



CIRCUIT-BREAKER VL 630L VERY HIGH BREAKING CAPACITY ICU=100KA / 415 V AC 3 POLE, LINE PROTECTION OVERCURRENT RELEASE TM, LI IN=500A, RATED CURRENT IR=400-500A, OVERLOAD II=2500-5000A, SHORT CIRCUIT

| Model   |     |        |
|---|-----|--------|
| Type of the driving mechanism / motor drive   |     | No     |
| Design of the overcurrent release   |     | TM     |
| General technical data  |     |        |
| Number of poles   |     | 3      |
| Size of the circuit-breaker   |     | 3VL5   |
| Electrical endurance (switching cycles) / typical                                       |     | 5 000  |
| Usage category  |     | A      |
| Performance class for circuit breaker   |     | N      |
| Mechanical service life (switching cycles) / typical                                    |     | 10 000 |
| Equipment marking / acc. to DIN 40719 extended according to IEC 204-2 / acc. to IEC 750 |     | Q      |
| Operating frequency / maximum   | 1/s | 60     |
| Voltage   |     |        |
| Rated operational voltage $U_e$ / max.  | V   | 690    |
| Insulation voltage  |     |        |
| • rated value   | V   | 800    |
| • at AC / rated value   | V   | 800    |

|  |    |   |
|--|----|---|
| Surge voltage resistance / rated value | kV | 8 |
|--|----|---|

### Protection class

|   |  |      |
|---|--|------|
| <b>Protection class IP</b>                            |  | IP20 |
| <b>Protective function of the overcurrent release</b> |  | LI   |

### Electricity

|  |    |       |
|--|----|-------|
| Continuous current / rated value   | A  | 500   |
| Derating temperature / for the rated value of the continuous current   | °C | 50    |
| <b>Adjustable pick-up value current</b>  |    |       |
| <ul style="list-style-type: none"> <li>of the current-dependent overload release / Full-scale value</li> </ul> | A  | 500   |
| <ul style="list-style-type: none"> <li>of instantaneous short-circuit trip unit / initial value</li> </ul>     | A  | 2 500 |
| <ul style="list-style-type: none"> <li>of instantaneous short-circuit trip unit / Full-scale value</li> </ul>  | A  | 5 000 |

### Main circuit

|   |    |     |
|---|----|-----|
| <b>Operating frequency</b>  |    |     |
| <ul style="list-style-type: none"> <li>1 / rated value</li> </ul>                                       | Hz | 50  |
| <ul style="list-style-type: none"> <li>2 / rated value</li> </ul>                                       | Hz | 60  |
| <b>Operating voltage</b>  |    |     |
| <ul style="list-style-type: none"> <li>for main current circuit / at AC / at 50 Hz / maximum</li> </ul> | V  | 690 |
| <ul style="list-style-type: none"> <li>for main current circuit / at AC / at 60 Hz / maximum</li> </ul> | V  | 690 |
| <b>Operating current</b>  |    |     |
| <ul style="list-style-type: none"> <li>at 40 °C / rated value</li> </ul>                                | A  | 500 |
| <ul style="list-style-type: none"> <li>at 50 °C / rated value</li> </ul>                                | A  | 500 |
| <ul style="list-style-type: none"> <li>at 55 °C / rated value</li> </ul>                                | A  | 465 |
| <ul style="list-style-type: none"> <li>at 60 °C / rated value</li> </ul>                                | A  | 465 |
| <ul style="list-style-type: none"> <li>at 65 °C / rated value</li> </ul>                                | A  | 430 |
| <ul style="list-style-type: none"> <li>at 70 °C / rated value</li> </ul>                                | A  | 430 |

### Auxiliary circuit

|   |  |   |
|---|--|---|
| Number of CO contacts / for auxiliary contacts        |  | 0 |
| <b>Number of NC contacts / for auxiliary contacts</b> |  | 2 |
| <b>Number of NO contacts / for auxiliary contacts</b> |  | 2 |

### Suitability

|                            |  |                   |
|----------------------------|--|-------------------|
| <b>Suitability for use</b> |  | system protection |
|----------------------------|--|-------------------|

### Adjustable parameters

|   |   |     |
|---|---|-----|
| <b>Adjustable pick-up value current / of the current-dependent overload release / initial value</b> | A | 400 |
|---|---|-----|

### Product details

|   |  |     |
|---|--|-----|
| <b>Product component</b>                    |  |     |
| • Trip indicator                            |  | No  |
| • 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   | kA | 150 |
| • at 415 V / rated value   | kA | 75  |
| • at 500 V / rated value   | kA | 38  |
| • at 690 V / rated value   | kA | 10  |
| <b>Maximum short-circuit current breaking capacity (Icu)</b>     |    |     |
| • at 240 V / rated value   | kA | 200 |
| • at 415 V / rated value   | kA | 100 |
| • at 440 V / rated value   | kA | 75  |
| • at 480 V / acc. to NEMA / rated value                          | kA | 65  |
| • at 500 V / rated value   | kA | 50  |
| • at 600 V / acc. to NEMA / rated value                          | kA | 35  |
| • at 690 V / rated value   | kA | 20  |

### 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 <sup>2</sup> |
| — finely stranded / with core end processing                    |  | 0,75 ... 1.0 mm <sup>2</sup> |
| Type of electrical connection / for main current circuit        |  | screw-type terminals         |

### Mechanical Design

|               |    |       |
|---------------|----|-------|
| <b>Height</b> | mm | 279.5 |
| <b>Width</b>  | mm | 190   |
| <b>Depth</b>  | mm | 138.5 |

|               |                |
|---------------|----------------|
| Mounting type | fixed mounting |
|---------------|----------------|

### Environmental conditions

|                              |    |     |
|------------------------------|----|-----|
| <b>Ambient temperature</b>   |    |     |
| • during operation / minimum | °C | 0   |
| • during operation / maximum | °C | 70  |
| • during storage / minimum   | °C | -40 |
| • during storage / maximum   | °C | 80  |

### Certificates

|                                   |                                       |
|-----------------------------------|---------------------------------------|
| <b>Certificate of suitability</b> | IEC, very high switching capacity (L) |
| <b>Equipment marking</b>          | Q                                     |
| • acc. to DIN EN 61346-2          |                                       |

|                                 |            |                                  |
|---------------------------------|------------|----------------------------------|
| <b>General Product Approval</b> | <b>EMC</b> | <b>Declaration of Conformity</b> |
|---------------------------------|------------|----------------------------------|



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|                          |              |
|--------------------------|--------------|
| <b>Shipping Approval</b> | <b>other</b> |
|--------------------------|--------------|



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### 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/3VL57503DC360AC1>

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

<http://support.automation.siemens.com/WW/view/en/3VL57503DC360AC1/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mfb=3VL57503DC360AC1](http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=3VL57503DC360AC1)

**CAX-Online-Generator**

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

**Tender specifications**

<http://ausschreibungstexte.siemens.com/tiplv>

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