



circuit breaker 3VA5 UL Frame 125 breaking capacity class M 35 kA @ 277 V 1-pole, line protection TM210, FTFM, In=90 A overload protection Ir=90 A permanently set short-circuit protection Ii=10 x In UL 489 SB (naval), 50° C without connection

| Model | |
|--|-----------------------------|
| product brand name | SENTRON |
| product designation | Molded-case circuit breaker |
| product designation / according to UL file | MEAM |
| design of the product | 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 | TM210 |
| protection function of the overcurrent release | LI |
| number of poles | 1 |
| General technical data | |
| operating voltage / at AC / rated value | 415 V |
| power loss [W] / maximum | 7.13 W |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole | 7.13 W |
| mechanical service life (operating cycles) / typical | 20 000 |
| electrical endurance (operating cycles) / at AC-1 / at 380/415 V | 8 000 |
| electrical endurance (operating cycles) / at AC-1 / at 690 V | 4 000 |
| electrical endurance (operating cycles) / at 480 V | 8 000 |
| electrical endurance (operating cycles) / at 600 V | 4 000 |
| product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof | No |
| product function | |
| • communication function | No |
| • other measurement function | No |
| Net Weight | 0.38 kg |
| Current | |
| marking / according to UL 489 / 100%-rated breaker | No |
| operational current | |
| • at 40 °C | 90 A |
| • at 45 °C | 88 A |
| • at 50 °C | 86 A |
| • at 55 °C | 84 A |
| • at 60 °C | 82 A |
| • at 65 °C | 80 A |
| • at 70 °C | 79 A |

| Switching capacity according to IEC 60947 | |
|---|--|
| switching capacity class of the circuit breaker | M |
| 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 | |
| current breaking capacity | |
| • at 120 V | 85 kA |
| • at 277 V | 35 kA |
| • at 347 V | 18 kA |
| Adjustable parameters | |
| adjustable response value setting current (I_r) / of the L-trip / with I2t characteristic | |
| • minimum | 90 A |
| • maximum | 90 A |
| adjustable response value delay time (t_r) / for L-tripping / with I2t characteristic | |
| • minimum | 1 s |
| • maximum | 1 s |
| adjustable response value setting current (I_l) / for I-tripping | |
| • minimum | 900 A |
| • maximum | 900 A |
| adjustable setting current (I_{nN}) / for N-tripping | |
| • minimum | 0 A |
| • maximum | 0 A |
| product function / grounding protection | No |
| Mechanical Design | |
| product component | |
| • undervoltage release | No |
| • voltage trigger | No |
| • trip indicator | No |
| height [in] | 5.51 in |
| height | 140 mm |
| width [in] | 1 in |
| width | 25.4 mm |
| depth [in] | 3.01 in |
| depth | 76.5 mm |
| Connections | |
| arrangement of electrical connectors / for main current circuit | Without connection |
| type of electrical connection / for main current circuit | Without |
| Auxiliary circuit | |
| number of CO contacts / for auxiliary contacts | 0 |
| Accessories | |
| product extension / optional / motor drive | No |
| Environmental conditions | |
| protection class IP / on the front | IP40 |
| ambient temperature | |
| • during operation / minimum | -25 °C |
| • during operation / maximum | 70 °C |
| • during storage / minimum | -40 °C |
| • during storage / maximum | 80 °C |
| reference code / according to IEC 81346-2 | Q |
| Approvals / Certificates | |
| General Product Approval | |



Miscellaneous



Miscellaneous





[Confirmation](#)



EG-Konf.



CCC



RCM

Test Certificates

Maritime application

[Type Test Certificates/Test Report](#)



ABS



BUREAU
VERITAS



DNV



LRS



RMRS

other

Environment

[Miscellaneous](#)

[Confirmation](#)

[Environmental Confirmations](#)

Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

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

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

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA5190-5ED11-1AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5190-5ED11-1AA0>

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

https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5190-5ED11-1AA0

CAx-Online-Generator

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

Tender specifications

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

Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP="HAUPT"></mmp_prod_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP=)



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