SIEMENS

Data sheet 3RV2011-1BA10



Circuit breaker size S00 for motor protection, CLASS 10 A-release 1.4...2 A N-release 26 A screw terminal Standard switching capacity

product designation design of the product product type designation 3RV2 General tochnical data size of the circuit-breaker size of contactor can be combined company-specific product extension auxiliary switch yes power loss [W] for rated value of the current • 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 • between main and auxiliary circuit • of the main contacts typical • of the main contacts typical • of auxiliary contacts typical type of protection according to ATEX directive 2014/34/EU certificate of suitability according to ATEX directive 2014/34/EU certificate of su	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 per pole • 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 electrical endurance (switching cycles) typical type of protection according to ATEX directive 2014/34/EU certificate of suitability during operation - during storage - during torage - during t	design of the product	For motor protection
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	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 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 suit in gricuit • between main and suiting cycles) • of the main contacts typical • of auxiliary contacts typical • 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 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport temperature compensation relative humidity during operation Main circuit number of poles for main current circuit 3 000 X 2.4 W 690 V 2.5 M 690 V 2.4 W 690 V 2.4 W 690 V 2.4 W 690 V 2.5 M 690 V 2.4 W 690 V	General technical data	
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 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 contacts typical between incontacts typical of the main contacts typical between (switching cycles) for the main contacts typical between (switching cycles) typical between contacts typical between contacts typical between contacts typical between cycles and typical between cycles and typical between contacts typical between cycles and ty	size of the circuit-breaker	S00
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at AC in hot operating state 7.25 W at AC in hot operating state per pole 2.4 W insulation voltage with degree of pollution 3 at AC rated value 690 V surge voltage resistance rated value 6 kV maximum permissible voltage for safe isolation in networks with grounded star point 400 V 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 100 000 electrical endurance (switching cycles) typical 100 000 type of protection according to ATEX directive 2014/34/EU reference code acc. to IEC 81346-2 Q Substance Prohibitance (Date) 01.10.2009 Ambient conditions installation altitude at height above sea level maximum ambient temperature of during operation -20 +60 °C of uning transport -50 +80 °C relative humidity during operation -20 +60 °C	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 maximum permissible voltage for safe isolation in networks with grounded star point • between main and auxiliary circuit • between main and auxiliary circuit • between main and auxiliary circuit * botween main and auxiliary circuit * shock resistance acc. to IEC 60068-2-27 mechanical 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 2014/34/4EU certificate of suitability according to ATEX directive 2014/34/4EU certificate of suitability according to ATEX directive 2014/34/EU certificate of suitability according to ATEX directive 20	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 • between main and auxiliary circuit • between main and auxiliary circuit • both resistance acc. to IEC 60068-2-27 mechanical service life (switching cycles) • of the main contacts typical • of auxiliary contacts typical • of auxiliary contacts typical • 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 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport temperature compensation 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
surge voltage resistance rated value maximum permissible voltage for safe isolation in networks with grounded star point • 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 • 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 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport • during storage • during transport - 50 +80 °C • during transport - 20 +60 °C relative humidity during operation 10 95 % Main circuit number of poles for main current circuit 3	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 shock resistance acc. to IEC 60068-2-27 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 crefrence code acc. to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during storage • during transport temperature compensation relative humidity during operation 10 95 % Main circuit number of poles for main current circuit 3	ŭ ,	690 V
networks with grounded star point • between main and auxiliary circuit • between main and auxiliary circuit shock resistance acc. to IEC 60068-2-27 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 creference code acc. to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport temperature compensation relative humidity during operation 10 000 400 000 EX II (2) GD DMT 02 ATEX F 001 DMT 02 ATEX F 001 01.10.2009 Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport -20 +60 °C temperature compensation 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 z5g / 11 ms mechanical service life (switching cycles) of the main contacts typical of auxiliary contacts typical leetrical endurance (switching cycles) typical type of protection according to ATEX directive 2014/34/EU reference code acc. to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature oduring operation oduring storage oduring transport temperature compensation relative humidity during operation Main circuit number of poles for main current circuit 25g / 11 ms 100 000 25g / 11 ms 100 000 100 000 000		
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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 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature of during operation during storage of during transport temperature compensation relative humidity during operation Main circuit number of poles for main current circuit 100 000 EX II (2) GD DMT 02 ATEX F 001 EX II (2) GD 20 Un 000 EX II (2) GD EX I	 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 Q Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature o during operation during storage during transport emperature compensation relative humidity during operation Main circuit number of poles for main current circuit 100 000 Ex II (2) GD DMT 02 ATEX F 001 20 Q Q 20 O 0	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 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum 2 000 m ambient temperature • during operation -20 +60 °C • during storage -50 +80 °C • 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	of auxiliary contacts typical	100 000
2014/34/EU certificate of suitability according to ATEX directive 2014/34/EU reference code acc. to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum 2 000 m ambient temperature • during operation -20 +60 °C • during storage -50 +80 °C • 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	electrical endurance (switching cycles) typical	100 000
reference code acc. to IEC 81346-2 Q Substance Prohibitance (Date) 01.10.2009 Ambient conditions installation altitude at height above sea level maximum 2 000 m ambient temperature • during operation -20 +60 °C • during storage -50 +80 °C • 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
Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport • 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	, ,	DMT 02 ATEX F 001
Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport • during transport -50 +80 °C temperature compensation -20 +60 °C temperature compensation -20 +80 °C 10 95 % Main circuit number of poles for main current circuit 3	reference code acc. to IEC 81346-2	Q
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ambient temperature • during operation • during storage • during transport • during transport -50 +80 °C temperature compensation -20 +60 °C temperature compensation 10 95 % Main circuit number of poles for main current circuit 3	Ambient conditions	
 during operation during storage temperature compensation relative humidity during operation mumber of poles for main current circuit 	installation altitude at height above sea level maximum	2 000 m
 during storage during transport 50 +80 °C temperature compensation -20 +60 °C relative humidity during operation Main circuit number of poles for main current circuit 3 	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	 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	 during storage 	-50 +80 °C
relative humidity during operation 10 95 % Main circuit 3	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 1.4 2 A	number of poles for main current circuit	3
	adjustable current response value current of the	1.4 2 A

