# **SIEMENS**

### Data sheet

# 3VA1116-4EF36-0AA0



CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY CLASS S ICU=36KA @ 415 V 3-POLE, LINE PROTECTION TM240, ATAM, IN=160A OVERLOAD PROTECTION IR=112A ...160A SHORT CIRCUIT PROTECTION II=5...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	TM240

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

Protective function of the overcurrent release  LI  Switching capacity Switching capacity class of the circuit breaker  Dissipation  Active power loss  • maximum  W  38  Electricity  Continuous current / Rated value / maximum  A 160  Continuous current / Rated value  • 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 Carrent-dependent overload release / Full-scale value  • of the instantaneous short-circuit release / initial value  • of the Carrent-dependent overload release / Full-scale value  • of the Carrent-dependent overload release / Full-scale value  • of the Carrent-dependent overload release / Full-scale value  • of the Carrent-dependent overload release / Full-scale value  • of the Carrent-dependent overload release / Full-scale value  • of the Carrent-dependent overload release / Full-scale value  • of the Carrent-dependent overload release / Full-scale value  • of the Carrent-dependent overload release / Full-scale value  • of the Carrent-dependent overload release / Full-scale value  • of the Carrent-dependent overload release / Full-scale value  • of the current-dependent overload release / Full-scale value  • of the current-dependent overload release / Full-scale value  • of the current-dependent overload release / Full-scale value  • of the current-dependent overload release / Full-scale value  • of trip / Full-scale value  • of trip / Full-scale value  • of the current-dependent overload release / Full-scale value  • of trip / Full-scale value  • of the current-dependent overload release / Full-scale value  • of trip / Full-scale value  • of the current-dependent overload release / Full-scale value  • of trip / Full-scale value  • of trip / Full-scale value  • of the current-dependent overload release / Full-scale value  • of the current-dependent overload release / Full-scale value  • of the current-dependent overload release / Full-scale value  • of	Protection class IP		IP40
Switching capacity  Switching capacity class of the circuit breaker  S  Dissipation  Active power loss  • maximum  W  38  Electricity  Continuous current / Rated value / maximum  A 160  Continuous current / Rated value  • 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 Correction of the current value  Main circuit  Operating voltage  • with AC / at 50/60 Hz / Rated value  • for DC / Rated value  • of PC / Rated value  • at 40 °C / Rated value  • at 50 °C / Rated value  • at 50 °C / Rated value  • at 60 °C / Rated va	Protection class IP / on the front		IP40
Switching capacity class of the circuit breaker    Dissipation	Protective function of the overcurrent release		LI
Switching capacity class of the circuit breaker    Dissipation	Switching capacity		
Active power loss  • maximum    Maximum   W   38			S
Active power loss	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  Main circuit  Operating voltage  • with AC / at 50/60 Hz / Rated value  • for DC / Rated value  • at 40 °C / Rated value  • at 55 °C / Rated value  • at 60 °C / Rated value  • at 60 °C / Rated value  • at 65 °C / Rated value  • at 60 °C / Rated value  • at 70 °C / Rated value  • at 60 °C / Rated value  • at 70 °C / Rated value  •			
Continuous current / Rated value / maximum	• 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 ro DC / Rated value  V 500  Operating current  at 40 °C / Rated value  A 160  at 55 °C / Rated value  A 160  at 55 °C / Rated value  A 158  at 65 °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  Osuitability  Suitability  Suitability for use  Adjustable parameters  Adjustable parameters  Adjustable response value current  of I-trip / Full-scale value  for N-conductor protection / Full-scale value  for N-conductor protection / Full-scale value  of or N-conductor protection / Full-scale value  for N-conductor protection / Full-scale value  A 0	Electricity		
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  V 500  Operating current  otat 40 °C / Rated value  A 160  otat 55 °C / Rated value  A 160  otat 55 °C / Rated value  A 158  otat 65 °C / Rated value  A 155  otat 65 °C / Rated value  A 153  otat 70 °C / Rated value  A 150  Auxiliary circuit  Number of CO contacts / for auxiliary contacts  O  Suitability  Suitability  Suitable parameters  Adjustable parameters  Adjustable response value current  of I-trip / Full-scale value  A 10  or N-conductor protection / Full-scale value  of or N-conductor protection / Full-scale value  of or N-conductor protection / Full-scale value  of or N-conductor protection / Full-scale value  A 0	Continuous current / Rated value / maximum	Α	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     of tor DC / Rated value     voson     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 65 °C / Rated value     at 65 °C / Rated value     at 67 °C / Rated value	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  Operating current  • at 40 °C / Rated value  • at 50 °C / Rated value  A 160  • at 50 °C / Rated value  A 158  • at 60 °C / Rated value  A 155  • at 60 °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  • of N-conductor protection / Full-scale value	Adjustable response value current		
Main circuit		Α	1
Operating voltage  • with AC / at 50/60 Hz / Rated value  • for DC / Rated value  V 500  Operating current  • at 40 °C / Rated value  A 160  • at 50 °C / Rated value  A 160  • at 55 °C / Rated value  A 158  • at 60 °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  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  A 0		Α	5
with AC / at 50/60 Hz / Rated value     for DC / Rated value     v 500  Operating current     at 40 °C / Rated value     A 160     at 50 °C / Rated value     A 160     at 55 °C / Rated value     A 158     at 60 °C / Rated value     A 155     at 65 °C / Rated value     A 153     at 67 °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     for N-conductor protection / initial value     for N-conductor protection / Full-scale value	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 65 °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 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	• with AC / at 50/60 Hz / Rated value	V	690
at 40 °C / Rated value at 50 °C / Rated value A 160  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 A 0  of or N-conductor protection / Full-scale value A 0	• 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  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 A 0  of or N-conductor protection / Full-scale value A 0	Operating current		
at 55 °C / Rated value  at 60 °C / Rated value  A 155  at 65 °C / Rated value  A 155  at 65 °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  of or N-conductor protection / Full-scale value  of or N-conductor protection / Full-scale value  of or N-conductor protection / Full-scale value  A 158  A 155  A 155  A 150  A 10  A 0  of or N-conductor protection / Full-scale value  A 0	• 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 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  A 10  of or N-conductor protection / Full-scale value  A 0	• 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  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  A 10  of N-conductor protection / Full-scale value  A 0	• 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  of or N-conductor protection / Full-scale value  for N-conductor protection / Full-scale value  A 0  of or N-conductor protection / Full-scale value  A 0	• at 60 °C / Rated value	Α	155
Auxiliary circuit  Number of CO contacts / for auxiliary contacts  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 0  • for N-conductor protection / Full-scale value  A 0	• 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  for N-conductor protection / Full-scale value  A  0	• 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  for N-conductor protection / Full-scale value  A  0	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  A  0  of I-trip / Full-scale value  A  0  of I-trip / Full-scale value  A  0			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  A  0  of I-trip / Full-scale value  A  0  of I-trip / Full-scale value  A  0	Suitability		
Adjustable response value current  of I-trip / Full-scale value for N-conductor protection / initial value for N-conductor protection / Full-scale value  A  0  of I-trip / Full-scale value A  0  of I-trip / Full-scale value A  0	· · · · · · · · · · · · · · · · · · ·		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>A</li> <li>0</li> <li>0</li> </ul>	Adjustable parameters		
<ul> <li>for N-conductor protection / initial value</li> <li>for N-conductor protection / Full-scale value</li> <li>A</li> <li>0</li> <li>A</li> <li>0</li> </ul>	Adjustable response value current		
• for N-conductor protection / Full-scale value A 0	• of I-trip / Full-scale value	Α	10
	• for N-conductor protection / initial value	Α	0
Adjustable response value current / of the current- A 0.7	• for N-conductor protection / Full-scale value	Α	0
dependent overload release / initial value	-	Α	0.7
Product details	Product details		
Product component			

