

# PCFN SOLAR

## High Performance Power PCB Relay



TE Connectivity has expanded the PCFN Solar Relay line to include a new high performance relay with larger ( $> 1.8$  mm) contact gaps to support extended insulation requirements for use in photovoltaic applications. With the same mechanical dimensions as the standard PCFN solar relays, the new high performance version has increased thermal performance up to  $90^{\circ}\text{C}$  and features a 1.5 W coil with low holding power of 200 mW to help lower energy costs.

### Contact data

- Contact arrangement: 1 form A (NO)
- Contact gap:  $> 1.8$  mm
- Rated voltage: 277 VAC
- Rated current: 26 A at  $75^{\circ}\text{C}$ ,
- Breaking capacity max.: 7200 VA
- Contact material: AgSnO<sub>2</sub>

### Coil Data

- Rated coil voltage: 12 VDC and 24 VDC
- UL coil insulation system: Class F
- Rated coil power: 1.5 W<sup>1</sup>

### Insulation Data

- Initial dielectric strength:
  - Open contacts: 2500 V rms
  - Contact and coil: 4000 V rms
- Clearance/creepage: 6.1 mm

### Mechanical

- Ambient temperature:  $-25$  to  $+ 90^{\circ}\text{C}$ <sup>1</sup>
- Vibration resistance: 10g
- Shock resistance: 100g

<sup>1</sup> Ambient temperature:  $>23^{\circ}\text{C}$  requires reduction of coil voltage to 37%...50% of rated coil voltage after 100 ms

### Key Benefits

- Compact size for PCB applications
- Meets IEC 62109-2 requirement for  $> 1.8$  mm contact gap
- Energy efficient holding power of 200 mW

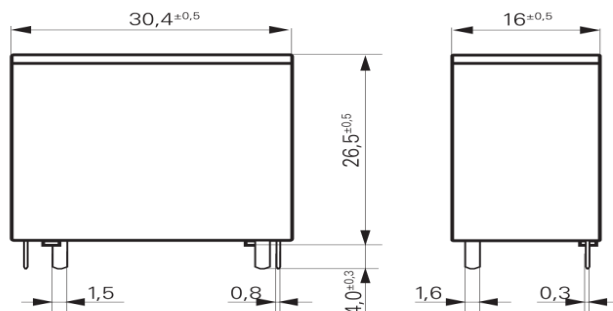
### Applications

- Photovoltaic inverters
- Charging stations
- Electrical grid disconnects

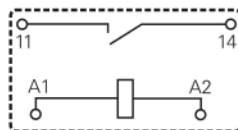
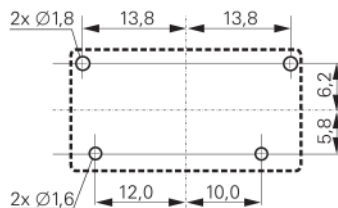
### Product Offering

Product Code	Part Number	Version	Contact arrangement	Contact material	Coil
PCFN-112H2MS	2071169-1	PCB, flux tight	1 form A (NO) contact	AgSnO <sub>2</sub>	12 VDC
PCFN-124H2MS	2071169-2	PCB, flux tight	1 form A (NO) contact	AgSnO <sub>2</sub>	24 VDC

### Product Dimensions



### PCB Layout / Terminal Assignment *(Bottom view on solder pins)*



NOTE: it is recommended to connect the grid (phase or neutral line) to pin 11 of the PCFN Solar.

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