



circuit breaker 3VM1 IEC frame 100 breaking capacity class S Icu=36kA @ 415V 4-pole, line protection TM210, FTFM, In=16A overload protection Ir=16A, not adjustable short-circuit protection Ii=20 x In N conductor unprotected nut keeper kit

| Model | |
|------------------------------------------------------------------------------------------------|-----------------------------|
| product brand name | SENTRON |
| product designation | Molded case circuit breaker |
| Product version | Line protection |
| design of the overcurrent release | TM210 |
| protection function of the overcurrent release | LI |
| number of poles | 4 |
| General technical data | |
| rated insulation voltage Ui | 800 V |
| Max. rated operational voltage Ue with AC 50/60Hz | 500 V |
| Max. rated operational voltage Ue with DC | 500 V |
| operating voltage / at AC / rated value | 690 V |
| power loss [W] / maximum | 11 W |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole | 3.53 W |
| mechanical service life (switching cycles) / typical | 12 000 |
| Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz | 2 000 |
| Neutral conductors / upgradeable/retrofitable | No |
| ground-fault monitoring version | Without |
| product function | |
| • communication function | No |
| • other measurement function | No |
| Net Weight | 1.2 kg |
| Current | |
| operational current | |
| • at 40 °C | 16 A |
| • at 45 °C | 16 A |
| • at 50 °C | 16 A |
| • at 55 °C | 16 A |
| • at 60 °C | 15 A |
| • at 65 °C | 14 A |
| • at 70 °C | 14 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 |
| • at 415 V | 36 kA |
| • at 440 V | 20 kA |
| • at 500 V | 7 kA |

| | |
|--------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| breaking capacity operating short-circuit current (Ics) | |
| <ul style="list-style-type: none"> • at 240 V • at 415 V • at 440 V • at 500 V | 18 kA 12 kA 8 kA 3 kA |
| short-circuit current making capacity (Icm) | |
| <ul style="list-style-type: none"> • at 240 V • at 415 V • at 440 V • at 500 V | 121 kA 76 kA 40 kA 12 kA |
| design of short-circuit protection | For switching capacity values in DC power systems, see the 3VA Molded Case Circuit Breaker Manual; link available under Service & Support in the last chapter |

Adjustable parameters

| | |
|------------------------------------------------------------|---------|
| Adjustable response value current / li max. | 320 A |
| design of the N-conductor protection | Without |
| Ground fault protection / tripping switchable / I2t=ON/OFF | No |

Mechanical Design

| | |
|-------------|----------|
| height [in] | 5.12 in |
| Height | 130 mm |
| width [in] | 4 in |
| Width | 101.6 mm |
| depth [in] | 2.76 in |
| depth | 70 mm |

Connections

| | |
|---------------------------------------------------------------------------------------|------------------|
| arrangement of electrical connectors / for main current circuit | Front connection |
| design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) | Silver |
| design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) | Tin |

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 | No |
|--------------------------------------------|----|

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 | Declaration of Conformity |
|---------------------------------|----------------------------------|



[Confirmation](#)



[Miscellaneous](#)



| | | |
|----------------------------------|--------------------------|--------------------------|
| Declaration of Conformity | Test Certificates | Marine / Shipping |
|----------------------------------|--------------------------|--------------------------|

[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?mfb=3VM1096-4ED42-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VM1096-4ED42-0AA0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=3VM1096-4ED42-0AA0

CAX-Online-Generator

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

Tender specifications

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

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