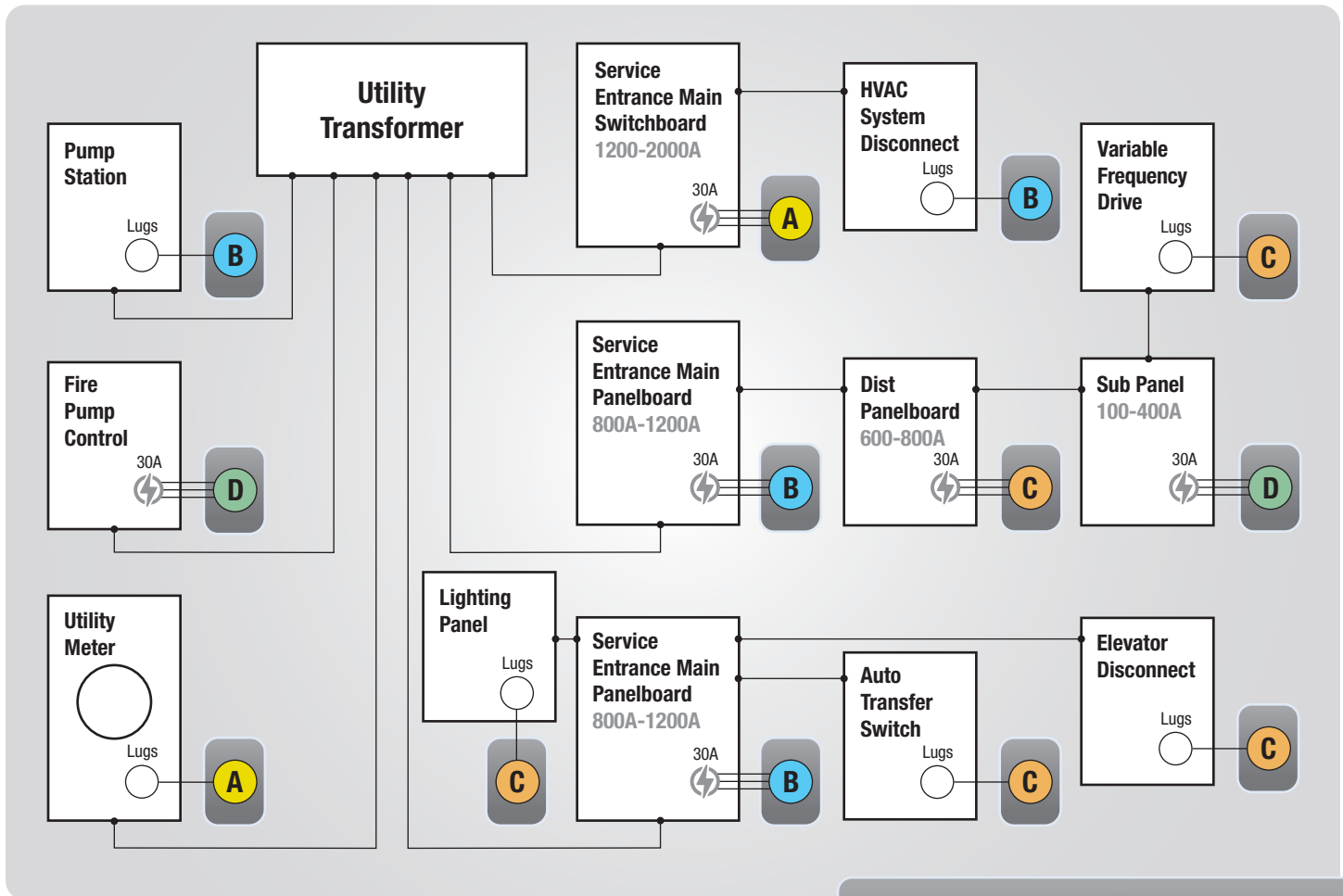


# PANELGUARD® Surge Protection Placement and Selection Guide



- ✓ **Service Entrance Panels:** Surge protection is recommended on all service entrance/main distribution panels to protect against surges.
- ✓ **Distribution Panels:** Surge protection is recommended on distribution panels feeding any outdoor equipment or where there is no upstream protection.
- ✓ **Branch Panels:** Surge protection is recommended on branch/subpanels feeding any sensitive loads.