current-dependent overload release	
operating voltage	000.17
rated value	690 V
• rated value	20 690 V
at AC-3 rated value maximum	690 V
operating frequency rated value	50 60 Hz
operational current rated value	2 A
operational current at AC-3 at 400 V rated value	2 A
operating power at AC-3	0.4104
• at 230 V rated value	0.4 kW
• at 400 V rated value	0.8 kW
at 500 V rated value	0.8 kW
at 690 V rated value	1.1 kW
operating frequency at AC-3 maximum	15 1/h
Auxiliary circuit	
number of NC contacts for auxiliary contacts	0
number of NO contacts for auxiliary contacts	0
number of CO contacts for auxiliary contacts	0
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 (Ics) at AC	
 at 240 V rated value 	100 kA
 at 400 V rated value 	100 kA
 at 500 V rated value 	100 kA
at 690 V rated value	10 kA
breaking capacity maximum short-circuit current (Icu)	
 at AC at 240 V rated value 	100 kA
 at AC at 400 V rated value 	100 kA
 at AC at 500 V rated value 	100 kA
at AC at 690 V rated value	10 kA
response value current of instantaneous short-circuit trip unit	26 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
 at 480 V rated value 	2 A
at 600 V rated value	2 A
yielded mechanical performance [hp]	
 for single-phase AC motor 	
— at 230 V rated value	0.13 hp
 for 3-phase AC motor 	
 — at 460/480 V rated value 	1 hp
— at 575/600 V rated value	1 hp
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
design of the fuse link for IT network for short-circuit protection of the main circuit	
• at 400 V	gL/gG 25 A
● at 500 V	gL/gG 25 A
● at 690 V	gL/gG 20 A
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
height	97 mm
-	

width	45 mm
depth	97 mm
required spacing	07 11111
• for grounded parts at 400 V	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
• for live parts at 400 V	V Hilli
— 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
	9 111111
for live parts at 500 V — downwards	20
	30 mm
— upwards	30 mm
— 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	
— downwards	50 mm
— upwards	50 mm
— backwards	0 mm
— at the side	30 mm
— forwards	0 mm
Connections/ Terminals	
product component removable terminal for auxiliary and control circuit	No
type of electrical connection	
for main current circuit	screw-type 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 (0,75 2,5 mm²), 2x 4 mm²
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
at AWG cables for main contacts	2x (18 14), 2x 12
tightening torque	
 for main contacts with screw-type terminals 	0.8 1.2 N·m
design of screwdriver shaft	Diameter 5 to 6 mm
size of the screwdriver tip	Pozidriv 2
design of the thread of the connection screw	
• for main contacts	M3
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





Confirmation



<u>KC</u>



For use in hazardous locations

Declaration of Conformity

Test Certificates









UK Declaration of Conformity Type Test Certificates/Test Report

Special Test Certificate

Marine / Shipping













Marine / Shipping

other

Railway



Confirmation



Confirmation

Vibration and Shock

Further information

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=3RV2011-1BA10

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-1BA10

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1BA10

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

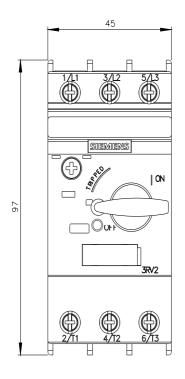
 $\underline{\text{http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2011-1BA10\&lang=en}}$

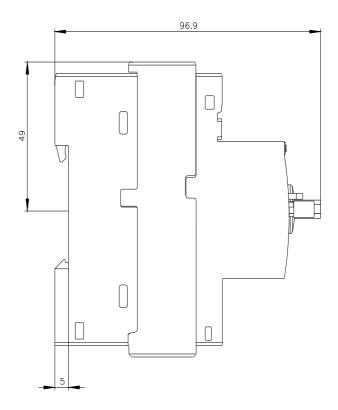
Characteristic: Tripping characteristics, I2t, Let-through current

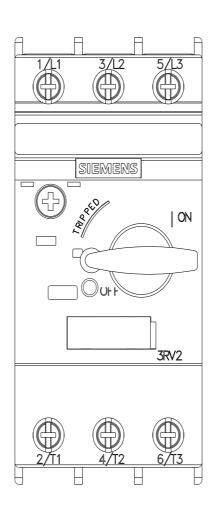
https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1BA10/char

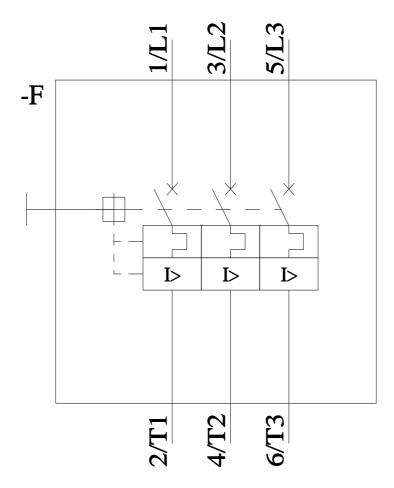
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2011-1BA10&objecttype=14&gridview=view1









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