

# KONČAR

## Hybrid Box

### Control System

KONČAR Hybrid Box is equipped with advanced control system.

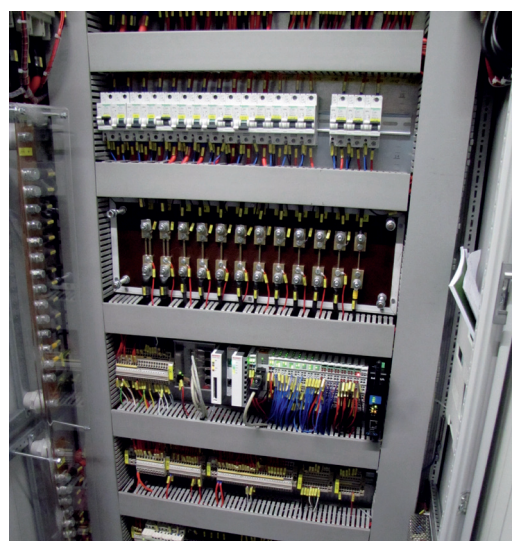
Control system is based on two levels. First one is software based control system which is realized through Programmable Logic Controller. Second one is hardware based control system realized through relays which ensures system fail safe state.

Energy coverage of more than 99.9% of Telecom equipment is realized using advanced control algorithm implemented in PLC used for controlling energy generation and consumption.

Complex algorithms for controlling Cooling and Heating system are applied to condition air inside container. This is alternative for expensive and low energy efficient air-conditioning systems.

In emergency cases control system brings KONČAR Hybrid Power Supply to safe state and sends alarm to supervisor.

Remote monitoring is realized through web application.



#### ENERGY COVERAGE

Control of PV  
energy generation

90%

+

Control of Wind  
energy generation

99%

+

Control of Fuel Cell  
energy generation

99.9%

+

Control of  
energy consumption

100%

## Placing Telecom Equipment

KONČAR Hybrid Box provides space for placing telecom equipment.

Cabinet is offering enough space for placing all telecom equipment of new generation, therefore is no need for additional outer cabinet.

KONČAR Hybrid Box is equipped with energy distribution board for all telecom equipment.

Accordingly to the project demands additional space for telecom equipment inside Končar Hybrid box can be provided.

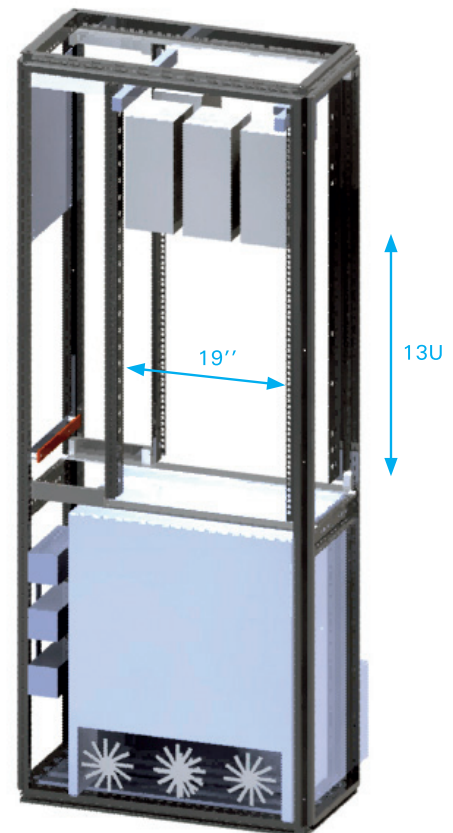


### Features for placing

- 19" rack, 13U space for telecom equipment
- Power distribution board for telecom equipment
- Power plug for backup external power supply (i.e. diesel generator)
- Aviator Light equipment
- Video surveillance equipment

### Additional features for placing

- Second / third 19" or 23" rack cabinet



**KONČAR**  
Electrical Engineering  
**INSTITUTE**

### Renewable Sources Section

Fallerovo šetalište 22, 10000 Zagreb, Croatia

Phone: + 385 1 3656 290

Fax: + 385 1 3666 377

E-mail: [hybrid@koncar-institut.hr](mailto:hybrid@koncar-institut.hr)

Web: [www.koncar-institut.com](http://www.koncar-institut.com)