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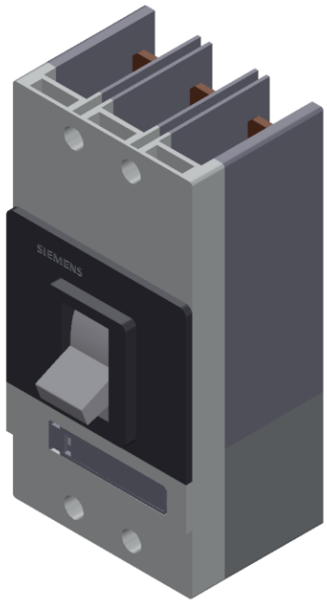
## Data sheet 3VL4850-1KN30-0AA0

circuit breaker VL400X UL; type LG (cat no. NLX3B500) non-interchangeable frame, with circuit breaker approval acc. to UL 489 standard breaking capacity 3-pole, NEMA rating 35kA/480V and 18kA/600V (molded case circuit breaker) trip unit TM, LI TA=40°C In=< 500A, rated current II=2500...5000A short-circuit protection IR=500A ETU for line protection without connection accessories without auxiliary release without auxiliary/alarm switch




| 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 | 3VL4X UL |
| Electrical endurance (switching cycles) / typical | 10 000 |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| | |
|---|---|
| Usage category | A |
| Performance class for circuit breaker | N |
| Mechanical service life (switching cycles) / typical | 20 000 |
| Reference code / 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 Ue / max. | 690 V |
| Insulation voltage | |
| • rated value | 800 V |
| • at AC / rated value | 800 V |
| Surge voltage resistance / rated value | 8 kV |
| Operating voltage | |
| • rated value / maximum | 690 V |
| • for main current circuit / at AC / at 50 Hz / acc. to UL 489 / maximum | 600 V |
| • for main current circuit / at AC / at 50 Hz / maximum | 690 V |
| • for main current circuit / at AC / at 60 Hz / acc. to UL 489 / maximum | 600 V |
| • for main current circuit / at AC / at 60 Hz / maximum | 690 V |

| Protection class | |
|---|---|
| Protection class IP | IP20 |
| protection function of the overcurrent release | LI |

| Current | |
|---|---|
| Operating current / at 45 °C / rated value | 465 A |
| Continuous current / rated value | 500 A |
| Derating temperature / for the rated value of the continuous current | 50 °C |
| • acc. to UL 489 | 40 °C |
| Adjustable pick-up value current | |
| • of the current-dependent overload release / Full-scale value | 500 A |
| • of instantaneous short-circuit trip unit / initial value | 2 500 A |
| • of instantaneous short-circuit trip unit / Full-scale value | 5 000 A |

| Main circuit | |
|---|---|
| Operating frequency | |
| • 1 / rated value | 50 Hz |
| • 2 / rated value | 60 Hz |


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| | |
|---|---|
| Operating current | |
| • at 40 °C / rated value | 500 A |
| • at 50 °C / rated value | 465 A |
| • at 55 °C / rated value | 430 A |
| • at 60 °C / rated value | 430 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 protection |

## Adjustable parameters

| | |
|---|---|
| Adjustable pick-up value current / of the current-dependent overload release / initial value | 500 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 | fixed |
| • 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 | 65 kA |
| • at 415 V / rated value | 45 kA |
| • at 690 V / rated value | 6 kA |
| Maximum short-circuit current breaking capacity (Icu) | |
| • at 240 V / rated value | 65 kA |
| • at 415 V / rated value | 45 kA |
| • at 480 V / acc. to NEMA / rated value | 35 kA |
| • at 600 V / acc. to NEMA / rated value | 18 kA |


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| | |
|---|---|
| • 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 | without connection accessoires |

## Mechanical Design

| | |
|---|---|
| Height | 279.5 mm |
| Width | 139.5 mm |
| Depth | 163.5 mm |
| Mounting type | fixed mounting |

## Environmental conditions

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

## Certificates

| | |
|---|---|
| Certificate of suitability | UL Stretch, standard switching capacity (N), non-interchangeable |
| Reference code | |
| • acc. to DIN EN 61346-2 | Q |

| General Product Approval | | | | EMC | Declaration of Conformity |
|---|---|---|---|---|---|
| CCC | CSA | Miscellaneous | UL | C-Tick | EG-Konf. |

| Test Certificates | Shipping Approval | other | | | |
|---|---|---|---|---|---|
| Special Test Certificate | RMRS | Environmental Confirmations | Miscellaneous | Confirmation | 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=3VL4850-1KN30-0AA0

**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
https://support.industry.siemens.com/cs/ww/en/ps/3VL4850-1KN30-0AA0


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**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)**
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL4850-1KN30-0AA0

**CAx-Online-Generator**
http://www.siemens.com/cax

**Tender specifications**
http://www.siemens.com/specifications


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