



**Features:**

- 100kA DC Short Circuit Current Rating (SCCR)
- Arc breaking, slide-gate thermal disconnectors built-in
- Reduces challenges and fusing shortcomings of overseas-standard SPDs
- 1500VDC Model is UL Listed to UL 1449 Photovoltaic Standard (VZCA.E321351 & VZCA7.E321351)
- 10-year limited warranty

**DC SPD for use in PV applications options & configurations for OEMs (see back). See AC SPD Model 420 data sheet (DS-70117) for AC voltage models.**

**Performance Specifications**

50kA 8 x 20µs per mode
300VDC, 600VDC, 1000VDC, 1500VDC & OEM models
All modes of protection: DC+ – G, DC- – G, DC+ – DC-
Tested I <sub>n</sub> : 20kA
Tested SCCR: 100kA DC
1500VDC model is UL listed to UL 1449 photovoltaic standard
Type 2 optional for cUL mark
Large-Block arrestor-grade 34mm square MOVs
Individually fused and thermally protected MOVs
Repetitive impulse: 5000 - 3kA-8 x 20µs; 1000 - 10kA-8 x 20µs
Response time: < 1 nanosecond

**Monitoring Configurations**

Standard - low consumption LED; monitors every MOV
- Illuminates when power is produced
Option
- NP - Removes diagnostic monitoring circuit, and adds microswitch leads

**Physical Specifications**

Relative humidity range: 0 - 95% non-condensing
Operating frequency: DC
Operating temperature: -40° C (-40° F) to +65° C (149° F) (1500VDC: -40° C (-40° F) to +85° C (185° F))
Solid state bi-directional operation
NEMA 4X polycarbonate enclosure – UL746C(f1), UL 94-5VA
Pre-wired with 3 feet (1 meter) of #8 AWG and #6 AWG ground conductor (1500VDC: #10 AWG)

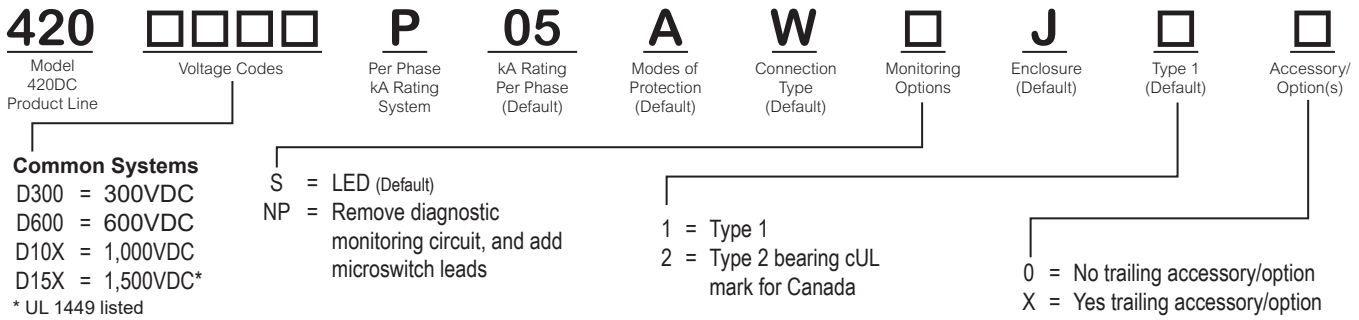
**Tri-Mount Installation**



**Quality, Standards & Validation**

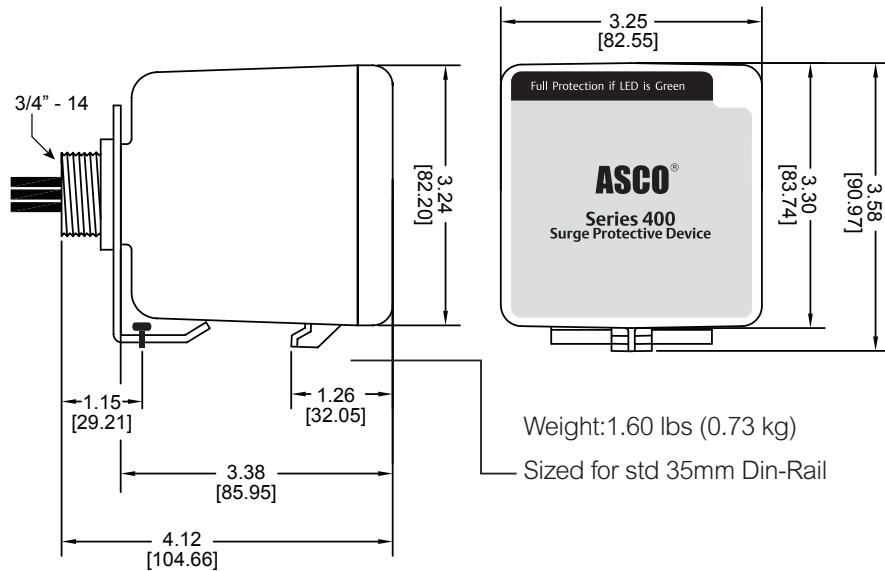
10-year limited warranty
ANSI/IEEE C62.41.1-2002, C62.41.2-2002 & C62.45-2002
Operational test performed before shipment
ISO 9001:2008 certified quality management system
ISO 17025: certified test lab
IEC 61643, CE
Complies with UL 96A 12th Edition master label requirements for lighting protection systems @ 20kA I <sub>n</sub>

## Model 420 DC PV Model Number Configurator & Options



Contact factory for specific needs and OEM special construction

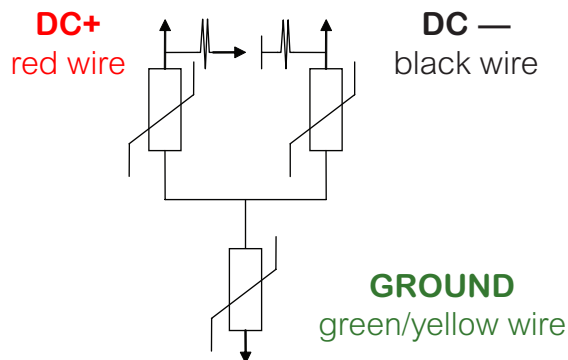
## Dimensions (in. / mm)



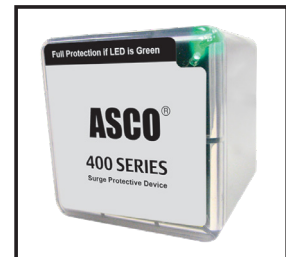
## Applications & Models

Model number	420D300P05...	420D600P05...	420D10XP05...	420D15XP05...
DC voltage	0-300VDC	0-600VDC	0-1000VDC	0-1500VDC
Maximum Continuous Operating Voltage (V <sub>pvc</sub> )	424VDC	905VDC	1188VDC	1500VDC
Voltage protection level (Up) @ 6kV/3kA	<1000Vp	<2000Vp	<2500Vp	<3000Vp

## Schematic: All Modes of Protection



Available Z mounting bracket accessory



AC voltage Model 420 also available