

# BRES SERIES

## BRES-1040-500

**SKS**

The BRES immersion-cooled energy storage system integrates PCS, immersion-cooled batteries, PV, generators, and grid power into a single energy storage platform. It supports seamless source transfer and intelligent energy management for peak shaving, microgrid, and hybrid energy applications. The immersion-cooled battery architecture enhances safety, reliability, and thermal performance.



**ALL-IN-ONE ENERGY STORAGE SYSTEM (IMMERSION-COOLED)**

[www.sks-elektro.at](http://www.sks-elektro.at)



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### KEY FEATURES

- Scalable Capacity: 500-2,000 kW power output and up to 4,160 kWh energy capacity with support for system expansion.
- Grid & Off-Grid Operation: Seamless transition between grid-connected and off-grid operation.
- High Reliability: 100% unbalanced load support and redundant AC power supply.
- Extended Service Life: Active balancing BMS extends battery life and reduces maintenance.
- Harsh-Environment Ready: Designed for reliable operation in hot, cold, coastal, and high-altitude environments.

### BATTERY PARAMETERS

| Mode                      | BRES-1040-500         |
|---------------------------|-----------------------|
| Rated power               | 500 kW                |
| Rated voltage             | 400 V                 |
| Rated current             | 724 A                 |
| Energy capacity           | 1,040 kWh             |
| Weight                    | 13,000 kg             |
| Dimensions (W x D x H)(m) | 2.991 x 2.438 x 2.896 |

### TECHNICAL SPECIFICATIONS

|                         |                                                     |
|-------------------------|-----------------------------------------------------|
| Voltage range           | -15% to +10%                                        |
| Rated frequency         | 50/60 Hz                                            |
| Frequency Range         | ±2 Hz                                               |
| Output configuration    | 3W + N + PE                                         |
| Power factor            | -1 to +1                                            |
| AC current THD          | <3% (at rated power)                                |
| Rated battery voltage   | 832 V                                               |
| Battery voltage range   | 728-949 V DC (2.8-3.65 V)                           |
| Battery chemistry       | LFP                                                 |
| Cycle life              | ≥10,000 cycles (0.5 P, 25 ± 2°C, 100% DOD, 80% SOH) |
| Operating temperature   | -20°C to 55°C (derating above 45°C)                 |
| Storage temperature     | -20°C to 60°C                                       |
| Relative humidity       | 0-95% RH (non-condensing)                           |
| Operating altitude      | 4,000 m (derating above 2,000 m)                    |
| Noise level             | <75 dB                                              |
| Communication interface | RS485, LAN                                          |
| Isolation Method        | Isolation transformer                               |
| Protection Rating       | IP54                                                |
| Cooling Method          | Immersion Cooling                                   |
| Fire Suppression        | Aerosol                                             |

Note: Actual dimensions and weight may vary slightly. Please refer to the delivered product.

#### SKS Elektroanlagenbau GmbH

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