New Products, New Horizons – KACO new energy at the 2014 Intersolar Europe.

In addition to a line-up of new 1-phase and 3-phase inverters, KACO new energy is also exhibiting highly integrated system solutions for grid-tie and off-grid energy supply.

Neckarsulm, 30. April 2014 – KACO new energy is looking back on 100 years of company history in which technological innovation was always the motivating factor for change. At the Intersolar Europe in Munich the Neckarsulm inverter manufacturer will for the first time be exhibiting the new blueplanet range, more powerful central inverters and optimised storage systems. A second focus lies on the integration of additional energy sources such as thermal storage systems or diesel generators. Hall B2, Stand 310.

The 1-phase string inverters blueplanet 2.0 – 4.6 TL1

With a line-up of 1-phase transformerless appliances, KACO new energy will be inaugurating the new „blueplanet“ inverter series. Newly designed and constructed from scratch, the blueplanet TL1 fulfill the highest requirements for optimum use in residential arrays. Their finely differentiated output ranges from 2.0 to 4.6 kilowatt (AC), so that even operators of the smallest systems will find the right inverter here.

A further voltage range starts at as little as 125 volts and goes up to 510 volts which allows for a multitude of string designs. Having 2 MPP trackers, (from blueplanet 3.5 TL1) which can each process the whole AC power, system layout is even easier. Angled roofs or sub-arrays with different orientations? No problem for these flexible appliances. And weighing just 15 kilograms, the blueplanets are almost fun to mount. Using plug-in connectors on the DC and on the AC side, they are also just as quickly connected as they are mounted. The RS485 and the ethernet interfaces, as well as the USB port ensure elegant communication and convenient monitoring. And just to round off the connection, the inverters also have the same integrated data logger and webserver as their 3-phase siblings. As usual, the blueplanet TL1 deliver their full performance without fans. Available as of Q3/2014.

The 3-phase string inverters blueplanet 5.0 – 9.0 TL3

All of the advantages of the larger 3-phase inverters can now be found in one power class which is just perfect for private roof systems. The blueplanet 5.0 TL3 to the 9.0 TL3 come, without exception, with 2 MPP trackers which can get to grips with all imaginable design configurations of a modular PV generator. As such, each MPP tracker can process the whole AC output. If you also consider the extremely wide input voltage range from 200 V to 800 V, multiple string configurations become possible. So, with these characteristics, the blueplanet TL3 present themselves as the most flexible three-phase inverters in their power class on the market.

The DC and AC periphery of the blueplanet TL3 ensures the quickest cabling thanks to plug-in connectors and the menu selection is performed conveniently using the graphic display. So that the appliances can stand up to the harshest conditions out in the open, their compact housing is built to IP 65 protection class. Nevertheless, weighing just 30 kg they can still be carried easily.
Should the RS485, ethernet and USB port interfaces still leave something to be desired, optional connections for WiFi and S0-connected appliances as well as 4 digital inlets and outlets are available. The datalogger and the webserver are already integrated as standard! As a result, these inverters offer complete monitoring and strong communication in any environment. Available as of Q4/2014.

The central inverter blueplanet 1000 TL3 outdoor

The blueplanet 1000 TL3 outdoor central inverter is the next high power innovation in KACO new energy's product portfolio. Thanks to its IP54 protection class it does not need to be housed in a separate enclosed room. Thus the blueplanet 1000 TL3 outdoor is a highly economic solution compared to common central inverter stations. Moreover, the latest signal-processing technology offers maximum performance, efficiency and reliability in this high power inverter.
The fully digital controller makes operation and maintenance user-friendly and offers a multitude of options for monitoring and communications.
The blueplanet 1000 TL3 outdoor also scores points for maximum reliability: the internal power supply of the controller is designed redundantly and an extremely powerful cooling system protects all of the sensitive components. As such, the cooling fans can be controlled independent of the load and the ambient temperature. The well-known digital touch screen makes for convenient operation and monitoring of the appliances. You can monitor your system remotely over the internet. Operation of all critical components is monitored continuously and potential faults are reported immediately. If a fault occurs, diagrams are generated that guarantee rapid localization of the source of the problem.
The blueplanet 1000 TL3 outdoor is an inverter for the world: country-specific settings are activated at the press of a button. Available as of Q1/2015.

