

## Type 2 AC Surge Protector DS40 series

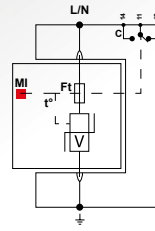
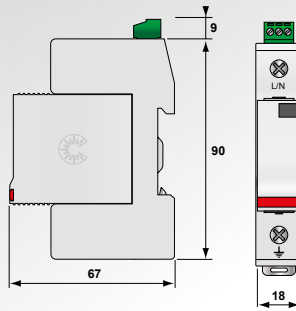


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**I<sub>max</sub>  
40 kA**



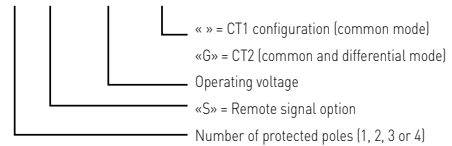
DS41-230



V: High-energy varistor  
Ft: Thermal fuse  
C: Remote signaling contact  
t°: Thermal disconnection system  
Mi: Disconnection indicator

- Type 2 AC Surge Protector
- I<sub>n</sub> : 20 kA
- I<sub>max</sub> : 40 kA
- Pluggable module for each phase
- Remote signaling option
- IEC 61643-11 and EN 61643-11 compliance
- UL1449 ed.4
- Numerous operating voltages

