



circuit breaker 3VA1 IEC frame 160 breaking capacity class M Icu=55kA @ 415V 4-pole, line protection TM240, ATAM, In=80A overload protection Ir=56A...80A short-circuit protection Ii=5...10 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 | TM240 |
| protection function of the overcurrent release | LI |
| number of poles | 4 |
| 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 | 600 V |
| power loss [W] / maximum | 19.2 W |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole | 6.4 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 | 8 000 |
| 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 | |
| Max. rated operational current of the frame size | 160 A |
| Courant permanent assigné Iu | 80 A |
| operational current | |
| • at 40 °C | 80 A |
| • at 45 °C | 80 A |
| • at 50 °C | 80 A |
| • at 55 °C | 78 A |
| • at 60 °C | 77 A |
| • at 65 °C | 75 A |
| • at 70 °C | 74 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 440 V • at 500 V • at 690 V | 85 kA 55 kA 36 kA 10 kA 10 kA |
| breaking capacity operating short-circuit current (I _{cs}) | |
| <ul style="list-style-type: none"> • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V | 85 kA 55 kA 36 kA 5 kA 5 kA |
| short-circuit current making capacity (I _{cm}) | |
| <ul style="list-style-type: none"> • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V | 187 kA 121 kA 76 kA 17 kA 17 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 / I _g min. | 56 A |
| Adjustable response value current / I _g min. | 80 A |
| Short-term delayed / tripping switchable / I _{2t} =ON/OFF | No |
| Adjustable response value current / I _i min. | 400 A |
| Adjustable response value current / I _i max. | 800 A |
| design of the N-conductor protection | Without |
| Ground fault protection / tripping switchable / I _{2t} =ON/OFF | No |
| Mechanical Design | |
| height [in] | 5.1 in |
| Height | 130 mm |
| width [in] | 4 in |
| Width | 101.6 mm |
| depth [in] | 2.8 in |
| depth | 70 mm |
| Connections | |
| arrangement of electrical connectors / for main current circuit | Front terminal |
| Type of connectable conductor cross-section, connection screw, width x thickness , min. | 12 x 0 mm |
| Type of connectable conductor cross-section, connection screw, width x thickness , max. | 17 x 6.5 mm |
| 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"> • during operation / minimum • during operation / maximum • during storage / minimum • during storage / maximum | -25 °C 70 °C -40 °C 80 °C |
| Certificates | |
| reference code / acc. to IEC 81346-2 | Q |
| General Product Approval | |



[Miscellaneous](#)

[KC](#)



| EMC | Declaration of Conformity | Test Certificates | | | Shipping Approval |
|-----|---------------------------|-------------------|--|--|-------------------|
|-----|---------------------------|-------------------|--|--|-------------------|



RCM



EG-Konf.

[Miscellaneous](#)

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



ABS

| Shipping Approval | other | | | | |
|-------------------|-------|--|--|--|--|
|-------------------|-------|--|--|--|--|



ABS



BUREAU VERITAS



LRS



RMRS

[CCS / China Classification Society](#)

[Manufacturer Declaration](#)

| 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=3VA1180-5EF42-0AA0>

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

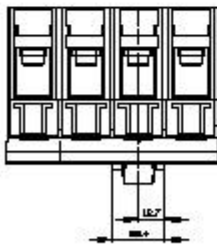
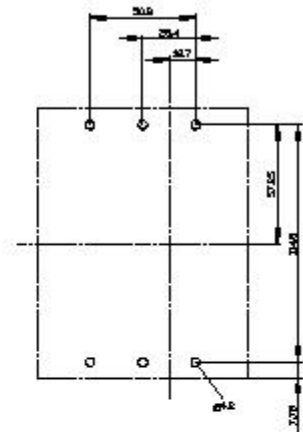
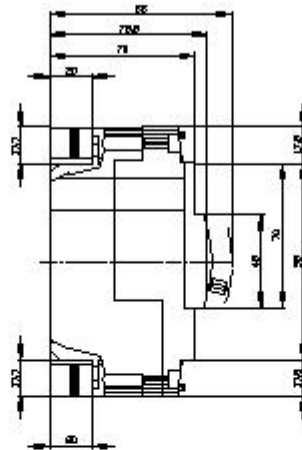
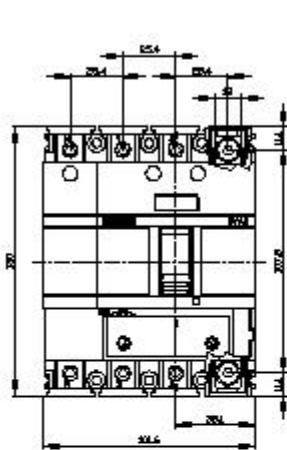
<https://support.industry.siemens.com/cs/ww/en/ps/3VA1180-5EF42-0AA0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1180-5EF42-0AA0

Tender specifications

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





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