The bidirectional battery inverter bluestorage 120 TL3

With the bluestorage 120 TL3 KACO new energy has developed a radically new product with an exceptionally high power rating: 120 kW for charging batteries or feeding into the local grid on 3 phases.
This bidirectional battery inverter is perfectly at home with any kind of AC source as well as with all modern battery systems. In so doing, it performs quickly and reliably reaching a rate of efficiency of about 98%. If the grid should fail, you also have the option of using the inverter's emergency power function. Thanks to its considerable strength, the bluestorage 120 TL3 can transfer large quantities of electricity from peak supply times for use at a later time when demand is higher if the output of the energy source is liable to fluctuate, such as with a

grid-tie PV system. In view of such features its construction is exceptionally compact. The unparalleled features of the bluestorage TL3 make it the ideal partner for providing decentralised energy from large residential estates right up to entire town districts or for establishments with consistently high energy requirements such as hospitals or hotels. It is similarly at home for use in industrial settings where it can make the best possible use of self-consumption. As a general principle it provides the key to using as much of the energy generated on site on the site itself.
Used as a key component of a peak shaving system, it lowers the connected load rating, for example – and saves money from the very first day. The bluestorage 120 TL3 also means more flexibility for grid operators too: even in critical local networks, it enables a higher level of PV penetration and affords operators greater planning security. Consolidation of the load and generation profiles also keeps the cost of grid expansion to a minimum.
Awarded the SEMIKRON Innovation Award 2013 for the "Innovative Power Electronics for the Next Generation Village Energy Supply" concept. Available for immediate delivery.

The Powador-gridsave eco storage system: new 3-phase version

The well-known Powador-gridsave eco storage system ensures highest flexibility thanks to its modular approach – the operator selects the battery capacity according to his requirements. In the event of grid failure it can switch over to back up power without virtually any interruption.
In pure off-grid systems the Powador-gridsave eco practically becomes the heart of the system and undertakes the energy management complete with the control of any additional energy sources such as diesel generators for instance. The Powador-gridsave eco can be installed as a 1-phase or as a synchronised 3-phase system making use of all known features depending on the target number of components. Available for immediate delivery.

The PV-Diesel Hybrid System KACO FuelSave

With the KACO FuelSave, KACO new energy and the PRETTL Group have developed a turn-key package system for PV-Diesel hybrid systems: Components from the original manufacturers which are perfectly made for each other harmonise to form an intelligent, balanced system serving performance requirements ranging from 30 kW right up to the megawatt class. The FuelSave package consists of a diesel and a PV generator with the corresponding mounting system and PV solar inverter as well as the control unit (FuelSave Controller). Even existing generator sets can be adapted to incorporate the FuelSave package so that maximum performance can be achieved. The key to tapping the benefits of a hybrid system lies in the intelligent management of both systems: The centrepiece of the KACO FuelSave is the FuleSave Controller which takes care of this. This controlling system ensures that the largest possible amount of photovoltaic is incorporated and that the diesel generator is simultaneously deployed in its optimum operating range, at the same time. The KACO FuelSave thus guarantees the maximum PV contribution and minimum fuel costs whilst protecting people and the environment. The configuration without storage system targets maximum efficiency but an optional storage system offers maximum convenience on top and enables diesel operation to be further reduced. Depending on the application, diesel savings amount to 25% or more and the system itself can be amortised in 3 to 5 years. This results in over 200% return on investment (ROI) within 10 years. In addition to the product package, KACO new energy also offers system layout, commissioning and service of the hybrid power station. Available for immediate delivery.

Ready-to-print graphic material of the trade fair innovations are available for download at www.kaco-newenergy.com/download/marketing/press/2014

About KACO new energy

KACO new energy is amongst the world's largest manufacturers of solar inverters. With 850 employees and offices in 16 countries, the company offers inverters for every array size from the smallest homes to the largest solar farms of hundreds of Megawatts. KACO new energy is based in Neckarsulm, near Stuttgart, Germany and the production facilities there, in the Americas and Asia have supplied nearly 7 Gigawatts of inverters since 1999. The Company was the first inverter manufacturer to achieve fully carbon-neutral production and is rapidly heading towards power self-sufficiency. KACO new energy also supplies energy storage systems and battery inverters, as well as inverters for combined heat and power plants and CPV systems. KACO