### DS4x S-xxx/G



## Characteristics

| CITEL Model                                               |       | DS41-690                                          | DS41-600                                        | DS41-480                                        | DS41-400                                        | DS41-385                                        | DS41-320                                        | DS41-280                                        | DS41-230                                        | DS41-120                                        |  |
|-----------------------------------------------------------|-------|---------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|--|
| Description                                               |       | Type 2 AC surge protector - one-phase - pluggable |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |  |
| Max. AC operating voltage                                 | Uc    | 760 Vac                                           | 660 Vac                                         | 530 Vac                                         | 440 Vac                                         | 385 Vac                                         | 320 Vac                                         | 280 Vac                                         | 255 Vac                                         | 150 Vac                                         |  |
| Temporary Over Voltage (TOV) Characteristics - 5 sec.     | UT    | 1000 Vac                                          | 870 Vac                                         | 700 Vac                                         | 580 Vac                                         | 335 Vac                                         | 335 Vac                                         | 335 Vac                                         | 335 Vac                                         | 180 Vac                                         |  |
| Temporary Over Voltage (TOV) Characteristics - 120 mn     | UT    | 1325 Vac                                          | 1150 Vac                                        | 920 Vac                                         | 770 Vac                                         | 440 Vac                                         | 440 Vac                                         | 440 Vac                                         | 440 Vac                                         | 230 Vac                                         |  |
| Residual current - Leakage current at Uc                  | Ipe   | disconnection < 1 mA                              | disconnection < 1 mA                            | disconnection < 1 mA                            | disconnection < 1 mA                            | disconnection < 1 mA                            | disconnection < 1 mA                            | disconnection < 1 mA                            | disconnection < 1 mA                            | disconnection < 1 mA                            |  |
| Follow current                                            | If    | None                                              | None                                            | None                                            | None                                            | None                                            | None                                            | None                                            | None                                            | None                                            |  |
| Nominal discharge current - 15 x 8/20 µs impulses         | In    | 20 kA                                             | 20 kA                                           | 20 kA                                           | 20 kA                                           | 20 kA                                           | 20 kA                                           | 20 kA                                           | 20 kA                                           | 20 kA                                           |  |
| Max. discharge current -max. withstand I@ 8/20 µs by pole | Imax  | 40 kA                                             | 40 kA                                           | 40 kA                                           | 40 kA                                           | 40 kA                                           | 40 kA                                           | 40 kA                                           | 40 kA                                           | 40 kA                                           |  |
| Protection level                                          | Up    | 3.5 kV                                            | 3.2 kV                                          | 2.5 kV                                          | 1.8 kV                                          | 1.8kV                                           | 1.5 kV                                          | 1.3 kV                                          | 1.25 kV                                         | 0.9 kV                                          |  |
| Admissible short-circuit current                          | Iscrr | 25000 A                                           | 25000 A                                         | 25000 A                                         | 25000 A                                         | 25000 A                                         | 25000 A                                         | 25000 A                                         | 25000 A                                         | 25000 A                                         |  |
| Associated disconnectors                                  |       |                                                   |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |  |
| Thermal disconnector                                      |       | internal                                          |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |  |
| Fuses                                                     |       | Fuses Type gG - 50 A*                             |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |  |
| Installation ground fault breaker                         |       | Type "S" or delayed                               |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |  |
| Mechanical characteristics                                |       |                                                   |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |  |
| Dimensions                                                |       | see diagram                                       |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |  |
| Connection to Network                                     |       | By screw terminals: 2.5-25 mm² / by bus           |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |  |
| Disconnection indicator                                   |       | 1 mechanical indicator                            |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |  |
| Remote signaling of disconnection                         |       | option DS41S-690 : output on changeover contact   | option DS41S-600 : output on changeover contact | option DS41S-480 : output on changeover contact | option DS41S-400 : output on changeover contact | option DS41S-385 : output on changeover contact | option DS41S-320 : output on changeover contact | option DS41S-280 : output on changeover contact | option DS41S-230 : output on changeover contact | option DS41S-120 : output on changeover contact |  |
| Spare unit                                                |       | DSM40-690                                         | DSM40-600                                       | DSM40-480                                       | DSM40-400                                       | DSM40-385                                       | DSM40-320                                       | DSM40-280                                       | DSM40-230                                       | DSM40-120                                       |  |
| Mounting                                                  |       | Symmetrical rail 35 mm (EN60715)                  |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |  |
| Operating temperature                                     |       | -40/+85°C                                         |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |  |
| Protection rating                                         |       | IP20                                              |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |  |
| Housing material                                          |       | Thermoplastic UL94-V0                             |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |  |
| Standards compliance                                      |       | IEC 61643-11 / EN 61643-11 / UL1449 ed.4          |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |                                                 |  |
| Certification                                             |       | UL / CSA /EAC / TUV                               | UL / CSA /EAC                                   | UL / CSA /EAC                                   | UL / CSA /EAC /TUV                              | EAC                                             | UL/CSA/EAC                                      | UL / CSA /EAC                                   | UL / CSA /EAC / TUV                             | UL / CSA /EAC                                   |  |
| Part number                                               |       | 331801                                            | 331501                                          | 331001                                          | 3314011                                         | 331201                                          | 331901                                          | 3311011                                         | 3317011                                         | 3316011                                         |  |

