

**Power PCB Relay PCFN Solar**

- 1 pole 26/31A, 1 form A (NO) contact
- Contact gap >1.5mm/1.8mm
- 200mW hold power <sup>1)</sup>
- Ambient temperature up to 85°C

Typical applications  
Photovoltaic Inverter, Power Supply, On board charging



**Approval**

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

Contact Data	H type	F type
Contact form	1 form A (NO)	
Contact gap	>1.5mm/1.8mm	>1.5mm
Rated voltage	277VAC	277VAC
Rated current	26A	31A <sup>2)</sup>
Breaking capacity max.	7200VA	8587VA
Contact material	AgSnO <sub>2</sub>	
Initial contact resistance	100mΩ max. at 1A, 6VDC	
Frequency of operation with/without load	with load = 360/h without load = 1800/h	
Operate/release time max.	20/10ms	
Bounce time max., form A	3ms	

**Contact ratings**

Type	Load	Cycles
<b>IEC 61810</b>		
H type (PCFN-1xxH)		
NO	26A, 277VAC, resistive, 75°C	30x10 <sup>3</sup>
NO	22A, 250VAC, resistive, 85°C	30x10 <sup>3</sup>
NO	14A, 250VAC, resistive, 85°C	100x10 <sup>3</sup>
<b>UL 508</b>		
H type (PCFN-1xxH)		
NO	26A, 277VAC, resistive, 75°C	30x10 <sup>3</sup>
NO	22A, 277VAC, resistive, 85°C	30x10 <sup>3</sup>
F type (PCFN-1xxF)		
NO	31A, 277VAC, resistive, 85°C	6x10 <sup>3</sup>
NO	31A, 277VAC, resistive, room temp.	10x10 <sup>3</sup>

Mechanical endurance, DC coil 1x10<sup>6</sup>

**Coil Data**

Rated coil voltage	12-24VDC
Coil insulation system according UL	Class F

**Coil versions, DC coil (H type)**

Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω±10%	Rated coil power mW
12	12 <sup>1)</sup>	7.8	1.2	96	1.5
24	24 <sup>1)</sup>	15.6	2.4	384	1.5

**Coil versions, DC coil (F type)**

Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω±10%	Rated coil power mW
12	12 <sup>1)</sup>	7.8	1.2	112	1.3 / Min. 4.7V hold

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>rms</sub>
between contact and coil	4000V <sub>rms</sub>
Clearance/creepage	
between open contacts	≥ 1.4/3.0mm
between contact and coil	≥ 6.1/6.1mm
Initial Insulation Resistance @ 500Vdc	>1X10 <sup>9</sup> Ω
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/customer-support/rohssupportcenter](http://www.te.com/customer-support/rohssupportcenter)

Ambient temperature	-40~85°C <sup>1)</sup>
Category of environmental protection	RTII - flux proof
IEC 61810	
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/10s
Packaging unit	tube/20 pcs., box/500 pcs.

<sup>1)</sup> After the energization time of 100ms with the rated coil voltage, the coil requires a reduction to 40%...50% of the rated coil voltage.

<sup>2)</sup> The relay connections and wiring have to be designed with an adequate cross sections to ensure the current flow and heat dissipation.

**Power PCB Relay PCFN Solar** (Continued)

**Dimensions**

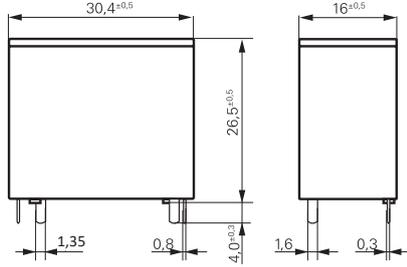
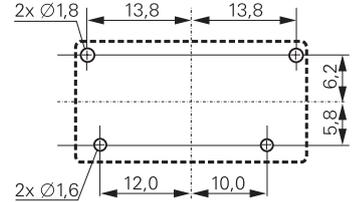


DIAGRAM DIMENSION	TOLERANCE
0.99mm MAX.	±0.1mm
1-2.99mm	±0.2mm
3mm MIN.	±0.3mm

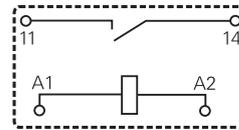
Note. For the Tin-plating of the pins:  
±0.1mm for width, thickness and diameter.  
±0.5mm for length.

**PCB layout / terminal assignment**

Bottom view on solder pins



S0547-AB



S0547-AA

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

Product code structure	Typical product code	PCFN	-1	12	H	2	M	G	none
<b>Type</b>									
PCFN Without fasten terminal									
<b>Contact arrangement</b>									
-1 Single Pole									
<b>Coil Voltage</b>									
12 12VDC									
24 24VDC									
<b>Coil Sensitivity</b>									
H Low Sensitivity									
D General Sensitivity									
F Speical Sensitivity									
<b>Contact Material</b>									
2 AgSnO <sub>2</sub>									
<b>Contact Configuration</b>									
M 1 Form A (SPST-NO)									
<b>Contact Gap</b>									
none standard									
G 1.5mm									
S* 1.8mm									
<b>Suffix</b>									
none standard version									
,xxxx customized version									

\* 1.8mm contact gap type is only available for H(Low Sensitivity) coil power version, please contact TE technical support if other types required.

Product code	Version	Contact arrangement	Contact material	Coil	Part number
PCFN-112H2MG	PCB, flux proof	1 form A (NO) contact	AgSnO <sub>2</sub>	12VDC	1721929-1
PCFN-124H2MG	PCB, flux proof	1 form A (NO) contact	AgSnO <sub>2</sub>	24VDC	1721929-2
PCFN-112F2MG	PCB, flux proof	1 form A (NO) contact	AgSnO <sub>2</sub>	12VDC	2071504-1