

# Solar (PV) Application Products

## 1500 V Dc Solar Fuse Products

### SPXC Series Fuses

- 1500 V dc • 1–4 A
- 10 x 57 mm
- UL 248-19 Listed
- Meets IEC 60269-6\*
- Up to 50,000 A interrupting
- Ferrule or PCB mount available
- Application: string inverters



### SPXV Series Fuses

- 1500 V dc • 1–60 A
- UL 248-19 Listed
- TUV - IEC 60269-6
- Applications: inverters and combiner boxes
- SPXVS silver-plated series available



### SPXI In-line Series Fuses

- 1500 V dc • 1–60 A
- UL 248-19 Listed
- TUV - IEC 60269-6\*
- Accommodates large wire range
- No fuse holder required
- Application: PV wire harness (eliminate combiner boxes)



### SPNH Series Fuses

- 1500 V dc • 50–400 A
- UL 248-19 Listed
- Meets IEC 60269-6
- Bolted directly onto busbar or inserted into fuse blocks
- Applications: inverters and re-combiners



### LFVX15 Series Fuse Block & Cover

- Dead-front cover for protection
- Ventilated design keeps fuse cool
- Easy fuse removal, no tools required
- 35 mm DIN-rail mountable
- Holds 20 x 127 mm 35–60 A SPXV fuses



### LFPXV Series - Touch-Safe Holders

- Finger-safe design
- No fuse pullers or tools required
- 35 mm DIN-rail mountable
- Holds 10 x 85 mm SPXV/SPXVS fuses



## 1000 V Dc Solar Fuse Products

### SPFI In-line Series Fuses

- 1000 V dc • 2–30 A
- UL 248-19 Recognized
- TUV - IEC 60269-6\*
- No fuse holder required
- Application: PV wire harness (eliminate combiner boxes)



### SPF Series Fuses

- 1000 V dc • 1–30 A
- UL 248-19 Listed
- TUV - IEC 60269-6
- Ferrule or PCB mount available
- Applications: combiner boxes, inverters, and battery charge controllers



### LPHV Series Fuse Holders

- Touch-safe design offers protection
- 35 mm DIN-rail mountable
- Designed to hold SPF 1000 V dc fuses



### SPFJ Series Fuses

- 1000 V dc • 70–450 A
- Listed to UL 248-19 (PV) and UL 248-8 (Class J)
- Meets IEC 60269-6\*
- Compact footprint reduces panel size
- Applications: re-combiner boxes and inverters



### LFJ1000 Series Fuse Blocks

- 1000 V dc fuse block
- UL 4248-18 Listed
- Available in clip or stud configurations
- Designed to hold SPFJ fuses



## High-Speed Protection

### PSR High-Speed Series Fuses

- 550–1300 V ac and 500–1000 V dc
- 40 A–2000 A
- UL 248-13 Recognized
- Meets IEC 60269-4
- Optional remote indication micro-switch available
- Application: dc couple PV-BESS central inverters



### PSX Series High-Speed Square Body Fuses

- 1500 V dc • 80–1400 A
- Dc breaking capacity up to 250 kA at 1500 V dc
- UL248-13 Recognized
- Meets IEC 60269-4
- Optional remote indication micro-switch available
- Application: hybrid PV-BESS inverters



## Switch Products

### Dc Disconnect Switches

- 1000 and 1500 V • 200, 320, 400 and 500 A
- Design eliminates need for external bridging links (jumpers) to lower heat dissipation and save installation time
- Applications: combiner boxes, array combiners and string inverters



### Class J Fuse Disconnect Switches

- 600 V ac voltage rating
- 30 A, 60 A, 100 A and 200 A
- Breaks circuit upstream and downstream enabling the switch to handle higher voltages and provide a longer switch life
- Small footprint saves space and provides design flexibility
- Applications: Auxiliary Services Transformer (SSVT) in central inverter and string inverter



\*Meets electrical performance requirements

# Solar (PV) Application Products

## Ground Fault Protection

### SE-601 Series Ground-Fault Relays

- Provides sensitive ground-fault protection for ungrounded systems
- Application: central inverters



### EL731 Series Earth Leakage Relays

- Provides sensitive earth-leakage protection for grounded systems
- Application: central inverters



## 600 V Dc Solar Products

### IDSR Series Indicator® Fuses KDKD Series 10 x 38 (Midget) Fuses

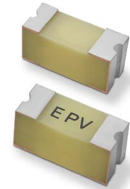
- 600 V ac/dc
- KDKD UL 248-19 Listed
- Applications: combiner boxes, inverters, battery chargers and high amp power distribution
- Negative terminal combination blocks available



