Product Selection by Electrical Panel Size for Low Voltage Systems

Product Selection is composed of three primary factors:

- **Load Size**
- **Environment**
- **Connected Equipment Sensitivity**.

Load Size: If the application is a service entrance or the first protected panel in the system from the source of power, then use an SPD with a Peak Surge Current (PSC) of 180-240 Amps per phase for any system 1,600 Amps or less. Use an SPD with PSC of 300 Amps per phase for applications between 1,600 and 2,000 Amps. Consult factory engineers above 2,000 Amps.

Sub-Mains/Distribution Panels/MCCs (non-service entrance): Use an SPD with a PSC of 180 Amps per phase for any Sub-Main/Panel/MCC 1,600 Amps or less. Use an SPD with a PSC of 240 Amps per phase for any Sub-Main/Panel/MCC over 1,600 Amps.

Branch Panels: Use an SPD with a PSC of 120 Amps per phase.

Environment: Take the prior example for instance, if the environment is one where there have been reports of significant level of equipment loss or other suppressors have failed in the past, it may be best to increase the PSC per Phase by as much as 50%.

Connected Equipment Sensitivity: If the load were made up of highly sensitive equipment such as computers or other equipment utilizing microprocessor or integrated circuit controls, the Sine Wave Tracking (Frequency Responsive) Technology is recommended. If the equipment is more rigid, such as motors or lighting, then utilize the Voltage Responsive Technology.