



circuit breaker 3VA1 IEC frame 160 breaking capacity class S Icu=36kA @ 415V 3-pole, line protection TM220, ATFM, In=50A overload protection Ir=35A...50A short-circuit protection li=10 x In clamp connection

| Model  |                             |
|--|-----------------------------|
| product brand name   | SETRON                      |
| 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   | 14.6 W                      |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole | 4.87 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   | 1.016 kg                    |
| Current  |                             |
| Max. rated operational current of the frame size   | 160 A                       |
| Courant permanent assigné Iu   | 50 A                        |
| operational current  |                             |
| • at 40 °C   | 50 A                        |
| • at 45 °C   | 50 A                        |
| • at 50 °C   | 50 A                        |
| • at 55 °C   | 49 A                        |
| • at 60 °C   | 48 A                        |
| • at 65 °C   | 46 A                        |
| • at 70 °C   | 45 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"> <li>• at 415 V</li> <li>• at 440 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul>   | 36 kA<br>25 kA<br>7 kA<br>7 kA   |
| breaking capacity operating short-circuit current (Ics) <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 440 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul> | 55 kA<br>36 kA<br>25 kA<br>5 kA<br>5 kA  |
| short-circuit current making capacity (Icm) <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 440 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul>             | 121 kA<br>75.6 kA<br>52.5 kA<br>11.9 kA<br>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.                | 500 A |
| Adjustable response value current / li max.                | 500 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 <sup>2</sup> ) |
| 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"> <li>• during operation / minimum</li> <li>• during operation / maximum</li> <li>• during storage / minimum</li> <li>• during storage / maximum</li> </ul> | -25 °C<br>70 °C<br>-40 °C<br>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](#)

[Special Test Certificate](#)

[Miscellaneous](#)

### 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=3VA1150-4EE36-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1150-4EE36-0AA0>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA1150-4EE36-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1150-4EE36-0AA0)

**CAX-Online-Generator**

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

**Tender specifications**

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



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