

circuit breaker VL800N standard breaking capacity $I_{cu}=55\text{kA}$, 415V AC 4-pole, line protection trip unit LCD ETU42, LSIG $I_n=800\text{A}$, rated current $I_R=320\dots800\text{A}$, overload protection, $ISD=1.5$ to $7 \times I_R$, $II=8 \times I_N$ short-circuit protection N protected with ground-fault protection without auxiliary release without auxiliary/alarm switch

| Model | |
|--|-----------|
| type of the driving mechanism / motor drive | No |
| design of the overcurrent release | LCD ETU42 |
| General technical data | |
| number of poles | 4 |
| size of the circuit-breaker | 3VL6 |
| mechanical service life (switching cycles) / typical | 10 000 |
| electrical endurance (switching cycles) / typical | 3 000 |
| utilization category | A |
| performance class for circuit breaker | N |
| reference code / according to DIN 40719 extended according to IEC 204-2 / according to IEC 750 | Q |
| operating frequency / maximum | 60 1/s |
| Voltage | |
| Rated operational voltage U_e / max. | 690 V |
| <ul style="list-style-type: none"> insulation voltage / rated value insulation voltage (U_i) / at AC / rated value | 800 V |
| surge voltage resistance / rated value | 8 kV |
| operating voltage | |
| <ul style="list-style-type: none"> rated value / maximum for main current circuit / at AC / at 50 Hz / maximum for main current circuit / at AC / at 60 Hz / maximum | 690 V |
| Protection class | |
| protection class IP | IP20 |
| protection function of the overcurrent release | LSING |
| Current | |
| operational current | |
| <ul style="list-style-type: none"> at 40 °C / rated value at 45 °C / rated value at 50 °C / rated value at 55 °C / rated value at 60 °C / rated value at 65 °C / rated value at 70 °C / rated value | 800 A |
| continuous current / rated value | 800 A |
| derating temperature / for the rated value of the continuous current | 50 °C |
| adjustable current response value current | |
| <ul style="list-style-type: none"> of the current-dependent overload release / full-scale value of instantaneous short-circuit trip unit / minimum of instantaneous short-circuit trip unit / maximum | 800 A |
| | 1 000 A |
| | 6 400 A |
| Main circuit | |
| operating frequency | |
| <ul style="list-style-type: none"> 1 / rated value 2 / rated value | 50 Hz |
| | 60 Hz |
| Auxiliary circuit | |
| number of CO contacts / for auxiliary contacts | 0 |

| | |
|--|------------------------------|
| number of NC contacts / for auxiliary contacts | 0 |
| number of NO contacts / for auxiliary contacts | 0 |
| Suitability | |
| suitability for use | system/generator protection |
| Adjustable parameters | |
| adjustable current response value current / of the short-time delayed short-circuit release / full-scale value | 5 600 A |
| adjustable current response value current / of the current-dependent overload release / initial value | 320 A |
| Product details | |
| product component | |
| • trip indicator | No |
| • auxiliary switch | No |
| • voltage trigger | No |
| • undervoltage release | No |
| • undervoltage release with leading contact | No |
| product extension / optional / motor drive | Yes |
| Product function | |
| product function | |
| • of thermal overload trip unit | adjustable |
| • grounding protection | Yes |
| • for neutral conductors / short-circuit and overload proof | Yes |
| • overload protection | Yes |
| Short circuit | |
| breaking capacity operating short-circuit current (Ics) | |
| • at 240 V / rated value | 65 kA |
| • at 415 V / rated value | 55 kA |
| • at 500 V / rated value | 20 kA |
| • at 690 V / rated value | 10 kA |
| breaking capacity maximum short-circuit current (Icu) | |
| • at 240 V / rated value | 65 kA |
| • at 415 V / rated value | 55 kA |
| • at 440 V / rated value | 35 kA |
| • at 480 V / according to NEMA / rated value | 25 kA |
| • at 500 V / rated value | 25 kA |
| • at 600 V / according to NEMA / rated value | 20 kA |
| • at 690 V / rated value | 20 kA |
| Connections | |
| arrangement of electrical connectors / for main current circuit | front side |
| type of connectable conductor cross-sections / for auxiliary contacts | |
| • solid | 0.75 ... 1.5 mm ² |
| • finely stranded / with core end processing | 0,75 ... 1.0 mm ² |
| type of electrical connection / for main current circuit | screw-type terminals |
| Mechanical Design | |
| height | 406.5 mm |
| width | 253.5 mm |
| depth | 176.5 mm |
| fastening method | fixed mounting |
| Environmental conditions | |
| ambient temperature / during operation | |
| • minimum | -25 °C |
| • maximum | 70 °C |
| ambient temperature / during storage | |
| • minimum | -40 °C |
| • maximum | 80 °C |
| General Product Approval | |



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|-------------------|-------|
| Marine / Shipping | other |
|-------------------|-------|



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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=3VL6780-1UN46-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VL6780-1UN46-0AA0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL6780-1UN46-0AA0

CAx-Online-Generator

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

Tender specifications

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



