# **Surge Protective Devices** SPDN-D Series

UL Type 1







# **Description**

Surge protective devices (SPDs) provide equipment protection from transient overvoltage events lasting micro-seconds. By limiting the overvoltage to the equipment during these events, costly damage and downtime can be mitigated.

The NEMA-style SPDN series for external panel mount is available for 120 V to 480 V nominal voltage sub-distribution board applications.

#### **Features & Benefits**

FEATURES	BENEFITS			
More direct modes of protection (L-N, N-G) in a smaller package	Increases protection and design flexibility			
Capability to clamp and withstand high-energy transients	Ensures low-residual voltage during high-energy surge events and higher nominal discharge current to prevent disruption, downtime, and degradation or damage to equipment			
Stacked Metal Oxide Varistor (MOV) design	Provides more high-transient voltage protection in a compact, multi- layered structure			
Installs on the line or load side of the circuit breaker	Simplifies maintenance—without impacting the other parts of the electrical system—by turning breaker off during upkeep			
Thermally protected MOV	Eliminates catastrophic failure			
External LED indicator	Quickly identifies service requirements to avoid loss of protection			
Compact footprint	Offers easy retrofit in existing applications where space is limited			

# **Applications**

- Construction
- Food and Beverage
- HVAC/R
- Light Industrial
- Oil and Gas
- Water/Wastewater



# **Surge Protective Devices SPDN-D Series**

#### **Specifications**

**Maximum Surge Current Rating** Up to 50 kA per phase

I-nominal Rating20 kAUL1449 Short Circuit Current Rating200 kADirect Modes of ProtectionL-N, N-GUL TypeType 1

Protective Elements Stacked High Energy MOV

**Response Time (L-N / N-PE tA)** < 25 ns

**Mechanical & Environmental** 

**Operating Temperature Range (Ta)**  $-35 \,^{\circ}\text{C}$  to  $+85 \,^{\circ}\text{C}$  (-31  $^{\circ}\text{F}$  to  $+185 \,^{\circ}\text{F}$ )

**Operating Frequency** 50–60 Hz

Typical Connection 18" #12 AWG (pre-wired pig tails)
Permissible Operating Humidity (RH) 0 % to 95 % non-condensing

Altitude (max) 4,000 m (13,123 ft)
Degree of Protection IP20 (built-in)

**Housing Material** Polycarbonate NEMA 4X – Lid ultrasonically sealed

**Thermal Protection** Yes

Operating State/Fault Indication 1 Green LED (for each phase)
Product Dimensions H 2.75"; W 4.25"; D 2.41"

Product Weight 0.5 lb

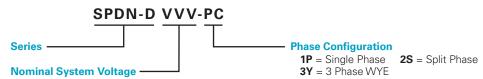
**Package Dimensions** 4-3/8" x 3-1/2" x 9-1/2"

Package Weight 0.7 lb

#### **Certification & Compliance**

cULus	UL 1449, 5th Edition; E320116
RoHS	RoHS 2 Directive 2011/65/EU; Directive (EU) 2015/863
REACH	Regulation (EC) No 1907/2006

# **Part Numbering System**

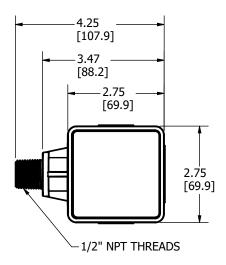


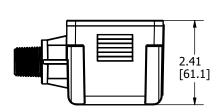
### **Ordering Information**

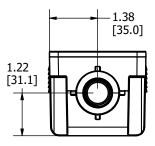
ORDERING NOMINAL SYSTEM	PHASE	MAXIMUM CONTINUOUS AC OPERATING VOLTAGE (MCOV)	VOLTAGE PROTECTION RATING (VPR)				
NUMBER	BER VOLTAGE CONFIGURATION		L-N	L-G	N-G	L-L	
SPDN-D120-1P	120	Single Phase	180	700	1200	600	
SPDN-D120-2S	120/240	Split Phase	180	700	1200	600	1200
SPDN-D120-3Y	208/120	3 Phase WYE	150	600	1000	600	1000
SPDN-D240-1P	240	Single Phase	350	1200	2000	1200	
SPDN-D240-2S	240/480	Split Phase	350	1200	2000	1200	2000
SPDN-D277-3Y	480/277	3 Phase WYE	350	1200	2000	1200	2000

# **Surge Protective Devices SPDN-D Series**

### **Dimensions Inches [mm]**







Warranty - Visit www.littelfuse.com/warranty for details.

Disclaimer Notice — Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littleffuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at www.littelfuse.com/product-disclaimer.

