

Vacuum Circuit Breakers

Susol VCB Series

VL 06

| Type | | VL-06□08□04 | VL-06□13□06 |
|--|------------------------------|---|-------------|
| Rated voltage | Ur (kV) | 7.2 | |
| Rated normal current | Ir (A) | 400 | 630 |
| Rated frequency | fr (Hz) | 50/60 | |
| Rated short-circuit current | Isc (kA) | 8 | 12.5 |
| Rated short-time withstand current (3 sec) | Ik (kA) | 8 | 12.5 |
| Rated short-circuit breaking capacity | (MVA) | 100 | 160 |
| Rated short-circuit making current | Ip (kA) | 20.8 | 32.5 |
| Rated breaking time | (cycle) | 3 | |
| Rated withstand voltage | Power frequency (1 min) | 20 | |
| | Impulse (1.2×50μs) | 60 | |
| Rated operating sequence | | O-0.3s-CO-15s-CO | |
| Control voltage | Closing coil (V) | AC/DC 100~130V, AC/DC 200~250V, DC 125V, DC 24~30V, DC 48~60V, AC 48V | |
| | Trip coil (V) | AC/DC 100~130V, AC/DC 200~250V, DC 125V, DC 24~30V, DC 48~60V, AC 48V | |
| Auxiliary contact | | 2a2b, 4a4b, 6a6b | |
| Rated opening time | (sec) | ≤ 0.04 | |
| No-load closing time | (sec) | ≤ 0.06 | |
| Type test | Mechanical | M2 | |
| | Electrical | E2 (List1) | |
| | Capacitive current switching | C2 | |
| Lifetime * | Mechanical (time) | 30000 | |
| | Electrical (time) | 30000 | |
| Installation | Fixed | P type | |
| | Draw-out | E, F, G type (for MESG) | |
| Pole centre distance | (mm) | 130 | |
| Weight | CB (E, F, G type) (kg) | 37 | 37 |
| | Cradle (E, F, G type) (kg) | 18, 25, 32 | 19, 26, 33 |
| Applied standards | | IEC 62271-100, KS C 4611, JEC 2300/JIS C 4603 | |

* With maintenance

VL 06...17

| Type | | VL-06□20/25□06/13/20 | | | VL-12□20/25□06/13/20 | | | VL-17□20/25□06/13/20 | | |
|--|------------------------------|---|------|------|---|-----------|-----------|----------------------|-----------|-----------|
| Rated voltage | Ur (kV) | 7.2 | | | 12 | | | 17.5 | | |
| Rated normal current | Ir (A) | 630 | 1250 | 2000 | 630 | 1250 | 2000 | 630 | 1250 | 2000 |
| Rated frequency | fr (Hz) | 50/60 | | | | | | | | |
| Rated short-circuit current | Isc (kA) | 20/25 | | | | | | | | |
| Rated short-time withstand current (3 sec) | Ik (kA) | 20/25 | | | | | | | | |
| Rated short-circuit breaking capacity | (MVA) | 250/310 | | | 410/520 | | | 600/750 | | |
| Rated short-circuit making current | Ip (kA) | 62.5/65 | | | | | | | | |
| Rated breaking time | (cycle) | 3 | | | | | | | | |
| Rated withstand voltage | Power frequency (1 min) | 20 | | | 28 (42) | | | 38 | | |
| | Impulse (1.2×50μs) | 60 | | | 75 | | | 95 | | |
| Rated operating sequence | | O-0.3s-CO-15s-CO | | | | | | | | |
| Control voltage | Closing coil (V) | DC 24~30V, DC 48~60V, DC 110V, DC 125V, DC 220V, AC 48V, AC 100~130V, AC 220~250V | | | | | | | | |
| | Trip coil (V) | DC 24~30V, DC 48~60V, DC 110V, DC 125V, DC 220V, AC 48V, AC 100~130V, AC 220~250V | | | | | | | | |
| Auxiliary contact | | 4a4b, 10a10b | | | | | | | | |
| Rated opening time | (sec) | ≤ 0.04 | | | | | | | | |
| No-load closing time | (sec) | ≤ 0.06 | | | | | | | | |
| Type test | Mechanical | M2 | | | | | | | | |
| | Electrical | E2 (List3) | | | | | | | | |
| | Capacitive current switching | C2 | | | | | | | | |
| Lifetime * | Mechanical (time) | 30000 | | | | | | | | |
| | Electrical (time) | 30000 | | | | | | | | |
| Installation | Fixed | P type | | | P type | | | | | |
| | Draw-out | E, F, G type (for MESG), H type (for MMSG) | | | E, F type (for MESG), H type (for MMSG) | | | | | |
| Pole centre distance | (mm) | 150 | | | 150 (210) | | | 150 (210) | | |
| Weight | CB (H type) (kg) | 100 | 100 | 130 | 115 (120) | 115 (120) | 130 (140) | 115 (120) | 115 (120) | 130 (140) |
| | Cradle (H type) (kg) | 170 | 170 | 180 | 170 (200) | 170 (200) | 180 (200) | 170 (200) | 170 (200) | 180 (200) |
| Applied standards | | IEC 62271-100 | | | | | | | | |

