40 °C / Rated value  A 160  of 2 / Rated value  A 160  at 55 °C / Rated value  A 158  at 60 °C / Rated value  A 158  at 60 °C / Rated value  A 153  at 60 °C / Rated value  A 153  at 70 °C / Rated value  A 153  at 70 °C / Rated value  A 150  Auxiliary circuit  Number of CO contacts / for auxiliary contacts  O  Suitability  Suitability for use  Adjustable parameters  Adjustable response value current  of I-trip / Full-scale value  A 0  Adjustable response value current / of the current-  Adjustable response value current / of the current-	Electricity					
Adjustable response value current  of the current-dependent overload release / Full-scale value  of the instantaneous short-circuit release / initial value  of the instantaneous short-ci	Continuous current / Rated value / maximum	А	160			
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     vocation of DC / Rated value     vocation of C / Rated value     vocation of C / Rated value     vocation of C / Rated value     at 40 °C / Rated value     at 55 °C / Rated value     at 55 °C / Rated value     at 65 °C / Rated value     at 60 °C / Rated value     at 65 °C / Rated value     at 65 °C / Rated value     at 65 °C / Rated value     A 155     at 65 °C / Rated value     A 153     at 70 °C / Rated value     A 150  Auxiliary circuit  Number of CO contacts / for auxiliary contacts  Adjustable parameters  Adjustable parameters  Adjustable response value current     of I-trip / Full-scale value     for N-conductor protection / Full-scale value     of or N-conductor protection / Full-scale value     odjustable response value current / of the current-	Continuous current / Rated value	Α	160			
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  • of Pated value  • at 40 °C / Rated value  • at 50 °C / Rated value  • at 55 °C / Rated value  • at 60 °C / Rated value  • at 60 °C / Rated value  • at 60 °C / Rated value  • at 70 °C / Rated value  A 153  • at 70 °C / Rated value  A 150  Auxiliary circuit  Number of CO contacts / for auxiliary contacts  O  Suitability  Suitable parameters  Adjustable parameters  Adjustable response value current /  • for N-conductor protection / initial value  • for N-conductor protection / Full-scale value  A 10  Adjustable response value current / of the current-	Adjustable response value current					
Main circuit		Α	1			
Operating voltage		Α	10			
with AC / at 50/60 Hz / Rated value     for DC / Rated value     v 500  Operating current     at 40 °C / Rated value     at 50 °C / Rated value     at 55 °C / Rated value     at 55 °C / Rated value     at 60 °C / Rated value     at 65 °C / Rated value     at 67 °C / Rated value     at 67 °C / Rated value     at 67 °C / Rated value     at 70 °C / Rated value     at	Main circuit					
for DC / Rated value	Operating voltage					
Operating current  • at 40 °C / Rated value  • at 50 °C / Rated value  • at 55 °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 153  • at 70 °C / Rated value  A 150  Auxiliary circuit  Number of CO contacts / for auxiliary contacts  O  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 10  Adjustable response value current / of the current-  Adjustable response value current / of the current-	• with AC / at 50/60 Hz / Rated value	V	690			
<ul> <li>at 40 °C / Rated value</li> <li>at 50 °C / Rated value</li> <li>at 55 °C / Rated value</li> <li>at 60 °C / Rated value</li> <li>at 60 °C / Rated value</li> <li>at 65 °C / Rated value</li> <li>at 65 °C / Rated value</li> <li>at 70 °C / Rated value</li> <li>b at 70 °C / Rated value</li> <li>at 70 °C / Rated value</li> <li>at 70 °C / Rated value</li> <li>b at 70 °C / Rated value</li> <li>at 70 °C / Rated</li></ul>	• for DC / Rated value	V	500			
at 50 °C / Rated value at 55 °C / Rated value A 158  at 60 °C / Rated value A 155  at 65 °C / Rated value A 155  at 65 °C / Rated value A 153  at 70 °C / Rated value A 150  Auxiliary circuit  Number of CO contacts / for auxiliary contacts  Suitability  Suitability for use  Adjustable parameters  Adjustable response value current  of I-trip / Full-scale value A 10  for N-conductor protection / initial value of or N-conductor protection / Full-scale value  Adjustable response value current Adjustable response value current of the current A 1	Operating current					
at 55 °C / Rated value at 60 °C / Rated value at 65 °C / Rated value At 155 at 65 °C / Rated value At 153 at 70 °C / Rated value At 150  Auxiliary circuit  Number of CO contacts / for auxiliary contacts  Suitability  Suitability  Suitabile parameters  Adjustable parameters  Adjustable response value current of I-trip / Full-scale value of or N-conductor protection / initial value of or N-conductor protection / Full-scale value Adjustable response value current / of the current-  Adjustable response value current / of the current-  Adjustable response value current / of the current-	• at 40 °C / Rated value	Α	160			
at 60 °C / Rated value  at 65 °C / Rated value  A 153  at 70 °C / Rated value  A 150  Auxiliary circuit  Number of CO contacts / for auxiliary contacts  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  Adjustable response value current / of the current-  Adjustable response value current / of the current-	• at 50 °C / Rated value	Α	160			
at 65 °C / Rated value     at 70 °C / Rated value     A 150  Auxiliary circuit  Number of CO contacts / for auxiliary contacts  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-  Adjustable response value current / of the current-	• at 55 °C / Rated value	Α	158			
at 70 °C / Rated value  A 150  Auxiliary circuit  Number of CO 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  for N-conductor protection / Full-scale value  Adjustable response value current / of the current-  Adjustable response value current / of the current-	• at 60 °C / Rated value	Α	155			
Auxiliary circuit  Number of CO 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-  Adjustable response value current / of the current-	• at 65 °C / Rated value	Α	153			
Number of CO 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-  Adjustable response value current / of the current-	• at 70 °C / Rated value	Α	150			
Number of CO 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-  Adjustable response value current / of the current-	Auxiliary circuit					
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-  Adjustable response value current / of the current-			0			
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-  Adjustable response value current / of the current-	Suitability					
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-  A 1	· · · · · · · · · · · · · · · · · · ·		system protection			
<ul> <li>of I-trip / Full-scale value</li> <li>for N-conductor protection / initial value</li> <li>for N-conductor protection / Full-scale value</li> <li>Adjustable response value current / of the current-</li> <li>A</li> <li>10</li> <li>A</li> <li>0</li> <li>Adjustable response value current / of the current-</li> <li>A</li> <li>1</li> </ul>	Adjustable parameters					
<ul> <li>for N-conductor protection / initial value</li> <li>for N-conductor protection / Full-scale value</li> <li>Adjustable response value current / of the current-</li> </ul> A <ul> <li>0</li> </ul> Adjustable response value current / of the current-	Adjustable response value current					
• for N-conductor protection / Full-scale value A 0  Adjustable response value current / of the current- A 1	• of I-trip / Full-scale value	Α	10			
Adjustable response value current / of the current- A 1	• for N-conductor protection / initial value	А	0			
	• for N-conductor protection / Full-scale value	Α	0			
	•	А	1			
Product details	Product details					
Product component						

