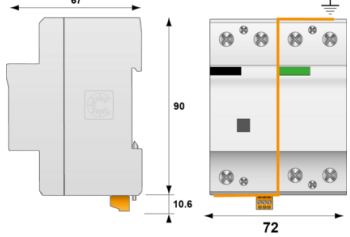
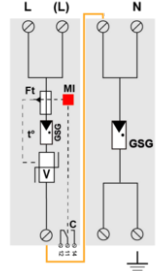


DS252VG-300/G



- Type 1+2+3 unipolar surge protector
- 25 kA on 10/350µs impulse
- Low voltage Up
- Internal disconnection, status indicator and remote signaling
- Optimized to TOV
- IEC 61643-11 and UL1449 ed.5 compliance



| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|----------------------|--|--|-----------------------------------|--|---------------------|---------------------------|--|--|----------------------|----|------------------------------|---------------------------|----|-----------------------------------|--|----|------------------------|---|----|-------------------|--|----|-------------------|---|----|-------------------------------|--|-----|--------------------------------|-----------------------------------|----|------------------------------|---|----|-------------|---|------|-------|--|------------|--------|---|------|-------|---|--------|-------|--|-----|-------|---|--|-------|--|-----|------------|--------------------|--|--------------|--------------------|--|--------------------------|---|-------|--------|--|--------|--------|---|---------|--------|----------------------------------|-------|----------|
|  | Electrical Characteristics | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  <p>V: High-energy varistor GSG: Specific gas tube Ft: Thermal fuse C: Remote signaling contact t*: Thermal disconnection system MI: Disconnection indicator</p> | <table border="1"> <tr> <td>SPD type</td> <td></td> <td>1+2+3</td> </tr> <tr> <td>Network</td> <td></td> <td>230 V single-phase</td> </tr> <tr> <td>AC system</td> <td></td> <td>TT-TN</td> </tr> <tr> <td>Nominal line voltage</td> <td>Un</td> <td>230 Vac</td> </tr> <tr> <td>Max. AC operating voltage</td> <td>Uc</td> <td>255 Vac</td> </tr> <tr> <td>Max. load current <i>if series connection</i></td> <td>IL</td> <td>100 A</td> </tr> <tr> <td>Temporary Over Voltage (TOV) Characteristics - 5 sec. <i>Without disconnection</i></td> <td>UT</td> <td>335 Vac withstand</td> </tr> <tr> <td>Temporary Over Voltage (TOV) Characteristics - 120 mn <i>Without disconnection or with safety disconnection</i></td> <td>UT</td> <td>440 Vac withstand</td> </tr> <tr> <td>Temporary Over Voltage N/PE (TOV HT) <i>Without disconnection or with safety disconnection</i></td> <td>UT</td> <td>1200 V/300A/200 ms withstand</td> </tr> <tr> <td>Residual Current <i>Leakage current to Ground</i></td> <td>Ipe</td> <td>None</td> </tr> <tr> <td>Follow current</td> <td>If</td> <td>None</td> </tr> <tr> <td>Nominal discharge current <i>15 x 8/20 µs impulses</i></td> <td>In</td> <td>30 kA</td> </tr> <tr> <td>Max. discharge current <i>max. withstand @ 8/20 µs by pole</i></td> <td>Imax</td> <td>70 kA</td> </tr> <tr> <td>Total Maximum discharge current <i>max. total withstand @ 8/20 µs</i></td> <td>Imax Total</td> <td>150 kA</td> </tr> <tr> <td>Impulse current by pole <i>max. withstand 10/350µs by pole</i></td> <td>Iimp</td> <td>25 kA</td> </tr> <tr> <td>Total lightning current <i>max. total withstand @ 10/350µs</i></td> <td>Itotal</td> <td>50 kA</td> </tr> <tr> <td>Withstand on Combination waveform IEC 61643-11 <i>Class III test: 1.2/50µs - 8/20µs</i></td> <td>Uoc</td> <td>20 kV</td> </tr> <tr> <td>Withstand on overvoltages IEEE C62.41.1</td> <td></td> <td>20 kV</td> </tr> <tr> <td>Specific energy by pole <i>max. withstand 10/350 µs</i></td> <td>W/R</td> <td>156 kJ/ohm</td> </tr> <tr> <td>Connection mode(s)</td> <td></td> <td>L/N and N/PE</td> </tr> <tr> <td>Protection mode(s)</td> <td></td> <td>Common/Differential mode</td> </tr> <tr> <td>Residual voltage <i>@ In (8/20 µs)</i></td> <td>Up-in</td> <td>1.1 kV</td> </tr> <tr> <td>Protection level L/N <i>@ In (8/20µs)</i></td> <td>Up L/N</td> <td>1.5 kV</td> </tr> <tr> <td>Protection level N/PE <i>@ In (8/20µs)</i></td> <td>Up N/PE</td> <td>1.5 kV</td> </tr> <tr> <td>Admissible short-circuit current</td> <td>Iscrr</td> <td>50 000 A</td> </tr> </table> | | SPD type | | 1+2+3 | Network | | 230 V single-phase | AC system | | TT-TN | Nominal line voltage | Un | 230 Vac | Max. AC operating voltage | Uc | 255 Vac | Max. load current <i>if series connection</i> | IL | 100 A | Temporary Over Voltage (TOV) Characteristics - 5 sec. <i>Without