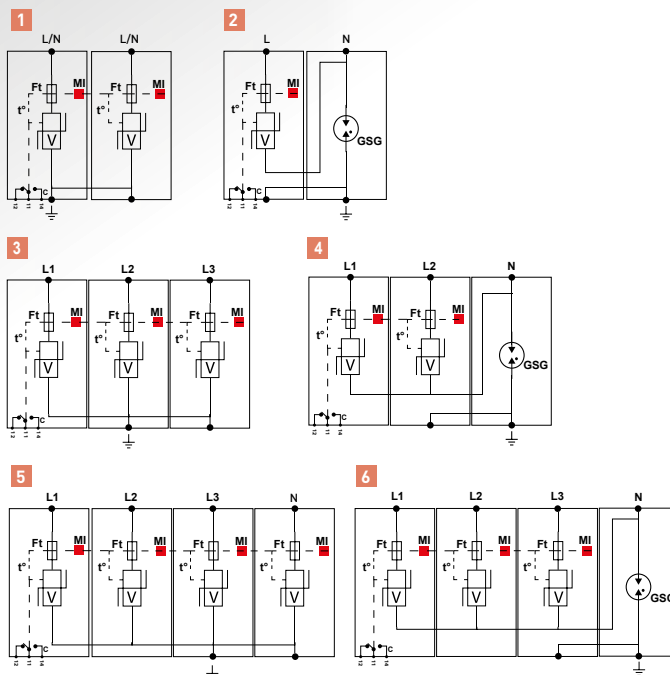
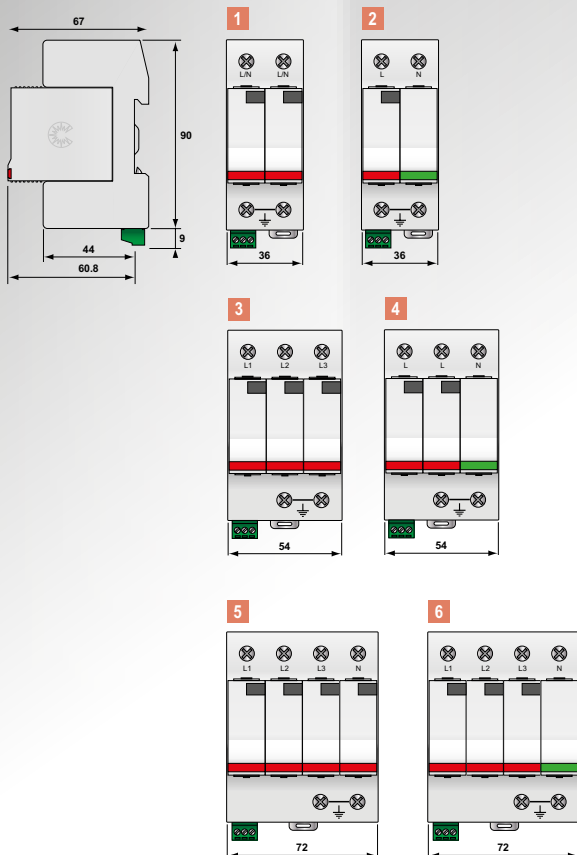


\* Note: Rating in compliance with NF C15-100 art.534.1.5.3. In order to increase service continuity, higher rating can be used. For further information, please consult product instructions..

## Type 2 Multipolar Surge Protector DS42, DS43, DS44



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V: High-energy varistor  
GSG : Specific gas tube  
Ft: Thermal fuse  
C: Remote signaling contact  
t°: Thermal disconnection system  
MI : Disconnection indicator



