SIEMENS

Data sheet 3RV2011-1DA10



Circuit breaker size S00 for motor protection, CLASS 10 A-release 2.2...3.2 A N release 42 A screw terminal Standard switching capacity

| product designation design of the product product type designation 3RV2 General technical 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 walking provided star point • between main and auxiliary circuit • between main and auxiliary circuit • between main and auxiliary circuit • of the main contacts typical electrical endurance (switching cycles) typical electrical endurance (switching cycles) typical certificate of suitability according to ATEX directive 2014/34/EU certificate of suitability according to | product brand name | SIRIUS |
|--|---|----------------------|
| Seperal 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 • between main and suit in the same process 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 2014/34/4/EU certificate of suitability according to ATEX directive 2014/34/EU | 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 • 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 • Dougono 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 Qu Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • -20 +60 °C • during torage | 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 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 Quuring transport • during storage • during transport • during storage • during transport tender of poles for main current circuit number of poles for main current circuit 7.25 W 2.4 W 680 V 4.4 W 680 V 4.4 W 680 V 4.5 W 680 V 4.0 W 4.00 V 4.00 | 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 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 of the main contacts typical contacts service life (switching cycles) of the main contacts typical between (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 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 oluring storage oluring storage oluring storage oluring transport calcine to the current circuit number of poles for main current circuit 3 | 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 maximum permissible voltage for safe isolation in networks with grounded star point between main and auxiliary circuit between main and auxiliary circu | size of contactor can be combined company-specific | S00, S0 |
| 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 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) 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 temperature compensation -20+60 °C relative humidity during operation -20+60 °C relative humidity during operation -20+60 °C relative humidity during operation -20+60 °C maximum propersion -20+60 °C relative humidity during operation -20+60 °C maximum propersion -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 surge voltage resistance rated value between main and auxiliary circuit between main | 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 • of the main contacts typical • 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 Quustance 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 200 V 400 | 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 • between main and auxiliary circuit • between main and auxiliary circuit • 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 100 000 • of auxiliary contacts typical 100 000 • decircial endurance (switching cycles) typical 100 000 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 • during transport temperature compensation relative humidity during operation 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 • 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 20 Q Substance Prohibitance (Date) 01.10.2009 Ambient conditions installation altitude at height above sea level maximum 2 000 m ambient temperature • during operation • during storage • during transport -20 +60 °C temperature compensation -20 +60 °C relative humidity during operation 10 95 % Main circuit number of poles for main current circuit 3 | 0 1 | 690 V |
| networks with grounded star point • between main and auxiliary circuit • 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 20 | 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 leektrical endurance (switching cycles) typical type of protection according to ATEX directive z014/34/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 100 000 100 00 100 000 10 | | |
| 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 reference code acc. to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature of during storage of during transport of during transport -50 +80 °C temperature compensation relative humidity during operation Main circuit number of poles for main current circuit 25g / 11 ms 25g / 11 ms 25g / 11 ms 100 000 100 000 Ex II (2) GD 2MT 02 ATEX F 001 201.0.2009 DMT 02 ATEX F 001 201.10.2009 ATEX F 001 200 m 200 m 300 m 30 | between main and auxiliary circuit | 400 V |
| 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 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 100 000 EX II (2) GD DMT 02 ATEX F 001 20 | between main and auxiliary circuit | 400 V |
| 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 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature oduring operation during storage during transport 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 DMT 02 ATEX F 001 20 00 EX II (2) GD O O O O O O O O O O O O O | shock resistance acc. to IEC 60068-2-27 | 25g / 11 ms |
| 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 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature ouring operation during operation during storage during transport 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 20 Q Q 20 O 0 | mechanical service life (switching cycles) | |
| 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 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 100 000 Ex II (2) GD 2x III (2) GD DMT 02 ATEX F 001 2 01.10.2009 DMT 02 ATEX F 001 2 01.10.2009 ATEX F 001 2 01.10.2009 ATEX F 001 2 01.10.2009 Anii (2) 00 m ambient temperature - 20 +60 °C - 20 +80 °C - 20 +80 °C - 20 +80 °C - 20 +95 | of the main contacts typical | 100 000 |
| 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 |
| 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 temperature operation -20 +80 °C temperature operation -20 +80 °C temperature operation -20 +60 °C relative humidity during operation 10 95 % Main circuit number of poles for main current circuit 3 | reference code acc. to IEC 81346-2 | Q |
| 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 10 95 % Main circuit number of poles for main current circuit 2 000 m 2 000 m -20 +60 °C -50 +80 °C -50 +80 °C -50 +80 °C -50 +80 °C -20 +60 °C -20 +60 °C -20 +60 °C | Substance Prohibitance (Date) | 01.10.2009 |
| ambient temperature • during operation • during storage • during transport -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 | Ambient conditions | |
| during operation during storage temperature compensation relative humidity during operation mumber of poles for main current circuit during storage -50 +80 °C -50 +80 °C -20 +60 °C 10 95 % | 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 10 95 % Main circuit number of poles for main current circuit 3 | ambient temperature | |
| ◆ during transport | 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 number of poles for main current 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 2.2 3.2 A | number of poles for main current circuit | 3 |
| | adjustable current response value current of the | 2.2 3.2 A |

