



CIRCUIT BREAKER 3VA1 IEC FRAME 100 BREAKING CAPACITY CLASS B ICU=16KA @ 415 V 3-POLE, LINE PROTECTION TM210, FTFM, IN=20A OVERLOAD PROTECTION IR=20A FIXED SHORT CIRCUIT PROTECTION II=16 X IN BUSBAR CONNECTION UNDERVOLTAGE RELEASE (UVR) 208-230 V AC 50/50 HZ 2 AUXILIARY SWITCH HQ

| Model | |
|--|-----------------------------|
| product brandname | SENTRON |
| Product designation | Molded case circuit breaker |
| Design of the product | Line protection |
| Design of the overcurrent release | TM210 |
| Protective function of the overcurrent release | LI |
| Number of poles | 3 |
| Design of the auxiliary release | Undervoltage release (UVR) |
| Design of the auxiliary switch | 2 auxiliary switches HQ |

| General technical data | |
|--|--------|
| Tension assignée d'isolement Ui | 800 V |
| Max. rated operational voltage Ue with AC 50/60Hz | 690 V |
| Max. rated operational voltage Ue with DC | 500 V |
| Operating power / at AC-3 / at 400 V | 0 W |
| Operating power / at AC-3 / at 230 V | 0 W |
| Active power loss / for rated value of the current / at AC / in hot operating state / per device | 14.5 W |
| Mechanical service life (switching cycles) / typical | 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 |

Electricity

| | |
|---|--------|
| Max. rated operational voltage of the size of the circuit-breaker | 100 A |
| Courant permanent assigné Iu | 20 A |
| Operating current | |
| • at 40 °C | 20 A |
| • at 45 °C | 20 A |
| • at 50 °C | 20 A |
| • at 55 °C | 19.2 A |
| • at 60 °C | 18.8 A |
| • at 65 °C | 18.4 A |
| • at 70 °C | 18 A |

Switching capacity according to IEC 60947

| | |
|---|---------|
| Switching capacity class of the circuit breaker | B |
| Maximum short-circuit current breaking capacity (Icu) | |
| • at 240 V | 25 kA |
| • at 415 V | 16 kA |
| • at 440 V | 8 kA |
| • at 690 V | 5 kA |
| Operational short-circuit current breaking capacity (Ics) | |
| • at 240 V | 25 kA |
| • at 415 V | 16 kA |
| • at 440 V | 8 kA |
| • at 690 V | 5 kA |
| Short-circuit current making capacity (Icm) | |
| • at 240 V | 52.5 kA |
| • at 415 V | 32 kA |
| • at 440 V | 13.6 kA |
| • at 690 V | 7.5 kA |

Adjustable parameters

| | |
|---|-----|
| Adjustable response value current / I _g min. | 0 A |
|---|-----|

| | |
|---|-----|
| Adjustable response value current / lg min. | 0 A |
| Adjustable response value current / lg min. | 0 A |
| Adjustable response value current / lg min. | 0 A |
| Adjustable response value current / li min. | 0 A |
| Adjustable response value current / li max. | 0 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 | lug terminal |
| Type of connectable conductor cross-section, connection screw, width x thickness , min. | 12 x 0 |
| Type of connectable conductor cross-section, connection screw, width x thickness , max. | 17 x 6.5 |

Auxiliary circuit

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

Accessories

| | |
|---|---|
| Product extension / optional / motor drive | No |
| Manufacturer's article number | |
| <ul style="list-style-type: none"> • of the supplied basic switch • of the integrated auxiliary switch/alarm switch • of the integrated auxiliary trip | <p>3VA1020-2ED32-0AA0</p> <p>3VA9988-0AA12</p> <p>3VA9608-0BB25</p> |

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 | <p>-25 °C</p> <p>70 °C</p> <p>-40 °C</p> <p>80 °C</p> |

Certificates

| | |
|--|---|
| Equipment marking / acc. to DIN EN 81346-2 | Q |
|--|---|

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



CCC



VDE



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RCM



EG-Konf.

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

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ABS



BUREAU VERITAS



GL



LRS

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



RMRS

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Further information

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

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

Industry Mall (Online ordering system)

<https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3VA1020-2ED32-0DC0>

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

<http://support.automation.siemens.com/WW/view/en/3VA1020-2ED32-0DC0/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=3VA1020-2ED32-0DC0

CAX-Online-Generator

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

Tender specifications

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



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