DS44-230/G

| Model      | P/N    | Network             | AC system | Protection Mode | Itotal | Up L/PE | Up L/N  | Up N/PE | Diagram |
|------------|--------|---------------------|-----------|-----------------|--------|---------|---------|---------|---------|
| DS44-400/G | 461412 | 230/400 V 3-phase+N | TT-TNS    | L/N and N/PE    | 40 kA  | -       | 1.8kV   | 1.5 kV  | 6       |
| DS44-385/G | 421212 | 230/400 V 3-phase+N | TT-TNS    | L/N and N/PE    | 40 kA  | -       | 1.8 kV  | 1.5 kV  |         |
| DS44-320/G | 461912 | 230/400 V 3-phase+N | TT-TNS    | L/N and N/PE    | 40 kA  | -       | 1.5 kV  | 1.5 kV  |         |
| DS44-280/G | 461112 | 230/400 V 3-phase+N | TT-TNS    | L/N and N/PE    | 40 kA  | -       | 1.3 kV  | 1.5 kV  |         |
| DS44-230/G | 461512 | 230/400 V 3-phase+N | TT-TNS    | L/N and N/PE    | 40 kA  | -       | 1.25 kV | 1.5 kV  |         |
| DS44-120/G | 461612 | 230/400 V 3-phase+N | TT-TNS    | L/N and N/PE    | 40 kA  | -       | 0.9 kV  | 1.5 kV  |         |
| DS44-400   | 461402 | 230/400 V 3-phase+N | IT        | L/PE and N/PE   | 160 kA | 1.8 kV  | -       | 1.8 kV  | 5       |
| DS44-385   | 421202 | 230/400 V 3-phase+N | TNS       | L/PE and N/PE   | 160 kA | 1.8 kV  | -       | 1.8 kV  |         |
| DS44-320   | 461902 | 230/400 V 3-phase+N | TNS       | L/PE and N/PE   | 160 kA | 1.5 kV  | -       | 1.5 kV  |         |
| DS44-280   | 461102 | 230/400 V 3-phase+N | TNS       | L/PE and N/PE   | 160 kA | 1.3 kV  | -       | 1.3 kV  |         |
| DS44-230   | 461502 | 230/400 V 3-phase+N | TNS       | L/PE and N/PE   | 160 kA | 1.25 kV | -       | 1.25 kV |         |
| DS44-120   | 461602 | 120/208 V 3-phase+N | TNS       | L/PE and N/PE   | 160 kA | 0.9 kV  | -       | 0.9 kV  |         |
| DS43-120/G | -      | 120/208 V 2-phase+N | TNS       | L/N and N/PE    | 40 kA  | -       | 0.9 kV  | 1.5 kV  | 4       |
| DS43-400   | 461403 | 230/400 V 3-phase   | IT        | L/PE            | 120 kA | 1.8 kV  | -       | -       | 3       |
| DS43-385   | 421203 | 230/400 V 3-phase   | TNC       | L/PE            | 120 kA | 1.8 kV  | -       | -       |         |
| DS43-320   | 461903 | 230/400 V 3-phase   | TNC       | L/PE            | 120 kA | 1.5 kV  | -       | -       |         |
| DS43-280   | 461103 | 230/400 V 3-phase   | TNC       | L/PE            | 120 kA | 1.3 kV  | -       | -       |         |
| DS43-230   | 461503 | 230/400 V 3-phase   | TNC       | L/PE            | 120 kA | 1.25 kV | -       | -       |         |
| DS43-120   | 461603 | 120/208 V 3-phase   | TNC       | L/PE            | 120 kA | 0.9 kV  | -       | -       |         |
| DS42-385/G | 421211 | 230 V single phase  | TT-TN     | L/N and N/PE    | 40 kA  | -       | 1.8 kV  | 1.5 kV  | 2       |
| DS42-320/G | 461911 | 230 V single phase  | TT-TN     | L/N and N/PE    | 40 kA  | -       | 1.5 kV  | 1.5 kV  |         |
| DS42-280/G | 461111 | 230 V single phase  | TT-TN     | L/N and N/PE    | 40 kA  | -       | 1.3 kV  | 1.5 kV  |         |
| DS42-230/G | 461511 | 230 V single phase  | TT-TN     | L/N and N/PE    | 40 kA  | -       | 1.25 kV | 1.5 kV  |         |
| DS42-120/G | 461611 | 120 V single phase  | TT-TN     | L/N and N/PE    | 40 kA  | -       | 0.9 kV  | 1.5 kV  |         |
| DS42-400   | 461401 | 230 V single phase  | IT        | L/PE and N/PE   | 80 kA  | 1.8 kV  | -       | 1.8 kV  | 1       |
| DS42-385   | -      | 230 V single phase  | TN        | L/PE and N/PE   | 80 kA  | 1.8 kV  | -       | 1.8 kV  |         |
| DS42-320   | 461901 | 230 V single phase  | TN        | L/PE and N/PE   | 80 kA  | 1.5 kV  | -       | 1.5 kV  |         |
| DS42-280   | 461102 | 230 V single phase  | TN        | L/PE and N/PE   | 80 kA  | 1.3 kV  | -       | 1.3 kV  |         |
| DS42-230   | 461501 | 230 V single phase  | TN        | L/PE and N/PE   | 80 kA  | 1.25 kV | -       | 1.25 kV |         |
| DS42-120   | 461601 | 120 V single phase  | TN        | L/PE and N/PE   | 80 kA  | 0.9 kV  | -       | 0.9 kV  |         |