

# MPS1500W HIBRID POWER SUPPLY

year 2020 / 12

## HYBRID POWER SYSTEM MPS1500W

MEP employees designed and manufactured a hybrid power supply system to power the measuring station at 1700 m above sea level.

The hybrid system uses solar panels, a diesel generator set, a 48VDC DC power supply system and a battery system for long autonomy.

### PROJECT: POWER SUPPLY HYBRID 48VDC

For a Croatian customer, we designed and manufactured a hybrid power supply system for the needs of powering wind potential measuring instruments at height of 1700 m above sea level.

#### MPS1500W - MODULAR POWER SUPPLY 1500 W/48VDC

The system enables efficient power supply of equipment in places where there is no permanent electricity connection in an efficient manner with minimal fuel consumption and minimal impact on the environment.

#### Project assignment

The customer required a continuous 500 W power source that allows uninterrupted operation at height of 1700 m above sea level with minimal fuel consumption. Also, the system had to provide 72 hours of battery autonomy in case of failure of the diesel power unit and the use of solar panels as an alternative power supply.

#### Solution

Within 30 days, MEP employees drafted the project and converted the L8 ISO container into a hybrid power supply system. We insulated the standard ISO container with 120 mm thick mineral wool and made the necessary modifications to the structure. We also installed ELTEK Flatpack hybrid power supply system that combines power supply from diesel generators and solar panels and a battery set 48VDC with a capacity of 700 Ah. The hybrid system is equipped with automation for optimal operation that consumes a minimum amount of fuel.

---

*ROBUST SOLUTION FOR POWERING  
TELECOMMUNICATION EQUIPMENT ON 48VDC !*

---



#### OTHER

The system is equipped with remote monitoring via GSM / LTE router which allows you to monitor all parameters of the system as well as to set them up. Also, sensors for fuel level in the tank, fuel spill sensor, temperature measurement, ventilation, door opening and all operating parameters of the hybrid system are installed.

MPS1500W 48VDC hibrid



## SOLAR PANELS AND DIESEL ELECTRIC UNIT

Installed solar panels with a maximum power of 1500W are fixed to the roof of the container with a special substructure for harsh weather conditions. A professional SDMO diesel electric generator 6000VA with an external power start is installed, which enables operations in extreme conditions. It is equipped with a 500-liter fuel tank that allows system autonomy of up to 4 months without the need for refueling.

## OTHER

After testing at the factory and a successful takeover, the system was delivered to a location in Bosnia and Herzegovina. We expect the installation of equipment and commissioning during January 2021.

### Contact:

#### MEP d.o.o.

Kukuljanovo 344B  
51227 Kukuljanovo  
Croatia

T: +385 51 371 021

E: [info@mep.hr](mailto:info@mep.hr)

W: [www.mep.hr](http://www.mep.hr)

