



circuit breaker 3VA6 UL Frame 800 breaking capacity class M 35 kA @ 480 V 4-pole, line protection ETU330, LIG, $I_n=800$ A overload protection, 100% rated $I_r=315$ A ...800 A short-circuit protection $I_i=1.5...10 \times I_n$ neutral conductor protection adjustable (OFF, 50%, 100%) ground-fault protection $I_G=0.2... 1 \times I_n$, $t_g=0.1/0.3$ s cable connection on two sides

| Model | |
|--|---|
| product brand name | SENTRON |
| product designation | Molded-case circuit breaker |
| product designation / according to UL file | MMAE |
| 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 overcurrent release | ETU330 |
| protection function of the overcurrent release | LIG |
| number of poles | 4 |
| General technical data | |
| insulation voltage / rated value | 800 V |
| operating voltage / at AC / rated value | 690 V |
| power loss [W] / maximum | 231 W |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole | 77 W |
| mechanical service life (operating cycles) / typical | 10 000 |
| electrical endurance (operating cycles) / at AC-1 / at 380/415 V | 5 800 |
| electrical endurance (operating cycles) / at AC-1 / at 690 V | 4 000 |
| electrical endurance (operating cycles) / at 480 V | 5 800 |
| electrical endurance (operating cycles) / at 600 V | 4 000 |
| product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof | No |
| ground-fault monitoring version | Summation current formation L + N-conductor |
| product function | |
| • communication function | No |
| • other measurement function | No |
| Net Weight | 23.298 kg |
| Current | |
| marking / according to UL 489 / 100%-rated breaker | Yes |
| operational current | |
| • at 40 °C | 800 A |
| • at 45 °C | 800 A |
| • at 50 °C | 800 A |
| • at 55 °C | 776 A |
| • at 60 °C | 752 A |
| • at 65 °C | 708 A |
| • at 70 °C | 664 A |
| Switching capacity according to IEC 60947 | |
| switching capacity class of the circuit breaker | M |

| | |
|---|---|
| maximum short-circuit current breaking capacity (I _{cu}) | |
| <ul style="list-style-type: none"> • at 240 V • at 415 V • at 690 V | 85 kA 55 kA 25 kA |
| operating short-circuit current breaking capacity (I _{cs}) | |
| <ul style="list-style-type: none"> • at 240 V • at 415 V • at 690 V | 85 kA 55 kA 19 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 53 kA |
| Switching capacity according to UL 489 | |
| current breaking capacity | |
| <ul style="list-style-type: none"> • at 240 V • at 480 V • at 600 V | 100 kA 35 kA 25 kA |
| Adjustable parameters | |
| adjustable response value setting current (I _r) / of the L-trip / with I _{2t} characteristic | |
| <ul style="list-style-type: none"> • minimum • maximum | 315 A 800 A |
| adjustable response value delay time (t _r) / for L-tripping / with I _{2t} characteristic | |
| <ul style="list-style-type: none"> • minimum • maximum | 0.5 s 17 s |
| adjustable response value setting current (I _l) / for I-tripping | |
| <ul style="list-style-type: none"> • minimum • maximum | 1 200 A 8 000 A |
| adjustable current response value current / for G-tripping / with standard characteristic | |
| <ul style="list-style-type: none"> • initial value • full-scale value | 160 A 800 A |
| adjustable response value delay time (t _g) / for G-tripping / with I _{0t} characteristic | |
| <ul style="list-style-type: none"> • minimum • maximum | 0.1 s 0.3 s |
| adjustable setting current (I _{nN}) / for N-tripping | |
| <ul style="list-style-type: none"> • minimum • maximum | 400 A 800 A |
| design of the N-conductor protection | adjustable OFF; 50%; 100% |
| product function / grounding protection | Yes |
| Mechanical Design | |
| product component | |
| <ul style="list-style-type: none"> • undervoltage release • voltage trigger • trip indicator | No No No |
| height [in] | 12.91 in |
| height | 328 mm |
| width [in] | 11.02 in |
| type of connectable conductor cross-sections / of the round conductor terminal / stranded | 4 x (4/0 - 500 kcmil) |
| width | 280 mm |
| depth [in] | 4.72 in |
| depth | 120 mm |
| Connections | |
| arrangement of electrical connectors / for main current circuit | Front connection |
| type of electrical connection / for main current circuit | circular conductor terminal on both sides |
| 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 | |
| <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 |
| reference code / according to IEC 81346-2 | Q |

| Approvals / Certificates | |
|--------------------------|-----|
| General Product Approval | EMV |



