



KIOTO Photovoltaics GmbH

Company profile
Product benefits



Agenda

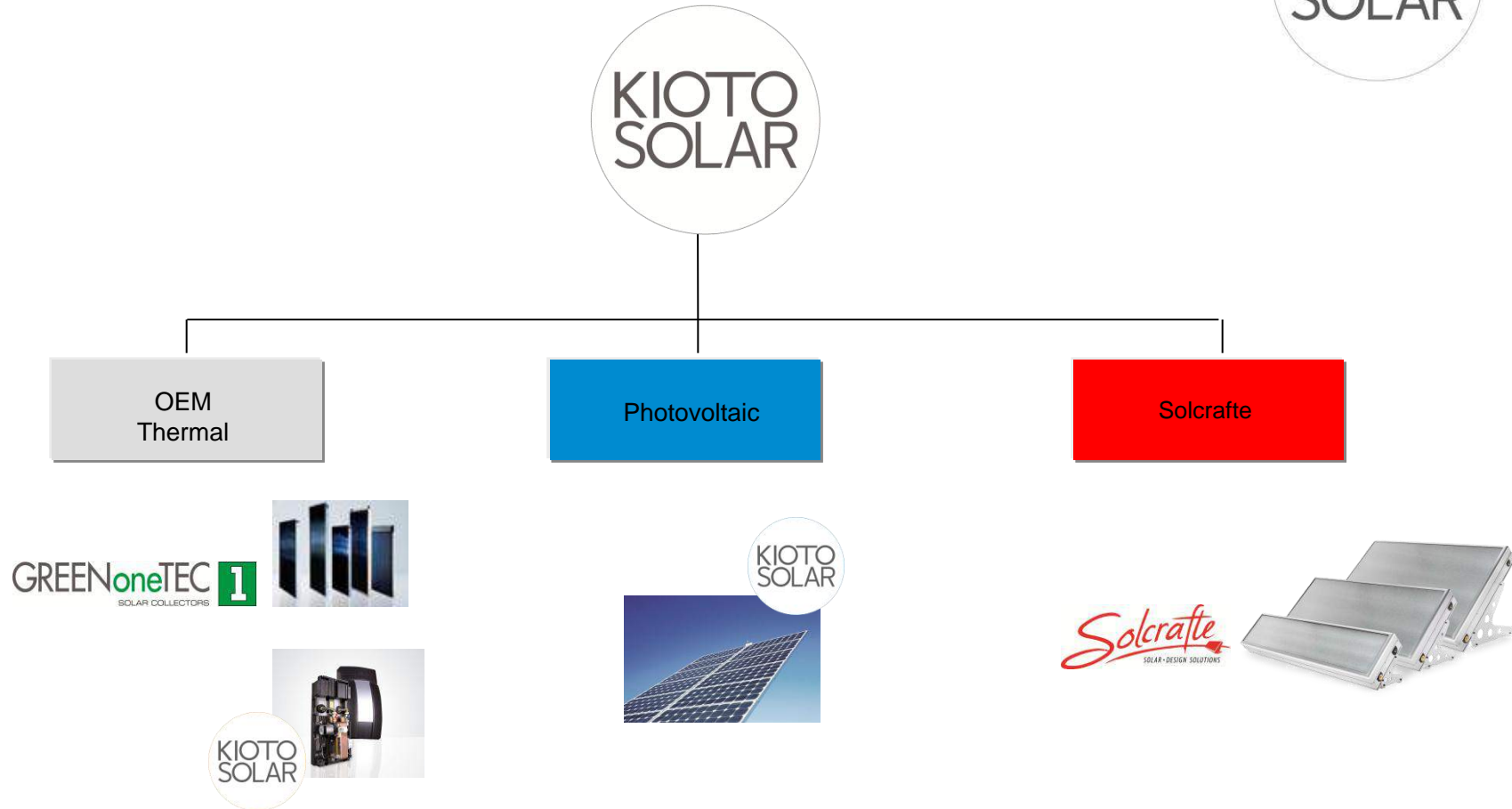
Introduction KIOTO Photovoltaics GmbH

