

CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY CLASS N ICU=25KA @ 415 V 3-POLE, LINE PROTECTION TM240, ATAM, IN=20A OVERLOAD PROTECTION IR=14A ...20A SHORT CIRCUIT PROTECTION II=8...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              | TM240                       |
| 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 | 160 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           | N       |
| Maximum short-circuit current breaking capacity (Icu)     |         |
| • at 240 V  | 36 kA   |
| • at 415 V  | 25 kA   |
| • at 440 V  | 16 kA   |
| • at 690 V  | 7 kA    |
| Operational short-circuit current breaking capacity (Ics) |         |
| • at 240 V  | 36 kA   |
| • at 415 V  | 25 kA   |
| • at 440 V  | 16 kA   |
| • at 690 V  | 5 kA    |
| Short-circuit current making capacity (Icm)               |         |
| • at 240 V  | 75.6 kA |
| • at 415 V  | 52.5 kA |
| • at 440 V  | 32 kA   |
| • at 690 V  | 10.5 kA |

### Adjustable parameters

|   |     |
|---|-----|
| Adjustable response value current / I <sub>g</sub> 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"> <li>• undervoltage release</li> <li>• Voltage trigger</li> <li>• undervoltage release with leading contact</li> <li>• Trip indicator</li> </ul> | <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  | Yes   |
| Manufacturer's article number   |   |
| <ul style="list-style-type: none"> <li>• of the supplied basic switch</li> <li>• of the integrated auxiliary switch/alarm switch</li> <li>• of the integrated auxiliary trip</li> </ul> | <p><a href="#">3VA1120-3EF32-0AA0</a></p> <p><a href="#">3VA9988-0AA12</a></p> <p><a href="#">3VA9608-0BB25</a></p> |

### Environmental conditions

|  |   |
|--|---|
| Protection class IP / on the front   | IP40  |
| Ambient temperature  |   |
| <ul style="list-style-type: none"> <li>• during operation / minimum</li> <li>• during operation / maximum</li> <li>• during storage / minimum</li> <li>• during storage / maximum</li> </ul> | <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/3VA1120-3EF32-0DC0>

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

<http://support.automation.siemens.com/WW/view/en/3VA1120-3EF32-0DC0/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mfb=3VA1120-3EF32-0DC0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=3VA1120-3EF32-0DC0)

##### CAX-Online-Generator

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

##### Tender specifications

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



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