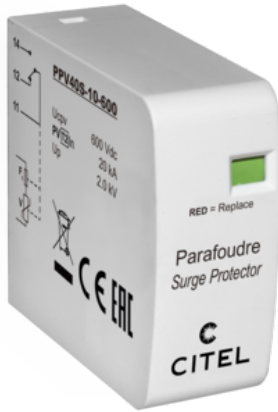




Type 2 PV Surge Protector for PCB mounting

CITEL

PPV40S-10-600



- Type 2 surge protector for Photovoltaic
- PCB mounting
- Imax: 40 kA
- Remote signaling
- EN 50539-11 and IEC 61643-31 compliance*



| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|----------------------|--|---|---------------------------|--------|------------------------|---------------------------|------|---------------------|---|------|--------------------------|------------------|-----|------------------------|---------------------------|-----|-----------|--------------------------------|------|----------|-----------------------------|------|----------------------------------|-------------------------|----|------------------------|---------------------------|----|-------------|-----------------------------------|----|------------------------------|------------------------|------|-------------|----------------------------------|------|----------|------------------------------------|-------|----------|--------------------|--|-------|--------------------|--|--------------------------|--------------------------------|----|------|---|----|------|------------------------------------|----|--------|--|----|--------|
| | Electrical Characteristics | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>V: High-energy varistor Ft: Thermal fuse C: Remote signal contact t°: Thermal disconnection system MI: Disconnection indicator</p> | <table border="1"> <tr><td>SPD type</td><td></td><td>2</td></tr> <tr><td>Nominal PV voltage</td><td>Uocstc</td><td>600 Vdc</td></tr> <tr><td>Max. PV operating voltage</td><td>Ucpv</td><td>600 Vdc</td></tr> <tr><td>Max. PV operating voltage (star mounting)</td><td>Ucpv</td><td>1200 Vdc</td></tr> <tr><td>Residual Current</td><td>Ipe</td><td>None</td></tr> <tr><td>Leakage current to Ground</td><td>Ipe</td><td>None</td></tr> <tr><td>PV Permanent Operating current</td><td>Icpv</td><td>< 0.1 mA</td></tr> <tr><td>Current consumption at Ucpv</td><td>Icpv</td><td>< 0.1 mA</td></tr> <tr><td>Follow current</td><td>If</td><td>None</td></tr> <tr><td>Nominal discharge current</td><td>In</td><td>20 kA</td></tr> <tr><td>15 x 8/20 μs impulses</td><td>In</td><td>20 kA</td></tr> <tr><td>Max. discharge current</td><td>Imax</td><td>40 kA</td></tr> <tr><td>max. withstand @ 8/20 μs by pole</td><td>Imax</td><td>40 kA</td></tr> <tr><td>Current withstand short circuit PV</td><td>Iscpv</td><td>15 000 A</td></tr> <tr><td>Connection mode(s)</td><td></td><td>+/-PE</td></tr> <tr><td>Protection mode(s)</td><td></td><td>Common/Differential mode</td></tr> <tr><td>Protection level @ In (8/20μs)</td><td>Up</td><td>2 kV</td></tr> <tr><td>Protection level (star mounting) (+/-) / (+/PE or -/PE) @ In (8/20μs)</td><td>Up</td><td>4 kV</td></tr> <tr><td>Protection level +/- @ In (8/20μs)</td><td>Up</td><td>5.1 kV</td></tr> <tr><td>Protection level +/PE (-/PE) @ In (8/20μs)</td><td>Up</td><td>2.5 kV</td></tr> </table> | | SPD type | | 2 | Nominal PV voltage | Uocstc | 600 Vdc | Max. PV operating voltage | Ucpv | 600 Vdc | Max. PV operating voltage (star mounting) | Ucpv | 1200 Vdc | Residual Current | Ipe | None | Leakage current to Ground | Ipe | None | PV Permanent Operating current | Icpv | < 0.1 mA | Current consumption at Ucpv | Icpv | < 0.1 mA | Follow current | If | None | Nominal discharge current | In | 20 kA | 15 x 8/20 μs impulses | In | 20 kA | Max. discharge current | Imax | 40 kA | max. withstand @ 8/20 μs by pole | Imax | 40 kA | Current withstand short circuit PV | Iscpv | 15 000 A | Connection mode(s) | | +/-PE | Protection mode(s) | | Common/Differential mode | Protection level @ In (8/20μs) | Up | 2 kV | Protection level (star mounting) (+/-) / (+/PE or -/PE) @ In (8/20μs) | Up | 4 kV | Protection level +/- @ In (8/20μs) | Up | 5.1 kV | Protection level +/PE (-/PE) @ In (8/20μs) | Up | 2.5 kV |
| SPD type | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nominal PV voltage | Uocstc | 600 Vdc | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Max. PV operating voltage | Ucpv | 600 Vdc | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Max. PV operating voltage (star mounting) | Ucpv | 1200 Vdc | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Residual Current | Ipe | None | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leakage current to Ground | Ipe | None | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PV Permanent Operating current | Icpv | < 0.1 mA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Current consumption at Ucpv | Icpv | < 0.1 mA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Follow current | If | None | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nominal discharge current | In | 20 