

circuit breaker VL1600N standard breaking capacity I<sub>cu</sub>=55kA, 415V AC 3-pole, line protection trip unit ETU10, I<sub>N</sub>=1600A, rated current I<sub>R</sub>=640...1600A, overload protection, I<sub>l</sub>=1.25 to 9 x I<sub>N</sub>, short-circuit protection without auxiliary release Auxiliary switch mounting kit 4 AUX (2 NO + 2 NC)

| Model                                                                                                                                                                                                                                                                    |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| type of the driving mechanism / motor drive                                                                                                                                                                                                                              | No       |
| design of the overcurrent release                                                                                                                                                                                                                                        | ETU10    |
| General technical data                                                                                                                                                                                                                                                   |          |
| number of poles                                                                                                                                                                                                                                                          | 3        |
| size of the circuit-breaker                                                                                                                                                                                                                                              | 3VL8     |
| mechanical service life (switching cycles) / typical                                                                                                                                                                                                                     | 3 000    |
| electrical endurance (switching cycles) / typical                                                                                                                                                                                                                        | 1 500    |
| 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                                                                                                                                                                                                                                            | 30 1/s   |
| Voltage                                                                                                                                                                                                                                                                  |          |
| Rated operational voltage U <sub>e</sub> / max.                                                                                                                                                                                                                          | 690 V    |
| <ul style="list-style-type: none"> <li>insulation voltage / rated value</li> <li>insulation voltage (U<sub>i</sub>) / at AC / rated value</li> </ul>                                                                                                                     | 800 V    |
| surge voltage resistance / rated value                                                                                                                                                                                                                                   | 8 kV     |
| operating voltage                                                                                                                                                                                                                                                        |          |
| <ul style="list-style-type: none"> <li>rated value / maximum</li> <li>for main current circuit / at AC / at 50 Hz / maximum</li> <li>for main current circuit / at AC / at 60 Hz / maximum</li> </ul>                                                                    | 690 V    |
| Protection class                                                                                                                                                                                                                                                         |          |
| protection class IP                                                                                                                                                                                                                                                      | IP20     |
| protection function of the overcurrent release                                                                                                                                                                                                                           | LI       |
| Current                                                                                                                                                                                                                                                                  |          |
| operational current                                                                                                                                                                                                                                                      |          |
| <ul style="list-style-type: none"> <li>at 40 °C / rated value</li> <li>at 45 °C / rated value</li> <li>at 50 °C / rated value</li> <li>at 55 °C / rated value</li> <li>at 60 °C / rated value</li> <li>at 65 °C / rated value</li> <li>at 70 °C / rated value</li> </ul> | 1 600 A  |
| continuous current / rated value                                                                                                                                                                                                                                         | 1 600 A  |
| derating temperature / for the rated value of the continuous current                                                                                                                                                                                                     | 50 °C    |
| adjustable current response value current                                                                                                                                                                                                                                |          |
| <ul style="list-style-type: none"> <li>of the current-dependent overload release / full-scale value</li> <li>of instantaneous short-circuit trip unit / minimum</li> <li>of instantaneous short-circuit trip unit / maximum</li> </ul>                                   | 1 600 A  |
|                                                                                                                                                                                                                                                                          | 2 000 A  |
|                                                                                                                                                                                                                                                                          | 14 400 A |
| Main circuit                                                                                                                                                                                                                                                             |          |
| operating frequency                                                                                                                                                                                                                                                      |          |
| <ul style="list-style-type: none"> <li>1 / rated value</li> <li>2 / rated value</li> </ul>                                                                                                                                                                               | 50 Hz    |
|                                                                                                                                                                                                                                                                          | 60 Hz    |
| Auxiliary circuit                                                                                                                                                                                                                                                        |          |
| number of CO contacts / for auxiliary contacts                                                                                                                                                                                                                           | 0        |

|                                                                                                       |                                |
|-------------------------------------------------------------------------------------------------------|--------------------------------|
| number of NC contacts / for auxiliary contacts                                                        | 2                              |
| number of NO contacts / for auxiliary contacts                                                        | 2                              |
| <b>Suitability</b>                                                                                    |                                |
| suitability for use                                                                                   | system protection              |
| <b>Adjustable parameters</b>                                                                          |                                |
| adjustable current response value current / of the current-dependent overload release / initial value | 640 A                          |
| <b>Product details</b>                                                                                |                                |
| product component                                                                                     |                                |
| • trip indicator                                                                                      | No                             |
| • auxiliary switch                                                                                    | Yes                            |
| • voltage trigger                                                                                     | No                             |
| • undervoltage release                                                                                | No                             |
| • undervoltage release with leading contact                                                           | No                             |
| product extension / optional / motor drive                                                            | Yes                            |
| <b>Product function</b>                                                                               |                                |
| product function                                                                                      |                                |
| • of thermal overload trip unit                                                                       | adjustable                     |
| • grounding protection                                                                                | No                             |
| • for neutral conductors / short-circuit and overload proof                                           | No                             |
| • overload protection                                                                                 | Yes                            |
| <b>Short circuit</b>                                                                                  |                                |
| breaking capacity operating short-circuit current (Ics)                                               |                                |
| • at 240 V / rated value                                                                              | 35 kA                          |
| • at 415 V / rated value                                                                              | 28 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                          |
| <b>Connections</b>                                                                                    |                                |
| 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                                              | without connection accessoires |
| <b>Mechanical Design</b>                                                                              |                                |
| height                                                                                                | 406.5 mm                       |
| width                                                                                                 | 228.5 mm                       |
| depth                                                                                                 | 333.5 mm                       |
| fastening method                                                                                      | fixed mounting                 |
| <b>Environmental conditions</b>                                                                       |                                |
| ambient temperature / during operation                                                                |                                |
| • minimum                                                                                             | -25 °C                         |
| • maximum                                                                                             | 70 °C                          |
| ambient temperature / during storage                                                                  |                                |
| • minimum                                                                                             | -40 °C                         |
| • maximum                                                                                             | 80 °C                          |
| <b>General Product Approval</b>                                                                       |                                |
| EMC                                                                                                   |                                |

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