## 100 V Dc and Below Solar Products

### 400PV Series – 2410 Photovoltaic Fuse

- 86 V dc • .375 A
- Recognized to UL/CSA 248-1 and UL/CSA 248-19
- Wide temperature operating range
- 2410 size; surface mountable
- Applications: photovoltaic shingles and cells



## Overvoltage Protection

### SPD2 PV Series Surge Protective Devices (SPDs)

- 1100 and 1500 V dc in 3+0 configuration
- Protects equipment from transient overvoltage
- Applications: combiner boxes and inverters



For more information on all surge protective devices visit [Littelfuse.com/SPD](http://Littelfuse.com/SPD)

## Arc-Flash Protection

### AF0025 & PGR-8800 Arc-Flash Detection Relays

- Reduces arc-fault damage
- Applications: combiner boxes and central inverters



## Solar Applications

- A Central Inverter**  
600 V to 1500 V Fuses  
Power Distribution Blocks  
Dc Earth Leakage/Ground-Fault Relays  
Varistor Products  
Surge Protective Devices  
1000 V to 1500 V High-Speed Semiconductor Fuses  
Temperature Sensors  
Arc-Flash Relays  
Class J Fuse Disconnect Switches

- B Small Inverter**  
TVS Diodes/SCRs  
Varistor Products  
Temperature Sensors

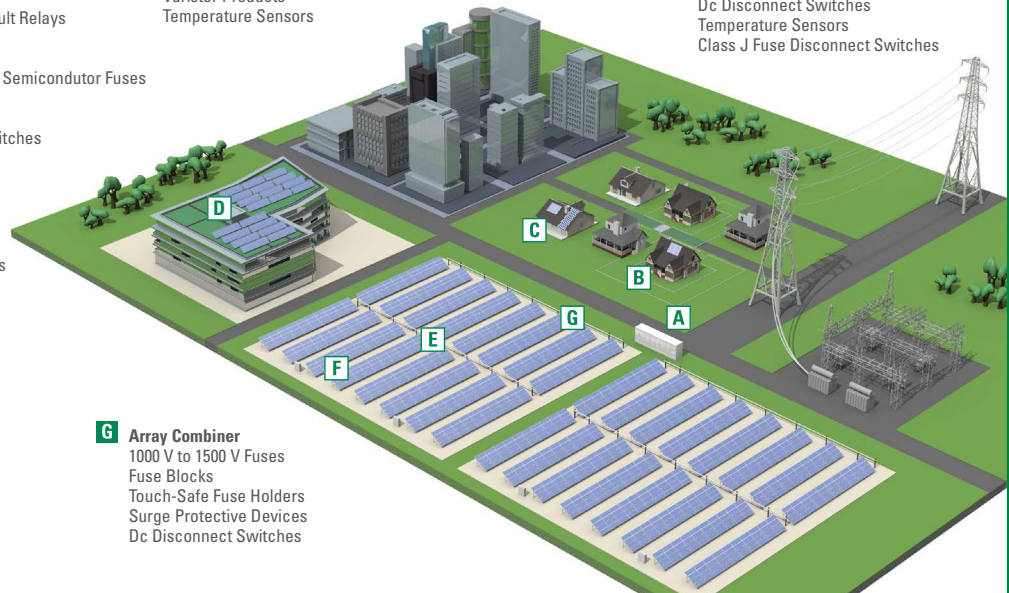
- C Micro Inverter & Solar Shingles**  
TVS Diodes/SCRs  
Varistor Products  
Temperature Sensors  
86 V Surface-Mount Fuse

- D String Inverter**  
600 V to 1000 V Fuses  
Touch-Safe Fuse Holders  
Power Distribution Blocks  
Varistor Products  
Surge Protective Devices  
Dc Disconnect Switches  
Temperature Sensors  
Class J Fuse Disconnect Switches

- E Wiring Harness**  
1000 V to 1500 V In-Line Fuses

- F Combiner Box**  
1000 V to 1500 V Fuses  
Touch-Safe Fuse Holders  
Power Distribution Blocks  
Surge Protective Devices  
Dc Disconnect Switches  
Arc-Flash Relays

- G Array Combiner**  
1000 V to 1500 V Fuses  
Fuse Blocks  
Touch-Safe Fuse Holders  
Surge Protective Devices  
Dc Disconnect Switches



With over 60 million devices installed in photovoltaic power systems, Littelfuse understands the global challenges of the solar market. We offer numerous circuit-protection products that are uniquely suited to protect the equipment and systems subject to the harsh environments of standard photovoltaic installations. For more information, visit [Littelfuse.com/Solar](http://Littelfuse.com/Solar)

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