



Surge protector for LED lighting system Class 1

CITEL

MLPC-VG1-230L-R



- Type 2 (or 3) surge protectors for LED
- Class 1
- Very compact
- Plate mounting
- Spring terminal connection
- Status indicator
- Disconnection AC end of life
- EN 61643-11 compliance



| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|---|----------------------|--|----------------------------|-----------------------------------|--|---|-----------|--|----------|---------------------------|----|------------------------|-------------------------|----|-----------|---|----|-------------------|--|----|-----------------------------------|---|----|--------------------------------------|--|-----|--------------|---|----|-------------|---|------|----------|--|------------|-------|--|-----|-------|---|--|-------|--------------------|--|--------------------------|------------------------------------|--------|--------|-------------------------------------|---------|--------|----------------------------------|-------|----------|
| | Electrical Characteristics | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>V: Varistor GSG: Specific gas tube LED: Disconnection indicator Ft: Thermal fuse t*: Thermal system disconnection</p> | <table border="1"> <tr> <td>SPD type</td> <td></td> <td>2+3</td> </tr> <tr> <td>Network</td> <td></td> <td>220-240 V Single-phase</td> </tr> <tr> <td>AC system</td> <td></td> <td>TT-TN</td> </tr> <tr> <td>Max. AC operating voltage</td> <td>Uc</td> <td>320 Vac</td> </tr> <tr> <td>Max. load current @25°C</td> <td>IL</td> <td>10 A</td> </tr> <tr> <td>Temporary Over Voltage (TOV) Characteristics - 5 sec. Without disconnection</td> <td>UT</td> <td>335 Vac withstand</td> </tr> <tr> <td>Temporary Over Voltage (TOV) Characteristics - 120 mn Without disconnection or with safety disconnection</td> <td>UT</td> <td>440 Vac withstand</td> </tr> <tr> <td>Temporary Over Voltage N/PE (TOV HT) Without disconnection or with safety disconnection</td> <td>UT</td> <td>1200 V/300A/200 ms disconnection</td> </tr> <tr> <td>Residual Current Leakage current to Ground</td> <td>Ipe</td> <td>None</td> </tr> <tr> <td>Nominal discharge current 15 x 8/20 μs impulses</td> <td>In</td> <td>5 kA</td> </tr> <tr> <td>Max. discharge current max. withstand @ 8/20 μs by pole</td> <td>Imax</td> <td>10 kA</td> </tr> <tr> <td>Total Maximum discharge current max. total withstand @ 8/20 μs</td> <td>Imax Total</td> <td>20 kA</td> </tr> <tr> <td>Withstand on Combination waveform IEC 61643-11 Class III test: 1.2/50μs - 8/20μs</td> <td>Uoc</td> <td>10 kV</td> </tr> <tr> <td>Withstand on overvoltages IEEE C62.41.1</td> <td></td> <td>10 kV</td> </tr> <tr> <td>Protection mode(s)</td> <td></td> <td>Common/Differential mode</td> </tr> <tr> <td>Protection level L/N @ In (8/20μs)</td> <td>Up L/N</td> <td>1.5 kV</td> </tr> <tr> <td>Protection level L/PE @ In (8/20μs)</td> <td>Up L/PE</td> <td>1.5 kV</td> </tr> <tr> <td>Admissible short-circuit current</td> <td>Iscsr</td> <td>10 000 A</td> </tr> </table> | | SPD type | | 2+3 | Network | | 220-240 V Single-phase | AC system | | TT-TN | Max. AC operating voltage | Uc | 320 Vac | Max. load current @25°C | IL | 10 A | Temporary Over Voltage (TOV) Characteristics - 5 sec. Without disconnection | UT | 335 Vac withstand | Temporary Over Voltage (TOV) Characteristics - 120 mn 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 disconnection | Residual Current Leakage current to Ground | Ipe | None | Nominal discharge current 15 x 8/20 μs impulses | In | 5 kA | Max. discharge current max. withstand @ 8/20 μs by pole | Imax | 10 kA | Total Maximum discharge current max. total withstand @ 8/20 μs | Imax Total | 20 kA | Withstand on Combination waveform IEC 61643-11 Class III test: 1.2/50μs - 8/20μs | Uoc | 10 kV | Withstand on overvoltages IEEE C62.41.1 | | 10 kV | Protection mode(s) | | Common/Differential mode | Protection level L/N @ In (8/20μs) | Up L/N | 1.5 kV | Protection level L/PE @ In (8/20μs) | Up L/PE | 1.5 kV | Admissible short-circuit current | Iscsr | 10 000 A |
