

## **ASD HYBRID®**

### THE EFFICIENT STORAGE SYSTEM

*Optimal use of on-site  
generated electricity*



*Autonomous power supply up to 90%*



*Self-regulating technology  
for maximum lifespan*



*Highest levels of operating safety*



**CHARGE YOUR INDEPENDENCE**

# CHARGE YOUR INDEPENDENCE

To make generating your own electricity truly worthwhile, you need to be able to store your home's solar energy for when you want to use it. Most of your solar energy is produced during the day, when you don't tend to need it. It is then fed into the public grid. Intelligent energy management solution ASD HYBRID® allows you to take full advantage of your own power sources. Discover the unique benefits of ASD HYBRID®!

## Independent energy management

ASD HYBRID® with innovative LiFePO<sub>4</sub> (lithium-iron-phosphate) batteries gives you the freedom to manage your own electricity. Benefit from efficiency levels of up to 97% – well over that achieved by conventional lead batteries – as well as more than 5,000 load cycles and an outstanding temperature range of -20 °C to +55 °C.

## More independence

Thanks to its outstanding storage utilization, ASD HYBRID® reduces the amount of electricity you have to buy from the public grid by up to 90%. The storage system operates in parallel to the grid, which means that the grid only supplies the power required to top up your own stored reserves when you need to. This makes you independent of electricity prices, while being kind to both your wallet and the environment.

## Flexible independence

ASD HYBRID® is always tailored to individual requirements – it can be installed at the same time as your energy system (e.g. photovoltaic installation) or simply be retrofitted at a later point. There are four models with storage capacities between 5.18 kWh and 13.44 kWh, as well as with AC or DC coupling, and allows several generators to be used at the same time.

All storage systems are capable of three-phase power as standard. Emergency power can be supplied in the form of a one-phase power supply or optional three-phase emergency back-up power (not three-phase power).

## Independence with peace of mind

Optimal battery use guarantees a maximum lifespan, while the intrinsically safe iron-phosphate battery technology and self-monitoring function ensure high reliability no matter what the mode of operation.

## Sustainable independence

The amount of solar energy that reaches Earth from the Sun each year is enough to cover our energy demand more than 10,000 times over – this is one of the reasons why photovoltaic installations are such a popular way of generating electricity on site. ASD HYBRID® deploys state-of-the-art technology to store solar energy for use as required at a later point in time.

