SIEMENS

Datasheet

3VA1050-4ED42-0AA0



CIRCUIT BREAKER 3VA1 IEC FRAME 100 BREAKING CAPACITY CLASS S ICU=36KA @ 415 V 4-POLE, LINE PROTECTION TM210, FTFM, IN=50A OVERLOAD PROTECTION IR=50A FIXED SHORT CIRCUIT PROTECTION II=10 X IN NEUTRAL UNPROTECTED BUSBAR CONNECTION

Figure similar

product brand name Product designation Design of the product	SENTRON Molded case circuit breaker
	Molded case circuit breaker
Design of the product	
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	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
′oltage	
Insulation voltage	
Rated value V	800

Protective function of the overcurrent release LI Switching capacity S Switching capacity class of the circuit breaker S Dissipation Active power loss • maximum W Active power loss • • maximum W Operating current / at 45 °C / Rated value A 50 Continuous current A 50 Adjustable response value current A 50 Adjustable response value current A 1 • of the current-dependent overload release / Full-scale value A 10 • of the instantaneous short-circuit release / initial value A 10 • of the instantaneous short-circuit release / initial value Y 690 • of the instantaneous short-circuit release / initial value Y 690 • of the instantaneous short-circuit release / initial value Y 600 Operating valuege V 690 600 • or D C / Rated value A 50 61 • at 60 °C / Rated value A 46 61 • at 65 °C / Rated value A 46 62 • at 65 °C / Ra	Protection class		
Switching capacity class of the circuit breaker S Dissipation X Adive power loss • maximum • maximum W 14.6 Electricity Operating current / at45 °C / Rated value A 50 Continuous current / at45 °C / Rated value A • Rated value A • Continuous current / Rated value / maximum A • Adjustable response value current • A • of the current-dependent overload release / A • of the instantaneous short-circuit release / initial value A • of the current-dependent overload release / A • of the current-dependent overload release / A • of the instantaneous short-circuit release / initial value A • of the instantaneous short-circuit release / initial value A • of the instantaneous short-circuit release / initial value A • of the odd to // Rated value V • of to DC / Rated value A • of to DC / Rated value A • of DC / Rated value A • at 60 °C / Rated value	Protective function of the overcurrent release		LI
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Active power loss W 14.6 • maximum W 14.6 2 Derating current / at 45 °C / Rated value A 50 Continuous current / Rated value / maximum A 50 Continuous current Rated value Rated value A 50 Adjustable response value current A 1		_	
• maximum W 14.8 Electricity A 50 Continuous current / Rated value / maximum A 100 Continuous current A 50 Adjustable response value current A 50 Adjustable response value current A 1 • of the current-dependent overload release / Full-scale value A 1 • of the instantaneous short-circuit release / initial value A 10 Net weight g 1 200 Main circuit A 10 Operating voltage V 6900 • with AC / at 50/60 Hz / Rated value V 6900 • of the instantaneous and the instance V 6900 Operating voltage V 6900 • with AC / at 50/60 Hz / Rated value V 6900 • of the current - sta 40 °C / Rated value V 6900 • of created value A 50 • at 50 °C / Rated value A 50 • at 50 °C / Rated value A 50 • at 50 °C / Rated value A 48 • at 50 °C / Rated value A 45 Auxiliary circuit Distribuit Distribuit Number of CO contacts 0 •		_	
Electricity Image: Continuous current / at 45 °C / Rated value A 50 Continuous current A 100 Continuous current A 50 Adjustable response value current A 50 Adjustable response value current A 50 • of the current-dependent overload release / Full-scale value A 1 • of the current-dependent overload release / Full-scale value A 10 • of the current-dependent overload release / Full-scale value A 10 • of the instantaneous short-circuit release / initial value A 10 • of the instantaneous short-circuit release / initial value A 10 • of the instantaneous short-circuit release / initial value Y 690 • of the instantaneous short-circuit release / initial value Y 690 • of the of SC / Rated value V 690 • for DC / Rated value A 50 • at 40 °C / Rated value A 50 • at 50 °C / Rated value A 48 • at 60 °C / Rated value A 46 • at 60 °C / Rated value A 45 A		10/	14.6
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Continuous current / Rated value / maximum A 100 Continuous current A 50 Adjustable response value current A 50 Adjustable response value current - of the current-dependent overload release / initial value A 1 • of the instantaneous short-circuit release / initial value A 10 • Net weight g 1 200 Main circuit Operating voltage V 690 • with AC / at 50/60 Hz / Rated value V 690 • for DC / Rated value V 600 Operating current A 50 • at 40 °C / Rated value V 690 • for DC / Rated value A 50 • at 50 °C / Rated value A 49 • at 60 °C / Rated value A 48 • at 65 °C / Rated value A 46 • at 65 °C / Rated value A 45 Auxiliary circuit Number of CO contacts 0 • for NC / Rated value A 45 Auxiliary contacts 0 0 Suitability for use system protection			
Continuous current A 50 Adjustable response value current A 1 • of the current-dependent overload release / Full-scale value A 1 • of the instantaneous short-circuit release / initial value A 10 Net weight g 1 200 Main circuit g 1 200 Operating voltage V 690 • with AC / at 50/60 Hz / Rated value V 690 • for DC / Rated value V 690 • for DC / Rated value A 50 • at 50 °C / Rated value A 50 • at 55 °C / Rated value A 48 • at 55 °C / Rated value A 48 • at 65 °C / Rated value A 48 • at 65 °C / Rated value A 48 • at 65 °C / Rated value A 45 Auxiliary circuit A 45 Number of CO contacts 0 0 • for auxiliary contacts 0 0 Suitability Suitability for use System protection • for N-conductor protection / initial value A	Operating current / at 45 °C / Rated value	А	50
• Rated valueA50Adjustable response value current • of the current-dependent overload release / Full-scale value • of the instantaneous short-circuit release / initial valueA1• of the instantaneous short-circuit release / initial valueA10• of the instantaneous short-circuit release / initial valueA10• Net weightg1 200Main circuitg1 200Operating voltage • with AC / at 50/60 Hz / Rated valueV690• for DC / Rated valueV600Operating current • at 40 °C / Rated valueA50• at 40 °C / Rated valueA50• at 50 °C / Rated valueA49• at 65 °C / Rated valueA48• at 65 °C / Rated valueA45Auxiliary circuitA45Auxiliary contacts0Suitability for usesystem protectionAdjustable response value current • of 1-trip / Full-scale valueA10• for N-conductor protection / initial valueA10• for N-conductor protection / initial valueA10	Continuous current / Rated value / maximum	А	100
Adjustable response value current A 1 • of the current-dependent overload release / Full-scale value A 1 • of the instantaneous short-circuit release / initial value A 10 Net weight g 1 200 Main circuit Gene V Operating voltage V 690 • for DC / Rated value V 600 Operating current V 600 • at 40 °C / Rated value A 50 • at 50 °C / Rated value A 48 • at 60 °C / Rated value A 46 • at 60 °C / Rated value A 45 Auxiliary circuit A 45 Number of CO contacts 0 0 • for auxiliary contacts 0 0 Suitability system protection A • for auxiliary contacts 0 10 • for N-conductor protection / initial value A 10 • for N-conductor protection / initial value A 0	Continuous current		
