



circuit breaker 3VA1 IEC frame 630 breaking capacity class M Icu=55kA @ 415V 4-pole, line protection TM240, ATAM, In=500A overload protection Ir=350A...500A short-circuit protection Ii=5...10 x In N conductor unprotected nut keeper kit

| Model | |
|--|-----------------------------|
| product brand name | SETRON |
| product designation | Molded case circuit breaker |
| Product version | Line protection |
| design of the overcurrent release | TM240 |
| protection function of the overcurrent release | LI |
| number of poles | 4 |
| General technical data | |
| rated insulation voltage Ui | 800 V |
| Max. rated operational voltage Ue with DC | 600 V |
| power loss [W] / maximum | 122.7 W |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole | 40.9 W |
| mechanical service life (switching cycles) / typical | 20 000 |
| Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz | 4 000 |
| Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz | 3 000 |
| Neutral conductors / upgradeable/retrofitable | No |
| ground-fault monitoring version | Without |
| product function | |
| • communication function | No |
| • other measurement function | No |
| net weight | 5.1 kg |
| Current | |
| Max. rated operational current of the frame size | 630 A |
| Courant permanent assigné Iu | 500 A |
| operational current | |
| • at 40 °C | 500 A |
| • at 45 °C | 500 A |
| • at 50 °C | 500 A |
| • at 55 °C | 488 A |
| • at 60 °C | 476 A |
| • at 65 °C | 464 A |
| • at 70 °C | 452 A |
| Switching capacity according to IEC 60947 | |
| switching capacity class of the circuit breaker | M |
| breaking capacity maximum short-circuit current (Icu) | |

| | | | |
|--|--|----------------------------------|--|
| <ul style="list-style-type: none"> • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V | 85 kA | | |
| | 55 kA | | |
| | 55 kA | | |
| | 36 kA | | |
| | 7 kA | | |
| breaking capacity operating short-circuit current (Ics) | | | |
| <ul style="list-style-type: none"> • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V | 85 kA | | |
| | 55 kA | | |
| | 55 kA | | |
| | 36 kA | | |
| | 5 kA | | |
| short-circuit current making capacity (Icm) | | | |
| <ul style="list-style-type: none"> • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V | 187 kA | | |
| | 121 kA | | |
| | 121 kA | | |
| | 75.6 kA | | |
| | 11.9 kA | | |
| design of short-circuit protection | For switching power values in DC networks, see the 3VA molded case circuit breaker device manual; link to be found under Service & Support in the last chapter | | |
| Adjustable parameters | | | |
| Adjustable response value current / Ii min. | 2 500 A | | |
| Adjustable response value current / Ii max. | 5 000 A | | |
| design of the N-conductor protection | Without | | |
| Ground fault protection / tripping switchable / I2t=ON/OFF | No | | |
| Mechanical Design | | | |
| height [in] | 9.76 in | | |
| Height | 248 mm | | |
| width [in] | 7.24 in | | |
| Width | 184 mm | | |
| depth [in] | 4.33 in | | |
| depth | 110 mm | | |
| Connections | | | |
| arrangement of electrical connectors / for main current circuit | Front terminal | | |
| type of electrical connection / for main current circuit | nut keeper kit on both ends | | |
| Type of connectable conductor cross-section, connection screw, width x thickness , min. | 20 x 1 mm | | |
| Type of connectable conductor cross-section, connection screw, width x thickness , max. | 35 x 10 mm | | |
| Auxiliary circuit | | | |
| 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 | | | |
| <ul style="list-style-type: none"> • during operation / minimum • during operation / maximum • during storage / minimum • during storage / maximum | -25 °C | | |
| | 70 °C | | |
| | -40 °C | | |
| | 80 °C | | |
| Certificates | | | |
| reference code / acc. to IEC 81346-2 | Q | | |
| General Product Approval | EMC | Declaration of Conformity | |



[Miscellaneous](#)



[UK Declaration of Conformity](#)

| Declaration of Conformity | Test Certificates | Marine / Shipping | | | |
|---------------------------|-------------------|-------------------|--|--|--|
|---------------------------|-------------------|-------------------|--|--|--|



EG-Konf.

[Special Test Certificate](#)

[Miscellaneous](#)

[Type Test Certificates/Test Report](#)



URS



DNV-GL

other

[Miscellaneous](#)

[Miscellaneous](#)

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=3VA1450-5EF42-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1450-5EF42-0AA0>

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

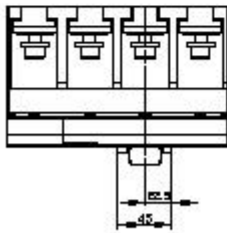
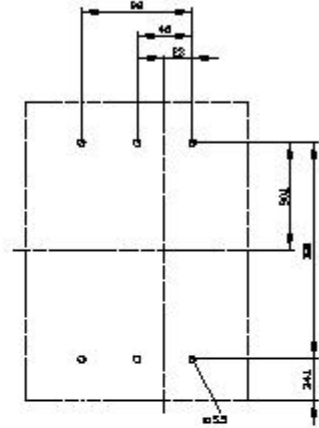
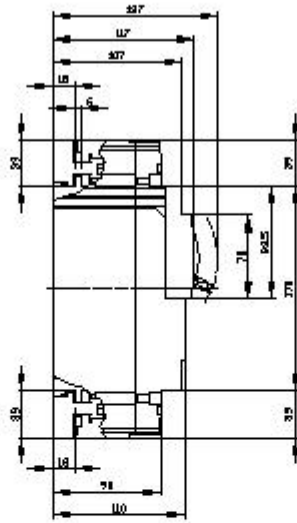
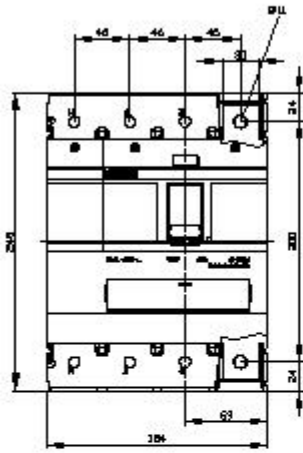
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1450-5EF42-0AA0

CAX-Online-Generator

<http://www.siemens.com/cax>

Tender specifications

<http://www.siemens.com/specifications>





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