3VA1450-1AA42-0AA0

Data sheet



switch disconnector 3VA1 IEC frame 630 4-pole SD100, In=500A without overload protection w/o short-circuit protection nut keeper kit

| product brand name product designation Switch disconnector Product version number of poles design of the auxiliary release Auxiliary contact version Without Seneral technical data rated insulation voltage U Max. rated operational voltage Ue with DC power loss [W] / maximum mechanical service life (switching cycles) / typical product function / communication function Ocurrent • at 40 °C • at 45 °C • at 45 °C • at 60 °C • at 65 °C • at 60 °C • at 70 °C • at 70 °C Mechanical Dosign Height Width 184 mm depth Ocunnections arrangement of electrical connectors / for main current circuit design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit product component • undervoltage release • voltage trigger | Model | |
|--|--|-------------------|
| product version in MCCB design number of poles 4 design of the auxiliary release without Muxiliary contact version Ceneral technical data rated insulation voltage UI 800 V Max. rated operational voltage Ue with DC 600 V power loss [W] / maximum 120 W mechanical service life (switching cycles) / typical 15 000 product function / communication function No Current operational current • at 40 °C 500 A • at 50 °C 500 A • at 55 °C 500 A • at 65 °C 500 A • at 70 °C 500 A • at 70 °C 500 A • at 84 mm Width 184 mm depth 248 mm Width 194 mm depth 110 mm Connections arrangement of electrical connectors / for main current circuit design of the surface / of the connections / on the bottom of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit product component • undervoltage release No | | SENTRON |
| Product version In MCCB design | | |
| number of poles design of the auxiliary release without Without General technical data rated insulation voltage Ui 800 V Max. rated operational voltage Ue with DC 600 V power loss [W] / maximum 122 W mechanical service life (switching cycles) / typical 15 000 product function / communication function No Current Operational current • at 40 °C 500 A • at 50 °C 500 A • at 55 °C 500 A • at 50 °C 500 A • at 60 °C 500 A • at 70 °C 500 A • at 70 °C 500 A Mechanical Design Height 248 mm Width 194 mm Connections arrangement of electrical connectors / for main current circuit design of the surface / of the connections / on the bottom of the switch (N, 1, 3, 5) dassign of the surface / of the connections / on the bottom of the switch (N, 1, 2, 4, 6) Auxiliary circuit product component • undervoltage release No | | |
| Auxiliary contact version General technical data rated insulation voltage Ui Max. rated operational voltage Ue with DC power loss [W] / maximum mechanical service life (switching cycles) / typical product function / communication function No Current operational current • at 40 °C • at 45 °C • at 45 °C • at 50 °C • at 50 °C • at 66 °C • at 66 °C • at 60 °C • at 70 °C • at 70 °C Mechanical Design Height Width depth 110 mm Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) days in the surface / of the connections / on the bottom of the switch (N, 1, 3, 5) Auxiliary circuit product component • undervoltage release No | number of poles | |
| Auxiliary contact version General technical data rated insulation voltage Ui Max. rated operational voltage Ue with DC power loss [W] / maximum mechanical service life (switching cycles) / typical product function / communication function No Current operational current • at 40 °C • at 45 °C • at 45 °C • at 50 °C • at 50 °C • at 66 °C • at 66 °C • at 60 °C • at 70 °C • at 70 °C Mechanical Design Height Width depth 110 mm Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) days in the surface / of the connections / on the bottom of the switch (N, 1, 3, 5) Auxiliary circuit product component • undervoltage release No | design of the auxiliary release | without |
| rated insulation voltage Ui Max. rated operational voltage Ue with DC power loss [W] / maximum rechanical service life (switching cycles) / typical product function / communication function No Current operational current • at 40 °C • at 45 °C • at 45 °C • at 50 °C • at 50 °C • at 60 °C • at 60 °C • at 66 °C • at 66 °C • at 70 °C Machanical Design Height Width depth 110 mm Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the bottom of the switch (N, 1, 3, 5) days in the surface / of the connections / on the bottom of the switch (N, 1, 3, 5) Auxiliary circuit product component • undervoltage release No | | Without |
| Max. rated operational voltage Ue with DC power loss [W] / maximum mechanical service life (switching cycles) / typical product function / communication function Current operational current • at 40 °C • at 45 °C • at 50 °C • at 55 °C • at 60 °C • at 65 °C • at 65 °C • at 65 °C • at 65 °C • at 70 °C Mochanical Design Height Width 184 mm depth 110 mm Connections arrangement of electrical connectors / for main current circuit circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the bottom of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 1, 3, 4, 6) Auxiliary circuit product component • undervoltage release No | General technical data | |
