



circuit breaker 3VA1 IEC frame 160 breaking capacity class S Icu=36kA @ 415V 3-pole, line protection TM220, ATFM, In=16A overload protection Ir=11A...16A short-circuit protection Ii=20 x In clamp connection

| Model | |
|--|-----------------------------|
| product brand name | SENTRON |
| product designation | Molded case circuit breaker |
| Product version | Line protection |
| design of the overcurrent release | TM220 |
| protection function of the overcurrent release | LI |
| number of poles | 3 |
| General technical data | |
| rated insulation voltage Ui | 800 V |
| Max. rated operational voltage Ue with DC | 500 V |
| operating voltage / at AC / rated value | 690 V |
| power loss [W] / maximum | 10.6 W |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole | 3.53 W |
| mechanical service life (switching cycles) / typical | 20 000 |
| Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz | 9 000 |
| Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz | 6 300 |
| Neutral conductors / upgradeable/retrofittable | No |
| ground-fault monitoring version | Without |
| product function | |
| • communication function | No |
| • other measurement function | No |
| Net Weight | 1.034 kg |
| Current | |
| Max. rated operational current of the frame size | 160 A |
| Courant permanent assigné Iu | 16 A |
| operational current | |
| • at 40 °C | 16 A |
| • at 45 °C | 16 A |
| • at 50 °C | 16 A |
| • at 55 °C | 16 A |
| • at 60 °C | 15 A |
| • at 65 °C | 15 A |
| • at 70 °C | 15 A |
| Switching capacity according to IEC 60947 | |
| switching capacity class of the circuit breaker | S |
| breaking capacity maximum short-circuit current (Icu) | |
| • at 240 V | 55 kA |

| | |
|--|--|
| <ul style="list-style-type: none"> • at 415 V • at 440 V • at 500 V • at 690 V | 36 kA 25 kA 7 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 | 55 kA 36 kA 25 kA 5 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 | 121 kA 75.6 kA 52.5 kA 11.9 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 / li min. | 320 A |
| Adjustable response value current / li max. | 320 A |
| Ground fault protection / tripping switchable / I2t=ON/OFF | No |

Mechanical Design

| | |
|-------------|---------|
| height [in] | 5.12 in |
| Height | 130 mm |
| width [in] | 3 in |
| Width | 76.2 mm |
| depth [in] | 2.76 in |
| depth | 70 mm |

Connections

| | |
|---|---------------------------------|
| arrangement of electrical connectors / for main current circuit | Front terminal |
| type of electrical connection / for main current circuit | box terminal on both sides |
| Type of connectable conductor cross-section, round conductor terminal, stranded | 1 x (1.5 - 70 mm ²) |
| design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) | Tin |

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 / according to IEC 81346-2 | Q |
|---|---|

General Product Approval

[Confirmation](#)



[Miscellaneous](#)

[KC](#)



EMC

Declaration of Conformity

Test Certificates



RCM



EG-Konf.

[UK Declaration of Conformity](#)

[Type Test Certificates/Test Report](#)

[Miscellaneous](#)

[Special Test Certificate](#)

Marine / Shipping

other



ABS



BUREAU VERITAS



DNV



RMRS

[CCS / China Classification Society](#)

[Miscellaneous](#)

other

[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=3VA1196-4EE36-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1196-4EE36-0AA0>