Applications

KIOTO quality modules



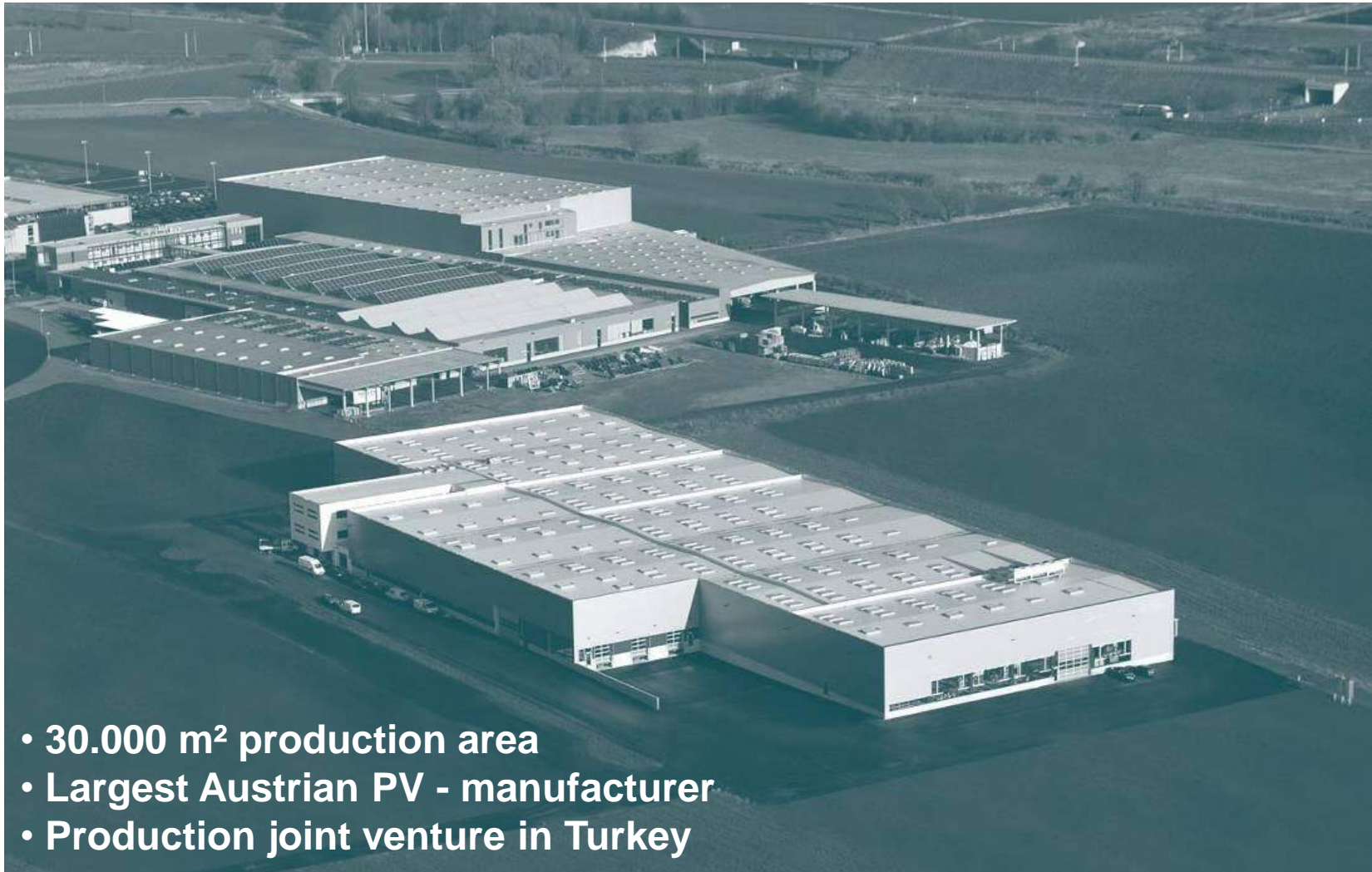
Business Units



KIOTO Group Turnover 2012: 100 Mio. €
