SIEMENS

Data sheet 3RV2011-1GA25



Circuit breaker size S00 for motor protection, CLASS 10 A-release 4.5...6.3 A N-release 82 A Spring-type terminal Standard switching capacity with transverse auxiliary switches 1 NO+1 NC

Description Circuit breaker Description Size of the circuit-breaker Size of the circuit-breaker Size of the circuit-breaker Size of the circuit-breaker Size of contactor can be combined company-specific Size of the circuit-breaker Size of contactor can be combined company-specific Size of the circuit-breaker Si	product brand name	SIRIUS
Seneral technical data	product designation	Circuit breaker
size of the circuit-breaker size of contactor can be combined company-specific product extension auxiliary switch power loss [W] for rated value of the current • at AC in hot operating state • at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value maximum permissible voltage for safe isolation in networks with grounded star point • between main and auxiliary circuit • of auxiliary contacts typical • of auxiliary contacts typical • of auxiliary contacts typical electrical endurance (switching cycles) typical type of protection according to ATEX directive 2014/34/EU reference code acc. to IEC 81346-2 Q Ambient conditions installation altitude at height above sea level maximum • ambient temperature during operation • ambient temperature during storage • ambient temperature during transport temperature compensation relative humidity during operation Main circuit number of poles for main current circuit 3 800 V 24. W 68V 400 V 6 kV 400 V 400 V 400 V 400 V 5 kV 400 V 400 V 5 kV 5 kV 400 V 5 kV 5 kV 6 kV	design of the product	For motor protection
size of the circuit-breaker size of contactor can be combined company-specific product extension auxiliary switch extension auxiliary switch • at AC in hot operating state • at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value maximum permissible voltage for safe isolation in networks with grounded star point • between main and auxiliary circuit • of the main contacts typical • of auxiliary contacts typical • of auxiliary contacts typical • of auxiliary contacts typical electrical endurance (switching cycles) typical type of protection according to ATEX directive 2014/34/EU certificate of suitability according to ATEX directive 2014/34/EU certificate of suitability according to ATEX directive 2014/34/EU reference code acc. to IEC 81346-2 Q Ambient conditions installation altitude at height above sea level maximum • ambient temperature during operation • ambient temperature during storage • ambient temperature during operation 10 95 % Main circuit number of poles for main current circuit 3	product type designation	3RV2
size of contactor can be combined company-specific product extension auxiliary switch power loss [W] for rated value of the current • at AC in hot operating state • at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value maximum permissible voltage for safe isolation in networks with grounded star point • between main and auxiliary circuit • of the main contacts typical • of the main contacts typical • of auxiliary contacts typical • of auxiliary contacts typical electrical endurance (switching cycles) typical type of protection according to ATEX directive 2014/34/EU certificate of suitability according to ATEX directive 2014/34/EU reference code acc. to IEC 81346-2 Ambient temperature during operation • ambient temperature during storage • ambient temperature during operation Main circuit number of poles for main current circuit Sou. S0 Yes 680 V 2.4 W 680 V 400 V 400 V 400 V 400 V 25g / 11 ms 100 000 20	General technical data	
product extension auxiliary switch power loss [M] for rated value of the current • at AC in hot operating state • at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value maximum permissible voltage for safe isolation in networks with grounded star point • between main and auxiliary circuit • between main and suxiliary circuit • between main and suxiliary circuit • of the main contacts typical • of the main contacts typical • of auxiliary contacts typical electrical endurance (switching cycles) typical type of protection according to ATEX directive 2014/34/EU reference code acc. to IEC 81346-2 Q Ambient conditions installation altitude at height above sea level maximum • ambient temperature during operation • ambient temperature during storage • ambient temperature during poperation temperature compensation version at AC rated val W 400 V 400 V 400 V 400 V 50 V 400 V 50 V 400 V 50 V 400 V 50 V	size of the circuit-breaker	S00
power loss [W] for rated value of the current • at AC in hot operating state • at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value surge voltage resistance rated value surge voltage resistance rated value 6 kV maximum permissible voltage for safe isolation in networks with grounded star point • between main and auxiliary circuit • of the main contacts (by ical • of the main contacts typical • of auxiliary contacts typical • of auxiliary contacts typical electrical endurance (switching cycles) typical type of protection according to ATEX directive 2014/34/EU reference code acc. to IEC 81346-2 Q Ambient conditions installation altitude at height above sea level maximum • ambient temperature during operation • ambient temperature during operation • ambient temperature during storage • ambient temperature during storage • ambient temperature during storage • ambient temperature during peration -20 +60 °C relative humidity during operation -20 +60 °C relative humidity during operation -20 +60 °C relative humidity during operation 10 95 % Main circuit number of poles for main current circuit 3	size of contactor can be combined company-specific	S00, S0
at AC in hot operating state at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value maximum permissible voltage for safe isolation in networks with grounded star point between main and auxiliary circuit betwe	product extension auxiliary switch	Yes
at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value asurge voltage resistance rated value between main and auxiliary circuit between main auxiliary circuit between main and auxiliary circuit between main auxiliary circuit between main and a	power loss [W] for rated value of the current	
insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value maximum permissible voltage for safe isolation in networks with grounded star point • between main and auxiliary circuit • both resistance acc. to IEC 60068-2-27 shock resistance acc. to IEC 60068-2-27 e of the main contacts typical • of auxiliary contacts typical • of auxiliary contacts typical electrical endurance (switching cycles) typical type of protection according to ATEX directive 2014/34/EU certificate of suitability according to ATEX directive 2014/34/EU reference code acc. to IEC 81346-2 Q Ambient conditions installation altitude at height above sea level maximum • ambient temperature during operation • ambient temperature during storage • ambient temperature during transport -50 +80 °C • ambient temperature during transport -50 +80 °C relative humidity during operation 10 95 % Main circuit number of poles for main current circuit 3	 at AC in hot operating state 	7.25 W