| power loss [W] / maximum 120 W mechanical service life (switching cycles) / typical 15 000 product function / communication function No Current operational current • at 40 °C 500 A • at 45 °C 500 A • at 55 °C 500 A • at 60 °C 500 A • at 70 °C 500 A Mechanical Design Height 248 mm Width 184 mm depth 110 mm Connections arrangement of electrical connectors / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 1, 2, 4, 6) Auxiliary circuit product component • undervoltage release | rated insulation voltage Ui | 800 V |
| mechanical service life (switching cycles) / typical product function / communication function Current operational current • at 40 °C • at 45 °C • at 50 °C • at 50 °C • at 65 °C • at 65 °C • at 65 °C • at 70 °C Mechanical Dosign Height Width 184 mm depth 110 mm Connections arrangement of electrical connections / for main current circuit type of electrical connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit product vance of 500 A 500 A | Max. rated operational voltage Ue with DC | 600 V |
| product function / communication function Current operational current • at 40 °C • at 45 °C • at 50 °C • at 55 °C • at 60 °C • at 65 °C • at 65 °C • at 70 °C Mechanical Design Height Width depth 110 mm Connections arrangement of electrical connectors / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit product component • undervoltage release No | power loss [W] / maximum | 120 W |
| Operational current • at 40 °C • at 45 °C • at 50 °C • at 55 °C • at 55 °C • at 65 °C • at 65 °C • at 65 °C • at 70 °C • at 70 °C Mechanical Design Height 248 mm Width depth 110 mm Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit product component • undervoltage release No | mechanical service life (switching cycles) / typical | 15 000 |
| operational current • at 40 °C • at 45 °C • at 45 °C • at 50 °C • at 50 °C • at 60 °C • at 60 °C • at 65 °C • at 65 °C • at 65 °C • at 70 °C Mechanical Design Height Width depth 110 mm Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit product component • undervoltage release No | product function / communication function | No |
| at 40 °C at 45 °C 500 A at 50 °C 500 A at 55 °C 500 A at 65 °C 500 A at 65 °C 500 A at 65 °C 500 A at 70 °C 500 A Mechanical Design Height 248 mm Width 184 mm depth 110 mm Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxillary circuit product component undervoltage release No | Current | |
| at 45 °C at 50 °C at 50 °C 500 A at 65 °C 500 A at 66 °C 500 A at 70 °C 500 A Mechanical Design Height 248 mm Width 184 mm depth 110 mm Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit product component undervoltage release No | operational current | |
| at 50 °C at 55 °C 500 A at 60 °C 500 A at 65 °C 500 A at 70 °C 500 A Mechanical Design Height 248 mm Width 484 mm depth 110 mm Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxilliary circuit product component under 1500 A 500 A | ● at 40 °C | 500 A |
| at 55 °C at 60 °C but 60 °C at 65 °C at 70 °C Mechanical Design Height Width 184 mm depth 110 mm Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxilliary circuit product component undervoltage release Son A 500 A 50 | ● at 45 °C | 500 A |
| at 60 °C at 65 °C at 70 °C 500 A Mechanical Design Height Width 184 mm depth Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit product component undervoltage release No | ● at 50 °C | 500 A |
| ■ at 65 °C ■ at 70 °C 500 A Mechanical Design Height Width 184 mm depth 110 mm Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit product component ■ undervoltage release No | ● at 55 °C | 500 A |
| ● at 70 °C Mechanical Design Height Width 184 mm depth 110 mm Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit product component ● undervoltage release No | ● at 60 °C | 500 A |
| Height 248 mm Width 184 mm depth 110 mm Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit busbar connection design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit product component • undervoltage release No | • at 65 °C | 500 A |
| Height 248 mm Width 184 mm depth 110 mm Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit busbar connection design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit product component • undervoltage release No | ● at 70 °C | 500 A |
| Width depth 110 mm Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit product component • undervoltage release 110 mm Front terminal busbar connection silver Silver Silver | Mechanical Design | |
| depth Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit product component • undervoltage release 110 mm Front terminal busbar connection silver Silver Silver | Height | 248 mm |
| arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit product component • undervoltage release Front terminal Silver Silver | Width | 184 mm |
| arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit product component • undervoltage release Front terminal Silver Silver | depth | 110 mm |
| type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit product component • undervoltage release No | Connections | |
| design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit product component • undervoltage release No | • | Front terminal |
| the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit product component • undervoltage release No | type of electrical connection / for main current circuit | busbar connection |
| of the switch (N, 2, 4, 6) Auxiliary circuit product component • undervoltage release No | | silver |
| product component • undervoltage release No | | Silver |
| • undervoltage release No | Auxiliary circuit | |
| | product component | |
| • voltage trigger No | undervoltage release | No |
| | voltage trigger | No |