## PANELGUARD® Series Guide

- A** H20 series + Voltage
- B** H10 series + Voltage
- C** L10 series + Voltage
- D** L5 series + Voltage

*PANELGUARD product selection chart located on back.*

## Surge Protective Device (SPD) Type Designations

SPD Type designations are as follows:

TYPE 1	TYPE 2
Permanently connected SPDs intended for installation between the secondary of the service transformer and the line side of the service equipment overcurrent device, as well as the load side, including watt-hour meter socket enclosures and intended to be installed without an external overcurrent protective device.	Permanently connected SPDs intended for installation on the load side of the service equipment overcurrent device - including SPDs located at the branch panel. (Source UL)

## Are primary SPDs alone sufficient for equipment protection?

No, from a small facility to a large facility, it is usually necessary to adopt a cascaded, or layered approach where primary protection is installed at the service entrance panel, and secondary protection at branch panels. Each facility requires individual analysis to determine the right protection to meet the needs of the equipment being used. A cascaded approach is recommended by IEEE Standard 1100; it recommends layering levels of protection from the service entrance to distribution and then to your branch panels, and even protection for individual critical loads.

An electromagnetic interference filter, such as an EMI, RFI, or line filter, shall comply with the Standard for Electromagnetic Interference Filters, UL 1283.

## PANELGUARD H Series Offering



### H20 SERIES (10-Year Limited Product Warranty)

7 MODE MAX SURGE CURRENT 200 kA Per Phase, SCCR rating of 200kA and In rating of 20kA, Blue LED Status Indicator Per Phase Red LED Service Indicator

Intermatic Part #	SPD Type	Audible Alarm, Dry Relay Contact	Filter	Voltage Code
H20S21S1DG1	2		EMI/RFI FILTER	(SPLIT PHASE 120/240 V)
H20S21S1DG2	2	Yes	EMI/RFI FILTER	
H20S13D1DG1	1			(3 PHASE HIGH LEG DELTA 120/240 V)
H20S13D1DG2	1	Yes		
H20S23D1DG1	2		EMI/RFI FILTER	(3 PHASE HIGH LEG DELTA 120/240 V)
H20S23D1DG2	2	Yes	EMI/RFI FILTER	
H20S13Y1DG1	1			(3 PHASE WYE 120/208 V)
H20S13Y1DG2	1	Yes		
H20S23Y1DG1	2		EMI/RFI FILTER	(3 PHASE WYE 120/208 V)
H20S23Y1DG2	2	Yes	EMI/RFI FILTER	
H20S13Y2DG1	1			(3 PHASE WYE 277/480 V)
H20S13Y2DG2	1	Yes		
H20S23Y2DG1	2		EMI/RFI FILTER	(3 PHASE WYE 277/480 V)
H20S23Y2DG2	2	Yes	EMI/RFI FILTER	
H20S13Y3DG1	1			(3 PHASE 347/600 V)
H20S13Y3DG2	1	Yes		



### H10 SERIES (10-Year Limited Product Warranty)

7 MODE MAX SURGE CURRENT 100 kA Per Phase, SCCR rating of 200kA and In rating of 20kA, Blue LED Status Indicator Per Phase Red LED Service Indicator