Employees 2012: 320

Expected turnover 2013: 110 Mio. €

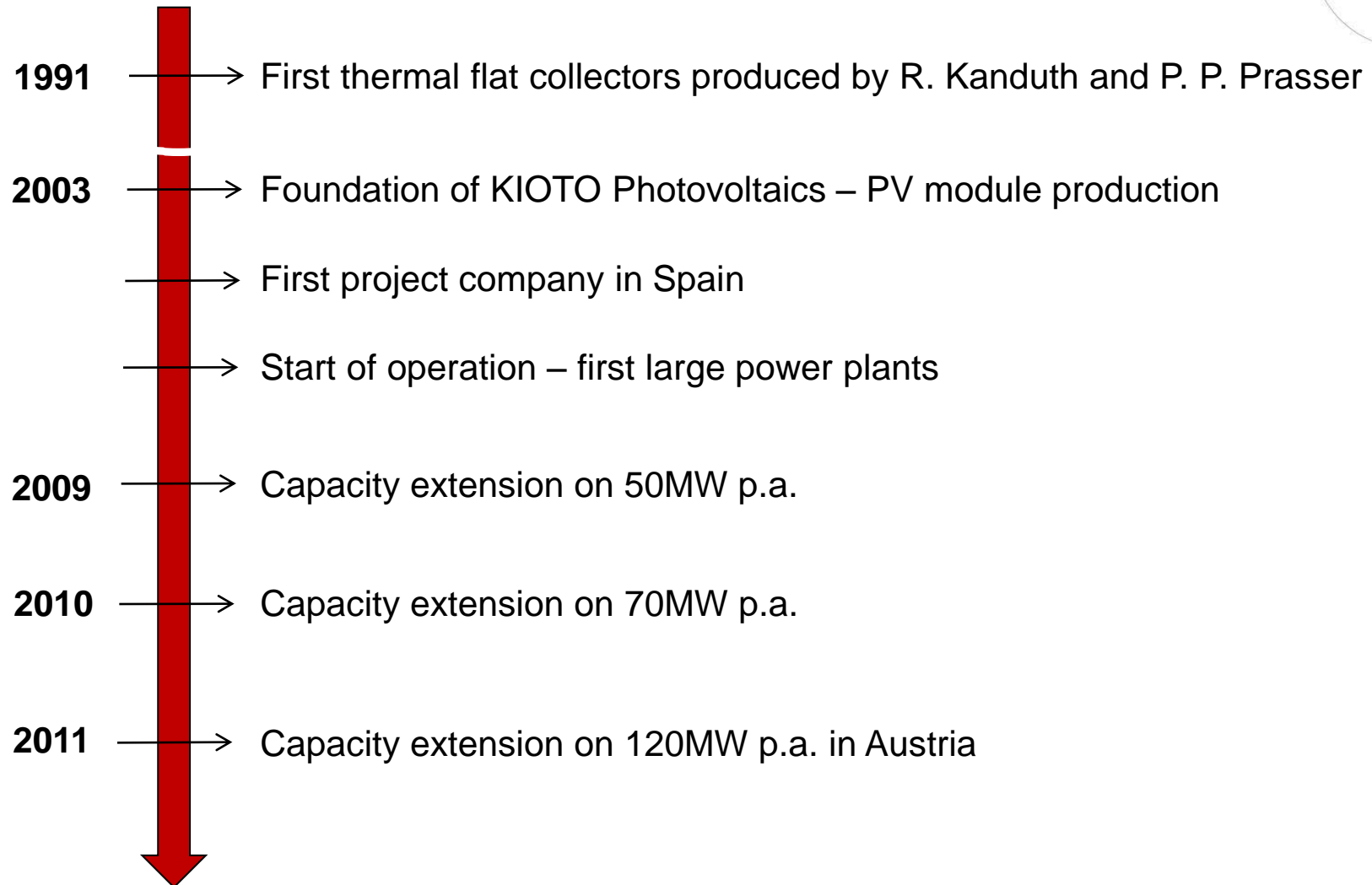
KIOTO Headquarter and factory in St. Veit / Austria



