



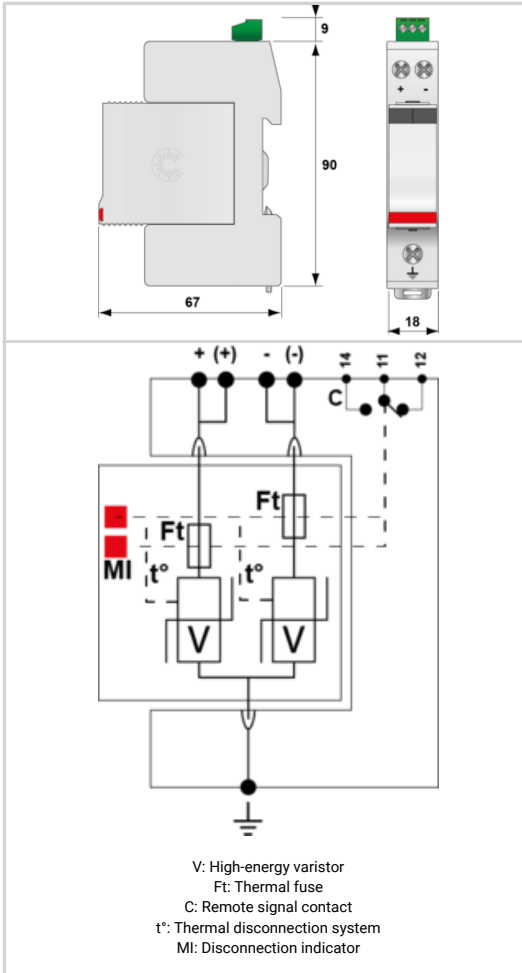
# DC power surge protector - 12 Vdc

# CITEL

## DS220S-12DC



- Discover our latest innovation : the [DDC20CS-20-24](#)
- DC power surge protector
- 24 Vdc
- Compact design
- I<sub>max</sub> : 20 kA
- Pluggable module
- Remote signaling
- Very low U<sub>p</sub> protection level



| Electrical Characteristics                                     |  |
|--|--|
| SPD type   | 2  |
| Network  | DC or PV network 12Vdc   |
| Nominal line voltage   | Un 48 Vdc  |
| Nominal DC voltage   | Un-dc 12 Vdc   |
| Nominal PV voltage   | Uocstc 12 Vdc  |
| Max. AC operating voltage                                      | Uc 20 Vac  |
| Max. PV operating voltage                                      | Ucpv 24 Vdc  |
| Max. DC operating voltage                                      | Uc 24 Vdc  |
| Max. load current @25°C  | IL 50 A  |
| Residual Current Leakage current to Ground                     | Ipe < 0.1 mA   |
| PV Permanent Operating current Current consumption at Ucpv     | Icpv < 0.1 mA  |
| Follow current   | If None  |
| Nominal discharge current 15 x 8/20 μs impulses                | In 10 kA   |
| Max. discharge current max. withstand @ 8/20 μs by pole        | I <sub>max</sub> 20 kA   |
| Total Maximum discharge current max. total withstand @ 8/20 μs | I <sub>max</sub> Total 40 kA   |
| Current withstand short circuit PV                             | Iscpv 1000 A   |
| Connection mode(s)   | +/-PE  |
| Protection mode(s)   | Common mode  |
| Mechanical Characteristics                                     |  |
| Technology   | MOV  |
| SPD configuration  | 2-poles  |
| Connection to Network  | By screw terminals: 1.5-10mm <sup>2</sup> (actives wires) and 2.5-25mm <sup>2</sup> (ground) |
| Format   | Plug-in modular box  |
| 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 DC network  |
| Disconnection indicator  | 2 mechanical indicators  |
| Spare module(s)  | DSM220-12DC  |
| Remote signaling of disconnection                              | Output on changeover contact   |
| Dimensions   | See diagram  |
| Weight   | 0.111 kg   |
| Disconnectors  |  |
| Thermal disconnector   | Internal   |
| Back-up protection device                                      | Fuses type gG - 20A  |
| Standards  |  |
| Standards compliance   | IEC 61643-11 / EN 61643-11 / UL1449 ed.5   |
| Certification  | UL Recognized  |
| Part number  | 390111   |

