

# SOLARNEWS

The Newsletter of Kyocera Solar, September 2008 issue



## PRODUCT INNOVATIONS

Strong and aesthetic – the new frame for our current KD module series will be presented at the EU PVSEC in Valencia.



## NEW EXHIBITION STAND

Our new exhibition stand made a real impact at the Intersolar 2008 in Munich – not only thanks to its integrated climbing tower.



## WE CARE IN TANZANIA

Every year for the next five years, Kyocera will be equipping four schools in this African country with solar systems free-of-charge.



## KYOCERA SOLAR PHOTO COMPETITION

Another proud winner: Kütro GmbH & Co. KG, Abendsberg

**KYOCERA  
SOLAR**

**We care!**



*The 23rd European Photovoltaic Solar Energy Conference (1st to 5th September 2008) and Exhibition (1st to 4th September 2008) will be held at the Feria Valencia in Spain.*

**DEAR CUSTOMERS,  
DEAR BUSINESS PARTNERS**

This year, the Intersolar, Europe's largest exhibition for Photovoltaic, solar thermal energy and solar construction, took place in Munich for the first time – and exceeded the last visitor record by 62%.

52,000 visitors came to the exhibition! Kyocera Solar presented its new exhibition stand in Munich. This Solar news issue contains a few impressions of the fair. We would like to thank all visitors and participants in the Kyocera climbing wall competition.

In addition, this newsletter also contains our latest modules that will be presented for the first time at the EU PVSEC in Valencia. Come and visit us in Hall 1 on Stand 1/C4.

And you can also look forward to the announcement of the other winners of the large Kyocera photo competition with your extraordinary and successful PV systems.

Before we now let you escape into the world of photovoltaic, we would like to inform you about a project which lies close to our heart: The media project, Energy Autonomy, which is campaigning for a move away from fossil-atomic to renewable energies. The core of the project comprises a 100-minute long cinema film that is supported by Kyocera as a sponsor. And you can too. Just visit the website [www.energy-autonomy.org](http://www.energy-autonomy.org) to find out about the project and become a supporter or sponsor (as a private person or company) or co-producer and support this gigantic project.

**ENERGY AUTONOMY!**  
**THE CODE OF SURVIVAL!**

*\_We hope you enjoy reading this latest edition of the Solarnews!*

## From Freiburg to Munich



*One exhibition, three days and seven halls full of innovations from the photovoltaic, solar thermal energy and solar construction fields. In June 2008, over 1,050 exhibitors presented their products and services on 76,000 m<sup>2</sup> exhibition floor space – a growth of over 120 % compared to the previous year.*

The final figures showed that the total number of visitors was 51,861 (a plus of 62 percent); they came to the Intersolar in Munich from 140 different countries. 45 percent of the visitors travelled from overseas which, in combination with an international exhibitor percentage of 47%, clearly underscores the Intersolar's claim to be a leading international exhibition. The premiere at the new site in Munich was a complete success!

Kyocera too made changes and presented its new exhibition stand for the first time. Based on the number of visitors to the stand, the exhibition was an all-round success for Kyocera. Like last year, the previously announced competitions were highly popular among the visitors. The climbing tower on the Kyocera Stand was always in use and the visitors gave their very best to try and reach the top.

*Anyone looking to fly high is in the right place on the climbing wall at the new Kyocera exhibition stand.*





*Aiming high: the climbing wall integrated into the Kyocera exhibition stand with matching image motif*



*Tasty: First rate Japanese food.*



*New I: the Kyocera exhibition stand*



*New II: of course, the latest Kyocera products were presented at the Intersolar*



# Tough and Attractive

Kyocera is introducing a new module frame at an exhibition being held from September 1 to September 4 in conjunction with the 23rd European Photovoltaic Solar Energy Conference (EU PVSEC 2008) in Valencia, Spain. The highlight for this year's exhibition is a panel with a maximum surface load of 5,400 N/m<sup>2</sup> – far greater than the required minimum. Visitors to the world's largest solar energy congress can also find more innovations at Kyocera Stand 1/C4 in Hall 1.

## **\_NEW FRAME**

The Who's Who of the photovoltaic industry will be meeting in Valencia at the beginning of September to discuss the latest developments in research, technology, industry and politics.

