

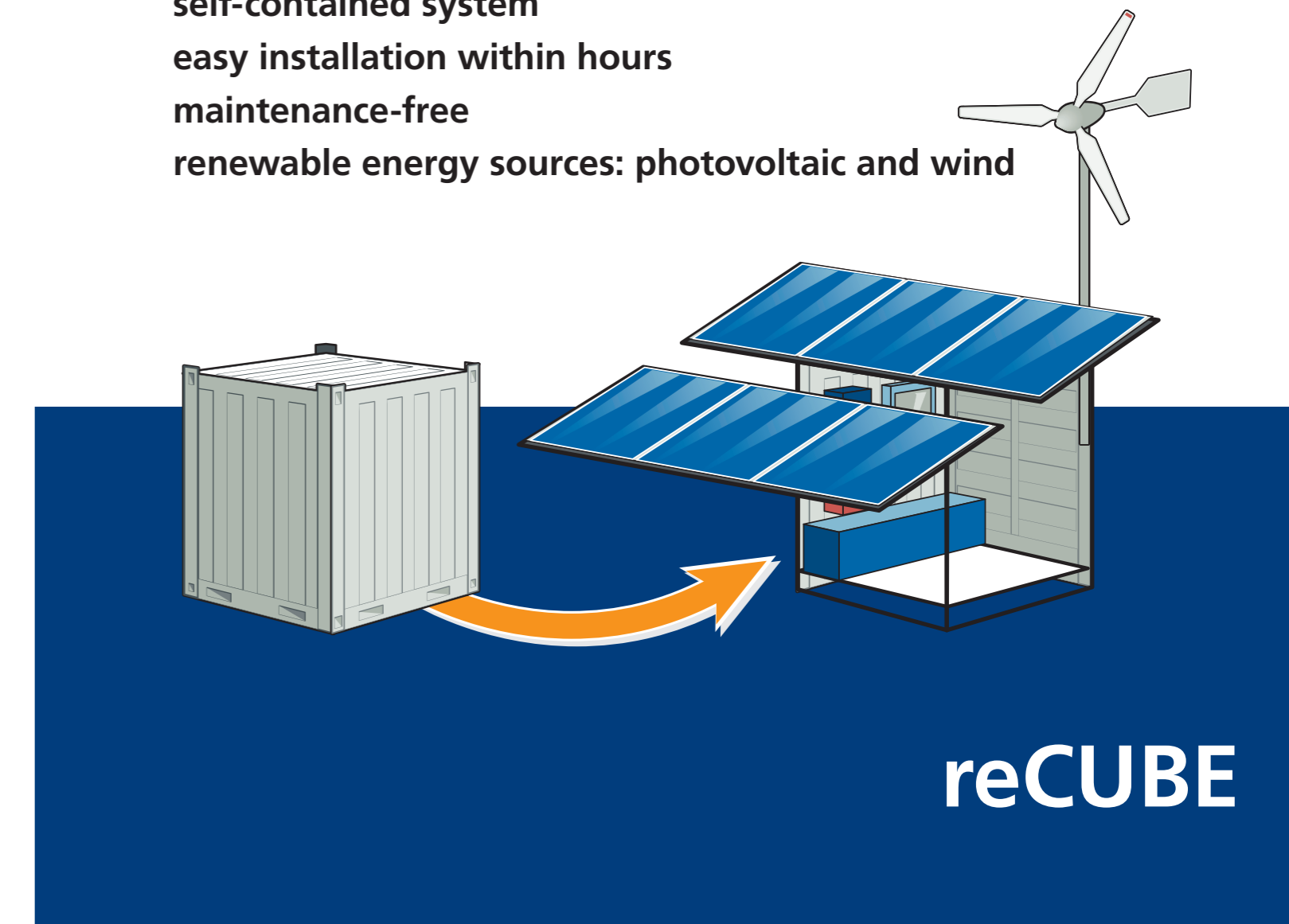
reCUBE technical data

technical data	175-75-4-0.1	175-75-4-1.1	175-00-4-0.1	175-00-4-1.1
input energy source 1 (pv generator)	750 W	1 750 W	1 750 W	1 750 W
input energy source 2 (wind generator)	750 W	750 W	–	–
output voltage	230 V _{AC} / 50 Hz (different values available on request)			
rated output power	3 000 W			
output power (5 sec)	4 500 W			
output 1 high priority	operation between 21.6 V _{DC} - 30.0 V _{DC} (battery voltage)			
output 2 low priority	operation between 22.8 V _{DC} - 30.0 V _{DC} (battery voltage)			
battery	420 Ah / 24 V _{DC} (different values available on request)			
grid integration (change over)*	yes		yes	
