

Single-axis tracking system from TurnToSun

German TurnToSun Energie-Technik sells a single-axis tracking system controlled via a cable. The cable is drawn by way of a 230 V tubular motor, which is shown to be a cost-effective solution compared to linear drives. Tension springs integrated into the cable guides serve to reduce the impact loads of wind gusts and are in this way intended to counter wear to the gear teeth and joints. The substructure, comprising thin-walled steel profiles in the form of a square pyramid, supports a module area of 16 m² (2.24 to 2.7 kW) and permits azimuthal tracking by $\pm 67^\circ$. The declination at maximum azimuth is 21° . The module area is aligned practically horizontally and faces east or west in the mornings and evenings, respectively, whereas it stands diagonally at midday. The module tracks the sun in eight stages, and is then reset in 2

TurnToSun's single-axis tracking system



steps. In the evenings, the system traverses initially to the south position, at which the wind resistance is lowest, and then continues to the east position at sunrise in the morning. As theft protection, the modules are mounted directly onto the frame by way of shear nuts. The system is anchored in the ground with 4 foundation bolts. TurnToSun quotes the additional cost of the tracking system at around 15 % compared to fixed frames, but at the same time promises an increase in yields by 30 %.

Further information:

TurnToSun Energie-Technik, Schumanstr. 18 D, 52146 Würselen, Germany, phone +49/160/93909889, info@turntosun.de, www.turntosun.de

Siemens inverter for large PV installations

The new Sinvert PVS series for photovoltaic power plants is intended to complete Siemens' portfolio of solar inverters for large and medium-sized solar installa-

tions. The inverters with outputs of 500, 1,000, 1,500 and 2,000 kW achieve a peak efficiency of 98.4 % and are supplied in a container complete with the medium-voltage components. The 2 MW version is currently the most powerful solar inverter on the market.

A master-slave configuration enables individual inverters to be switched in and out to maximise the overall efficiency of the solar plant in partial load operation. To ensure even distribution of the operating time over all inverters, it is always the inverter with the fewest operating hours to date which is addressed as the master.

Further information:

Siemens Industry Automation, Postfach 2348, 90713 Fürth, Germany, fax +49/911/978-3321, infoservice@siemens.com, www.siemens.com

Polysun simulation software now also native for Mac

Swiss software developer Vela Solaris now also offers the simulation software Polysun in a native version for Mac users. The programme is able to simulate solar thermal, photovoltaic and heat pump systems. For this purpose it accesses a comprehensive weather database fed with information from over 8,000 weather stations. An extensive, regularly updated product configuration function permits the user to select from the full range of market-typical components. For a photovoltaic simulation, for example, this would mean PV modules and inverters. Particularly interesting for the solar thermal branch are

the numerous predefined templates for water heating, space heating support, swimming pools, process heat and district heating. All these templates can still be modified to accommodate individual configurations. On the basis of the system specifications, weather data and component consumption details, where available, the software calculates a yield forecast to indicate the economic feasibility and expected return on investment. All results can also be presented in graph form for a faster overview. The forecasts are recognised by the German Federal Office of Economics and Export Control (BAFA) and the Swiss Federal Office of Energy (SFOE).

The first 100 buyers of the complete version with all modules (PV, solar thermal, heat pumps), costing € 3,199, will also receive a complimentary MacBook from Vela Solaris. This special offer is valid until 31st July 2010, while stocks last.

Further information:

Vela Solaris, Stadhausstrasse 125, 8400 Winterthur, Switzerland, phone +41/55/22071-00, fax +41/55/22071-09, sales@velasolaris.com, www.polysunsoftware.com