value surge voltage resistance rated value maximum permissible voltage for safe isolation in networks with grounded star point • between main and auxiliary circuit • obtween main and auxiliary circuit • of the main contacts typical • of auxiliary contacts typical • conticate of suitability according to ATEX directive 2014/34/EU reference code acc. to IEC 81346-2 Q Ambient conditions installation altitude at height above sea level maximum • ambient temperature during operation • ambient temperature during operation • ambient temperature during storage • ambient temperature during transport • 50 +80 °C • ambient temperature during transport • 50 +80 °C • ambient temperature during transport • 20 +60 °C • ambient temperature during transport • 50 +80 °C • ambient temperature during transport • 50 +80 °C • ambient temperature during transport • 50 +80 °C • ambient temperature during transport • 50 +80 °C • ambient temperature during transport • 50 +80 °C • ambient temperature during transport • 50 +80 °C • ambient temperature during transport • 50 +80 °C • ambient temperature during transport • 50 +80 °C	at AC in hot operating state per pole	2.4 W
maximum permissible voltage for safe isolation in networks with grounded star point • between main and auxiliary circuit • between main and auxiliary circuit 400 V shock resistance acc. to IEC 60068-2-27 25g / 11 ms mechanical service life (switching cycles) • of the main contacts typical • of auxiliary contacts typical 100 000 electrical endurance (switching cycles) typical type of protection according to ATEX directive 2014/34/EU certificate of suitability according to ATEX directive 2014/34/EU reference code acc. to IEC 81346-2 Q Ambient conditions installation altitude at height above sea level maximum • ambient temperature during operation • ambient temperature during storage • ambient temperature during transport -50 +80 °C -ambient temperature during transport relative humidity during operation 10 95 % Main circuit number of poles for main current circuit 3	0 0 1	690 V
networks with grounded star point • between main and auxiliary circuit • between main and auxiliary circuit • between main and auxiliary circuit 400 V shock resistance acc. to IEC 60068-2-27 prechanical service life (switching cycles) • of the main contacts typical • of auxiliary contacts typical • of auxiliary contacts typical electrical endurance (switching cycles) typical type of protection according to ATEX directive 2014/34/EU certificate of suitability according to ATEX directive 2014/34/EU reference code acc. to IEC 81346-2 Q Ambient conditions installation altitude at height above sea level maximum • ambient temperature during operation • ambient temperature during storage • ambient temperature during storage • ambient temperature during transport • ambient temperature during transport • ambient temperature during transport • 50 +80 °C • ambient temperature during operation -20 +60 °C relative humidity during operation 10 95 % Main circuit number of poles for main current circuit 3	surge voltage resistance rated value	6 kV
between main and auxiliary circuit shock resistance acc. to IEC 60068-2-27 25g / 11 ms mechanical service life (switching cycles) of the main contacts typical of auxiliary contacts typical electrical endurance (switching cycles) typical type of protection according to ATEX directive 2014/34/EU certificate of suitability according to ATEX directive 2014/34/EU reference code acc. to IEC 81346-2 Q Ambient conditions installation altitude at height above sea level maximum one ambient temperature during operation one ambient temperature during storage one ambient temperature during storage one ambient temperature during transport temperature compensation relative humidity during operation Main circuit number of poles for main current circuit 3		
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mechanical service life (switching cycles) of the main contacts typical of auxiliary contacts typical low 000 electrical endurance (switching cycles) typical type of protection according to ATEX directive 2014/34/EU certificate of suitability according to ATEX directive 2014/34/EU certificate of suitability according to ATEX directive 2014/34/EU reference code acc. to IEC 81346-2 Q Ambient conditions installation altitude at height above sea level maximum ambient temperature during operation ambient temperature during storage ambient temperature during transport ambient temperature during transport temperature compensation relative humidity during operation 10 95 % Main circuit number of poles for main current circuit 3	 between main and auxiliary circuit 	400 V
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of auxiliary contacts typical electrical endurance (switching cycles) typical type of protection according to ATEX directive 2014/34/EU certificate of suitability according to ATEX directive 2014/34/EU reference code acc. to IEC 81346-2 Ambient conditions installation altitude at height above sea level maximum o ambient temperature during operation o ambient temperature during storage o ambient temperature during transport temperature compensation relative humidity during operation 100 000 EX II (2) GD DMT 02 ATEX F 001 Q ATEX F 001 2 000 m 3	mechanical service life (switching cycles)	
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type of protection according to ATEX directive 2014/34/EU certificate of suitability according to ATEX directive 2014/34/EU reference code acc. to IEC 81346-2 Q Ambient conditions installation altitude at height above sea level maximum 2 000 m • ambient temperature during operation -20 +60 °C • ambient temperature during storage -50 +80 °C • ambient temperature during transport -50 +80 °C temperature compensation -20 +60 °C relative humidity during operation -20 +60 °C relative humidity during operation 3	of auxiliary contacts typical	100 000
certificate of suitability according to ATEX directive 2014/34/EU reference code acc. to IEC 81346-2 Q Ambient conditions installation altitude at height above sea level maximum • ambient temperature during operation • ambient temperature during storage • ambient temperature during transport • ambient temperature during transport -50 +80 °C temperature compensation -20 +60 °C temperature compensation -20 +80 °C temperature operature during transport -50 +80 °C temperature compensation -20 +60 °C relative humidity during operation Main circuit number of poles for main current circuit 3	electrical endurance (switching cycles) typical	100 000
reference code acc. to IEC 81346-2 Ambient conditions installation altitude at height above sea level maximum • ambient temperature during operation • ambient temperature during storage • ambient temperature during transport • ambient temperature during transport -50 +80 °C temperature compensation -20 +60 °C relative humidity during operation 10 95 % Main circuit number of poles for main current circuit 3		Ex II (2) GD
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 ambient temperature during storage ambient temperature during transport ambient temperature during storage ambie	installation altitude at height above sea level maximum	2 000 m
 ambient temperature during transport -50 +80 °C temperature compensation relative humidity during operation Main circuit number of poles for main current circuit 3 	 ambient temperature during operation 	-20 +60 °C
temperature compensation -20 +60 °C relative humidity during operation 10 95 % Main circuit number of poles for main current circuit 3	 ambient temperature during storage 	-50 +80 °C
relative humidity during operation 10 95 % Main circuit number of poles for main current circuit 3	ambient temperature during transport	-50 +80 °C
Main circuit number of poles for main current circuit 3	temperature compensation	-20 +60 °C
number of poles for main current circuit 3	relative humidity during operation	10 95 %
·	Main circuit	
adjustable current response value current of the 4.5 6.3 A	number of poles for main current circuit	3
	adjustable current response value current of the	4.5 6.3 A

