SIEMENS

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# Surge Arresters

## WESTRACE specific transient protection


| Benefits |
|---|
| Fulfils WESTRACE Safety Requirements |
| Specifically meets requirements for PIM, ROM and LOM |
| Complies with relevant functional and safty standards |
| Visual indication of input or output state via LED |
| Visual indication of unit health via LED when ON |
| 4 mm sockets for test purposes |
| Colour coded with polarised bases to prevent incorrect module insertion |
| Mounts on both “Top hat” DIN rail and “G” DIN rail |
| Earth connection via rail or separate terminals |
| Repeatable protection up to 10 kA |
| Isolates WESTRACE on excessive fault current |

### Optimum WESTRACE Protection

Siemens recommend that every WESTRACE input and output connected external to the signal equipment room or location case is protected from the impact of transient voltages.

These surge arresters come from the the people who designed and know WESTRACE.

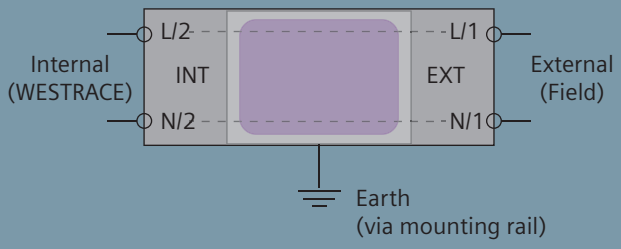
They are the only surge arresters optimised for the product range and that protect against common or differential mode transients.

### Convient to Use

A low profile, plug-in, surge arrester that is retained in a base that mounts on either “Top hat” DIN rail or “G” DIN rail.

LED indicators show the state of inputs and outputs and the health of the arrester.

Robust terminals accept 1.5 to 6 $mm^2$ cable or pin lugs. Earth connection via rail connection (preferred) or terminals.




## Application

Fully compatible with WESTRACE 50 Vdc inputs and outputs and 110 Vac signal outputs. Provides protection compatible with the WESTRACE module's third line protection.

Siemens recommend that all inputs and outputs extending outside the location case or signal equipment room be protected against damage from transient voltages—this device provides that protection.

These arresters will protect from repeated transient fault currents in excess of 10 kA (8/20 µs waveforms) .

## Construction

**Mounting Base** with robust screw terminals for up to 6 mm² cable or pin lugs mounts directly to "Top hat" DIN rail or "G" DIN rail. The electrical connection to the rail is the recommended earth path: terminals are also provided.

Each base is polarised and colour coded to prevent insertion of an incorrect module type.

4 mm sockets included for temporary wiring. Removing the module open circuits the external connection.

**Surge Protection Module**—a plug in, replaceable module providing WESTRACE surge protection.

Surge protection levels and module construction comply with international standards IEC 61643-11:2011 for optimum protection.

The module's assymetric design complies with the safety requirements for WESTRACE.

Read input, output and health states via two LED indicators—no need to probe to read voltages.

| Specifications | | |
|---|---|---|
| Nominal Voltage $U_n$ | 110 Vac ± 20% | 50 Vdc ± 20% |
| Continuous Operating Voltage $U_c$ | 130 Vac | 75 Vdc |
| Reference Test Voltage $U_{REF}$ | 140 Vac | 110 Vdc |
| Frequency Range | 47–62 Hz | N/A |
| Rated Load Current $I_L$ | 600 mAac | 600 mAdc |
| Classification | Class III / Class II | |
| Nominal Discharge Current Class II Test $I_n$ | 10 kA | |
| Follow Current $I_f$ | < 100 A | |
| Short Circuit Current Rating $I_{SCCR}$ | 10 kA | |
| Follow Current Interrupt Rating $I_{fi}$ | 10 kA | |
| Open Circuit Voltage $U_{OC}$ | 4 kV | |
| Short Circuit Current Combination Wave $I_{CW}$ | 10 kA | |
| Maximum Discharge Current $I_{max}$ | 20 kA | |
| Degree of Protection by Enclosures (IP) | IP20 | |
| Modes of Protection | L1–N1 / L1–PE / N1–PE | |
| Voltage Protection Level $U_P$ | L1–N1 < 1 kV<br>L1–PE < 2 kV<br>N1–PE < 2 kV | |
| Dimensions | **Height** 81 mm<br>**Width** 23.5 mm<br>**Depth** 91 mm | |
| Weight | 100 g (approx) | |
| Mounting | **Base** 35 mm "Top hat" or 32 mm "G" DIN rail<br>**Module** Plug in | |
| Construction | **Housing** Thermo plastic UL 94-V0<br>**Terminal cage and plug in terminals** Copper alloy | |
| Terminals | **Type** Screw<br>**Torque** 0.5 Nm maximum<br>**Capacity** 0.5 to 6 mm² wire | |
| Status Indicators | **Failure Indicator** LED<br>**Supply Voltage Level** Dual colour LED | |
| Ambient Temperature Range | –40°C to +70°C | |
| Number of Ports | 2 | |
| Design | Combination (Switching and Limiting) | |

Connect arrester to earth via the mounting rail (preferred) or terminal.

New and Replacement Surge Protection Modules **must** be Revision C (Rev C) or later. Rev C modules have a line around the front label, the word "fused" on the label, and "Rev C" on the side of the housing.

## Ordering

| Item | Part Number |
|---|---|
| 110 Vac Arrester | **2178081-1** |
| 110 Vac Base | **2178030-2** |
| 50 Vdc Arrester | **2178047-1** |
| 50 Vdc Base | **2178030-1** |

or discuss your requirements with our sales staff.

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