

circuit breaker 3VA1 IEC frame 160 breaking capacity class H
 $I_{cu}=70\text{kA}$ @ 415V 3-pole, line protection TM240, ATAM, $I_n=160\text{A}$
 overload protection $I_r=112\text{A}\dots160\text{A}$ short-circuit protection $I_i=5\dots10 \times I_n$
 In clamp connection undervoltage release (UVR) 24V DC 2 auxiliary switches HQ



| Model | |
|---|-----------------------------|
| Product brand name | SENTRON |
| Product designation | Molded case circuit breaker |
| Product version | Line protection |
| Design of the overcurrent release | TM240 |
| Protective function of the overcurrent release | LI |
| Number of poles | 3 |
| Design of the auxiliary release | Undervoltage release (UVR) |
| Auxiliary contact version | 2 auxiliary switches HQ |
| General technical data | |
| Rated insulation voltage U_i | 800 V |
| Max. rated operational voltage U_e with AC 50/60Hz | 690 V |
| Max. rated operational voltage U_e with DC | 500 V |
| Latching - endurance | 15 000 |
| Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz | 8 000 |
| Neutral conductors / upgradeable/retrofitable | No |
| Ground fault monitoring version | Without |
| Product function | |

| | |
|------------------------------|---------|
| • communication function | No |
| • Phase failure detection | No |
| • other measurement function | No |
| Net weight | 1.05 kg |

Current

| | |
|--|---------|
| Max. rated operational current of the frame size | 160 A |
| Rated continuous current I _u | 160 A |
| Operating current | |
| • at 40 °C | 160 A |
| • at 45 °C | 160 A |
| • at 50 °C | 160 A |
| • at 55 °C | 153.6 A |
| • at 60 °C | 150.4 A |
| • at 65 °C | 147.2 A |
| • at 70 °C | 144 A |

Switching capacity according to IEC 60947

| | |
|--|--|
| Switching capacity class of the circuit breaker | H |
| Maximum short-circuit current breaking capacity (I _{cu}) | |
| • at 240 V | 100 kA |
| • at 415 V | 70 kA |
| • at 440 V | 36 kA |
| • at 690 V | 10 kA |
| Operational short-circuit current breaking capacity (I _{cs}) | |
| • at 240 V | 100 kA |
| • at 415 V | 70 kA |
| • at 440 V | 36 kA |
| • at 690 V | 5 kA |
| Short-circuit current making capacity (I _{cm}) | |
| • at 240 V | 220 kA |
| • at 415 V | 154 kA |
| • at 440 V | 75.6 kA |
| • at 690 V | 17 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 / I _r min. | 112 A |
| Adjustable response value current / I _r max. | 160 A |
| Adjustable response value time / t _r min. | 1 |
| Adjustable response value time / t _r max. | 1 |

| | |
|--|---------|
| Short-term delayed / tripping switchable / I _{2t} =ON/OFF | No |
| Adjustable response value current / I _i min. | 800 A |
| Adjustable response value current / I _i max. | 1 600 A |

Mechanical Design

| | |
|--------|---------|
| Height | 130 mm |
| Width | 76.2 mm |
| Depth | 70 mm |

Connections

| | |
|---|---------------------------------|
| Arrangement of electrical connectors / for main current circuit | Front terminal |
| Type of electrical connection / for main current circuit | box terminal |
| Type of connectable conductor cross-section, round conductor terminal, stranded | 1 x (1.5 - 70 mm ²) |

Auxiliary circuit

| | |
|--|---|
| Product component | |
| <ul style="list-style-type: none"> • undervoltage release • Voltage trigger • undervoltage release with leading contact • Trip indicator | <ul style="list-style-type: none"> Yes No No No |
| Number of CO contacts / for auxiliary contacts | 2 |

Accessories

| | |
|---|--|
| Product extension / optional / motor drive | Yes |
| Manufacturer's article number | |
| <ul style="list-style-type: none"> • of the integrated auxiliary switch/alarm switch • of the integrated auxiliary trip | <ul style="list-style-type: none"> 3VA9988-0AA12 3VA9608-0BB11 |

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 | <ul style="list-style-type: none"> -25 °C 70 °C -40 °C 80 °C |

Certificates

| | |
|---|---|
| Reference code / acc. to DIN EN 81346-2 | Q |
|---|---|

| | | |
|--------------------------|-----|---------------------------|
| General Product Approval | EMC | Declaration of Conformity |
|--------------------------|-----|---------------------------|



CCC



VDE

[Miscellaneous](#)



RCM



EG-Konf.

| | |
|-------------------|-------------------|
| Test Certificates | Shipping Approval |
|-------------------|-------------------|

[Type Test Certificates/Test Report](#)

[Miscellaneous](#)

[Special Test Certificate](#)



ABS



BUREAU VERITAS



LRS

| | |
|-------------------|-------|
| Shipping Approval | other |
|-------------------|-------|



RMRS

[CCS / China Classification Society](#)

[Manufacturer Declaration](#)

[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=3VA1116-6EF36-0BC0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1116-6EF36-0BC0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1116-6EF36-0BC0

CAX-Online-Generator

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

Tender specifications

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



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