Surge Protection for Industry

Rayvoss®

It’s our business to help yours thrive.®
Rayvoss is Designed to Protect any Industrial Application

Industrial Grade Protection
Rayvoss® Surge Protective Devices (SPDs) are industrial grade surge protection products integrated with Raycap’s unique next-generation Strikesorb® surge protection modules. Rayvoss SPDs are available in many different electrical configurations and will provide unparalleled overvoltage protection in all low voltage installations. Strikesorb modules and Rayvoss SPDs are manufactured in Raycap’s ISO certified facilities. The Raycap facilities in Post Falls, Idaho, USA; Drama, Greece; and Munich, Germany are all certified and conform to the ISO 9001, ISO 14001, and the OHSAS 18001 standards. The Raycap facility in Komenda, Slovenia is certified and conforms to the ISO 9001 standard. All units are put through individual production testing and given a unique serial number and bar code for global traceability.

Rayvoss SPDs have been installed in some of the world’s harshest electrical environments, and offer superior protection to customer sites in the industrial, energy, renewable energy, telecommunications, residential and government sectors. Strikesorb technology has been field proven in providing premium performance where other conventional surge protection technologies have failed.

Well-justified Investment
Electronic infrastructure represents a sizable investment that can be instantly destroyed without effective surge protection. Investing in Rayvoss SPD systems allows customers uninterrupted load operation and will prevent lost revenue and/or loss of critical functionality.
Varied Applications

The highly configurable Rayvoss systems can apply to a number of industry applications. Below are just a few of the places where Rayvoss solutions are currently deployed:

- Mining
- Defense
- Railways
- Airports
- Power generation facilities
- Photovoltaic plants
- Wind farms
- Broadcasting stations
- Manufacturing plants
- Agriculture
- Water and wastewater facilities
- Dams
- Radar towers
- Marine vessels
- Hospitals
- Data centers
- Cellular network radio base stations
- Microwave radio relay stations
- Telecom central offices and street cabinets
- Residential
- Office buildings

Enhanced Safety and Maintenance-free Operation

Because Strikesorb technology is robust and designed to operate without weak dedicated internal fusing, it offers a lifetime of maintenance-free performance, resulting in significant operational cost savings to customers.

Strikesorb is the only UL 1449 4th Edition overvoltage protection module recognized to operate without an internal fuse or thermal disconnection mechanism. Due to its “in-line” installation capability—Strikesorb and Rayvoss SPDs will work to keep protected loads safe, even under catastrophic conditions such as long duration surges, open neutrals, or high intensity lightning strikes.

Rayvoss SPDs deploy Strikesorb protection modules in a variety of configurations and operating voltages to provide the electrical protection required, whatever the installation type including the following:

- Single Phase, Split Phase, Three Phase Wye, and Delta configurations
- Integration inside larger systems as well as power panels
Rayvoss Protection

With Strikesorb 40 or Strikesorb 80 surge protection at their core, Rayvoss industrial solutions offer unsurpassed electrical protection that meets the requirements of mission-critical applications.

Rayvoss Solutions
Rayvoss are available in various sizes and protection configurations.

<table>
<thead>
<tr>
<th>North American Specifications</th>
<th>Rayvoss A</th>
<th>Rayvoss N</th>
<th>Rayvoss M</th>
<th>Rayvoss S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enclosure Size (L x W x H)</td>
<td>20.0” x 10.0” x 20.0”</td>
<td>16.0” x 8.0” x 20.0”</td>
<td>12.3” x 6.0” x 12.0”</td>
<td>8.3” x 6.6” x 10.0”</td>
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<tr>
<td>[508 x 254 x 508 mm]</td>
<td>[406 x 204 x 508 mm]</td>
<td>[311 x 204 x 305 mm]</td>
<td>[210 x 167 x 254 mm]</td>
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<tr>
<td>Strikesorb Module Capacity</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>80</td>
</tr>
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<td></td>
<td>4 or 7</td>
<td>80</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>AC Voltages Available</td>
<td>120 V up to 600 V</td>
<td>120 V up to 1000 V</td>
<td>120 V up to 1000 V</td>
<td>120 V up to 1000 V</td>
</tr>
<tr>
<td>Optional Alarm Feature</td>
<td>Available</td>
<td>Available</td>
<td>Available</td>
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</table>