- 30.000 m² production area
- Largest Austrian PV - manufacturer
- Production joint venture in Turkey



History of solar technology in Sankt Veit / Glan





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2,1 MWp KPV power plant Andalusia / Spain Electricity for more than 1000 spanish households





Small installations



Small installations

Photovoltaik aus Österreich





Agenda

Introduction KIOTO Photovoltaics GmbH

Selected large projects - POWER PLANTS

KIOTO quality modules



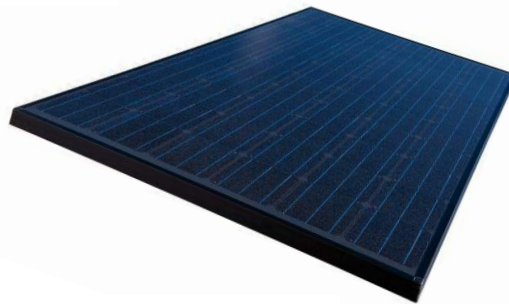
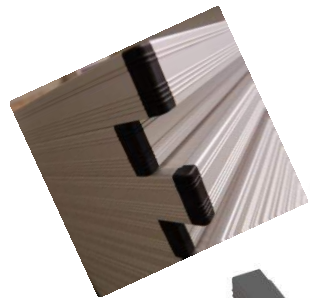
KIOTO Modules: Maximum flexibility in the product portfolio



Power 54 Module:

210 Wp - 215 Wp multicrystalline

220 Wp – 225 Wp monocrystalline



Power 60 Module

240 Wp – 250 Wp multicrystalline

255 Wp – 260 Wp monocrystalline



Power 36 Module

135 – 145 Wp multicrystalline

150 – 155 Wp monocrystalline

All modules available as laminate and in Black/Black!

KIOTO: An European Module from Austria



Selected. Exclusive. European.

For **KIOTO** modules with a supposed lifetime of more than 30 years only the best European components are good enough.

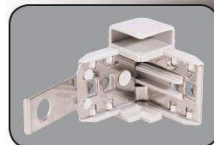
Production Equipment –
Made in Germany and Austria

EVA Foil – *Made in Germany*
Proofed foil for most secure encapsulation over decades.

Soldering Ribbons –
Made in Austria
Coated ribbons for perfect cell connection.

Glass –
Made in Austria
Highly transparent glass for maximum transmission and output.

Conducting Edge Connector –
Made in Austria
Glass fibre reinforced, UV-resistant edge connector with grounding lug. Industrial design avoids injuries from sharp edges.



Junction Box –
Made in Czechia
IP 65 proof junction box for safe electrical connections and option to change diodes.

Cells – *Made in Germany and Austria*
High quality solar cells – the heart of our module.

Backsheet Foil –
Made in Austria
Ultra-strong protection against any environmental influences.

Aluminum Frame –
Made in Austria and Slovenia
Light weight yet solid frame. Built for easy and fast mounting and to withstand heavy snow loads.

Packaging Material –
Made in Germany and Austria
Robust and environment friendly for maximum load density and protection of the product.

KIOTO: Most modern production line for best quality





KIOTO Modules: Certified according to IEC 61215 / 61730



TÜVRheinland®
Precisely Right.

Certificate

Registration No.: PV 60024437 Page 1 Report No.: 21209875-1

License Holder:
KIOTO Photovoltaics GmbH
Solarstraße 1
9300 Sankt Veit/Glan
Austria

Product:
PV
Ty

Manufacturing Plant:
KIOTO Photovoltaics GmbH
Solarstraße 1
9300 Sankt Veit/Glan
Austria

Basis:

- IEC 61215:2005
EN 61215:2005
"Crystalline silicon terrestrial photovoltaic (PV) modules - Design qualification and type approval"
- Factory Inspection
To document the consistent quality of the product factory inspections are performed periodically.

