

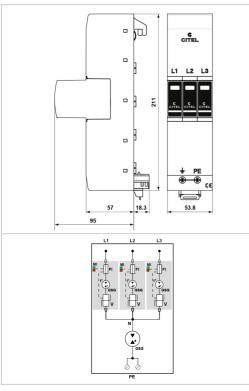
## ZPAC1-13VG-31-275



- ▶ Type 1+2+3 combined SPD based on a gas-filled spark gap
- ▶ 10-year guarantee
- Discharge capacity per pole: limp= 12.5 kA (10/350 μs)
- Safe disconnecting device
- Operating and leakage current-free
- Can be used for lightning protection classes III + IV
- ▶ Cost-effective maintenance thanks to individual plug-in modules
- > Complies with the IEC 61643-11 and EN 61643-11 standards
- Complies with VDE-AR-N 4100 "Use of surge protective devices (SPD) type 1 in main power supply systems"







| SPD type   | IEC             | 1+2+3   |
|--|-----------------|---|
| Network  |                 | 230/400 V 3-phase+N   |
| AC system  |                 | TT-TNS  |
| Nominal line voltage   | Un              | 230/400 Vac   |
| Max. AC operating voltage  | Uc              | 275 Vac   |
| Temporary Over Voltage (TOV) Characteristics - 5 sec. Without disconnection  | UT              | 335 Vac withstand   |
| Temporary Over Voltage (TOV) Characteristics - 120 mn<br>Without disconnection or with safety disconnection  | UT              | 440 Vac withstand   |
| Temporary Over Voltage N/PE (TOV HT) Without disconnection or with safety disconnection  | UT              | 1200 V/300A/200 ms withstand  |
| Residual Current<br>Leakage current to Ground  | lpe             | None  |
| Follow current   | If              | None  |
| Nominal discharge current<br>15 x 8/20 µs impulses   | In              | 20 kA   |
| Max. discharge current<br>max. withstand @ 8/20 µs by pole   | Imax            | 50 kA   |
| Impulse current by pole<br>max. withstand 10/350µs by pole   | limp            | 12.5 kA   |
| Total lightning current max. total withstand @ 10/350µs  | Itotal          | 50 kA   |
| Withstand on Combination waveform IEC 61643-11<br>Class III test: 1.2/50μs - 8/20μs  | Uoc             | 6 kV  |
| Withstand on overvoltages IEEE C62.41.1  |                 | 20 kV   |
| Specific energy by pole<br>max. withstand 10/350 µs  | W/R             | 40 kJ/ohm   |
| Connection mode(s)   |                 | L/N and N/PE  |
| Protection mode(s)   |                 | Common/Differential mode  |
| Protection level L/N<br>@ In (8/20µs)  | Up L/N          | 1.5 kV  |
| Protection level L/PE<br>@ In (8/20µs)   | Up L/PE         | 1.5 kV  |
|  |                 |   |
| Residual voltage L/N at 5 kA<br>@ 5 kA (8/20µs)  | Up-5kA          | 0.7 kV  |
| Residual voltage L/N at 5 kA   | Up-5kA<br>Isccr | 0.7 kV<br>50 000 A  |
| Residual voltage L/N at 5 kA<br>@ 5 kA (8/20µs)  |                 |   |
| Residual voltage L/N at 5 kA<br>@ 5 kA (8/20µs)<br>Admissible short-circuit current  |                 |   |
| Residual voltage L/N at 5 kA<br>@ 5 kA (8/20µs)<br>Admissible short-circuit current<br>Mechanical Characteristics  |                 | 50 000 A  |
| Residual voltage L/N at 5 kA<br>@ 5 kA (8/20µs)<br>Admissible short-circuit current<br>Mechanical Characteristics<br>Technology  |                 | 50 000 A VG Technology (MOV+GSG)  |
| Residual voltage L/N at 5 kA<br>@ 5 kA (8/20µs)<br>Admissible short-circuit current<br>Mechanical Characteristics<br>Technology<br>SPD configuration   |                 | 50 000 A  VG Technology (MOV+GSG) 3-phase+Neutral   |
| Residual voltage L/N at 5 kA @ 5 kA (8/20µs) Admissible short-circuit current Mechanical Characteristics Technology SPD configuration Connection to Network  |                 | 50 000 A  VG Technology (MOV+GSG) 3-phase+Neutral By 40mm busbar and wire for PE: 6-35mm² (50mm²)   |