Kyocera is also presenting one of its newest products, the KD135GH-2PU, the successor of KC130GH-2P. Its main attraction is a new frame that meets the enhanced testing standard IEC 61215 ed. 2. With a maximum surface load of 5,400 N/m<sup>2</sup>, it greatly exceeds the norm of 2,400 N/m<sup>2</sup> required by the standard. This means improved safety for the entire photovoltaic system during extreme weather conditions such as heavy loads of snow. In addition, the black anodised aluminium frame makes the design visually appealing. Starting in 2009, it will be introduced on all modules for grid-connected applications ranging from 130W to 210W.



Black and strong: The new frame of the KD-module series.



<b>Electrical Performance</b>	
Maximum Power	[W]
Maximum System Voltage	[V]
Maximum Power Voltage	[V]
Maximum Power Current	[A]
Open Circuit Voltage (V <sub>OC</sub> )	[V]
Short Circuit Current (I <sub>SC</sub> )	[A]
Power Tolerance	[%]
<b>Dimensions</b>	
Length	[mm]
Width	[mm]
Depth / incl. Junction Box	[mm]
Weight	[kg]
Cable	[mm]
Connection Type	
Junction Box	[mm]
IP Code	
<b>General Information</b>	
Performance Guarantee	
Warranty	
<b>Cells</b>	
Number per Module	
Cell Technology	
Cell Shape (square)	[mm]
Cell Bonding	

KC-series	New KD-modules	Availability
	KD210GH-2PU	In stock
	KD205GH-2PU	
	KD180GH-2PU	
KC130GH-2P	KD135GH-2PU	From spring 2009 onwards
KC130GT-1	KD135SX-1PU	
KC85GX-2P	KD95SX-1P	
KC65GX-2P	KD80SE-1P	
KC50GX-2P	KD70SX-1P	
KC40GX-2P	KD50SE-1P	

### INFORMATION ABOUT THE NEW JUNCTION BOX FOR MODULE TYPES -SX-1P AND -SE-1P

All KD-modules suitable for off-grid applications (module types -SX-1P and -SE-1P) will be equipped with an accessible junction box again. Therefore the solar cables can be mounted flexible which again simplifies installations of stand-alone solutions in particular.

#### Features:

- Accessible junction box
- Direct connection of the PV-cables to the terminal contacts
- Bypass diodes can be easily exchanged
- Ideal for off-grid applications

*The alternations of the module series as well as the innovations concerning the new junction box in brief.*

KD135GH-2PU	KD135SX-1PU	KD95SX-1P	KD80SE-1P	KD70SX-1P	KD50SE-1P
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135	135	95	80	70	50
1000	1000	750	750	750	750
17.7	17.7	17.9	17.9	17.9	17.9
7.63	7.63	5.31	4.47	3.92	2.8
22.1	22.1	22.1	22.1	22.1	22.1
8.37	8.37	5.81	4.86	4.26	3.07
+5/-5	+5/-5	+10/-5	+10/-5	+10/-5	+10/-5
1500 (± 2.5 cm)	1500 (± 2.5 cm)	1043 (± 2.5 cm)	940 (± 2.5 cm)	778 (± 2.5 cm)	706 (± 2.5 cm)
668 (± 2.5 cm)	668 (± 2.5 cm)	660 (± 2.5 cm)	744 (± 2.5 cm)	660 (± 2.5 cm)	744 (± 2.5 cm)
46	46	45	45	45	45
12.5	12.5	8.5	8.5	6.5	6.5
(+)840 / (-)840	—	—	—	—	—
MC PV-KBT3/MC PV-KST3	Screw terminals	Screw terminals	Screw terminals	Screw terminals	Screw terminals
100x108x15	150x140x45	150x140x45	150x140x45	150x140x45	150x140x45
IP65	IP65	IP65	IP65	IP65	IP65
10** / 20 years ***	10** / 20 years ***	10** / 20 years ***	10** / 20 years ***	10** / 20 years ***	10** / 20 years ***
2 years	2 years	2 years	2 years	2 years	2 years
36	36	36	36	36	36
polycrystalline	polycrystalline	polycrystalline	polycrystalline	polycrystalline	polycrystalline
156x156	156x156	104x156	78x156	78x156	52x156
3 busbar	3 busbar	3 busbar	3 busbar	3 busbar	3 busbar

\* Electrical values under standard test conditions (STC): irradiation of 1000 W/m<sup>2</sup>, airmass AM 1.5 and cell temperature of 25 °C

\*\* 10 years on 90 % of the minimally specified power P under standard test conditions (STC)