• of the current-dependent overload release / A 1 Full-scale value • of the instantaneous short-circuit release / initial value A 10 Net weight g 1 200 Main circuit Generation of the component of	Rated value	А	50
Full-scale value A 10 value g 1 200 Main circuit g 1 200 Main circuit Secondary Secondar	Adjustable response value current	_	
• of the instantaneous short-circuit release / initial value A 10 Net weight g 1 200 Main circuit Operating voltage Image: Circuit Structure • with AC / at 50/60 Hz / Rated value V 690 • for DC / Rated value V 690 • for DC / Rated value V 600 Operating current Image: Circuit Structure A • at 40 °C / Rated value A 50 • at 50 °C / Rated value A 49 • at 60 °C / Rated value A 48 • at 60 °C / Rated value A 46 • at 60 °C / Rated value A 45 Auxiliary circuit Image: Circuit Structure Image: Circuit Structure Number of CO contacts 0 0 • for auxiliary contacts 0 Image: Circuit Structure Adjustable response value current A 10 • for I-trip / Full-scale value A 10 • for N-conductor protection / initial value A 0		А	1
value g 1 200 Main circuit g 1 200 Main circuit Generating voltage Generating voltage • with AC / at 50/60 Hz / Rated value V 690 • for DC / Rated value V 600 Operating current	Full-scale value		
Net weight g 1 200 Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value V 690 • for DC / Rated value V 600 Operating current		A	10
Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value V 690 • for DC / Rated value V 600 Operating current		_	
Operating voltage v 690 • with AC / at 50/60 Hz / Rated value V 690 • for DC / Rated value V 600 Operating current	Net weight	g	1 200
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• for DC / Rated value V 600 Operating current - • at 40 °C / Rated value A 50 • at 50 °C / Rated value A 50 • at 55 °C / Rated value A 49 • at 60 °C / Rated value A 48 • at 65 °C / Rated value A 46 • at 65 °C / Rated value A 45 Auxiliary circuit A 45 Auxiliary contacts 0 0 Suitability system protection Adjustable parameters A 10 • of I-trip / Full-scale value A 0	Operating voltage		
Operating current A 50 • at 40 °C / Rated value A 50 • at 50 °C / Rated value A 50 • at 55 °C / Rated value A 49 • at 60 °C / Rated value A 48 • at 65 °C / Rated value A 46 • at 65 °C / Rated value A 45 • at 65 °C / Rated value A 45 • at 70 °C / Rated value A 45 • at 70 °C / Rated value A 45 • at 70 °C / Rated value A 45 • at 70 °C / Rated value A 45 • at 70 °C / Rated value A 45 • at 70 °C / Rated value A 45 • for auxiliary contacts 0 0 Suitability • system protection • of I-trip / Full-scale value A 10 • for N-conductor protection / initial value A 0	 with AC / at 50/60 Hz / Rated value 	V	690
• at 40 °C / Rated valueA50• at 50 °C / Rated valueA50• at 55 °C / Rated valueA49• at 60 °C / Rated valueA48• at 65 °C / Rated valueA46• at 70 °C / Rated valueA45Auxiliary circuitNumber of CO contacts • for auxiliary contacts0SuitabilityoSuitabilitysystem protectionAdjustable parametersAAdjustable response value current • of I-trip / Full-scale valueAA10• for N-conductor protection / initial valueAA0	 for DC / Rated value 	V	600
at 50 °C / Rated value A 50 • at 50 °C / Rated value A 49 • at 55 °C / Rated value A 48 • at 65 °C / Rated value A 46 • at 65 °C / Rated value A 45 • at 65 °C / Rated value A 46 • at 70 °C / Rated value A 45 Auxiliary circuit A 45 Number of CO contacts • for auxiliary contacts 0 Suitability for use Adjustable parameters Adjustable response value current A 10 • for N-conductor protection / initial value A 0	Operating current	-	
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e at 60 °C / Rated value A 48 • at 65 °C / Rated value A 46 • at 70 °C / Rated value A 45 Auxiliary circuit A 45 Auxiliary contacts 0 0 Suitability Suitability for use system protection Adjustable parameters A 10 of I-trip / Full-scale value A 0	• at 50 °C / Rated value	А	50
• at 65 °C / Rated valueA46• at 70 °C / Rated valueA45Auxiliary circuitA45Auxiliary circuit0Suitability0• for auxiliary contacts0Suitabilitysystem protectionAdjustable parametersAdjustable response value current• of I-trip / Full-scale valueA10• for N-conductor protection / initial valueA0	• at 55 °C / Rated value	А	49
• at 70 °C / Rated value A 45 Auxiliary circuit Image: Auxiliary circuit Image: Auxiliary circuit Number of CO contacts 0 0 • for auxiliary contacts 0 Image: Auxiliary circuit • for auxiliary contacts 0 Image: Auxiliary circuit • for auxiliary contacts 0 Image: Auxiliary circuit • Suitability Image: System protection Image: System protection Adjustable parameters Adjustable response value current Image: Auxiliary contacts Image: Auxiliary contacts • of I-trip / Full-scale value A 10 Image: Auxiliary contacts Image: Auxiliary contacts • for N-conductor protection / initial value A 0 Image: Auxiliary contacts Image: Auxiliary contacts	● at 60 °C / Rated value	А	48
Auxiliary circuit Number of CO contacts 0 • for auxiliary contacts 0 Suitability • • Suitability for use system protection Adjustable parameters Adjustable response value current • of I-trip / Full-scale value A • for N-conductor protection / initial value A	● at 65 °C / Rated value	А	46
Number of CO contacts 0 • for auxiliary contacts 0 Suitability 0 • Suitability for use system protection • Adjustable parameters Adjustable parameters Adjustable response value current A • of I-trip / Full-scale value A • for N-conductor protection / initial value A	• at 70 °C / Rated value	А	45
Number of CO contacts 0 • for auxiliary contacts 0 Suitability 0 • Suitability for use system protection • Adjustable parameters Adjustable parameters Adjustable response value current A • of I-trip / Full-scale value A • for N-conductor protection / initial value A	Auviliant aircuit	_	
• for auxiliary contacts0SuitabilitySuitability for usesystem protection• Suitable parameterssystem protectionAdjustable parametersAdjustable response value current • of I-trip / Full-scale valueA• of I-trip / Full-scale valueA10• for N-conductor protection / initial valueA0		_	
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Adjustable parameters Adjustable response value current • of I-trip / Full-scale value A • for N-conductor protection / initial value A			
Adjustable response value current A 10 • of I-trip / Full-scale value A 0 • for N-conductor protection / initial value A 0	Suitability for use		system protection
• of I-trip / Full-scale valueA10• for N-conductor protection / initial valueA0	Adjustable parameters		
for N-conductor protection / initial value A 0	Adjustable response value current		
·····	 of I-trip / Full-scale value 	А	10
for N-conductor protection / Full-scale value A 0	 for N-conductor protection / initial value 	А	0
	 for N-conductor protection / Full-scale value 	А	0

