



circuit breaker 3VA5 UL frame 125 breaking capacity class M 35kA @ 480 V 3-pole, line protection TM230, FTAM, In=80A overload protection Ir=80A fixed short-circuit protection li=5...10 x In nut keeper kit on both sides

| Model | |
|--|-----------------------------|
| product brand name | SETRON |
| product designation | Molded-case circuit breaker |
| product designation / according to UL file | MEAS |
| Product version | System protection |
| design of the load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type) | Yes |
| design of the load switch / according to UL 489 / High-Intensity-Discharge circuit breaker (HID Type) | No |
| design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type) | No |
| design of the overcurrent release | TM230 |
| 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 | 19.3 W |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole | 6.43 W |
| mechanical service life (switching cycles) / typical | 20 000 |
| Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz | 8 000 |
| Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz | 4 000 |
| electrical endurance (switching cycles) / at 480 V | 8 000 |
| electrical endurance (switching cycles) / at 600 V | 4 000 |
| Neutral conductors / upgradeable/retrofitable | No |
| ground-fault monitoring version | without |
| product function | |
| • communication function | No |
| • other measurement function | No |
| Net Weight | 1.029 kg |
| Current | |
| marking / according to UL 489 / 100%-rated breaker | No |
| operational current | |
| • at 40 °C | 80 A |
| • at 45 °C | 78 A |
| • at 50 °C | 77 A |

| | |
|--|--|
| <ul style="list-style-type: none"> • at 55 °C • at 60 °C • at 65 °C • at 70 °C | 76 A 74 A 73 A 72 A |
| Switching capacity according to IEC 60947 | |
| switching capacity class of the circuit breaker | M |
| breaking capacity maximum short-circuit current (I _{cu}) <ul style="list-style-type: none"> • at 240 V • at 415 V • at 690 V | 85 kA 55 kA 7 kA |
| breaking capacity operating short-circuit current (I _{cs}) <ul style="list-style-type: none"> • at 240 V • at 415 V • at 690 V | 85 kA 55 kA 5 kA |
| short-circuit current making capacity (I _{cm}) <ul style="list-style-type: none"> • at 240 V • at 415 V • at 690 V | 187 kA 121 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 |
| Switching capacity according to UL 489 | |
| breaking capacity current <ul style="list-style-type: none"> • at 240 V • at 480 V • at 600 Y/347 V | 85 kA 35 kA 18 kA |
| Adjustable parameters | |
| Adjustable response value current / I _g min. | 80 A |
| Adjustable response value current / I _g min. | 80 A |
| Ground fault protection / tripping switchable / I _{2t} =ON/OFF | No |
| Mechanical Design | |
| height [in] | 5.51 in |
| Height | 140 mm |
| width [in] | 3 in |
| Width | 76.2 mm |
| depth [in] | 3.01 in |
| depth | 76.5 mm |
| Connections | |
| arrangement of electrical connectors / for main current circuit | Front connection |
| type of electrical connection / for main current circuit | nut keeper kit on both ends |
| Type of connectable conductor cross-section, connection screw, width x thickness , min. | 12 x 1 mm |
| Type of connectable conductor cross-section, connection screw, width x thickness , max. | 17 x 6.5 mm |
| Auxiliary circuit | |
| product component <ul style="list-style-type: none"> • undervoltage release • voltage trigger • trip indicator | No No No |
| 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

EMC

Marine / Shipping



[Confirmation](#)



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?mfib=3VA5180-5EC32-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5180-5EC32-0AA0>

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

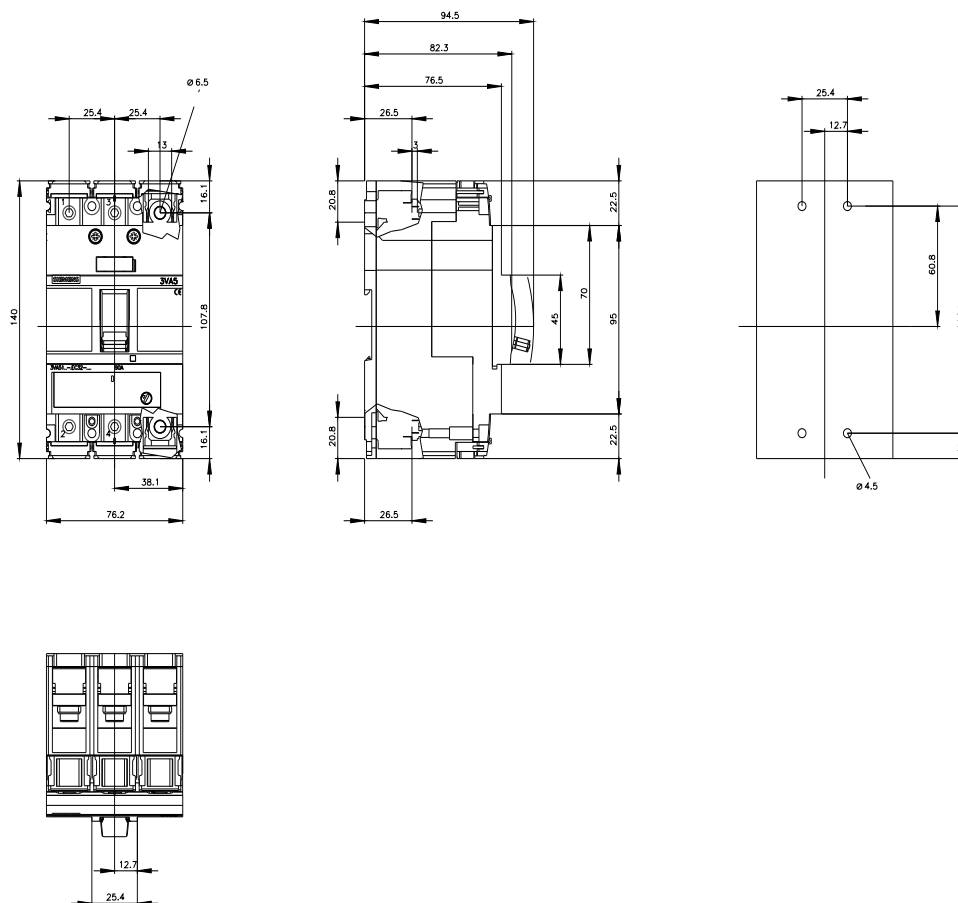
http://www.automation.siemens.com/bilddb/cax_en.aspx?mfib=3VA5180-5EC32-0AA0

CAX-Online-Generator

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

Tender specifications

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





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