



**INNOVATIVE TECHNOLOGIES
FOR EFFICIENT
ENERGY STORAGE**

2024



Following the evolution

**In a world where energy issues are becoming increasingly relevant, new challenges arise:
storage, transportation, optimization, and distribution.**



A new approach to energy generation

Innovations in energy generation and storage have the potential to radically change the environmental situation, allowing for a complete transition away from fossil fuels.



ABOUT US



The ISS company develops storage and power systems that provide flexible control and optimal energy efficiency.

We offer system operators, businesses, and individuals the ability to effectively manage their energy needs, contributing to the creation of a cleaner planet.

Our innovative energy storage technology allows for **the separation of production from consumption**, thus transforming the entire dispatch system and providing balance between traditional and alternative electricity generation.



ENERGY STORAGE SYSTEMS

I.S.S. - 1

200 kW - 2 MW
(3-phase 380 volts)

For balancing power consumption and generation (particularly from alternative sources) in both local (private/commercial) and national grids.

I.S.S. - 2

50 kW - 500 kW
(3-phase 380 volts)

To provide autonomous power supply for commercial structures, utilizing energy stored from the grid or solar power, which can be used during peak load hours or outages, addressing the issue of emergency power supply.

I.S.S. - 3

16.5 kW - 66 kW
(3-phase 380 volts)

To provide autonomous power supply for private residences and commercial structures, utilizing energy stored from the grid or solar power, which can be used during peak load hours or outages, addressing the issue of emergency power supply.

I.S.S. - 4

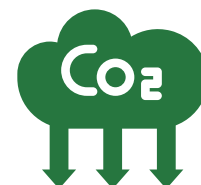
2.2 kW - 10 kW
(1-phase 380 volts)

For energy storage for apartments and houses, which can be combined with a local solar power generation system, providing users with the ability to use clean energy 24/7, while also addressing the issue of emergency power supply.

BENEFITS OF INSTALLING THE SYSTEM:



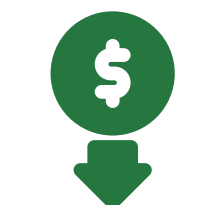
Reduced energy costs



Decreased CO2 emissions



Increased equipment reliability



Diminished production costs



Accelerated return on investment



I.S.S. - 1

200 kW - 2 MW (3-phase 380 volts)

TECHNICAL SPECIFICATIONS:

- The maximum load power connected will range from **200 to 2,000 kilowatts**, in a 3-phase configuration, at a voltage of **380 volts**
- The energy storage system is made of **CATL Li-FePo₄** elements, with a single storage system capacity ranging from **200 kilowatt-hours to 2 megawatts**
- The energy storage system is designed for **5,000 full charge-discharge cycles**. Its full charge time is 2 hours
- After 5,000 full cycles, the battery does not fail; its capacity decreases to 80%, and it continues to operate. With daily use of the system, its **service life is estimated at 13 years**, until its capacity drops to 80%

I.S.S. - 2

50 kW - 500 kW (3-phase 380 volts)

TECHNICAL SPECIFICATIONS:

- The maximum load power connected will range from **50 to 500 kilowatts**, in a 3-phase configuration
- The energy storage system is made of **CATL Li-FePo₄** elements, with a single storage system capacity ranging from **50 kilowatt-hours** to 500 kilowatt-hours.
- The energy storage system is designed for **5,000 full charge-discharge cycles**. Its full charge time is 4 hours.
- After 5,000 full cycles, the battery does not fail; its capacity decreases to 80%, and it continues to operate. With daily use of the system, its **service life is estimated at 13 years**, until its capacity drops to 80%

I.S.S. - 3

16.5 kW - 66 kW (3-phase 380 volts)



TECHNICAL SPECIFICATIONS:

- The maximum load power connected will be 66 kilowatts, in a 3-phase configuration, with 11 kilowatts per phase. This system is recommended for houses with an area ranging **from 240 to 600** square meters and can be used with a heat pump with a power of up to 16 kilowatts

- The energy storage system is designed **for 3,000 full charge-discharge cycles**. Its full charge time is 2.5 hours

- After this number of cycles, the battery does not fail; its capacity decreases to 85%, and it continues to operate. It will take 5,000 cycles for the capacity to decrease to 60%. If the energy system recovers and the battery is not used frequently or daily, **its service life can be up to 15 years**

- Additionally, solar panels with a power of 70 kilowatts can be connected to this system

I.S.S. - 4

2.2 kW - 10 kW (1-phase 380 volts)

TECHNICAL SPECIFICATIONS:

- The maximum load power connected will be **10.2 kilowatts**, in a 1-phase configuration
- The energy storage system is made with **CATL Li-FePo4** elements; the battery capacity is set at 12 kilowatt-hours
- The energy storage system is designed for 2000 full charge-discharge cycles. Its full charge time is 2.5 hours
- After this number of cycles, the battery does not fail; its capacity decreases to 85%, and it continues to operate. It will take 5000 cycles for the capacity to decrease to 60%. If the energy system recovers and the battery is not used frequently or daily, **its service life can be up to 15 years**
- Additionally, solar panels with a power of 11 kilowatts can be connected to this system



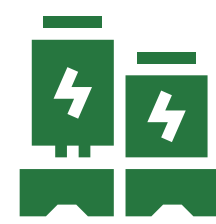
3X improvement
in energy efficiency



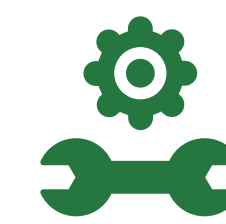
WORK PROCESS



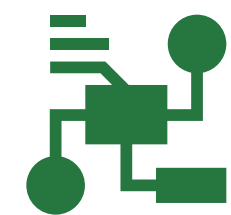
Analysis and audit of the existing or future energy facility



Design work, ordering, and supply of all components of the energy storage system



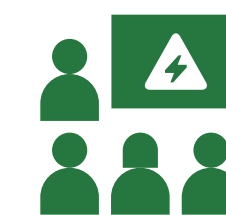
Warranty and service maintenance of I.S.S. systems



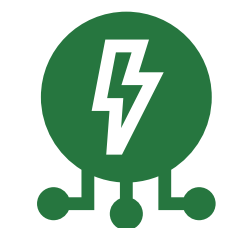
Development of the concept and technological scheme of equipment operation



Construction and installation works, system setup, and testing before operation



Training of responsible personnel on operating the system



Development of a solution for connecting I.S.S. to electrical networks





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ISS

Industrial
Storage
System