Adjustable response value current / of the current-	А	1
dependent overload release / initial value		
Appearance		
Product details		
Product component		
Trip indicator		No
• display		No
Voltage trigger		No
 undervoltage release 		No
 undervoltage release with leading contact 		No
Product property	-	
• for neutral conductors /		No
upgradeable/retrofittable / Short-circuit and		
overload proof		
Product expansion		
• optional		
— motor drive		No
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		3VA1050-4ED42-0AA0
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 / Pated value	kΑ	25
 at 440 V / Rated value at 500 V / Rated value 	kA kA	25
• at 500 V / Rated value	kA	15
 at 500 V / Rated value at 690 V / Rated value 		
 at 500 V / Rated value at 690 V / Rated value Maximum short-circuit current breaking capacity (Icu)	kA kA	15 5
 at 500 V / Rated value at 690 V / Rated value Maximum short-circuit current breaking capacity (Icu) at 240 V / Rated value 	kA kA kA	15 5 55
 at 500 V / Rated value at 690 V / Rated value Maximum short-circuit current breaking capacity (Icu) at 240 V / Rated value at 415 V / Rated value 	kA kA kA kA	15 5 55 36
 at 500 V / Rated value at 690 V / Rated value Maximum short-circuit current breaking capacity (Icu) at 240 V / Rated value at 415 V / Rated value at 440 V / Rated value 	kA kA kA kA kA	15 5 55 36 25
 at 500 V / Rated value at 690 V / Rated value Maximum short-circuit current breaking capacity (Icu) at 240 V / Rated value at 415 V / Rated value 	kA kA kA kA	15 5 55 36

