

circuit breaker VL160X N standard breaking capacity I_{cu}=55kA, 415V AC 3-pole, line protection Electronic Trip Unit TM, LI I_n=32A, rated current I_r=25...32A, overload prot. II=300A, short-circuit prot. 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 | 3VL1 |
| mechanical service life (switching cycles) / typical | 20 000 |
| electrical endurance (switching cycles) / typical | 10 000 |
| utilization category | A |
| performance class for circuit breaker | N |
| 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 U _e / 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 / maximum | 690 V |
| • for main current circuit / at AC / at 60 Hz / maximum | 690 V |
| • for main current circuit / at DC / maximum | 500 V |
| Protection class | |
| protection class IP | IP20 |
| protection function of the overcurrent release | LI |
| Current | |
| operational current | |
| • at 40 °C / rated value | 32 A |
| • at 45 °C / rated value | 32 A |
| • at 50 °C / rated value | 32 A |
| • at 55 °C / rated value | 29.8 A |
| • at 60 °C / rated value | 29.8 A |
| • at 65 °C / rated value | 27.5 A |
| • at 70 °C / rated value | 27.5 A |
| continuous current / rated value | 32 A |
| derating temperature / for the rated value of the continuous current | 50 °C |
| adjustable current response value current | |
| • of the current-dependent overload release / full-scale value | 32 A |
| • of instantaneous short-circuit trip unit / initial value | 300 A |
| • of instantaneous short-circuit trip unit / full-scale value | 300 A |
| Main circuit | |
| operating frequency | |

| | |
|---|------------------------------|
| <ul style="list-style-type: none"> • 1 / rated value | 50 Hz |
| <ul style="list-style-type: none"> • 2 / rated value | 60 Hz |
| 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 current response value current / of the current-dependent overload release / initial value | 26 A |
| Product details | |
| product component | |
| <ul style="list-style-type: none"> • trip indicator | No |
| <ul style="list-style-type: none"> • auxiliary switch | No |
| <ul style="list-style-type: none"> • voltage trigger | No |
| <ul style="list-style-type: none"> • undervoltage release | No |
| <ul style="list-style-type: none"> • undervoltage release with leading contact | No |
| product extension / optional / motor drive | Yes |
| Product function | |
| product function | |
| <ul style="list-style-type: none"> • of thermal overload trip unit | adjustable |
| <ul style="list-style-type: none"> • grounding protection | No |
| <ul style="list-style-type: none"> • for neutral conductors / short-circuit and overload proof | No |
| <ul style="list-style-type: none"> • overload protection | Yes |
| Short circuit | |
| breaking capacity operating short-circuit current (Ics) | |
| <ul style="list-style-type: none"> • at 240 V / rated value | 65 kA |
| <ul style="list-style-type: none"> • at 415 V / rated value | 55 kA |
| <ul style="list-style-type: none"> • at 500 V / rated value | 14 kA |
| <ul style="list-style-type: none"> • at 690 V / rated value | 4 kA |
| breaking capacity maximum short-circuit current (Icu) | |
| <ul style="list-style-type: none"> • at 240 V / rated value | 65 kA |
| <ul style="list-style-type: none"> • at 415 V / rated value | 55 kA |
| <ul style="list-style-type: none"> • at 440 V / rated value | 25 kA |
| <ul style="list-style-type: none"> • at 480 V / acc. to NEMA / rated value | 25 kA |
| <ul style="list-style-type: none"> • at 500 V / rated value | 18 kA |
| <ul style="list-style-type: none"> • at 600 V / acc. to NEMA / rated value | 8 kA |
| <ul style="list-style-type: none"> • at 690 V / rated value | 8 kA |
| Connections | |
| arrangement of electrical connectors / for main current circuit | front side |
| type of connectable conductor cross-sections / for main contacts | |
| <ul style="list-style-type: none"> • with flexible busbar | 12 x 10 mm |
| <ul style="list-style-type: none"> • solid | 2.5 ... 95 mm ² |
| <ul style="list-style-type: none"> • finely stranded / with core end processing | 2.5 ... 50 mm ² |
| <ul style="list-style-type: none"> • stranded | 2.5 ... 95 mm ² |
| type of connectable conductor cross-sections / for auxiliary contacts | |
| <ul style="list-style-type: none"> • solid | 0.75 ... 1.5 mm ² |
| <ul style="list-style-type: none"> • finely stranded / with core end processing | 0,75 ... 1.0 mm ² |
| type of electrical connection / for main current circuit | box terminal |
| Mechanical Design | |
| height | 157.5 mm |
| width | 104.5 mm |
| depth | 106.5 mm |

| | |
|--|--------------------------------------|
| fastening method | 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 | IEC, standard switching capacity (N) |
| reference code | |
| • acc. to DIN EN 61346-2 | Q |
| General Product Approval | EMC |








[Miscellaneous](#)

[TSE](#)

[KC](#)



| | | | | | |
|---|--|--|--|--|--|
| Declaration of Conformity | Test Certificates | Marine / Shipping | | | |
|  EG-Konf. | Special Test Certificate |  ABS |  BUREAU VERITAS |  LRS |  PRS |

| | | | | | |
|---|---|--|------------------------------|---|--|
| Marine / Shipping | other | | | | |
|  RINA |  RMRS |  DNV-GL DNV.COM | Confirmation | Environmental Confirmations | Manufacturer Declaration |

| | |
|-------------------------------|-------------------------------|
| other | |
| Miscellaneous | Miscellaneous |

| |
|--|
| Further information |
| <p>Information- and Downloadcenter (Catalogs, Brochures,...) http://www.siemens.com/lowvoltage/catalogs</p> <p>Industry Mall (Online ordering system) https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VL1703-1DD33-0AA0</p> <p>Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3VL1703-1DD33-0AA0</p> <p>Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL1703-1DD33-0AA0</p> <p>CAX-Online-Generator http://www.siemens.com/cax</p> <p>Tender specifications http://www.siemens.com/specifications</p> |