Trip indicator		No
		No
display     Voltage trigger		No
Voltage trigger		No
undervoltage release		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		3VA1116-4EF36-0AA0
switch		
Short circuit		
Operational short-circuit current breaking capacity		
(Ics)		
● at 240 V / Rated value	kA	55
• at 415 V / Rated value	kA	36
• at 440 V / Rated value	kA	25
• 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	55
● at 415 V / Rated value	kA	36
• at 440 V / Rated value	kA	25
• at 500 V / Rated value	kA	16
• at 690 V / Rated value	kA	7
Short-circuit current making capacity (lcm)		
• at 240 V / Rated value	kA	121
• at 415 V / Rated value	kA	75.6
<ul><li>at 690 V / Rated value</li></ul>		
at 555 V / Hatoa Valuo	kA	7.5
Connections	kA	
Connections Arrangement of electrical connectors / for main	kA	Front terminal
Connections	kA	

• of the round cond	uctor terminal / stra	anded		1 x (1.5 - 70 mm²)	
Type of electrical conne	ection / for main cu	rrent circuit		Box terminal	
Mechanical Design					
Height			mm	130	
Width			mm	76.2	
Depth			mm	70	
Mounting type				fixed mounting	
Environmental condition	ons				
Ambient temperature					
<ul><li>during operation /</li></ul>	minimum		°C	-25	
<ul><li>during operation /</li></ul>	maximum		°C	70	
• during storage / m	ninimum		°C	-40	
• during storage / m	naximum		°C	80	
Certificates					
Equipment marking					
• acc. to DIN EN 61	1346-2			Q	
• acc. to DIN EN 81	1346-2			Q	
General	EMC	Declaration	n of	Shipping Approval	other
Product		Conformity	•		
Approval					

## Further information

EAC

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/3VA11164EF360AA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3VA11164EF360AA0/all

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

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA11164EF360AA0

**CAx-Online-Generator** 

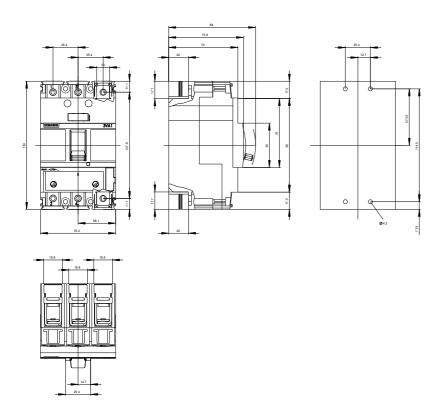
http://www.siemens.com/cax

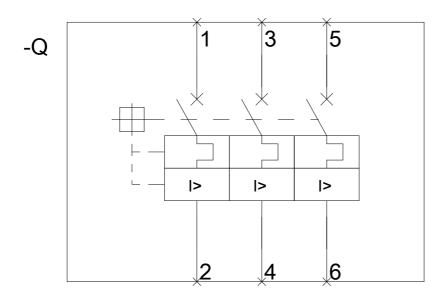
**Tender specifications** 

http://ausschreibungstexte.siemens.com/tiplv

other

GL





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