<table>
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<tr>
<th>European Specifications</th>
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<th>Rayvoss N</th>
<th>Rayvoss M</th>
<th>Rayvoss S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enclosure Size (L x W x H)</td>
<td>19.7” x 10.4” x 19.7”</td>
<td>15.8” x 8.4” x 19.7”</td>
<td>11.8” x 8.1” x 11.8”</td>
<td>7.9” x 6.1” x 9.8”</td>
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<td>[500 x 263 x 500 mm]</td>
<td>[400 x 214 x 500 mm]</td>
<td>[300 x 206 x 300 mm]</td>
<td>[200 x 156 x 250 mm]</td>
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<td>3, 4 or 7</td>
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Strikesorb Surge Protection Technology

Raycap has led the way in finding creative protection solutions that ensure its customers’ vital equipment does not experience downtime due to lightning or other overvoltage events. The company has made significant research, development and operational investments to validate Strikesorb’s unique surge protection qualities meet global safety standards.

The innovative Strikesorb technology has been engineered and tested for use in AC and DC power applications. Strikesorb modules are compliant to IEC 61643-11 and the UL 1449 4th Edition safety standards. Where ever deployed, Strikesorb will significantly improve the availability of the equipment it protects.

Strikesorb Benefits

• **Patented Technology**—Strikesorb features an innovative SPD design that ensures continuous protection and eliminates all the failure and safety risks related to conventional SPDs.

• **Maintenance Free**—Strikesorb’s fuse-less operation, its unparalleled performance against power surges and its immunity to TOV conditions make it the most reliable SPD for protection of the entire installation, and eliminates the need for maintenance and replacement parts.

• **High Surge Current Withstand Capability**—Strikesorb incorporates a wide distribution grade MOV disk kept under pressure between large aluminum electrodes, enabling effective thermal dissipation and excellent management of the surge currents’ negative effects. Strikesorb can actually withstand thousands of repetitive surge events without degradation.

• **High Short-Circuit Current Rating**—Strikesorb’s inherent capacity to resist high short-circuit currents enables flexible integration into industrial systems and “in-line” installation in all common AC and DC applications without the need for a dedicated fuse.

• **Best overall protection for the installation**—Strikesorb’s capability to be installed “in-line” even in the case of very high short-circuit currents, eliminates the need for long cable lengths, results in the lowest possible let-through voltage and ensures optimum protection levels. The sensitive equipment remains continuously protected in the most efficient way possible.

• **Safest SPD**—Strikesorb’s aluminum casing and internal components manage the heat generated within the device when multiple lightning surges or faulty operating conditions occur. Its design eliminates the use of any materials which could burn or smoke.

• **International Standards Certified Compliance**—Strikesorb modules have been tested and approved by internationally accredited independent laboratories to the latest IEC and UL safety and performance standards.

• **Long Lifespan and Warranty**—Strikesorb’s expected lifetime is much more than 20 years; it is supplied with a 10 year limited lifetime warranty.
Raycap Worldwide Locations

Raycap Inc.
806 South Clearwater Loop
Post Falls, ID 83854
United States of America

Raycap | STEALTH
7555-A Palmetto Commerce Pkwy
North Charleston, SC 29420
United States of America

Raycap GmbH
Parkring 11
85748 Garching Munich
Germany

Raycap S.A.
Telou & Petroutsou 14
15124 Maroussi Athens
Greece

Raycap S.A. Manufacturing
Industrial Area of Drama
66100 Drama
Greece

Raycap d.o.o.
Poslovna cona Zeja pri Komendi
Pod hrasti 7
1218 Komenda
Slovenia

Raycap Cyprus Ltd.
46 Lefkosias Street
Industrial Area of Dali
2540 Nicosia
Cyprus

Raycap SAS
84 rue Charles Michels
Building B
93200 Saint-Denis
France

Raycap (Suzhou) Co. Ltd.
Block B, Phase II
of New Sea Union
No. 58 Heshun Road
SIP, Suzhou 215122
Jiangsu Province
China

raycap.com • info@raycap.com