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

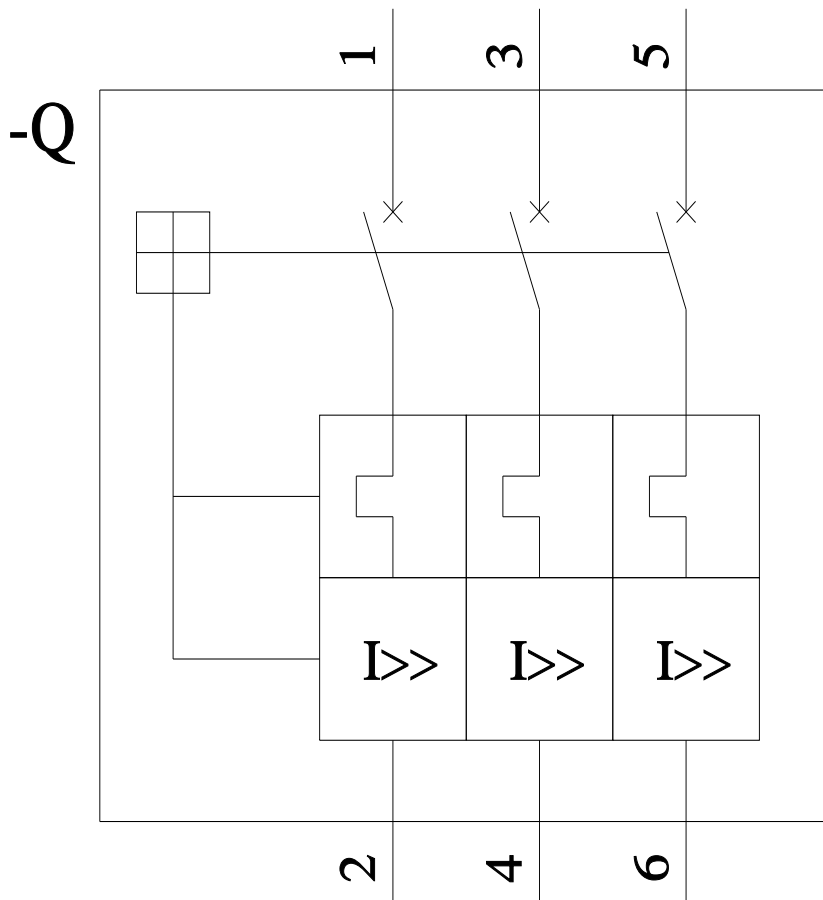
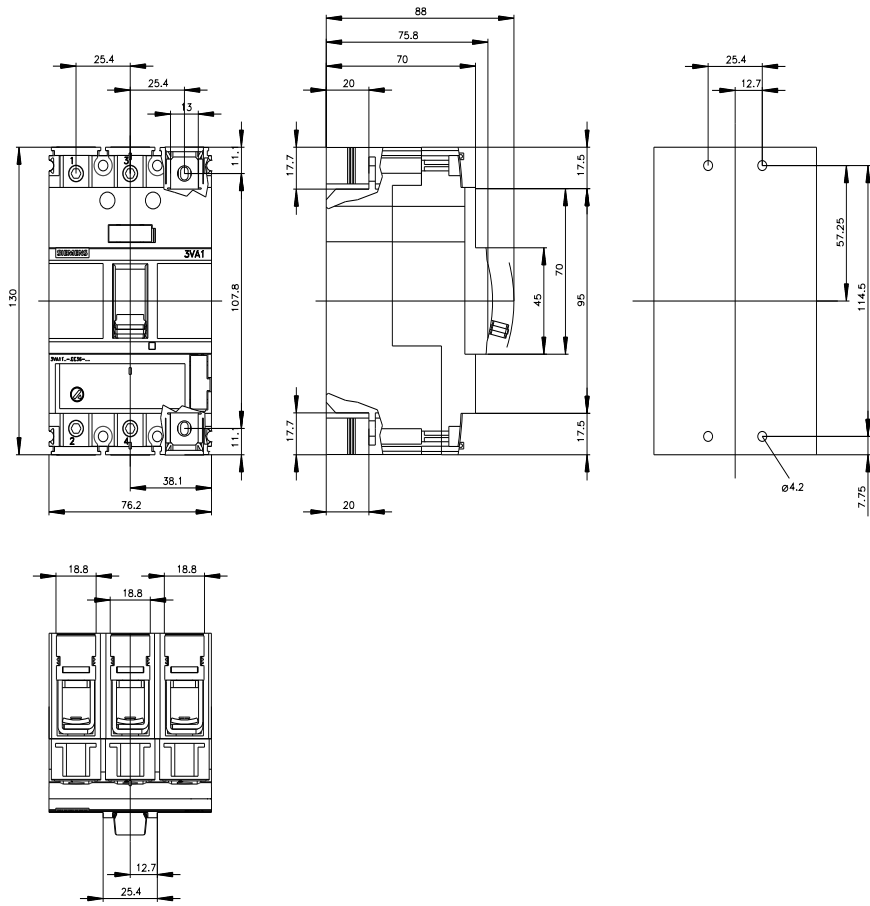
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1196-4EE36-0AA0

CAX-Online-Generator

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

Tender specifications

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



last modified:

10/3/2021

