AC power line filter protection installed ahead of PLCs is designed to protect against damage and disruption by cleaning high frequency noise as well as superior clamping of surge events. ASCO Power Technologies surge suppressors with an Islatrol Active Tracking Filter will prevent missed or false zero crossover readings that could result in a need to re-boot a PLC.

The **ASCO Model 275 (Islatrol IC+)** is a series-connected high-frequency noise filter with transient protection in all modes: line to neutral, line to ground, and neutral to ground. The unit features LED status indication and 19.5kA surge capacity.

The **ASCO Model 277 (Islatrol IE)** features a multi-staged design, combining a unique hybrid clamping network with the active tracking technology of the Islatrol family. The 45kA surge capacity device is housed in a DIN-mountable enclosure with LED status indication and form C contacts for remote indication.

By employing DIN rail mounted surge suppressors, multiple 4/20mA signal lines and communication networks can be protected inside a control panel, where space is at a premium. The **ASCO Model 105 (Edco DRS-036)** suppression module easily installs on a standard 35mm DIN rail and implements three-stage hybrid technology. Over-voltage transients are addressed using gas tubes and silicon avalanche components with resettable fuses (PTCs) are used to mitigate sneak currents.

The **ASCO Model 420 (APT SPDee)** protects AC power entering the control panel. The proven technology of 400 Series provides protection from transient surges and electrical line noise. Status LEDs and relay contacts provide indication of suppression system failure and power loss.

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 105</td>
<td>6VDC up to 25VDC, Max Operating Current 0.015A</td>
</tr>
<tr>
<td>Model 275</td>
<td>120VAC &amp; 240VAC, up to 30A Operating Current</td>
</tr>
<tr>
<td>Model 277</td>
<td>120VAC &amp; 240VAC, up to 20A Operating Current</td>
</tr>
<tr>
<td>Model 420</td>
<td>Single, Split &amp; Three Phase VAC Configurations</td>
</tr>
</tbody>
</table>

Low voltage noise from everyday events, such as turning on appliances or motors, causes long-term degradation of equipment.
IEEE Standard

IEEE Standard 1100 - 9L.1.6.3 “If surge protection is required for a building or factory, parallel-connected devices may be sufficient to proactively stop high-energy transients from mitigating downstream. On the contrary, if a susceptible or critical piece of equipment needs to be protected from transients or isolated from induced high frequency, than a series connected filter may be the better choice.”

IEEE Standard 1100 - 4.4.5 Potential impact of EMI: “Depending on the severity of the surge and the susceptibility of the equipment, three types of occurrences are possible… : data disruption, hardware stress, and hardware destruction.”

FILTERING/LINE CONDITIONING

ASCO Model 277
(Islatrol IE)
AC Power Filter

Active Tracking Filter™ used to protect AC power lines going to programmable logic controllers.

OR

ASCO Model 275
(Islatrol IC+)
AC Power Filter

Our most asked for product…

A high-frequency noise filter with transient protection. Applications include industrial or office equipment, computers placed in harsh environments.

DATA/SIGNAL LINE PROTECTION

ASCO Model 105
(Edco DRS Series)
Data/Signal Surge Protection

Used to protect network signal lines entering or leaving control panel.

TRANSIENT VOLTAGE SURGE SUPPRESSION

ASCO Model 420
Low Exposure SPD Surge Protection

High-energy surge suppression used to protect AC power lines coming into the control panel.

IEEE Standard