• at 240 V / Rated value	kA	121			
• at 415 V / Rated value	kA	75.6			
• at 690 V / Rated value	kA	11.9			
Connections					
Arrangement of electrical connectors					
 for main current circuit 		Front termin	al		
Type of connectable conductor cross-section					
 for flat-bar terminal connection / minimum 		12 x 0	12 x 0		
 for flat-bar terminal connection / maximum 		17 x 6.5			
Design of the electrical connection					
• for main current circuit		Lug terminal			
lechanical Design					
Height	mm	130			
Width	mm	101.6			
Depth	mm	70			
Mounting type		fixed mounting			
nvironmental conditions					
Ambient temperature					
 during operation / minimum 	°C	-25			
 during operation / maximum 	°C	70			
 during storage / minimum 	°C	-40			
 during storage / maximum 	°C	80			
Certificates					
Reference code					
• acc. to DIN EN 61346-2		Q			
• acc. to DIN EN 81346-2		Q			
General Product Approval EMC		eclaration of onformity	Shipping Approval	other	
	ther			other	
	(F	GL		

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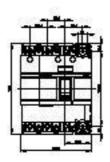
Industry Mall (Online ordering system) https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3VA10504ED420AA0

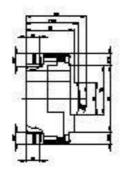
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nup.//www.siemens.com/

Tender specifications http://ausschreibungstexte.siemens.com/tiplv





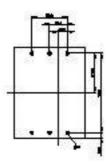




Figure similar

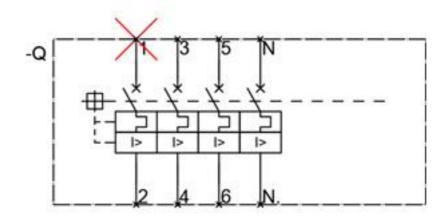


Figure similar

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