Trip indicator		No
		No
display     Voltage trigger		No
<ul><li>Voltage trigger</li><li>undervoltage release</li></ul>		No
•		No
undervoltage release with leading contact  Product property		INO
Product property     for neutral conductors /		No
upgradeable/retrofittable / Short-circuit and		140
overload proof		
Product expansion / optional / motor drive		Yes
Product function		
Product function		
Intrinsic device protection		Yes
<ul> <li>communication function</li> </ul>		No
Phase failure detection		No
• other measurement function		No
Accessories		
Manufacturer article number / of the supplied basic		3VA1116-3ED36-0AA0
switch		
Short circuit		
Operational short-circuit current breaking capacity		
(Ics)		00
• 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)		22
• 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		Tion terminal
Current circuit  Type of connectable conductor cross-section		Tront terminal

• of the round conductor terminal / stra	anded			1 x (1.5 - 70 mm²)	
Type of electrical connection / for main cu	rrent circuit			Box terminal	
Mechanical Design					
Height		mm		130	
Width		mm		76.2	
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	
<ul><li>during storage / maximum</li></ul>		°C		80	
Certificates					
Equipment marking					
• acc. to DIN EN 61346-2				Q	
• acc. to DIN EN 81346-2				Q	
General EMC	Declaration	n of	Ship	pping Approval	other
Product	Conformity	<i>(</i>			
Approval					
other			2	S. Comments	other

## Further information

EAC

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/3VA11163ED360AA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3VA11163ED360AA0/all

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

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA11163ED360AA0

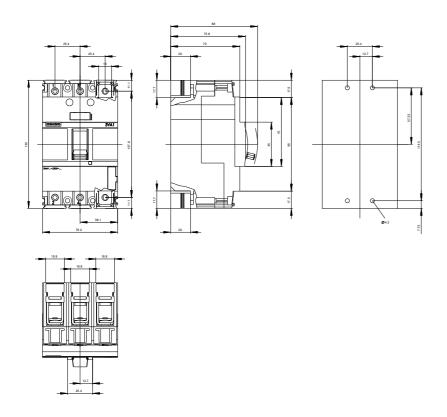
**CAx-Online-Generator** 

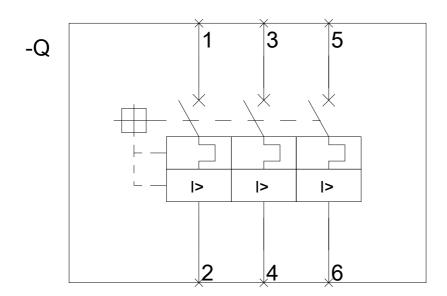
http://www.siemens.com/cax

**Tender specifications** 

http://ausschreibungstexte.siemens.com/tiplv

GL





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