| Residual voltage L/N at 5 kA @ 5 kA (8/20µs) Admissible short-circuit current Mechanical Characteristics Technology SPD configuration Connection to Network Format   |                 | 50 000 A  VG Technology (MOV+GSG) 3-phase+Neutral  By 40mm busbar and wire for PE: 6-35mm² (50mm²)  Plug-in modular box   |
| Residual voltage L/N at 5 kA @ 5 kA (8/20µs)  Admissible short-circuit current  Mechanical Characteristics  Technology  SPD configuration  Connection to Network  Format  Mounting   |                 | 50 000 A  VG Technology (MOV+GSG) 3-phase+Neutral  By 40mm busbar and wire for PE: 6-35mm² (50mm²)  Plug-in modular box 40 mm busbar systems  |
| Residual voltage L/N at 5 kA @ 5 kA (8/20µs)  Admissible short-circuit current  Mechanical Characteristics  Technology  SPD configuration  Connection to Network  Format  Mounting  Housing material   | Isccr           | 50 000 A  VG Technology (MOV+GSG) 3-phase+Neutral By 40mm busbar and wire for PE: 6-35mm² (50mm²) Plug-in modular box 40 mm busbar systems Thermoplastic UL94 V-0   |
| Residual voltage L/N at 5 kA @ 5 kA (8/20µs) Admissible short-circuit current Mechanical Characteristics Technology SPD configuration Connection to Network Format Mounting Housing material Operating temperature   | Isccr           | 50 000 A  VG Technology (MOV+GSG) 3-phase+Neutral By 40mm busbar and wire for PE: 6-35mm² (50mm²) Plug-in modular box 40 mm busbar systems Thermoplastic UL94 V-0 -40/+85°C   |
| Residual voltage L/N at 5 kA @ 5 kA (8/20µs) Admissible short-circuit current Mechanical Characteristics Technology SPD configuration Connection to Network Format Mounting Housing material Operating temperature Protection rating   | Isccr           | VG Technology (MOV+GSG) 3-phase+Neutral By 40mm busbar and wire for PE: 6-35mm² (50mm²) Plug-in modular box 40 mm busbar systems Thermoplastic UL94 V-0 -40/+85°C IP20  |
| Residual voltage L/N at 5 kA @ 5 kA (8/20µs) Admissible short-circuit current Mechanical Characteristics Technology SPD configuration Connection to Network Format Mounting Housing material Operating temperature Protection rating Failsafe mode   | Isccr           | VG Technology (MOV+GSG) 3-phase+Neutral By 40mm busbar and wire for PE: 6-35mm² (50mm²) Plug-in modular box 40 mm busbar systems Thermoplastic UL94 V-0 -40/+85°C IP20 Disconnection from AC network  |
| Residual voltage L/N at 5 kA @ 5 kA (8/20µs) Admissible short-circuit current Mechanical Characteristics Technology SPD configuration Connection to Network Format Mounting Housing material Operating temperature Protection rating Failsafe mode Disconnection indicator   | Isccr           | VG Technology (MOV+GSG) 3-phase+Neutral By 40mm busbar and wire for PE: 6-35mm² (50mm²) Plug-in modular box 40 mm busbar systems Thermoplastic UL94 V-0 -40/+85°C IP20 Disconnection from AC network 1 mechanical indicator by pole   |
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| Residual voltage L/N at 5 kA @ 5 kA (8/20µs) Admissible short-circuit current Mechanical Characteristics Technology SPD configuration Connection to Network Format Mounting Housing material Operating temperature Protection rating Failsafe mode Disconnection indicator Spare module(s) Remote signaling of disconnection   | Isccr           | VG Technology (MOV+GSG) 3-phase+Neutral By 40mm busbar and wire for PE: 6-35mm² (50mm²) Plug-in modular box 40 mm busbar systems Thermoplastic UL94 V-0 -40/+85°C IP20 Disconnection from AC network 1 mechanical indicator by pole ZMDAC1-13VG-275 none  |
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