| current-dependent overload release | |
|---|------------|
| operating voltage | 000.1/ |
| • 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 | 3.2 A |
| operational current at AC-3 at 400 V rated value | 3.2 A |
| operating power at AC-3 | 0.0111/ |
| • at 230 V rated value | 0.6 kW |
| • at 400 V rated value | 1.1 kW |
| at 500 V rated value | 1.5 kW |
| at 690 V rated value | 2.2 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 (lcs) 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 | 42 A |
| unit | |
| UL/CSA ratings | |
| full-load current (FLA) for 3-phase AC motor | |
| • at 480 V rated value | 3.2 A |
| at 600 V rated value | 3.2 A |
| yielded mechanical performance [hp] | |
| for single-phase AC motor | |
| — at 110/120 V rated value | 0.1 hp |
| — at 230 V rated value | 0.25 hp |
| for 3-phase AC motor | |
| at 200/208 V rated value | 0.5 hp |
| at 220/230 V rated value | 0.75 hp |
| at 460/480 V rated value | 2 hp |
| — at 575/600 V rated value | 2 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 32 A |
| • at 690 V | gL/gG 25 A |
| Installation/ mounting/ dimensions | |
| mounting position | any |
| mounting position | uny |

| 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 | |
| • for grounded parts at 400 V | |
| — downwards | 30 mm |
| — upwards | 30 mm |
| — at the side | 9 mm |
| • for live parts at 400 V | 22 |
| — downwards | 30 mm |
| — upwards | 30 mm |
| — at the side | 9 mm |
| for grounded parts at 500 V— downwards | 30 mm |
| — downwards — upwards | 30 mm |
| — at the side | 9 mm |
| — at the side • for live parts at 500 V | J 111111 |
| — downwards | 30 mm |
| — upwards | 30 mm |
| — at the side | 9 mm |
| for grounded parts at 690 V | · |
| — 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 size 2 |
| design of the thread of the connection screw | M2 |
| • for main contacts | M3 |
| Safety related data | |
| B10 value | 5,000 |
| with high demand rate acc. to SN 31920 | 5 000 |
| proportion of dangerous failures • with low demand rate acc. to SN 31920 | 50 % |
| | 50 % |
| with high demand rate acc. to SN 31920 failure rate [EIT] | 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 | 10 v |
| 1 - value for proof test litterval of service life acc. to | то у |

IEC 61508 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



Special Test Certific-

Type Test Certificates/Test Report

Marine / Shipping













Marine / Shipping

other



Confirmation



Vibration and Shock

Railway

Confirmation

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=3RV2011-1DA10

Cax online generator

 $\underline{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RV2011-1DA10}$

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1DA10

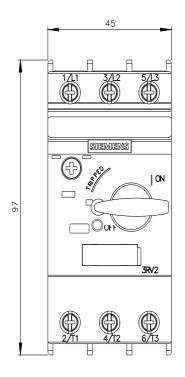
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

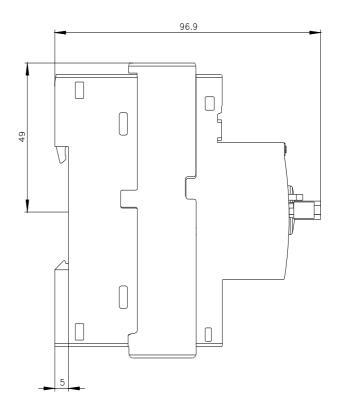
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2011-1DA10&lang=en

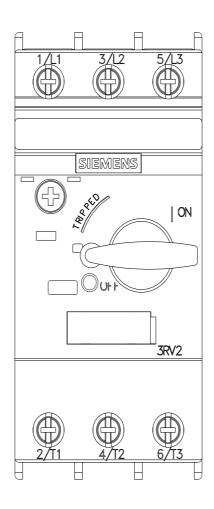
Characteristic: Tripping characteristics, I2t, Let-through current

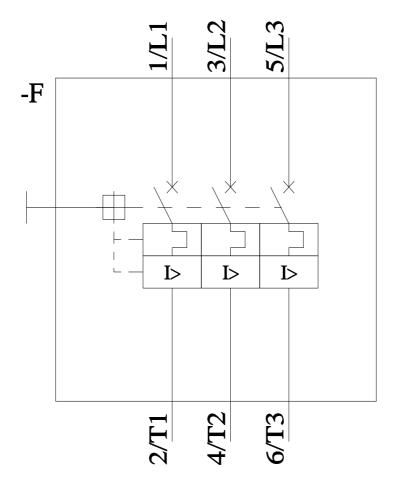
https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1DA10/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2011-1DA10&objecttype=14&gridview=view1









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