



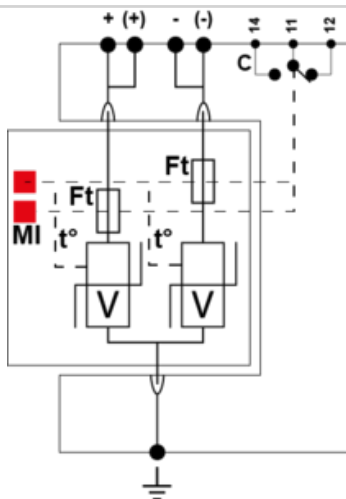
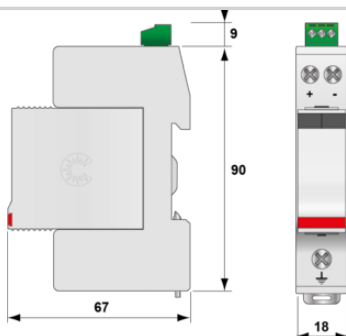
# CITEL

## DC power surge protector - 24 Vdc

### DS220S-24DC



- Discover our latest innovation : the [DDC20CS-20-38](#)
- DC power surge protector
- 24 Vdc
- Compact design
- I<sub>max</sub> : 20 kA
- Pluggable module
- Remote signaling
- Very low Up protection level



#### Electrical Characteristics

|                                                               |                        |                        |
|---------------------------------------------------------------|------------------------|------------------------|
| SPD type                                                      |                        | 2                      |
| Network                                                       |                        | DC or PV network 24Vdc |
| Nominal DC voltage                                            | Un-dc                  | 24 Vdc                 |
| Nominal PV voltage                                            | Uocstc                 | 24 Vdc                 |
| Max. PV operating voltage                                     | Ucpv                   | 38 Vdc                 |
| Max. PV operating voltage (star mounting)                     | Ucpv                   | 38 Vdc                 |
| Max. DC operating voltage                                     | Uc                     | 38 Vdc                 |
| Residual Current                                              | I <sub>pe</sub>        | < 0.1 mA               |
| Leakage current to Ground                                     |                        |                        |
| PV Permanent Operating current                                | I <sub>cpv</sub>       | < 0.1 mA               |
| Current consumption at Ucpv                                   |                        |                        |
| Follow current                                                | I <sub>f</sub>         | None                   |
| Nominal discharge current                                     | I <sub>n</sub>         | 10 kA                  |
| 15 x 8/20 $\mu$ s impulses                                    |                        |                        |
| Max. discharge current                                        | I <sub>max</sub>       | 20 kA                  |
| max. withstand @ 8/20 $\mu$ s by pole                         |                        |                        |
| Total Maximum discharge current                               | I <sub>max</sub> Total | 20 kA                  |
| max. total withstand @ 8/20 $\mu$ s                           |                        |                        |
| Current withstand short circuit PV                            | I <sub>scpv</sub>      | 1000 A                 |
| Connection mode(s)                                            |                        | +/-PE                  |
| Protection mode(s)                                            |                        | Common mode            |
| Protection level +/-PE (-/PE) @ I <sub>n</sub> (8/20 $\mu$ s) | U <sub>p</sub>         | 250 V                  |

#### 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             | T <sub>u</sub> | -40/+85°C                                                                                    |
| Protection rating                 |                | IP20                                                                                         |
| Failsafe mode                     |                | Disconnection from DC network                                                                |
| Disconnection indicator           |                | 2 mechanical indicators                                                                      |
| Spare module(s)                   |                | DSM220-24DC                                                                                  |
| Remote signaling of disconnection |                | Output on changeover contact                                                                 |
| Dimensions                        |                | See diagram                                                                                  |

#### 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

390511