kA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 x 8/20 μs impulses | In | 20 kA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Max. discharge current | Imax | 40 kA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| max. withstand @ 8/20 μs by pole | Imax | 40 kA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Current withstand short circuit PV | Iscpv | 15 000 A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Connection mode(s) | | +/-PE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Protection mode(s) | | Common/Differential mode | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Protection level @ In (8/20μs) | Up | 2 kV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Protection level (star mounting) (+/-) / (+/PE or -/PE) @ In (8/20μs) | Up | 4 kV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Protection level +/- @ In (8/20μs) | Up | 5.1 kV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Protection level +/PE (-/PE) @ In (8/20μs) | Up | 2.5 kV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Mechanical Characteristics | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1"> <tr><td>Technology</td><td></td><td>MOV</td></tr> <tr><td>Connection to Network</td><td></td><td>Through soldering pins</td></tr> <tr><td>Format</td><td></td><td>Plug-in modular box</td></tr> <tr><td>Mounting</td><td></td><td>On Printed Circuit Board</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 SPD of the PV line</td></tr> <tr><td>Disconnection indicator</td><td></td><td>1 mechanical indicator</td></tr> <tr><td>Spare module(s)</td><td></td><td>DSM50PV-600</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> <tr><td>Weight</td><td></td><td>0.058 kg</td></tr> <tr><td>Weight</td><td></td><td>0.059 kg</td></tr> </table> | | Technology | | MOV | Connection to Network | | Through soldering pins | Format | | Plug-in modular box | Mounting | | On Printed Circuit Board | Housing material | | Thermoplastic UL94 V-0 | Operating temperature | Tu | -40/+85°C | Protection rating | | IP20 | Failsafe mode | | Disconnection SPD of the PV line | Disconnection indicator | | 1 mechanical indicator | Spare module(s) | | DSM50PV-600 | Remote signaling of disconnection | | Output on changeover contact | Dimensions | | See diagram | Weight | | 0.058 kg | Weight | | 0.059 kg | | | | | | | | | | | | | | | | | | |
| Technology | | MOV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Connection to Network | | Through soldering pins | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Format | | Plug-in modular box | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mounting | | On Printed Circuit Board | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Housing material | | Thermoplastic UL94 V-0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Operating temperature | Tu | -40/+85°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Protection rating | | IP20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Failsafe mode | | Disconnection SPD of the PV line | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Disconnection indicator | | 1 mechanical indicator | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spare module(s) | | DSM50PV-600 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Remote signaling of disconnection | | Output on changeover contact | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dimensions | | See diagram | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Weight | | 0.058 kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Weight | | 0.059 kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Disconnectors | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1"> <tr><td>Thermal disconnector</td><td></td><td>Internal</td></tr> <tr><td>Back-up protection device</td><td></td><td>Without</td></tr> </table> | | Thermal disconnector | | Internal | Back-up protection device | | Without | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thermal disconnector | | Internal | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Back-up protection device | | Without | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Standards | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1"> <tr><td>Standards compliance</td><td></td><td>IEC 61643-31 / EN 50539-11 *The standard cover devices. PPV /PAC series are components. Compliant when combined is an assembly.</td></tr> </table> | | Standards compliance | | IEC 61643-31 / EN 50539-11 *The standard cover devices. PPV /PAC series are components. Compliant when combined is an assembly. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | Part number | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 8722203 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