* With maintenance

VH 06...36

| Type | | | VH-06□50□12/20/25/32/40 | | | | | VH-12□50□12/20/25/32/40 | | | | | VH-17□50□12/20/25/32 | | | |
|--|------------------------------|---------|---|------|------|----------|-------------------|-------------------------|------|----------|-------------------|------|----------------------|------|------|------|
| Rated voltage | Ur (kV) | | 7.2 | | | | | 12 | | | | | 17.5 | | | |
| Rated normal current | Ir (A) | | 1250 | 2000 | 2500 | 3150 | 4000 | 1250 | 2000 | 2500 | 3150 | 4000 | 1250 | 2000 | 2500 | 3150 |
| Rated frequency | fr (Hz) | | 50/60 | | | | | | | | | | | | | |
| Rated short-circuit current | Isc (kA) | | 50 | | | | | | | | | | | | | |
| Rated short-time withstand current (3 sec) | Ik (kA) | | 50 | | | | | | | | | | | | | |
| Rated short-circuit breaking capacity | (MVA) | | 623 | | | | | 1039 | | | | | 1515 | | | |
| Rated short-circuit making current | Ip (kA) | | 130 | | | | | | | | | | | | | |
| Rated breaking time | (cycle) | | 3 | | | | | | | | | | | | | |
| Rated withstand voltage | Power frequency (1 min) | Ud (kV) | 20 | | | | | 28 | | | | | 38 | | | |
| | Impulse (1.2×50μs) | Up (kV) | 60 | | | | | 75 | | | | | 95 | | | |
| Rated operating sequence | | | O-0.3s-CO-3min-CO | | | | | | | | | | | | | |
| Control voltage | Closing coil | (V) | DC 48V, DC 110V, DC 125V, DC 220V, AC 48V, AC 110V, AC 220V | | | | | | | | | | | | | |
| | Trip coil | (V) | DC 48V, DC 110V, DC 125V, DC 220V, AC 48V, AC 110V, AC 220V | | | | | | | | | | | | | |
| Auxiliary contact | | | 4a4b, 10a10b | | | | | | | | | | | | | |
| Rated opening time | (sec) | | ≤ 0.04 | | | | | | | | | | | | | |
| No-load closing time | (sec) | | ≤ 0.06 | | | | | | | | | | | | | |
| Type test | Mechanical | | M2 | | | | | | | | | | | | | |
| | Electrical | | E2 (List3) | | | | | | | | | | | | | |
| | Capacitive current switching | | C2 | | | | | | | | | | | | | |
| Lifetime * | Mechanical | (time) | 20000 | | | | | | | | | | | | | |
| | Electrical | (time) | 20000 | | | | | | | | | | | | | |
| Installation | Fixed | | P type | | | - | P type | | | - | P type | | | | | |
| | Draw-out | | H type (for MCSG) | | | G type** | H type (for MCSG) | | | G type** | H type (for MCSG) | | | | | |
| Pole centre distance | (mm) | 210 | 275 | | 275 | 210 | 275 | | 275 | 210 | 275 | | | | | |
| Weight | CB (H type) | (kg) | 230 | 287 | 290 | 385 | 230 | 287 | 290 | 385 | 230 | 287 | 290 | | | |
| | Cradle (H type) | (kg) | 175 | 320 | 320 | 315 | 175 | 320 | 320 | 315 | 175 | 320 | 320 | | | |
| Applied standards | | | IEC 62271-100 | | | | | | | | | | | | | |