aument dependent avendend valence	
current-dependent overload release	
 operating voltage rated value 	690 V
operating voltage at AC-3 rated value maximum	690 V
operating frequency rated value	50 60 Hz
operational current rated value	6.3 A
operational current at AC-3 at 400 V rated value	6.3 A
operating power at AC-3	
• at 230 V rated value	1 500 W
 at 400 V rated value 	2 200 W
 at 500 V rated value 	3 000 W
at 690 V rated value	4 000 W
operating frequency at AC-3 maximum	15 1/h
Auxiliary circuit	
design of the auxiliary switch	transverse
number of NC contacts for auxiliary contacts	1
number of NO contacts for auxiliary contacts	1
number of CO contacts for auxiliary contacts	0
operational current of auxiliary contacts at AC-15	
● at 24 V	2 A
● at 120 V	0.5 A
● at 125 V	0.5 A
● at 230 V	0.5 A
operational current of auxiliary contacts at DC-13	
• at 24 V	1 A
• at 60 V	0.15 A
Protective and monitoring functions	
product function	
 ground fault detection 	No
 phase failure detection 	Yes
trip class	CLASS 10
design of the overload release	thermal
breaking capacity operating short-circuit current (lcs)	
at AC • at 240 V rated value	100 kA
at 400 V rated value at 400 V rated value	
	100 kA
• at 500 V rated value	100 kA
• at 690 V rated value	4 kA
 breaking capacity maximum short-circuit current (Icu) at AC at 240 V rated value 	100 kA
at AC at 400 V rated value at AC at 400 V rated value	100 KA
at AC at 400 V rated value at AC at 500 V rated value	100 KA 100 KA
at AC at 500 V rated value at AC at 690 V rated value	6 kA
response value current of instantaneous short-circuit trip unit	82 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	6.3 A
at 600 V rated value	6.3 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V rated value	0.25 hp
— at 230 V rated value	0.5 hp
• for 3-phase AC motor	
— at 200/208 V rated value	1 hp
— at 220/230 V rated value	1.5 hp
— at 460/480 V rated value	3 hp
 at 575/600 V rated value 	5 hp
— at 575/600 V rated value contact rating of auxiliary contacts according to UL	5 hp C300 / R300



