



PRODUCT & APPLICATION NEWS NO. 6 - OCTOBER 2007

# Danfoss PV Design Tool makes planning of PV systems easy

Planning a photovoltaic system is complex. Many different factors must be taken into account such as module type, angle and inclination of the modules, level of irradiation, choice of the most suitable inverter, etc.

To ease the planning process, Danfoss Solar Inverters offers a free software, PV Design Tool.

This software has a user friendly interface which requires a minimum of data in order to present your optimum system in a clear graphic form. Use it to try out different combinations for your installation or enter your specific details manually and view the best layout combination.

## Benefits & Advantages

- Allows system design with Danfoss inverters in both individual and master – slave configuration
- Good automatic layout proposal, to which your particular knowledge and skills can be applied via manual manipulation, if necessary
- Print options of graphic presentation and prospect, for better customer service
- Enter your own favorite modules' specifications and find the optimum layout
- Easy overview of different PV systems and subsequent expected performance
- Free software, ready for download, no strings attached
- Developed to ensure complete compatibility between PV modules and inverter

# Behind the news – technical information

Design a complete system, with as little information as:

- Location and solar irradiation level
- Expected Module temperature range
- Inclination of the PV module surface
- Azimuth

database to calculate a range of systems that meet your requirements. Double click on a system in the range to see a graphical representation. Colour indications and bar graphs serve as representation of performance and suitability.

to the upper voltage limit of the inverter, where efficiency is highest.

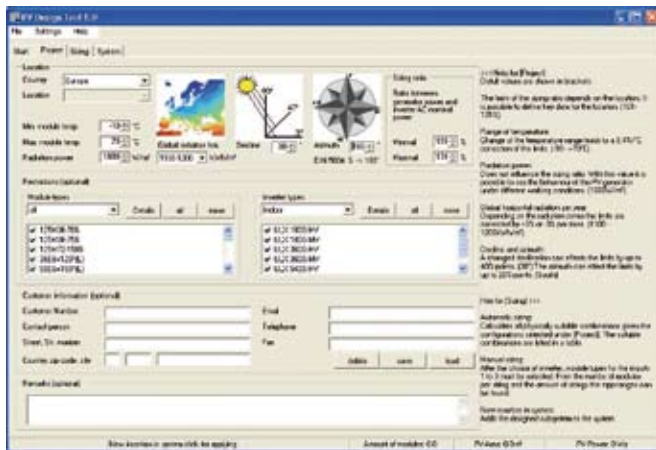
### Add Your Own Modules

Should you have preferences to modules or inverter size you can choose to make restrictions on the calculation possibilities. Additionally, if you find that your particular brand of modules is missing from the selection, you can add it to the database. In case you know exactly what you are after and only need the graphical representation for e.g. prospectus purposes you can enter everything manually. Systems can always be saved along with user details for later use or filing. In the settings menu you can:

- Specify the language you prefer, making international activities easier.
- You can choose the conditions the program uses to calculate and display PV system performance for (STC, NOCT, Custom) and add just if needed.
- It is also here the database can be updated with additional modules.

### Keep Up to Date

To ensure the program is kept up to date with the newest functionality the program can automatically check for updates by pressing “prove for updates” under the menu entry “help”. Here you will also find a guide to the use of the program.

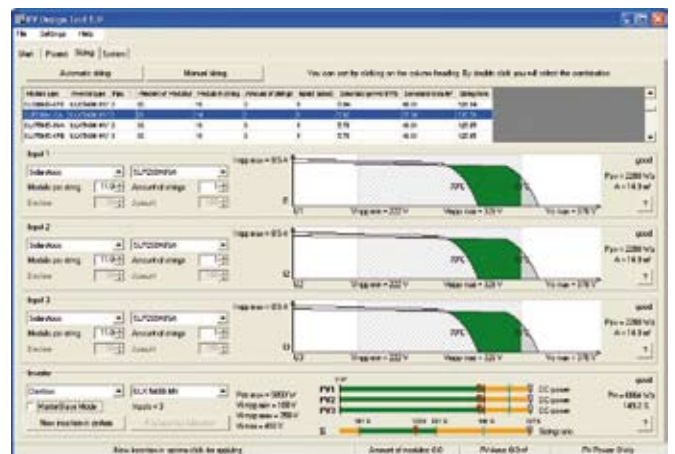


### Automatic System Dimensioning

PV Design Tool will calculate the optimum system based on the data on modules and inverters it has in its database. Enter the specifications for your system as stated above and leave the remaining optional fields at their default configuration. When you press the tab “sizing” and choose the automatic sizing option the PV Design Tool will then search its comprehensive

When you have found your favourite system, enter it by pressing “new insertion in system”. Repeat if you need more individual subsystems in your overall system. When you wish to see your compilation of systems, press the “system” tab to view and print. Easy.

Observe that it is important the PV system is designed to operate close



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