disconnection</i> | UT | 335 Vac withstand | Temporary Over Voltage (TOV) Characteristics - 120 mn <i>Without disconnection or with safety disconnection</i> | UT | 440 Vac withstand | Temporary Over Voltage N/PE (TOV HT) <i>Without disconnection or with safety disconnection</i> | UT | 1200 V/300A/200 ms withstand | Residual Current <i>Leakage current to Ground</i> | Ipe | None | Follow current | If | None | Nominal discharge current <i>15 x 8/20 µs impulses</i> | In | 30 kA | Max. discharge current <i>max. withstand @ 8/20 µs by pole</i> | Imax | 70 kA | Total Maximum discharge current <i>max. total withstand @ 8/20 µs</i> | Imax Total | 150 kA | Impulse current by pole <i>max. withstand 10/350µs by pole</i> | Iimp | 25 kA | Total lightning current <i>max. total withstand @ 10/350µs</i> | Itotal | 50 kA | Withstand on Combination waveform IEC 61643-11 <i>Class III test: 1.2/50µs - 8/20µs</i> | Uoc | 20 kV | Withstand on overvoltages IEEE C62.41.1 | | 20 kV | Specific energy by pole <i>max. withstand 10/350 µs</i> | W/R | 156 kJ/ohm | Connection mode(s) | | L/N and N/PE | Protection mode(s) | | Common/Differential mode | Residual voltage <i>@ In (8/20 µs)</i> | Up-in | 1.1 kV | Protection level L/N <i>@ In (8/20µs)</i> | Up L/N | 1.5 kV | Protection level N/PE <i>@ In (8/20µs)</i> | Up N/PE | 1.5 kV | Admissible short-circuit current | Iscrr | 50 000 A |
| SPD type | | 1+2+3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Network | | 230 V single-phase | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AC system | | TT-TN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nominal line voltage | Un | 230 Vac | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Max. AC operating voltage | Uc | 255 Vac | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Max. load current <i>if series connection</i> | IL | 100 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temporary Over Voltage (TOV) Characteristics - 5 sec. <i>Without disconnection</i> | UT | 335 Vac withstand | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temporary Over Voltage (TOV) Characteristics - 120 mn <i>Without disconnection or with safety disconnection</i> | UT | 440 Vac withstand | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temporary Over Voltage N/PE (TOV HT) <i>Without disconnection or with safety disconnection</i> | UT | 1200 V/300A/200 ms withstand | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Residual Current <i>Leakage current to Ground</i> | Ipe | None | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Follow current | If | None | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nominal discharge current <i>15 x 8/20 µs impulses</i> | In | 30 kA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Max. discharge current <i>max. withstand @ 8/20 µs by pole</i> | Imax | 70 kA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Maximum discharge current <i>max. total withstand @ 8/20 µs</i> | Imax Total | 150 kA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Impulse current by pole <i>max. withstand 10/350µs by pole</i> | Iimp | 25 kA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total lightning current <i>max. total withstand @ 10/350µs</i> | Itotal | 50 kA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Withstand on Combination waveform IEC 61643-11 <i>Class III test: 1.2/50µs - 8/20µs</i> | Uoc | 20 kV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Withstand on overvoltages IEEE C62.41.1 | | 20 kV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Specific energy by pole <i>max. withstand 10/350 µs</i> | W/R | 156 kJ/ohm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Connection mode(s) | | L/N and N/PE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Protection mode(s) | | Common/Differential mode | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Residual voltage <i>@ In (8/20 µs)</i> | Up-in | 1.1 kV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Protection level L/N <i>@ In (8/20µs)</i> | Up L/N | 1.5 kV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Protection level N/PE <i>@ In (8/20µs)</i> | Up N/PE | 1.5 kV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Admissible short-circuit current | Iscrr | 50 000 