Short-circuit protection			
product function short circuit protection	Yes		
design of the short-circuit trip	magnetic		
design of the fuse link			
 for short-circuit protection of the auxiliary switch required 	Fuse gL/gG: 10 A, miniature circuit breaker C 6 A (short-circuit current lk < 400 A)		
design of the fuse link for IT network for short-circuit			
protection of the main circuit			
• at 400 V	gL/gG 50 A		
● at 500 V	gL/gG 40 A		
● at 690 V	gL/gG 35 A		
Installation/ mounting/ dimensions			
mounting position	any		
fastening method	screw and snap-on mounting onto 35 mm standard mounting rail		
lactoring motified	according to DIN EN 60715		
height	106 mm		
width	45 mm		
depth	97 mm		
required spacing			
• for grounded parts at 400 V			
— downwards	30 mm		
— upwards	30 mm		
— at the side	9 mm		
• for live parts at 400 V	•		
— downwards	30 mm		
— upwards	30 mm		
— at the side	9 mm		
for grounded parts at 500 V	3 11111		
— downwards	30 mm		
— upwards	30 mm		
— at the side	9 mm		
• for live parts at 500 V	9 111111		
— downwards	20 mm		
	30 mm 30 mm		
— upwards			
— at the side	9 mm		
for grounded parts at 690 V	50		
— downwards	50 mm		
— upwards	50 mm		
— backwards	0 mm		
— at the side	30 mm		
— forwards	0 mm		
• for live parts at 690 V	FO		
— downwards	50 mm		
— upwards	50 mm		
— backwards	0 mm		
— at the side	30 mm		
— forwards	0 mm		
Connections/ Terminals			
product function removable terminal for auxiliary and control circuit	No		
type of electrical connection			
for main current circuit	spring-loaded terminals		
 for auxiliary and control circuit 	spring-loaded terminals		
arrangement of electrical connectors for main current circuit	Top and bottom		
type of connectable conductor cross-sections			
 for main contacts 			
— solid or stranded	2x (0,5 4 mm²)		