Remarks:
The details of the factory inspection are documented in report no. 21209875-1. The mechanical load test of EN IEC 61215:2005 was performed with a load of 1507 x 962 x 33

Conditions:
The product test is voluntarily according to technical regulations. Any change of the design, materials, components or processing may require the repetition of some of the qualification tests. The certificate has a validity of 5 years counting from date

Cologne, 3 March 2009

TÜV Rheinland Product Safety GmbH, Am Grauen Stein, D-51105 Cologne

TÜVRheinland®

Certificate

Registration No.: PV 60024437 Page 2

License Holder:
KIOTO Photovoltaics GmbH
Solarstraße 1
9300 Sankt Veit/Glan
Austria

Product:
PV
Ty

Manufacturing Plant:
KIOTO Photovoltaics GmbH
Solarstraße 1
9300 Sankt Veit/Glan
Austria

Basis:

- IEC 61215:2005
EN 61215:2005
"Crystalline silicon terrestrial photovoltaic (PV) modules - Design qualification and type approval"
- Factory Inspection
To document the consistent quality of the product factory inspections are performed periodically.

Remarks:
The details of the factory inspection are documented in report no. 21209875-1. The mechanical load test of EN IEC 61215:2005 was performed with a load of 1507 x 962 x 33

Conditions:
The product test is voluntarily according to technical regulations. Any change of the design, materials, components or processing may require the repetition of some of the qualification tests in order to retain type approval. The certificate is valid until 3 March 2014.

Cologne, 8 October 2009

TÜV Rheinland Product Safety GmbH, Am Grauen Stein, D-51105 Cologne

Dipl.-Ing. M. Adrian

TÜVRheinland®

Certificate

Registration No.: PV 60024437 Page 4 Report No.: 21209875-4

License Holder:
KIOTO Photovoltaics GmbH
Solarstraße 1
9300 Sankt Veit/Glan
Austria

Product:
PV
Ty

Manufacturing Plant:
KIOTO Photovoltaics GmbH
Solarstraße 1
9300 Sankt Veit/Glan
Austria

Basis:

- IEC 61215:2005
EN 61215:2005
"Crystalline silicon terrestrial photovoltaic (PV) modules - Design qualification and type approval"
- Factory Inspection
To document the consistent quality of the product factory inspections are performed periodically.

Remarks:
- The details of the factory inspection are documented in report no. 21209875-1.
- Additional type designations.

Conditions:
The product test is voluntarily according to technical regulations. Any change of the design, materials, components or processing may require the repetition of some of the qualification tests. The certificate is valid until 3 March 2014.

Cologne, 8 December 2010

TÜV Rheinland LGA Products GmbH, Tillystrasse 2, D-90431 Nürnberg

Dipl.-Ing. M. Adrian

TÜVRheinland®

Certificate

Registration No.: PV 60029321 Page 1 Report No.: 21147944.001

License Holder:
KIOTO Photovoltaics GmbH
Solarstraße 1
9300 Sankt Veit/Glan
Austria

Product:
PV Module
Type:
KPV PE QCells xooWp
(xxx = 160 - 215 in 5 W-Steps)

Manufacturing Plant:
KIOTO Photovoltaics GmbH
Solarstraße 1
9300 Sankt Veit/Glan
Austria

Basis:

- IEC 61730-1:2004
IEC 61730-2:2004
EN 61730-1:2007
EN 61730-2:2007
"Photovoltaic (PV) module safety qualification"
- Factory Inspection
To document the consistent quality of the product factory inspections are performed periodically.