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mechanical Characteristics | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr> <td>Technology</td> <td></td> <td>VG Technology (MOV+GSG)</td> </tr> <tr> <td>SPD configuration</td> <td></td> <td>Single phase</td> </tr> <tr> <td>Connection to Network</td> <td></td> <td>By screw terminals: 6-35mm² / by bus</td> </tr> <tr> <td>Format</td> <td></td> <td>1-pole modular box assembled</td> </tr> <tr> <td>Mounting</td> <td></td> <td>Symmetrical rail 35 mm (EN 60715)</td> </tr> <tr> <td>Housing material</td> <td></td> <td>Thermoplastic UL94 V-0</td> </tr> <tr> <td>Operating temperature</td> <td>Tu</td> <td>-40/+85°C</td> </tr> <tr> <td>Protection rating</td> <td></td> <td>IP20</td> </tr> <tr> <td>Failsafe mode</td> <td></td> <td>Disconnection from AC network</td> </tr> <tr> <td>Disconnection indicator</td> <td></td> <td>1 mechanical indicator by pole</td> </tr> <tr> <td>Remote signaling of disconnection</td> <td></td> <td>Output on changeover contact</td> </tr> <tr> <td>Dimensions</td> <td></td> <td>See diagram</td> </tr> </table> | | | Technology | | VG Technology (MOV+GSG) | SPD configuration | | Single phase | Connection to Network | | By screw terminals: 6-35mm ² / by bus | Format | | 1-pole modular box assembled | Mounting | | Symmetrical rail 35 mm (EN 60715) | Housing material | | Thermoplastic UL94 V-0 | Operating temperature | Tu | -40/+85°C | Protection rating | | IP20 | Failsafe mode | | Disconnection from AC network | Disconnection indicator | | 1 mechanical indicator by pole | Remote signaling of disconnection | | Output on changeover contact | Dimensions | | See diagram | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Technology | | VG Technology (MOV+GSG) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SPD configuration | | Single phase | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Connection to Network | | By screw terminals: 6-35mm ² / by bus | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Format | | 1-pole modular box assembled | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mounting | | Symmetrical rail 35 mm (EN 60715) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Housing material | | Thermoplastic UL94 V-0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Operating temperature | Tu | -40/+85°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Protection rating | | IP20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Failsafe mode | | Disconnection from AC network | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Disconnection indicator | | 1 mechanical indicator by pole | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Remote signaling of disconnection | | Output on changeover contact | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dimensions | | See diagram | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Disconnectors | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr> <td>Thermal disconnector</td> <td></td> <td>Internal</td> </tr> <tr> <td>Installation ground fault breaker</td> <td></td> <td>Type 'S' or delayed</td> </tr> <tr> <td>Back-up protection device</td> <td></td> <td>SFD1-25S-11 / or Fuses Type gG 315 A</td> </tr> </table> | | | Thermal disconnector | | Internal | Installation ground fault breaker | | Type 'S' or delayed | Back-up protection device | | SFD1-25S-11 / or Fuses Type gG 315 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thermal disconnector | | Internal | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Installation ground fault breaker | | Type 'S' or delayed | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Back-up protection device | | SFD1-25S-11 / or Fuses Type gG 315 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Standards | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr> <td>Standards compliance</td> <td></td> <td>IEC 61643-11 / EN 61643-11 / UL1449 ed.5</td> </tr> </table> | | | Standards compliance | | IEC 61643-11 / EN 61643-11 / UL1449 ed.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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DS252VG-300/G

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|---------------|---------------|
| Certification | UL Recognized |
| Part number | |
| 3403 | |