[Miscellaneous](#)



| Test Certificates | Maritime application | other | Dangerous goods |
|-------------------|----------------------|-------|-----------------|
|-------------------|----------------------|-------|-----------------|

[Type Test Certificates/Test Report](#)



[Confirmation](#)

[Miscellaneous](#)

[Transport Information](#)

Environment

[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=3VA6580-5HM46-2AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6580-5HM46-2AA0>

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

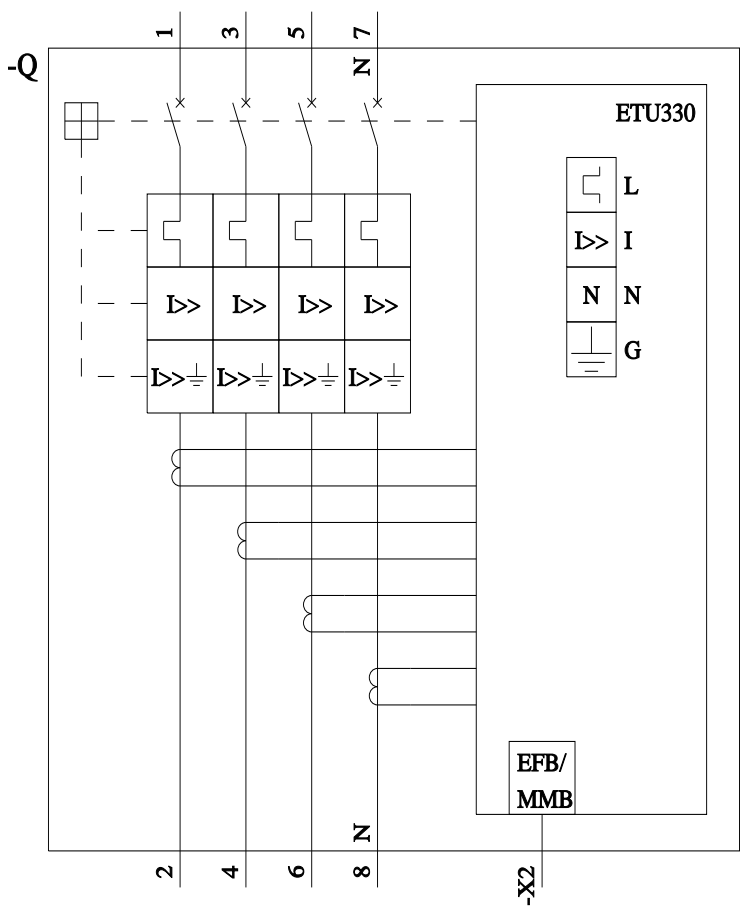
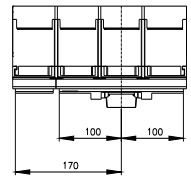
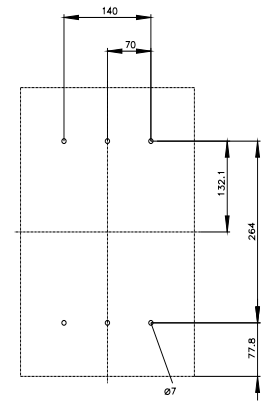
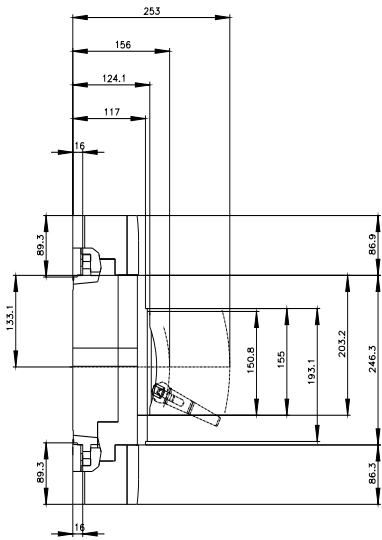
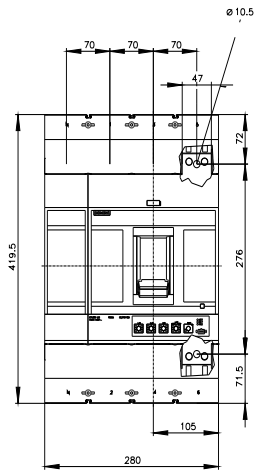
https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6580-5HM46-2AA0

CAX-Online-Generator

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

Tender specifications

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





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