| undervoltage release with leading contact | No | | |
|--|--------|-----|---------------------------|
| trip indicator | No | | |
| number of CO contacts / for auxiliary contacts | 0 | | |
| Accessories | | | |
| product extension / optional / motor drive | Yes | | |
| Environmental conditions | | | |
| protection class IP / on the front | IP40 | | |
| ambient temperature | | | |
| during operation / minimum | -25 °C | | |
| during operation / maximum | 70 °C | | |
| during storage / minimum | -40 °C | | |
| during storage / maximum | 80 °C | | |
| Certificates | | | |
| reference code / acc. to IEC 81346-2 | Q | | |
| General Product Approval | | EMC | Declaration of Conformity |





Miscellaneous







| Declaration of Conformity | Test Certificates | | other | | |
|---------------------------------|--------------------------|---------------|---------------|----------------------|--|
| UK Declaration of Conformity | Special Test Certificate | Miscellaneous | Miscellaneous | <u>Miscellaneous</u> | |

Further information

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

http://www.siemens.com/lowvoltage/catalogs

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA1450-1AA42-0AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA1450-1AA42-0AA0

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

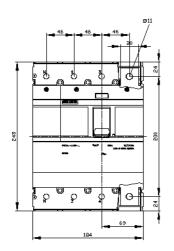
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1450-1AA42-0AA0

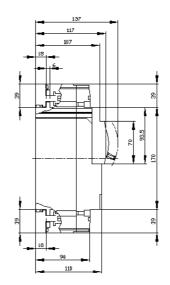
CAx-Online-Generator

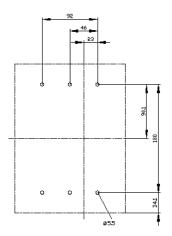
http://www.siemens.com/cax

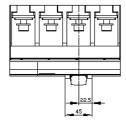
Tender specifications

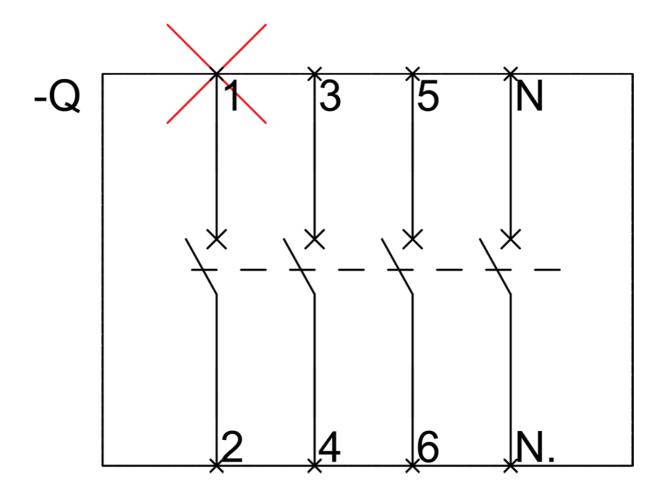
http://www.siemens.com/specifications











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