grid integration (online)**		yes		yes
peak efficiency (internal sinewave inverter)	95 %			
rated dc-system voltage	24 V _{DC}			
cooling	convection			
protection	IP44			
connections	output 1, output 2 over internal power socket			
H x W x D	6' container / 1,980 x 1,950 x 1,910 mm			
weight	1600 kg		1470 kg	

* Mains voltage is switched through to the output. At mains failure the inverter voltage is switched trough to the output terminal (Switch time < 100 ms)
** Mains voltage (230 V_{DC}) is used to feed in the DC-voltage link. The inverter is connected to the output terminals at every time (Switch time 0 < ms)

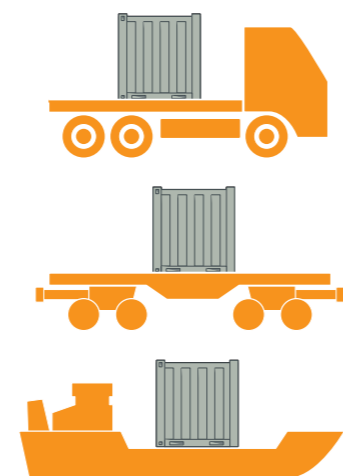
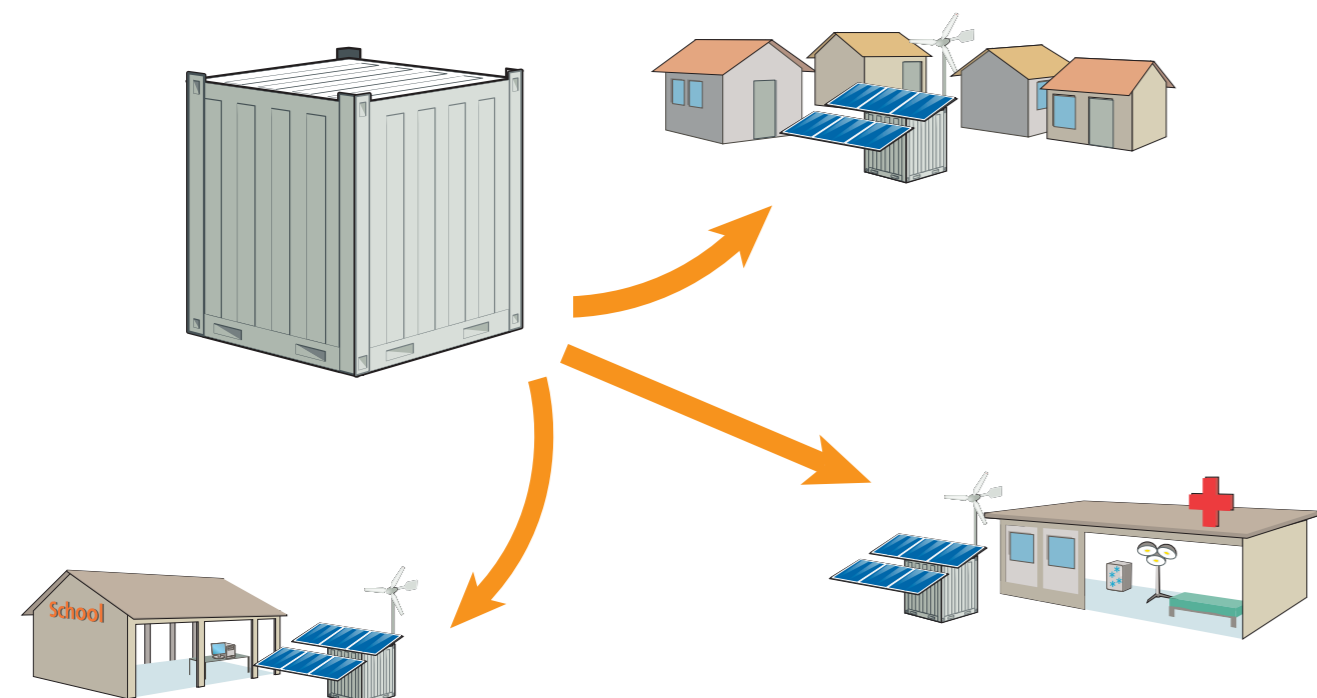
reCUBE

