



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11)

EP 1 605 554 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
22.02.2006 Bulletin 2006/08

(51) Int Cl.:
H01R 13/52 ^(2006.01) **H05K 5/00** ^(2006.01)
H05K 5/02 ^(2006.01)

(43) Date of publication A2:
14.12.2005 Bulletin 2005/50

(21) Application number: **04026833.6**

(22) Date of filing: **11.11.2004**

(84) Designated Contracting States:
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
HU IE IS IT LI LU MC NL PL PT RO SE SI SK TR**
Designated Extension States:
AL HR LT LV MK YU

(72) Inventor: **Dominguez, José Manuel Vera**
Ardales, Malaga 29550 (ES)

(74) Representative: **Urizar Anasagasti, José Antonio**
Victor de la Sema 3-5 (parking)
28016 Madrid (ES)

(30) Priority: **08.06.2004 EP 04013514**

(71) Applicant: **MANTENIMIENTO INSTALACIONES**
MALAGA S.L.
MALAGA,
29004 MALAGA (ES)

(54) Electrical connection box for photovoltaic or solar plates

(57) Electrical connection box for photovoltaic or solar panels, whose function is to serve as a connection between the panels of a plant and between the latter and the external receivers. The box is designed to lodge within it a printed circuit, with the copper microns necessary in each case and with the following configurations: tinned zones for receiving soldering with panel output billets, these billets pass through a slot located on the bottom of the basis of the box. Lodgings for soldering the panel protection diodes, these diodes will depend on the type of panel, potency, tension, etc.

Terminals for screwing the output conductors. Leak proofing presses for the output of the electrical conductors with the basis of the box. The serigraphy of the positive and negative signs of each terminal will be carried out in order to avoid error when the components are installed in the box.

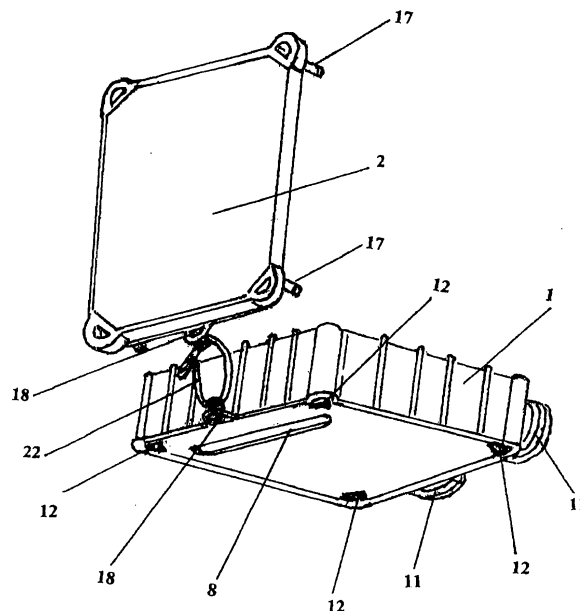


FIG.9

EP 1 605 554 A3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 04 02 6833

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
Y	DE 37 12 294 A1 (PHILIPS PATENTVERWALTUNG GMBH; PHILIPS PATENTVERWALTUNG GMBH, 20097 HA) 27 October 1988 (1988-10-27) * column 4, line 50 - column 5, line 29; figure 5 *	1-4	H01R13/52 H05K5/00 H05K5/02
Y	----- US 4 632 269 A (ROSE ET AL) 30 December 1986 (1986-12-30) * column 3, line 4 - line 16; figures 1,2 *	1-4	
A	----- GB 2 366 096 A (* TIMEGUARD LIMITED) 27 February 2002 (2002-02-27) * page 4, line 32 - page 6, line 10; figures 1,5-10 *	5	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			H01R H05K
The present search report has been drawn up for all claims			
Place of search Berlin		Date of completion of the search 9 September 2005	Examiner Alexatos, G
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

1
EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 04 02 6833

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

09-09-2005

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
DE 3712294	A1	27-10-1988	NONE	

US 4632269	A	30-12-1986	DE 8512613 U1	08-08-1985
			DE 3612975 A1	06-11-1986
			DE 3636574 A1	05-05-1988

GB 2366096	A	27-02-2002	NONE	
