



## Type 1+2+3 AC surge protector - Single phase

# CITEL

## 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



	<b>Electrical Characteristics</b>																																																																												
<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
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<b>Mechanical Characteristics</b>																																																																													
Technology		VG Technology (MOV+GSG)																																																																											
SPD configuration		Single phase																																																																											
Connection to Network		By screw terminals: 6-35mm <sup>2</sup> / 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																																																																											
Weight		0.49 kg																																																																											
<b>Disconnectors</b>																																																																													
Thermal disconnector		Internal																																																																											
Installation ground fault breaker		Type 'S' or delayed																																																																											
Back-up protection device		SFD1-25S-11 / or Fuses Type gG 315 A																																																																											
<b>Standards</b>																																																																													

**DS252VG-300/G**

Standards compliance	IEC 61643-11 / EN 61643-11 / UL1449 ed.5
Certification	UL Recognized
Part number	
3403	