



# CITEL

## 1-pair DIN rail plug-in Data surge protector

### DLA-12-IS



- High current data transmission
- Common mode and differential mode protection
- Data lines, including those isolated from Earth
- Compact DIN rail enclosure, high density protection
- Protection of shield wire
- Plug-out with line cut-off
- Location and test categories: D1, C2, C3
- IEC 61643-21 compliance



|   |  |   |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
|---|--|---|------------|--|---|----------------------|----|-----------------|---------------------------|----|---|--------------------------------|--------|-----------------------------------|------------------|--|------------------------|---|------|-----------|--|----|---------------|---|----|---------------|--|------|---|--|----|------------|--|----|-------------|-------------------|----|----------|-----------------|--|-------|--|---|---------|
|   | <b>Electrical Characteristics</b>  |   |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
| <p>G: 3-electrode gas tube<br/>Gb: 2-electrode gas tube<br/>D: Clamping diode</p>           | <table border="1"> <tr> <td>Network</td> <td></td> <td>Floating applications, E.g: RS232 / RS485</td> </tr> <tr> <td>Nominal line voltage</td> <td>Un</td> <td>12 V</td> </tr> <tr> <td>Max. DC operating voltage</td> <td>Uc</td> <td>15 Vdc</td> </tr> <tr> <td>Max. frequency, in the channel</td> <td>f max.</td> <td>DC bis 3 MHz</td> </tr> <tr> <td>Insertion loss</td> <td></td> <td>&lt; 1 dB</td> </tr> <tr> <td>Max. discharge current<br/><i>max. withstand @ 8/20 μs, X-C (Line/Earth)</i></td> <td>Imax</td> <td>20 kA</td> </tr> <tr> <td>Protection Level<br/><i>C3 category (10/1000μs), 300 applications@10 A, X-X (Line/Line)</i></td> <td>Up</td> <td>30 V</td> </tr> <tr> <td>Protection level<br/><i>C3 category (10/1000μs), 300 applications@10 A, X-C (Line/Earth)</i></td> <td>Up</td> <td>650 V</td> </tr> <tr> <td>Impulse current<br/><i>D1 category (10/350μs), 2 applications, X-C (Line/Earth)</i></td> <td>Iimp</td> <td>5 kA</td> </tr> <tr> <td>Nominal Discharge Current<br/><i>C2 category (8/20μs), 10 applications, X-X (Line/Line)</i></td> <td>In</td> <td>200 A</td> </tr> <tr> <td>Nominal discharge current<br/><i>C2 category (8/20μs), 10 applications X-C (Line/Earth)</i></td> <td>In</td> <td>5 kA</td> </tr> <tr> <td>Max. Load current</td> <td>IL</td> <td>2,4 A</td> </tr> <tr> <td>Line resistance</td> <td></td> <td>0 Ohm</td> </tr> <tr> <td>Capacitance<br/><i>@ 1MHz, X-C (Line/Earth)</i></td> <td>C</td> <td>&lt; 50 pF</td> </tr> </table> |   | Network    |  | Floating applications, E.g: RS232 / RS485 | Nominal line voltage | Un | 12 V            | Max. DC operating voltage | Uc | 15 Vdc  | Max. frequency, in the channel | f max. | DC bis 3 MHz                      | Insertion loss   |  | < 1 dB                 | Max. discharge current<br><i>max. withstand @ 8/20 μs, X-C (Line/Earth)</i> | Imax | 20 kA     | Protection Level<br><i>C3 category (10/1000μs), 300 applications@10 A, X-X (Line/Line)</i> | Up | 30 V          | Protection level<br><i>C3 category (10/1000μs), 300 applications@10 A, X-C (Line/Earth)</i> | Up | 650 V         | Impulse current<br><i>D1 category (10/350μs), 2 applications, X-C (Line/Earth)</i> | Iimp | 5 kA                                    | Nominal Discharge Current<br><i>C2 category (8/20μs), 10 applications, X-X (Line/Line)</i> | In | 200 A      | Nominal discharge current<br><i>C2 category (8/20μs), 10 applications X-C (Line/Earth)</i> | In | 5 kA        | Max. Load current | IL | 2,4 A    | Line resistance |  | 0 Ohm | Capacitance<br><i>@ 1MHz, X-C (Line/Earth)</i> | C | < 50 pF |
| Network   |  | Floating applications, E.g: RS232 / RS485               |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
| Nominal line voltage  | Un   | 12 V  |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
| Max. DC operating voltage   | Uc   | 15 Vdc  |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
| Max. frequency, in the channel  | f max.   | DC bis 3 MHz  |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
| Insertion loss  |  | < 1 dB  |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
| Max. discharge current<br><i>max. withstand @ 8/20 μs, X-C (Line/Earth)</i>                 | Imax   | 20 kA   |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
| Protection Level<br><i>C3 category (10/1000μs), 300 applications@10 A, X-X (Line/Line)</i>  | Up   | 30 V  |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
| Protection level<br><i>C3 category (10/1000μs), 300 applications@10 A, X-C (Line/Earth)</i> | Up   | 650 V   |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