self-contained system
easy installation within hours
maintenance-free
renewable energy sources: photovoltaic and wind

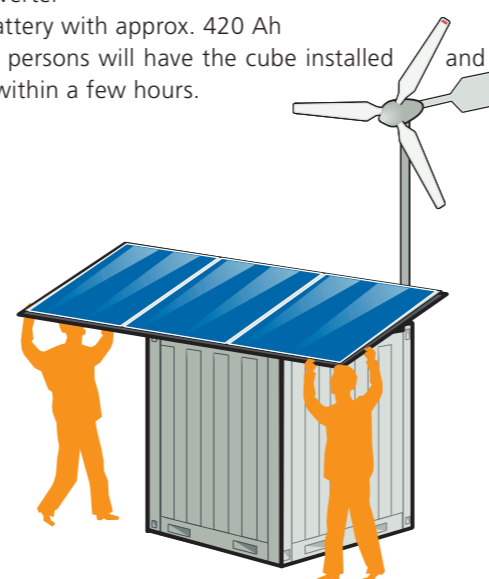


reCUBE

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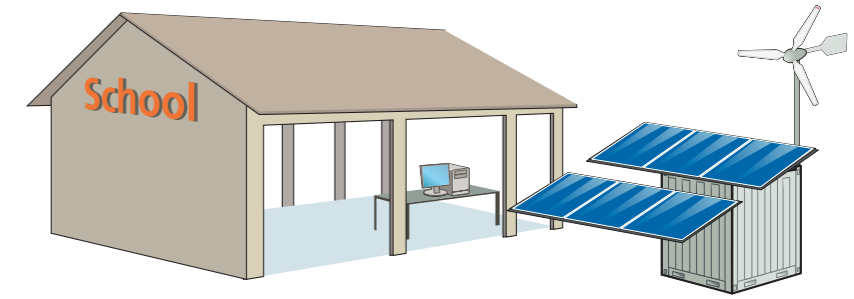


easy installation
 find everything you need inside:
 * 6 modules with a total of 1,750 W
 * 1 turbine of 750 W
 * pole for turbine
 * inverter
 * battery with approx. 420 Ah
 two persons will have the cube installed and ready to go within a few hours.



easy transport
 either on car, train or ship – the rugged container is fit for any kind of transportation and with its mounting rings on top a crane can place it right where you need it to be. the reCUBE will find its way to you!

school
 efficient learning requires a few simple fundamentals like light, communication and possibly computers. the reCUBE will have those requirements covered.



the reCUBE has been designed specifically for use in remote regions where public utility grid infrastructure does not exist. it is a mobile power supply unit, which – in contrast to other common systems – works without diesel generators and is fully powered by renewable energy sources.