\*\*\* 20 years on 80 % of the minimally specified power P under standard test conditions (STC)

*Winning installation: This system generates approx. 7600 kWh annually – much more than the 6-person household needs in a year*



## It's all in the mix!



*The prize:  
 Two tickets for a Borussia Mönchengladbach premier division football match including an overnight stay.*

*The successful combination of on-roof and shading system makes the company Kütro GmbH & Co. KG the second prize winner in our large Kyocera photo competition*

The planning and realisation of extraordinary projects, such as e.g. facade panelling, balcony systems and shading systems, are part of the range by this company from Bavarian Abendsberg as are the construction of on-roof or in-roof systems. The company's focus on renewable energies, in particular on photovoltaic systems since the year 2000, has of course paid off thanks to the changing climate – this is reflected in the growing number of enquires they receive every year.

### THE PROJECT:

*System size? 8.06 kWp  
 Modules used? 62 x Kyocera 130 GHT-2  
 Assembly type? On-roof parallel to the roof, shading system with triangular supports  
 Direction? South  
 Commissioning? 26.06.2007  
 Power yield on 06.05.08? 7200 kWh*

## Just follow the Sun

*Solartechnik Stiens operates a 46 kWp solar system on the Kaufungen office building. The whole building constantly follows the course of the sun.*



*Our special prize: The top quality knife set from Kyocera.*

The building that was erected by the company Solartechnik Stiens permanently and automatically ensures that its roof is ideally aligned: it follows the sun. The square upper storey of the administration building moves almost imperceptibly from mornings to evenings

every 10 minutes covering a range of 180°. The collector surface is therefore always directed exactly toward the sun – throughout the sunshine hours, the solar surface makes optimum use of the power.

# We care in Tanzania!

Once again Kyocera has proved that the company's motto "We care" is more than just empty words: Kyocera is donating solar systems for generating power to twenty primary schools in Tanzania.



## **\_20 SYSTEMS IN THE NEXT FIVE YEARS**

One of Tanzania's most pressing problems is improving its educational infrastructure. In primary schools in particular, learning conditions are not yet sufficient. Kyocera – one of the world's leading manufacturers of solar energy modules - is meeting the challenge to improve conditions by lending its support with a package of donations. Within the next five years, the company will equip free of charge four schools annually with solar energy generating systems. The package includes a 600 Watt solar electricity generation system and the storage batteries that go with it. In addition to the systems, each school will receive basic supplies, including a television and electric lights. The President of Kyocera - Europe, Mitsuru Imanaka, explains the programme, „We hope that electricity will improve the quality of teaching because the newest in media can be used.“



*Laughing faces everywhere in Tanzania – We care!*

## **\_SUPPORTING ELECTRIFICATION IN RURAL AREAS**

Kyocera's commitment to electrifying rural areas began in the Pakistani village of Kankoi in 1983 and the Chinese province of Gansu in 1985. Parallel to that effort, a whole series of projects were completed. Among these were the irrigation of agricultural land, cold storage for vaccines, and providing electricity for medical facilities. In October 2008, Kyocera also plans to equip some 500 households in Tunisia with electricity produced by solar energy generating systems

*Living up to the company's philosophy: Kyocera supports primary schools in Tanzania.*

## **\_MORE THAN 500,000 EUROS FOR EARTHQUAKE VICTIMS**

One of the pillars of the company's philosophy is contributing to better social welfare. Everyone involved in the enterprise takes part. After the earthquake in China's Szechuan province, Kyocera donated more than 500,000 euros for reconstruction and humanitarian aid in the effected areas. Of that, some 183,000 euros were donated by Kyocera employees.



## **\_IMPRINT**

## **KYOCERA SOLAR**

**We care!**

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# You cannot take trust for granted – you have to work at it. We care!

When it comes to renewable energy sources more and more people are opting for Kyocera's high-quality solar systems. We have been developing and producing every component of our photovoltaic modules in-house for more than 30 years now – without buying in semi-finished products. That creates certainty. And certainty creates trust – the best basis for a good partnership. You can enquire about your local Kyocera partner here: [solar@kyocera.de](mailto:solar@kyocera.de)

Solar Power for Everyone.  
[www.kyocerasolar.de](http://www.kyocerasolar.de)

Visit us at the 23rd EU PVSEC in Valencia. Hall 1, Stand 1/C4

**KYOCERA  
SOLAR**

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