



CIRCUIT-BREAKER VL 160L VERY HIGH BREAKING CAPACITY  
ICU=100KA / 415 V AC 3 POLE, LINE PROTECTION ELECTRONIC  
TRIP UNIT ETU20, LSI IN=160A, RATED CURRENT IR=64-160A,  
OVERLOAD ISD=1,5TO10XIR, II=11XIN SHORT-CIRCUIT WITH  
SCREW CONNECTION WITHOUT AUXILIARY RELEASE

| 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                                                             | 3VL2    |
| Electrical endurance (switching cycles) / typical                                       | 10 000  |
| Usage category                                                                          | A       |
| Performance class for circuit breaker                                                   | N       |
| Mechanical service life (switching cycles) / typical                                    | 20 000  |
| Equipment marking / acc. to DIN 40719 extended according to IEC 204-2 / acc. to IEC 750 | Q       |
| Operating frequency / maximum                                                           | 120 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                        |
| <b>Protection class</b>                                                                      |                             |
| Protection class IP                                                                          | IP20                        |
| Protective function of the overcurrent release                                               | LSI                         |
| <b>Electricity</b>                                                                           |                             |
| Continuous current / rated value                                                             | 160 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                               | 160 A                       |
| • of instantaneous short-circuit trip unit / initial value                                   | 1 760 A                     |
| • of instantaneous short-circuit trip unit / Full-scale value                                | 1 760 A                     |
| <b>Main circuit</b>                                                                          |                             |
| Operating frequency                                                                          |                             |
| • 1 / rated value                                                                            | 50 Hz                       |
| • 2 / rated value                                                                            | 60 Hz                       |
| Operating voltage                                                                            |                             |
| • for main current circuit / at AC / at 50 Hz / maximum                                      | 690 V                       |
| • for main current circuit / at AC / at 60 Hz / maximum                                      | 690 V                       |
| • for main current circuit / at DC / maximum                                                 | 500 V                       |
| Operating current                                                                            |                             |
| • at 40 °C / rated value                                                                     | 160 A                       |
| • at 50 °C / rated value                                                                     | 160 A                       |
| • at 55 °C / rated value                                                                     | 152 A                       |
| • at 60 °C / rated value                                                                     | 152 A                       |
| • at 65 °C / rated value                                                                     | 128 A                       |
| • at 70 °C / rated value                                                                     | 128 A                       |
| <b>Suitability</b>                                                                           |                             |
| Suitability for use                                                                          | system/generator protection |
| <b>Adjustable parameters</b>                                                                 |                             |
| Adjustable pick-up value current / of the current-dependent overload release / initial value | 64 A                        |
| <b>Product details</b>                                                                       |                             |
| Product component                                                                            |                             |
| • Trip indicator                                                                             | Yes                         |
| • Auxiliary switch                                                                           | Yes                         |

|                                             |     |
|---------------------------------------------|-----|
| • Voltage trigger                           | No  |
| • undervoltage release                      | No  |
| • undervoltage release with leading contact | No  |
| Product extension / optional / motor drive  | Yes |

## Product function

|                                                             |            |
|-------------------------------------------------------------|------------|
| <b>Product function</b>                                     |            |
| • of thermal overload trip unit                             | adjustable |
| • Ground fault protection                                   | No         |
| • for neutral conductors / Short-circuit and overload proof | No         |
| • Overload protection                                       | Yes        |

## Short circuit

|                                                                  |        |
|------------------------------------------------------------------|--------|
| <b>Operational short-circuit current breaking capacity (Ics)</b> |        |
| • at 240 V / rated value                                         | 150 kA |
| • at 415 V / rated value                                         | 75 kA  |
| • at 500 V / rated value                                         | 38 kA  |
| • at 690 V / rated value                                         | 6 kA   |
| <b>Maximum short-circuit current breaking capacity (Icu)</b>     |        |
| • 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                          | 75 kA  |
| • at 500 V / rated value                                         | 50 kA  |
| • at 600 V / acc. to NEMA / rated value                          | 12 kA  |
| • at 690 V / rated value                                         | 12 kA  |

## Connections

|                                                                 |                      |
|-----------------------------------------------------------------|----------------------|
| Arrangement of electrical connectors / for main current circuit | front side           |
| Type of electrical connection / for main current circuit        | screw-type terminals |

## Mechanical Design

|                      |                |
|----------------------|----------------|
| <b>Height</b>        | 174.5 mm       |
| <b>Width</b>         | 104.5 mm       |
| <b>Depth</b>         | 106.5 mm       |
| <b>Mounting type</b> | fixed mounting |

## Environmental conditions

|                              |        |
|------------------------------|--------|
| <b>Ambient temperature</b>   |        |
| • 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)

### Equipment marking

- acc. to DIN EN 61346-2

Q

### General Product Approval

### EMC

### Declaration of Conformity



CCC

[sonstig](#)



[TSE](#)



C-Tick



EG-Konf.

### Test Certificates

### Shipping Approval

### other

[spezielle  
Prüfbescheinigung](#)  
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RINA



RMRS

[sonstig](#)

[Bestätigungen](#)

[Umweltbestätigung](#)

## Further information

### Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/lowvoltage/catalogs>

### Industry Mall (Online ordering system)

<https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3VL2716-3SE36-0AD1>

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

<http://support.automation.siemens.com/WW/view/en/3VL2716-3SE36-0AD1/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VL2716-3SE36-0AD1](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL2716-3SE36-0AD1)

### CAX-Online-Generator

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

### Tender specifications

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