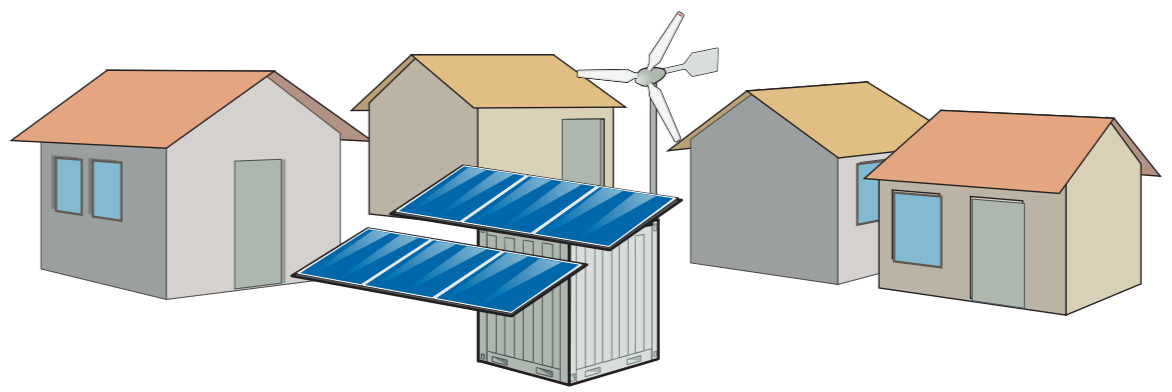
compared to grid-tied systems, decentralized energy supplies are more difficult to plan, construct and operate. therefore, it seems to make more sense to adapt a system to customer requirements and make it available to them as a fully configured unit: "plug and play". on-site installation does not necessarily require skilled electricians: equipped with a screwdriver, a pair of pliers and an open-end wrench, two people can set up a fully functional reCUBE within a few hours.

using a pv generator, it converts sunlight into current and subsequently stores it in a battery bank. the system also includes a wind generator, which compensates for the lack of solar energy at nighttime or during months of reduced solar irradiation. the heart of the system is a KACO stand-alone K 3000 inverter, capable of providing short-term peak power of 9 kW.

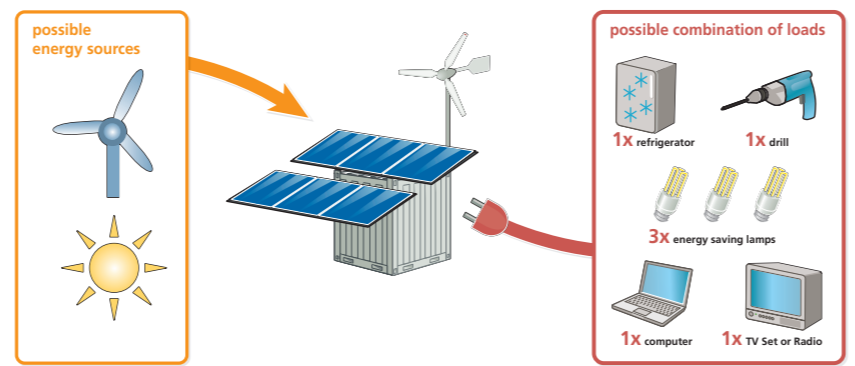
the reCUBE is available in different versions, which are individually adapted to customers' needs. you can chose the number of modules to adjust the power of the pv generator to your needs. furthermore, you can order the reCUBE with different battery sizes. as a rule of thumb, regions with high solar irradiation require lower battery capacities (for details please refer to the table of technical data).

typical weaknesses of the stand-alone concept have been eliminated. the reCUBE is a turnkey system that is perfectly adapted to our customers' requirements. the implementation of stand-alone systems was unsuccessful in many cases because components were just "thrown together", did not match, or were not compatible.

additionally, we offer an automatic bypass switch to integrate the reCUBE into an existing or future local grid. the reCUBE checks on the actual energy supply of the grid and will take over as soon as the local grid is unable to provide energy.



housing area
 the reCUBE will sustain energy needs of one or more private homes depending on individual consumption.



energy that makes your day
 the reCUBE typically will provide 5 kWh per day or 1,000 kWh per year – enough to supply energy to your typical every day needs like light or communication within the normal time of use.

medical station
 though often located far from large cities medical stations have to offer medicine services like safe medicine storage or proper lighting for surgery. the reCUBE can power those applications.

