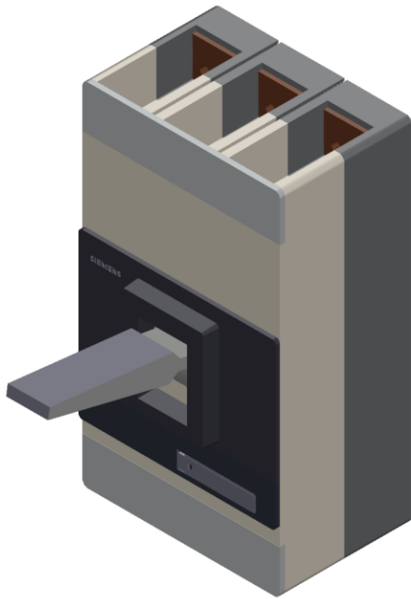


circuit breaker VL1600L very high breaking capacity $I_{cu}=100\text{kA}$, 415V AC 3-pole, line protection trip unit ETU20, LSI $I_n=1600\text{A}$, rated current $I_R=640\dots1600\text{A}$, overload protection, $ISD=1.5$ to $8 \times I_R$, $II=9 \times I_N$ short-circuit protection without auxiliary release without auxiliary/alarm switch



| Model | |
|---|-------|
| Type of the driving mechanism / motor drive | No |
| Design of the overcurrent release | ETU20 |
| General technical data | |
| Number of poles | 3 |
| Size of the circuit-breaker | 3VL8 |
| Electrical endurance (switching cycles) / typical | 1 500 |

| | |
|--|--------|
| Usage category | A |
| Performance class for circuit breaker | N |
| Mechanical service life (switching cycles) / typical | 3 000 |
| Reference code / acc. to DIN 40719 extended according to IEC 204-2 / acc. to IEC 750 | Q |
| Operating frequency / maximum | 30 1/s |

Voltage

| | |
|---|-------|
| Rated operational voltage U _e / max. | 690 V |
| Insulation voltage | |
| • rated value | 800 V |
| • at AC / rated value | 800 V |
| Surge voltage resistance / rated value | 8 kV |

Protection class

| | |
|--|------|
| Protection class IP | IP20 |
| Protective function of the overcurrent release | LSI |

Electricity

| | |
|--|----------|
| Operating current / at 45 °C / rated value | 1 600 A |
| Continuous current / rated value | 1 600 A |
| Derating temperature / for the rated value of the continuous current | 50 °C |
| Adjustable pick-up value current | |
| • of the current-dependent overload release / Full-scale value | 1 600 A |
| • of instantaneous short-circuit trip unit / initial value | 14 400 A |
| • of instantaneous short-circuit trip unit / Full-scale value | 14 400 A |

Main circuit

| | |
|---|---------|
| Operating frequency | |
| • 1 / rated value | 50 Hz |
| • 2 / rated value | 60 Hz |
| Operating voltage | |
| • rated value / maximum | 690 V |
| • for main current circuit / at AC / at 50 Hz / maximum | 690 V |
| • for main current circuit / at AC / at 60 Hz / maximum | 690 V |
| Operating current | |
| • at 40 °C / rated value | 1 600 A |
| • at 50 °C / rated value | 1 600 A |
| • at 55 °C / rated value | 1 520 A |
| • at 60 °C / rated value | 1 520 A |

- at 65 °C / rated value 1 280 A
- at 70 °C / rated value 1 280 A

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 pick-up value current / of the short-time delayed short-circuit release / Full-scale value | 12 800 A |
| Adjustable pick-up value current / of the current-dependent overload release / initial value | 640 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 |
| • Ground fault protection | No |
| • for neutral conductors / Short-circuit and overload proof | No |
| • Overload protection | Yes |

Short circuit

| | |
|---|--------|
| Operational short-circuit current breaking capacity (Ics) | |
| • at 240 V / rated value | 100 kA |
| • at 415 V / rated value | 50 kA |
| • at 500 V / rated value | 38 kA |
| • at 690 V / rated value | 17 kA |
| Maximum short-circuit current breaking capacity (Icu) | |
| • at 240 V / rated value | 200 kA |
| • at 415 V / rated value | 100 kA |
| • at 440 V / rated value | 75 kA |
| • at 480 V / acc. to NEMA / rated value | 65 kA |

- | | |
|---|-------|
| • at 500 V / rated value | 50 kA |
| • at 600 V / acc. to NEMA / rated value | 30 kA |
| • at 690 V / rated value | 35 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 |
| • for auxiliary contacts / finely stranded / with core end processing | 0,75 ... 1.0 mm ² |
| Type of electrical connection / for main current circuit | without connection accessoires |

Mechanical Design

| | |
|---------------|----------------|
| Height | 406.5 mm |
| Width | 228.5 mm |
| Depth | 333.5 mm |
| Mounting type | fixed mounting |

Environmental conditions

| | |
|------------------------------|--------|
| Ambient temperature | |
| • during operation / minimum | -25 °C |
| • during operation / maximum | 70 °C |
| • during storage / minimum | -40 °C |
| • during storage / maximum | 80 °C |

Certificates

| | |
|----------------------------|---------------------------------------|
| Certificate of suitability | IEC, very high switching capacity (L) |
| Reference code | |
| • acc. to DIN EN 61346-2 | Q |

Waste electronic equipment must not be disposed as unsorted municipal waste, e.g. household waste. For disposing the waste electronic equipment it is necessary to observe the current local national/international regulations.



| | | | |
|--------------------------|-----|-------------------|-------------------|
| General Product Approval | EMC | Test Certificates | Shipping Approval |
|--------------------------|-----|-------------------|-------------------|



[Miscellaneous](#)

[TSE](#)



[Special Test Certificate](#)



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



[Miscellaneous](#)

[Confirmation](#)

[Environmental Confirmations](#)

[Manufacturer Declaration](#)

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=3VL8716-3SE30-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VL8716-3SE30-0AA0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL8716-3SE30-0AA0

CAX-Online-Generator

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

Tender specifications

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