

Power PCB Relay PCFN Solar

■ 1 pole 26/31A, 1 form A (NO) contact

- Contact gap >1.5mm/1.8mm
- 200mW hold power 1)
- Ambient temperature up to 85°C

Typical applications Photovoltaic Inverter, Power Supply, On board charging



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Contact Data	н туре	г туре			
Contact form	ct form 1 form A (NO)				
Contact gap	>1.5mm/1.8mm	>1.5mm			
Rated voltage	277VAC	277VAC			
Rated current	26A	31A ²⁾			
Breaking capacity max.	7200VA	8587VA			
Contact material	AgSn	0,			
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.	20/10	ms			
Bounce time max., form A	3ms	3			

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

2-24VDC
Class F
(

Coil vers	sions, DC co	il (H type)			
Coil	Rated	Operate	Release	Coil	Rated coil
code	voltage	voltage	voltage	resistance	power
	VDC	VDC	VDC	Ω±10%	mW
12	12 ¹⁾	7.8	1.2	96	1.5
24	241)	15.6	2.4	384	1.5
Coil vers	sions, DC co	il (F type)			
Coil	Rated	Operate	Release	Coil	Rated coil
code	voltage	voltage	voltage	resistance	power
	VDC	VDC	VDC	Ω±10%	mW
					1.3 /
12	12 ¹⁾	7.8	1.2	112	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 _{ms}	
between contact and coil	4000V_ms	
Clearance/creepage		
between open contacts	≥ 1.4/3.0mm	
between contact and coil	≥ 6.1/6.1mm	
Initial Insulation Resistance @ 500Vdc	>1X10ºΩ	
Material group of insulation parts	III	
Tracking index of relay base	PTI 175	

Other Data

Material compliance: EU RoHS/ELV, Ch	ina RoHS, REACH, Halogen content
refer to the Pro	oduct Compliance Support Center at
www.te.com/	customersupport/rohssupportcenter
Ambient temperature	-40~85°C ¹⁾
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/10s
Packaging unit	tube/20 pcs., box/500 pcs.
1) After the energization time of 100ms with the	rated coil voltage, the coil requires a

reduction to 40%...50% of the rated coil voltage.

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

Catalog and product specification according to IEC 61810-1 and to be used only together with the 'Definitions' section.

Catalog and product data is subject to the terms of the disclaimer and all chapters of the 'Definitions' section, available at http://relays.te.com/definitions

Catalog product data, 'Definitions' section, application notes and all specifications are subject to change.

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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:

 ± 0.1 mm for width, thickness and diameter. ±0.5mm for length.

PCB layout / terminal assignment

Bottom view on solder pins



0 11	7/-	—0 14
A1 6	-[]	A2

S0547-AA

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

Product c	ode structure	Typical product code	PCFN	-1	12	н	2	М	G	none
Type PCF	N Without fasten terminal									
Contact arr	angement									
-1	Single Pole									
Coil Voltage	9									
12	12VDC									
24	24VDC									
Coil Sensiti	vity									
н	Low Sensitivity									
D	General Sensitivity									
F	Speical Sensitivity									
Contact Ma	iterial									
2	AgSnO									
Contact Co	nfiguration							1		
м	1 Form A (SPST-NO)									
Contact Ga	р									
none	standard									
G	1.5mm									
S*	1.8mm									
Suffix										
none	standard version									
,xxxxx	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 ₂	12VDC	1721929-1
PCFN-124H2MG	PCB, flux proof	1 form A (NO) contact	AgSnO ₂	24VDC	1721929-2
PCFN-112F2MG	PCB, flux proof	1 form A (NO) contact	AgSnO ₂	12VDC	2071504-1

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Mouser Electronics

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TE Connectivity: PCFN-118D2MF,000