| Impulse current<br><i>D1 category (10/350μs), 2 applications, X-C (Line/Earth)</i>          | Iimp   | 5 kA  |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
| Nominal Discharge Current<br><i>C2 category (8/20μs), 10 applications, X-X (Line/Line)</i>  | In   | 200 A   |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
| Nominal discharge current<br><i>C2 category (8/20μs), 10 applications X-C (Line/Earth)</i>  | In   | 5 kA  |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
| Max. Load current   | IL   | 2,4 A   |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
| Line resistance   |  | 0 Ohm   |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
| Capacitance<br><i>@ 1MHz, X-C (Line/Earth)</i>  | C  | < 50 pF   |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
|   | <b>Mechanical Characteristics</b>  |   |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
|   | <table border="1"> <tr> <td>Technology</td> <td></td> <td>GDT+Clamping diode</td> </tr> <tr> <td>SPD configuration</td> <td></td> <td>1-pair+shielded</td> </tr> <tr> <td>Connection to Network</td> <td></td> <td>By screw terminal: cross section 0.5-2.5mm<sup>2</sup></td> </tr> <tr> <td>Mounting</td> <td></td> <td>Symmetrical rail 35 mm (EN 60715)</td> </tr> <tr> <td>Housing material</td> <td></td> <td>Thermoplastic UL94 V-0</td> </tr> <tr> <td>Operating and storage temperature</td> <td></td> <td>-40/+85°C</td> </tr> <tr> <td>Ingress Protection rating</td> <td></td> <td>IP20 (NEMA 2)</td> </tr> <tr> <td>Failsafe mode</td> <td></td> <td>Short-circuit</td> </tr> <tr> <td>Disconnection indicator</td> <td></td> <td>Transmission interrupt - default mode 2</td> </tr> <tr> <td>Spare module(s)</td> <td></td> <td>DLAM-12-IS</td> </tr> <tr> <td>Dimensions</td> <td></td> <td>See diagram</td> </tr> <tr> <td>Weight</td> <td></td> <td>0.087 kg</td> </tr> </table>  |   | Technology |  | GDT+Clamping diode                        | SPD configuration    |    | 1-pair+shielded | Connection to Network     |    | By screw terminal: cross section 0.5-2.5mm <sup>2</sup> | Mounting                       |        | Symmetrical rail 35 mm (EN 60715) | Housing material |  | Thermoplastic UL94 V-0 | Operating and storage temperature   |      | -40/+85°C | Ingress Protection rating  |    | IP20 (NEMA 2) | Failsafe mode   |    | Short-circuit | Disconnection indicator  |      | Transmission interrupt - default mode 2 | Spare module(s)  |    | DLAM-12-IS | Dimensions   |    | See diagram | Weight            |    | 0.087 kg |                 |  |       |  |   |         |
| Technology  |  | GDT+Clamping diode                                      |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
| SPD configuration   |  | 1-pair+shielded   |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
| Connection to Network   |  | By screw terminal: cross section 0.5-2.5mm <sup>2</sup> |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
| Mounting  |  | Symmetrical rail 35 mm (EN 60715)                       |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
| Housing material  |  | Thermoplastic UL94 V-0                                  |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
| Operating and storage temperature   |  | -40/+85°C   |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
| Ingress Protection rating   |  | IP20 (NEMA 2)   |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
| Failsafe mode   |  | Short-circuit   |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
| Disconnection indicator   |  | Transmission interrupt - default mode 2                 |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
| Spare module(s)   |  | DLAM-12-IS  |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
| Dimensions  |  | See diagram   |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
| Weight  |  | 0.087 kg  |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
|   | <b>Standards</b>   |   |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
|   | Standards compliance IEC 61643-21 / EN 61643-21  |   |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
|   | Part number  |   |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |
|   | <b>640152</b>  |   |            |  |   |                      |    |                 |                           |    |   |                                |        |                                   |                  |  |                        |   |      |           |  |    |               |   |    |               |  |      |   |  |    |            |  |    |             |                   |    |          |                 |  |       |  |   |         |