Remarks:
- IEC EN 61730 consists of part 1 (Requirements for construction) and part 2 (Requirements for testing).
- The above listed PV modules fulfil the requirements of Application Class A (Safety Class II). They may be used in PV plants at a maximum system voltage (Voc at STC) of up to 1000 VDC.
- The fire test (IEC 61730-2 / MST 23) was not performed.
- The details of the factory inspection are documented in report no. 21209875-1.
- The mechanical load test of EN IEC 61215:2005 was performed with a load of 5400 Pa for modules with the dimensions (mm) 1507 x 962 x 33

Conditions:
The product test is voluntarily according to technical regulations. Any change of the design, materials, components or processing may require the repetition of some of the qualification tests in order to retain type approval. The certificate is valid until 3 March 2014.

Cologne, 15 March 2009

TÜV Rheinland LGA Products GmbH, Tillystrasse 2, D-90431 Nürnberg / Contact: + 49 221 906 2477, email: enertest@de.tuv.com

Dipl.-Ing. M. Adrian



KIOTO Modules: Certified in extreme conditions

- Extended mechanical load test
for the use in snowy regions
- Extended hail test (25mm hail size, 165,6 km/h)
for use in severe weather
- Salt mist corrosion test
for use in the near of coast lines
- DLG Ammonium test
for the use in agricultural applications
- UV – Long term stability test
for the proven and failure – free use over years
- Certification of special applications
first certification for laminates up to 5400Pa (MS Kappa), Hilti Low Ballast

Actually in testing 2013:

- Salt mist outdoor test Gran Canaria
- Extreme Load Test up to 8000Pa
- PID Test





KIOTO Modules: Certified for the whole world



Oggetto: Risposta Vostra nota del 21/02/2012 (ref: GSE/A20120138332).

Facendo seguito alla Vostra nota del 21/02/2012 si rappresenta quanto segue:

Il sistema di montaggio commercialmente denominato "Kappa" si configura come componente speciale secondo quanto prescritto dall'Allegato 4 al Decreto e dalla Guida per applicazioni innovative finalizzate all'integrazione architettonica del fotovoltaico per i seguenti requisiti:

- la tenuta all'acqua e il garanzia della superficie dei moduli unitamente al sistema di montaggio;
- il sistema di montaggio è dotato di brevetto europeo numero EP 0761901.81 pubblicato il 28 giugno 2006 e con numero di applicazione EP 96250268 del 7 agosto 1996 (inveciata all'azienda Regis EnergySystems GmbH, attuale Mounting Systems GmbH).

Si ricorda che il modulo fotovoltaico facente parte del componente speciale deve essere un laminato senza cornice, certificato ai sensi della normativa tecnica IEC 61215 o IEC 61646.

Infine, si rappresenta che l'appartenenza di un sistema di montaggio, unitamente ai moduli fotovoltaici, alla categoria dei componenti speciali risulta condizione necessaria ma non sufficiente ai fini dell'accesso alle tariffe del Titolo III, in quanto il componente speciale deve essere installato secondo quanto prescritto al capitolo 3 della Guida alle applicazioni innovative finalizzate all'integrazione architettonica del fotovoltaico.

Il GSE provvederà quindi, a valle del riconoscimento delle tariffe del Titolo III a impianti che utilizzano il suddetto componente speciale, a inserire il vostro prodotto unitamente ai moduli fotovoltaici utilizzati in tali impianti in una futura revisione del CATALOGO IMPIANTI FOTOVOLTAICI INTEGRATI CON CARATTERISTICHE INNOVATIVE.

Con i migliori saluti

Il Direttore
 Gerardo Montanaro

Giulia e PL PV
 (E) PFC/19680

Montanaro

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 P.le Venezia 1, 00187 Roma - Tel. +39 06 478111
 P.E.A. e P. Roma - 00187 Roma - Tel. +39 06 478111
 C.F. 01500001000

- MCS Zertifizierung (UK) for all modules
- GSE Declaration of Origin and all needed certificates like ISO 14001, OSHA 18001 etc.
- GSE – Innovativo for KAPPA - S System
- Avis Technique / Pass Innovation qualification (FR)
- Further certifications on request....



Thanks for your attention!