 finely stranded without core end processing 	2x (0.5 2.5 mm²)			
at AWG cables for main contacts	2x (20 12)			
type of connectable conductor cross-sections				
 for auxiliary contacts 				
 solid or stranded 	2x (0.5 2.5 mm²)			
 finely stranded with core end processing 	2x (0.5 1.5 mm²)			
 finely stranded without core end processing 	2x (0.5 1.5 mm²)			
 at AWG cables for auxiliary contacts 	2x (20 14)			
design of screwdriver shaft	Diameter 3 mm			
size of the screwdriver tip	3,0 x 0,5 mm			
Safety related data				
B10 value				
with high demand rate acc. to SN 31920	5 000			
proportion of dangerous failures				
 with low demand rate acc. to SN 31920 	50 %			
 with high demand rate acc. to SN 31920 	50 %			
failure rate [FIT]				
with low demand rate acc. to SN 31920	50 FIT			
T1 value for proof test interval or service life acc. to IEC 61508	10 y			
protection class IP on the front acc. to IEC 60529	IP20			
touch protection on the front acc. to IEC 60529	finger-safe, for vertical contact from the front			
display version for switching status	Handle			
Certificates/ approvals				

General Product Approval

For use in hazardous locations













For use in hazardous locations	Declaration of Cor	nformity	Test Certificates		Marine / Shipping
<u>IECE</u> ×	C€	Miscellaneous	Special Test Certificate	Type Test Certificates/Test Report	

Marine / Shipping

IECEx





EG-Konf.









other Railway

Confirmation



Confirmation

Vibration and Shock

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

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV2011-1GA25

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-1GA25

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1GA25

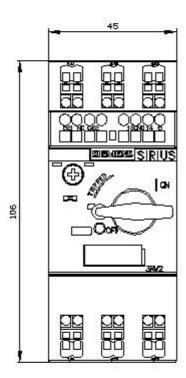
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

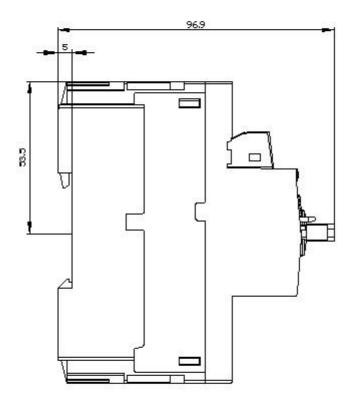
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2011-1GA25&lang=en

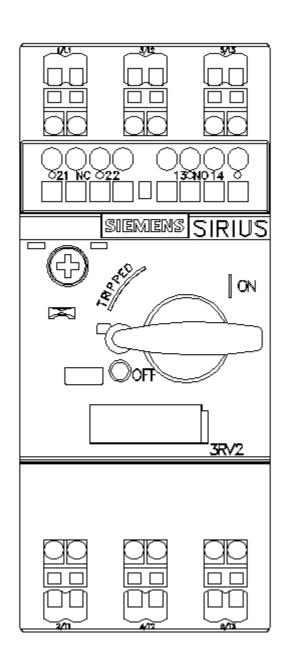
Characteristic: Tripping characteristics, I2t, Let-through current

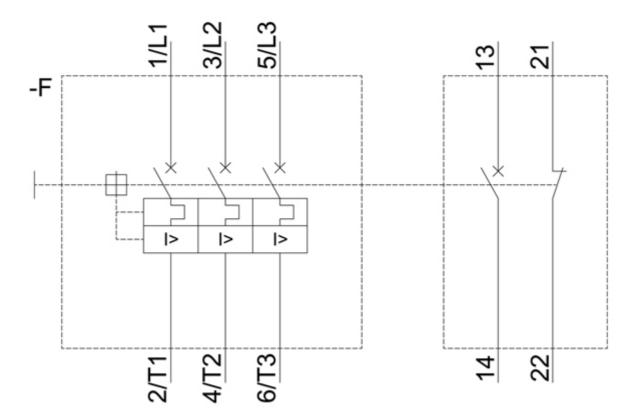
https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1GA25/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2011-1GA25&objecttype=14&gridview=view1









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