* With maintenance

** G type (for MCSG)

| Type | | | VH-20□25□25 | | | VH-20□32□12/20/32 | | | VH-20□40□12/20/32 | | | |
|--|------------------------------|---------|---|-----------|-----------|-------------------|-----------|-----------|-------------------|-----------|-----------|-----|
| Rated voltage | Ur (kV) | | 24/25.8 | | | | | | | | | |
| Rated normal current | Ir (A) | | 2500 | | | 1250 | 2000 | 3150 | 1250 | 2000 | 3150 | |
| Rated frequency | fr (Hz) | | 60 | | | | | | | | | |
| Rated short-circuit current | Isc (kA) | | 25 | | | 31.5 | | | 40 | | | |
| Rated short-time withstand current (3 sec) | Ik (kA) | | 25 | | | 31.5 | | | 40 | | | |
| Rated short-circuit breaking capacity | (MVA) | | 1039/1117 | | | 1309/1407 | | | 1662/1787 | | | |
| Rated short-circuit making current | Ip (kA) | | 65 | | | 82 | | | 104 | | | |
| Rated breaking time | (cycle) | | 3 | | | | | | | | | |
| Rated withstand voltage | Power frequency (1 min) | Ud (kV) | 60 (65) | | | | | | | | | |
| | Impulse (1.2×50μs) | Up (kV) | 125 | | | | | | | | | |
| Rated operating sequence | | | O-0.3s-CO-3min-CO | | | | | | | | | |
| Control voltage | Closing coil | (V) | DC 48V, DC 110V, DC 125V, DC 220V, AC 48V, AC 110V, AC 220V | | | | | | | | | |
| | Trip coil | (V) | DC 48V, DC 110V, DC 125V, DC 220V, AC 48V, AC 110V, AC 220V | | | | | | | | | |
| Auxiliary contact | | | 4a4b, 10a10b | | | | | | | | | |
| Rated opening time | (sec) | | ≤ 0.04 | | | | | | | | | |
| No-load closing time | (sec) | | ≤ 0.06 | | | | | | | | | |
| Type test | Mechanical | | M2 | | | | | | | | | |
| | Electrical | | E2 (List3) | | | | | | | | | |
| | Capacitive current switching | | C2 | | | | | | | | | |
| Lifetime * | Mechanical | (time) | 20000 | | | | | | | | | |
| | Electrical | (time) | 20000 | | | | | | | | | |
| Installation | Fixed | | P type | | | | | | | | | |
| | Draw-out | | H type (for MCSG) | | | | | | | | | |
| Pole centre distance | (mm) | 275 | 210 | 210 (275) | 275 | 210 | 210 (275) | 275 | 210 | 210 (275) | 275 | |
| Weight | CB (H type) | (kg) | 295 | 256 | 256 (273) | 318 | 256 | 256 (273) | 318 | 256 | 256 (273) | 318 |
| | Cradle (H type) | (kg) | 316 | 257 | 257 (284) | 316 | 257 | 257 (284) | 316 | 257 | 257 (284) | 316 |
| Applied standards | | | IEC 62271-100 | | | | | | | | | |

