

## **Power PCB Relay PCFN Solar**

- 1 pole 26A, 1 form A (NO) contact
- Contact gap >1.5mm
- 200mW hold power
- Ambient temperature up to 75°C, 85°C at 22A
- the appliance is able to meet VDE V 0126-1-1

Typical applications Photovoltaic Inverter

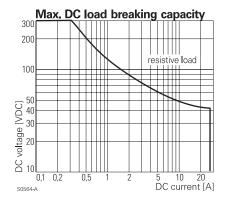
| Approvals                                    |
|--|
| VDE Cert. No. 40012548, UL E58304            |
| Technical data of approved types on request. |

| Contact Data                              |                        |  |
|---|------------------------|--|
| Contact arrangement                       | 1 form A (NO)          |  |
| Contact gap                               | >1.5mm                 |  |
| Rated voltage                             | 277VAC                 |  |
| Rated current                             | 26A                    |  |
| Breaking capacity max.                    | 7200VA                 |  |
| Contact material                          | AgSnO <sub>2</sub>     |  |
| Frequency of operation, with/without load | 6/300min <sup>-1</sup> |  |
| Operate/release time max.                 | 20/10ms                |  |
| Bounce time max., form A                  | 3ms                    |  |

Contact ratings

Mechanical endurance, DC coil

| Contact ratings  |                    |                              |                     |  |  |  |  |  |
|------------------|--------------------|------------------------------|---------------------|--|--|--|--|--|
| Type             | Contact            | Load                         | Cycles              |  |  |  |  |  |
| IEC 61810 / UL 5 | IEC 61810 / UL 508 |                              |                     |  |  |  |  |  |
| PCFN-1H2MG       | A (NO)             | 26A, 277VAC, cosφ=1, 75°C    | 30x10 <sup>3</sup>  |  |  |  |  |  |
| PCFN-1H2MG       | A (NO)             | 22A, 250VAC, cosφ=1, 85°C    | 30x10 <sup>3</sup>  |  |  |  |  |  |
| PCFN-1H2MG       | A (NO)             | 14A, 250VAC, cosφ=1, 85°C    | 100x10 <sup>3</sup> |  |  |  |  |  |
| UL 508           |                    |                              |                     |  |  |  |  |  |
| PCFN-1H2MG       | A (NO)             | 26A, 277VAC, resistive, 75°C | 30x10 <sup>3</sup>  |  |  |  |  |  |
| PCFN-1H2MG       | A (NO)             | 22A, 277VAC, resistive, 85°C | 30x10 <sup>3</sup>  |  |  |  |  |  |
|                  |                    |                              |                     |  |  |  |  |  |





| Coil Data                           |         |  |
|-------------------------------------|---------|--|
| Rated coil voltage                  | 12VDC   |  |
| Coil insulation system according UL | Class F |  |

| Coil versions, DC coil |         |         |         |                   |            |  |
|------------------------|---------|---------|---------|-------------------|------------|--|
| Coil                   | Rated   | Operate | Release | Coil              | Rated coil |  |
| code                   | voltage | voltage | voltage | resistance        | power      |  |
|                        | VDC     | VDC     | VDC     | $\Omega \pm 10\%$ | mW         |  |
| 12                     | 12      | 7.8     | 1.2     | 96                | 1.51)      |  |

1) Ambient temperature > 23°C requires reduction of coil voltage to 4.4 to <6V after 100ms. Hold voltage >=4.4V at ambient temperature  $\leq$ 85°C.

All figures are given for coil without pre-energization, at ambient temperature +23°C. Other coil voltages on request.

| Insulation Data                    |                     |  |
|------------------------------------|---------------------|--|
| Initial dielectric strength        |                     |  |
| between open contacts              | 2500V <sub>ms</sub> |  |
| between contact and coil           | 4000V <sub>ms</sub> |  |
| Clearance/creepage                 | 1110                |  |
| between contact and coil           | 6.1/6.1 mm          |  |
| Material group of insulation parts | III                 |  |
| Tracking index of relay base       | PTI 175             |  |

## **Other Data**

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter

| WWW.te.COITI   | TI/Customersupport/Torissupportcenter |  |  |
|--|---------------------------------------|--|--|
| Ambient temperature  | -25 to +75°C1)                        |  |  |
|  | -25 to +85°C at 22A                   |  |  |
| Category of environmental protection   |                                       |  |  |
| IEC 61810  | RTII - flux proof                     |  |  |
| Vibration resistance (functional)  | 10g                                   |  |  |
| Vibration resistance (destructive)   | 10g                                   |  |  |
| Shock resistance (destructive)   | 100g                                  |  |  |
| Terminal type  | PCB-THT                               |  |  |
| Mounting distance  | ≥10mm                                 |  |  |
| Weight   | 28g                                   |  |  |
| Resistance to soldering heat THT   |                                       |  |  |
| IEC 60068-2-20   | 260°C/5s                              |  |  |
| Packaging unit   | tube/20 pcs., box/500 pcs.            |  |  |
| 1) Ambient temperature > 23°C requires reduction of soil voltage to 4.4 to <6V after 100mg |                                       |  |  |

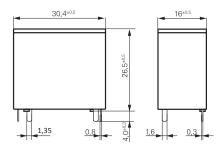
1) Ambient temperature > 23°C requires reduction of coil voltage to 4.4 to <6V after 100ms.

1x106 operations



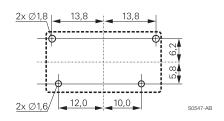
# Power PCB Relay PCFN Solar (Continued)

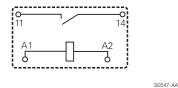
#### **Dimensions**



## 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.

| Product code | Version         | Contact arrangement   | Contact material   | Coil  | Part number |
|--------------|-----------------|-----------------------|--------------------|-------|-------------|
| PCFN-112H2MG | PCB, flux tight | 1 form A (NO) contact | AgSnO <sub>2</sub> | 12VDC | 1721929-1   |
| PCFN-124H2MG | PCB, flux tight | 1 form A (NO) contact | AgSnO.             | 24VDC | 1721929-2   |