| SPD type | | 2+3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Network | | 220-240 V Single-phase | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AC system | | TT-TN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Max. AC operating voltage | Uc | 320 Vac | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Max. load current @25°C | IL | 10 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temporary Over Voltage (TOV) Characteristics - 5 sec. Without disconnection | UT | 335 Vac withstand | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temporary Over Voltage (TOV) Characteristics - 120 mn 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 disconnection | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Residual Current Leakage current to Ground | Ipe | None | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nominal discharge current 15 x 8/20 μs impulses | In | 5 kA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Max. discharge current max. withstand @ 8/20 μs by pole | Imax | 10 kA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Maximum discharge current max. total withstand @ 8/20 μs | Imax Total | 20 kA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Withstand on Combination waveform IEC 61643-11 Class III test: 1.2/50μs - 8/20μs | Uoc | 10 kV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Withstand on overvoltages IEEE C62.41.1 | | 10 kV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Protection mode(s) | | Common/Differential mode | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Protection level L/N @ In (8/20μs) | Up L/N | 1.5 kV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Protection level L/PE @ In (8/20μs) | Up L/PE | 1.5 kV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Admissible short-circuit current | Iscsr | 10 000 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Mechanical Characteristics | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1"> <tr> <td>Technology</td> <td></td> <td>VG Technology (MOV+GSG)</td> </tr> <tr> <td>Connection to Network</td> <td></td> <td>By spring - max. cross section 1.5mm²</td> </tr> <tr> <td>Mounting</td> <td></td> <td>On plate</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 and AC line cut-off</td> </tr> <tr> <td>Disconnection indicator</td> <td></td> <td>LED green OFF and AC network cut-off</td> </tr> <tr> <td>Voltage/operating indicator</td> <td></td> <td>Green Led ON</td> </tr> <tr> <td>Dimensions</td> <td></td> <td>See diagram</td> </tr> <tr> <td>Weight</td> <td></td> <td>0.036 kg</td> </tr> </table> | | Technology | | VG Technology (MOV+GSG) | Connection to Network | | By spring - max. cross section 1.5mm ² | Mounting | | On plate | Housing material | | Thermoplastic UL94 V-0 | Operating temperature | Tu | -40/+85°C | Protection rating | | IP20 | Failsafe mode | | Disconnection and AC line cut-off | Disconnection indicator | | LED green OFF and AC network cut-off | Voltage/operating indicator | | Green Led ON | Dimensions | | See diagram | Weight | | 0.036 kg | | | | | | | | | | | | | | | | | | | | | |
| Technology | | VG Technology (MOV+GSG) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Connection to Network | | By spring - max. cross section 1.5mm ² | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mounting | | On plate | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Housing material | | Thermoplastic UL94 V-0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Operating temperature | Tu | -40/+85°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Protection rating | | IP20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Failsafe mode | | Disconnection and AC line cut-off | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Disconnection indicator | | LED green OFF and AC network cut-off | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Voltage/operating indicator | | Green Led ON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dimensions | | See diagram | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Weight | | 0.036 kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 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> </table> | | Thermal disconnector | | Internal | Installation ground fault breaker | | Type 'S' or delayed | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thermal disconnector | | Internal | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Installation ground fault breaker | | Type 'S' or delayed | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Standards | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1"> <tr> <td>Standards compliance</td> <td></td> <td>EN 61643-11 / IEC 61643-11</td> </tr> <tr> <td>Certification</td> <td></td> <td></td> </tr> </table> | | Standards compliance | | EN 61643-11 / IEC 61643-11 | Certification | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Standards compliance | | EN 61643-11 / IEC 61643-11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Certification | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Part number | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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