Intermatic Part #	SPD Type	Audible Alarm, Dry Relay Contact	Filter	Voltage Code
H10S21S1DG1	2		EMI/RFI FILTER	(SPLIT PHASE 120/240 V)
H10S21S1DG2	2	Yes	EMI/RFI FILTER	
H10S13D1DG1	1			(3 PHASE HIGH LEG DELTA 120/240 V)
H10S13D1DG2	1	Yes		
H10S23D1DG1	2		EMI/RFI FILTER	(3 PHASE HIGH LEG DELTA 120/240 V)
H10S23D1DG2	2	Yes	EMI/RFI FILTER	
H10S13Y1DG1	1			(3 PHASE WYE 120/208 V)
H10S13Y1DG2	1	Yes		
H10S23Y1DG1	2		EMI/RFI FILTER	(3 PHASE WYE 120/208 V)
H10S23Y1DG2	2	Yes	EMI/RFI FILTER	
H10S13Y2DG1	1			(3 PHASE WYE 277/480 V)
H10S13Y2DG2	1	Yes		
H10S23Y2DG1	2		EMI/RFI FILTER	(3 PHASE WYE 277/480 V)
H10S23Y2DG2	2	Yes	EMI/RFI FILTER	
H10S13Y3DG1	1			(3 PHASE 347/600 V)
H10S13Y3DG2	1	Yes		

## PANELGUARD L Series Offering



### L10 SERIES (5-Year Limited Product Warranty)

4 MODE MAX SURGE CURRENT 100 kA Per Phase, SCCR rating of 200kA and In rating of 20kA, Blue LED Protection Status Indicator and Red LED Service Indicator

Intermatic Part #	SPD Type	Audible Alarm, Dry Relay Contact	Filter	Voltage Code
L10F11S1DG1	1			(SPLIT PHASE 120/240 V)
L10F11S1DG2	1	Yes		
L10F23D1DG1	2		EMI/RFI FILTER	(3 PHASE HIGH LEG DELTA 120/240 V)
L10F23D1DG2	2	Yes	EMI/RFI FILTER	
L10F13N4DG1	1			(3 PHASE DELTA 440/480 V)
L10F13N4DG2	1	Yes		
L10F23N4DG1	2		EMI/RFI FILTER	(3 PHASE DELTA 440/480 V)
L10F23N4DG2	2	Yes	EMI/RFI FILTER	
L10F13Y1DG1	1			(3 PHASE WYE 120/208 V)
L10F13Y1DG2	1	Yes		
L10F23Y1DG1	2		EMI/RFI FILTER	(3 PHASE WYE 120/208 V)
L10F23Y1DG2	2	Yes	EMI/RFI FILTER	
L10F13Y2DG1	1			(3 PHASE WYE 277/480 V)
L10F13Y2DG2	1	Yes		
L10F23Y2DG1	2		EMI/RFI FILTER	(3 PHASE WYE 277/480 V)
L10F23Y2DG2	2	Yes	EMI/RFI FILTER	
L10F13Y3DG1	1			(3 PHASE 347/600 V)
L10F13Y3DG2	1	Yes		



### L5 SERIES (5-Year Limited Product Warranty)

4 MODE MAX SURGE CURRENT 50 kA Per Phase, SCCR rating of 200kA and In rating of 20kA, Blue LED Protection Status Indicator and Red LED Service Indicator

Intermatic Part #	SPD Type	Audible Alarm, Dry Relay Contact	Filter	Voltage Code
L5F21S1DG1	2		EMI/RFI FILTER	(SPLIT PHASE 120/240 V)
L5F21S1DG2	2	Yes	EMI/RFI FILTER	
L5F13D1DG1	1			(3 PHASE HIGH LEG DELTA 120/240 V)
L5F13D1DG2	1	Yes		
L5F13Y1DG1	1			(3 PHASE WYE 120/208 V)
L5F13Y1DG2	1	Yes		
L5F23Y1DG1	2		EMI/RFI FILTER	(3 PHASE WYE 120/208 V)
L5F23Y1DG2	2	Yes	EMI/RFI FILTER	
L5F13Y2DG1	1			(3 PHASE WYE 277/480 V)
L5F13Y2DG2	1	Yes		
L5F23Y2DG1	2		EMI/RFI FILTER	(3 PHASE WYE 277/480 V)
L5F23Y2DG2	2	Yes	EMI/RFI FILTER	
L5F13Y3DG1	1			(3 PHASE 347/600 V)
L5F13Y3DG2	1	Yes		