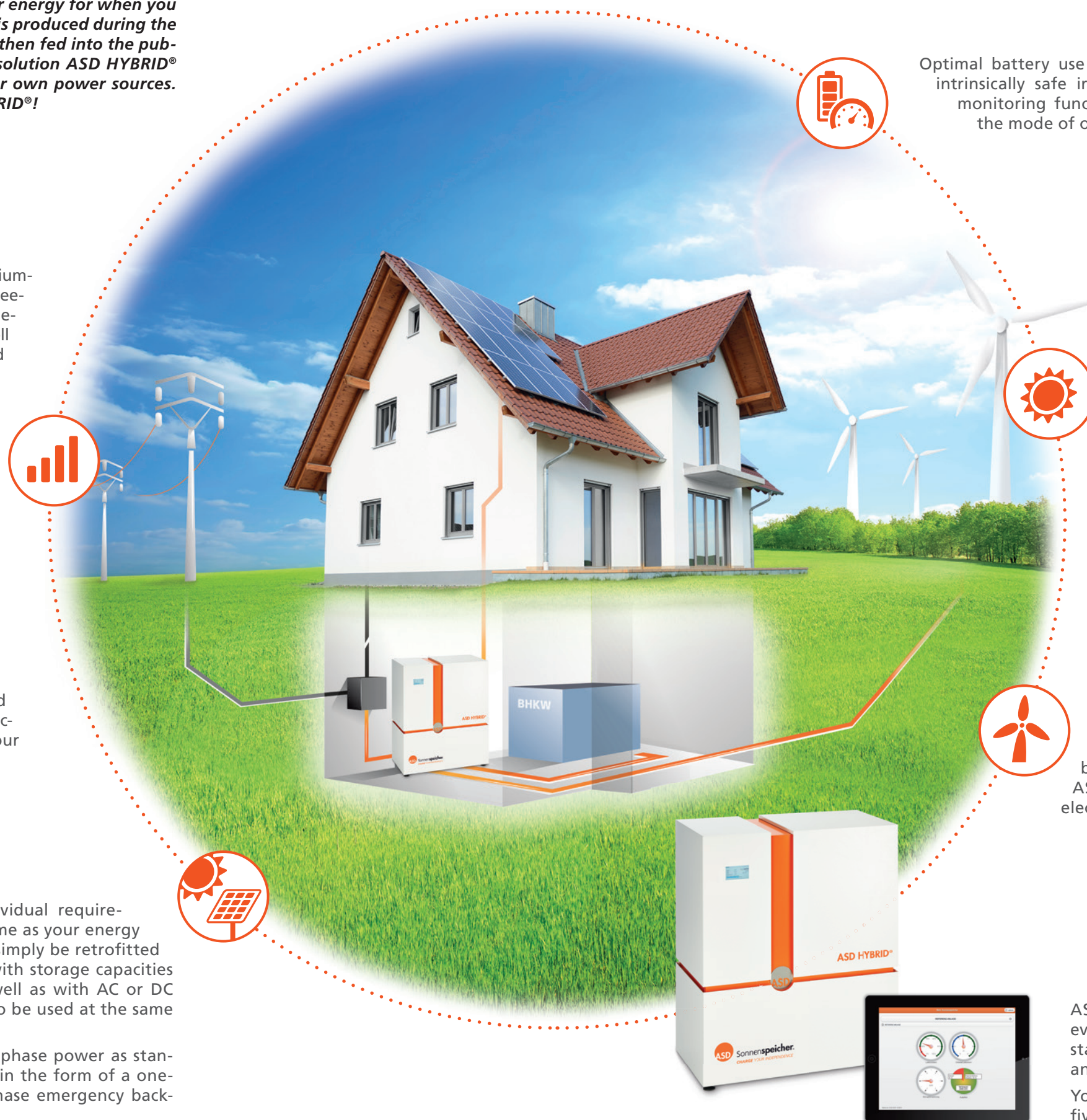
## Universal independence

Generators maintain independence and sustainability. In addition to electricity generated from photovoltaic installations, energy produced from wind turbines and CHP plants is also kept on site. ASD HYBRID® is even capable of storing electricity from several energy sources at once.

## Guaranteed independence

ASD HYBRID® gives you access to extensive evaluation tools, allowing you to see real-time statistics about state of charge, consumption and feed in.

You'll receive a two-year product warranty and five-year performance warranty.



# Technical data

ASD Hybrid®	5	8	10	13			
Battery storage system							
Storage capacity [kWh]	5,18	8,06	10,36	13,44			
Usable capacity (DOD = 80%) [kWh]	4,14	6,45	8,28	10,75			
Number of cells	9	14	18	14			
Battery block nominal voltage [V]	29	45	58	45			
Battery technology	Lithium iron phosphate (LiFePO4)						
Full load cycles	Approx. 5,000						
Charging process	CC-CV						
Household network supply							
Battery inverter	XTM2400	XTM2600	XTM4000	XTM2600	XTM4000	XTM4000	XTH6000
Continuous power [kW]	2	2	3,5	2	3,5	3,5	5
Maximum power [kW]	2,4	2,6	4	2,6	4	4	6
Max. charging current [A] DC	55	30	50	30	50	50	100
Standby consumption [W]	15	30	40	60			
Normal operation output voltage AC [V]	230/400 V						
Emergency back-up power output voltage AC [V]	230 V						
Harmonic distortion [%]	< 2						
cos(phi)	0,9 – 1						
Inverter efficiency [%]	96						
Battery efficiency [%]	98						
Overall efficiency [%]	Approx. 88						
Measurements and weights							
Overall system dimensions l/w/h [mm]	613/600/1030	613/600/1030	613/600/1030	613/600/1520			
Storage system weight [kg]	Approx. 120	Approx. 150	Approx. 170	Approx. 208			
Control unit weight [kg]	Approx. 90	Approx. 90	Approx. 90	Approx. 90			
Equipment and dimensioning							
Recommended annual operator power consumption [kWh]	2000 – 3000	3000 – 6000	5000 – 9000	ab 9000			
Three-phase power*, one-phase emergency back-up power supply*, charge control, evaluation of statistics**	✓	✓	✓	✓			
Three-phase emergency back-up power supply*	Optional	Optional	Optional	Optional			
* no three-phase power in emergency back-up power supplies    ** stable internet connection required							
Guidelines and requirements							
Standards	CE, UN38.3, EN62133-2003						
Ingress protection of encluse	IP20, (optional IP44)						
Ambient temperature	0 °C to +30 °C						
Installation room	no active ventilation system required						
Manufacturer warranty (for details, see general T&Cs and terms of warranty)							
Product warranty	2 years						
Performance warranty	5 years						

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