* With maintenance

Vacuum Circuit Breakers

Susol VCB Series


VH 06...36

| Type | | VH-36□25□12/20/32 | | | VH-36□32□12/20/32 | | | VH-36□40□12/20/32 | | |
|--|------------------------------|---|------|------|-------------------|------|------|-------------------|------|------|
| Rated voltage | Ur (kV) | 36 | | | | | | | | |
| Rated normal current | Ir (A) | 1250 | 2000 | 3150 | 1250 | 2000 | 3150 | 1250 | 2000 | 3150 |
| Rated frequency | fr (Hz) | 50/60 | | | | | | | | |
| Rated short-circuit current | Isc (kA) | 25 | | | 31.5 | | | 40 | | |
| Rated short-time withstand current (3 sec) | Ik (kA) | 25 | | | 31.5 | | | 40 | | |
| Rated short-circuit breaking capacity | (MVA) | 1559 | | | 1964 | | | 2494 | | |
| Rated short-circuit making current | Ip (kA) | 65 | | | 81.9 | | | 104 | | |
| Rated breaking time | (cycle) | 3 | | | | | | | | |
| Rated withstand voltage | Power frequency (1 min) | 70 (95) | | | | | | | | |
| | Impulse (1.2×50μs) | 170 | | | | | | | | |
| Rated operating sequence | | O-0.3s-CO-3min-CO | | | | | | | | |
| Control voltage | Closing coil | DC 48V, DC 110V, DC 125V, DC 220V, AC 48V, AC 110V, AC 220V | | | | | | | | |
| | Trip coil | DC 48V, DC 110V, DC 125V, DC 220V, AC 48V, AC 110V, AC 220V | | | | | | | | |
| Auxiliary contact | | 4a4b, 10a10b | | | | | | | | |
| Rated opening time | (sec) | ≤ 0.04 | | | | | | | | |
| No-load closing time | (sec) | ≤ 0.06 | | | | | | | | |
| Type test | Mechanical | M2 | | | | | | | | |
| | Electrical | E2 (List3) | | | | | | | | |
| | Capacitive current switching | C2 | | | | | | | | |
| Lifetime * | Mechanical | 20000 | | | | | | | | |
| | Electrical | 20000 | | | | | | | | |
| Installation | Fixed | P type | | | | | | | | |
| | Draw-out | H type (for MCSG) | | | | | | | | |
| Pole centre distance | (mm) | 300 | | | | | | | | |
| Weight | CB (H type) | 400 | 490 | 400 | 490 | 400 | 490 | 400 | 490 | |
| | Cradle (H type) | 700 | 750 | 700 | 750 | 700 | 750 | 700 | 750 | |
| Applied standards | | IEC 62271-100 | | | | | | | | |

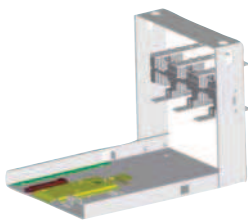
* With maintenance



Accessories

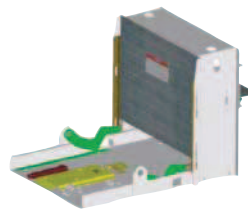
| Dimensions | Main | Cradle |
|---|--|---|
|  | <ul style="list-style-type: none"> • Secondary trip coil • Under voltage trip release • Current trip coil • Position S/W • Keylock • Button padlock • Button cover • Mechanical position indicator | <ul style="list-style-type: none"> • Mechanical position indicator |
|  | <ul style="list-style-type: none"> • Secondary trip coil • Under voltage trip release • Current trip coil • Position S/W • Keylock • Button padlock • Button cover • Plug interlock • Mechanical position indicator | <ul style="list-style-type: none"> • Earthing S/W • Earthing with electromechanical interlock • Earthing S/W with position S/W • Earthing S/W with keylock • Door interlock • MOC • TOC • Shutter padlock • Emergency mechanical trip device |
|  | <ul style="list-style-type: none"> • Secondary trip coil • Under voltage trip release • Current trip coil • Position S/W • Keylock • Button padlock • Button cover • Plug interlock • Mechanical position indicator | <ul style="list-style-type: none"> • Earthing S/W • Earthing with electromechanical interlock • Earthing S/W with position S/W • Earthing S/W with keylock • Door interlock • MOC • TOC • Shutter padlock • Emergency mechanical trip device |

Various type of Cradle



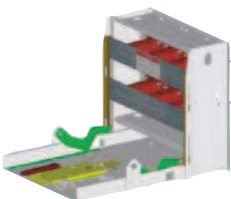
E type

- No Shutter
- For MESG



F type

- Insulation Shutter
- For MESG



G type

- Bushing
- Insulation Shutter
- For MESG



H type

- Bushing
- Metal Insulation Shutter
- Closed Compartment structure
- Earthing Switch & Interlock
- For MCSG
- Door Interlock