

BESS 372

300 kW/372 kWh

Technical parameters

battery storage parameters

BATTERY STORAGE PARAMETERS	
Nominal AC power of the inverter - set	300 kW
Power factor (adjustable)	0.6 leading ÷ 1 ÷ 0.6 lagging
Nominal AC power of self-consumption (maximum)	15 kW
Power supply of self-consumption	3x230 / 400 V, 50 Hz
AC supply cable protection	1x 3ph. 00 A
Nominal voltage of the grid (phase-phase)	400 V
Grid voltage tolerance	±10%
Nominal frequency of the grid voltage	50 Hz
Installed battery capacity	372 kWh
DoD (Depth of Discharge)	> 90%
INVERTER	
Inverter type	MEGA0500
Nominal AC power of the inverter	550 kVA / 500 kW
Power factor (adjustable)	0.6 leading ÷ 1 ÷ 0.6 lagging
Nominal AC current	722 A
Nominal voltage of the grid (phase-phase)	400 V (3+PE)
Grid voltage tolerance	±10%
Nominal frequency of the grid voltage	50 Hz
i THD (total harmonic distortion)	3%
Maximum DC current	935 A
Voltage range	600 ÷ 900 V
Inverter efficiency - maximum	98.7%
Inverter cooling	controlled ventilation
Operating ambient temperature	-30 ÷ +55 °C
Dimensions (width x height - depth) and weight	1200x800-2050 mm, 950 kg
Protection IP21	
Battery rack type	R452280-P
Type of battery cells used	CATL prismatic 280 Ah
Battery cell technology	LFP
Connection of battery cells in a battery module	52 in series
Connection of battery modules in a battery rack	4 in series
Installed energy	186.36 kWh
Nominal DC voltage	665.6 V
Working range of DC voltage	582.4 ÷ 748.8 V
Maximum charging DC power	1P
Maximum discharging DC power	1P

CERTIFICATES AND STANDARDS



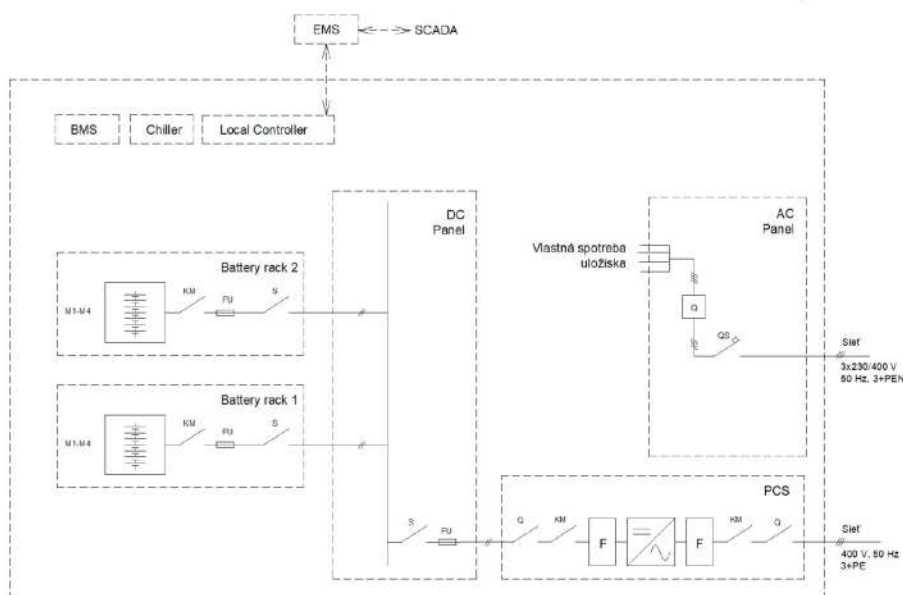
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Technical parameters

battery storage parameters

Connection of battery modules in the battery rack:	4 in series
Installed energy:	186.36 kWh
Nominal DC voltage:	665.6 V
Working range of DC voltage:	582.4 ÷ 748.8 V
Maximum charging DC power:	1P
Maximum discharging DC power:	1P
Charging method:	CC – CV
Energy storage efficiency (Round Trip DC Efficiency):	> 92%
Energy storage efficiency (Round Trip DC Efficiency):	> 92%
Dimensions (width x height - depth):	935 x 1310 - 1600 mm *
Weight:	1780kg *
Battery cooling: Ethylene glycol solution up to	50%
Protection:	IP20
Recommended operating temperature	15 ÷ 21 °C
Relative humidity during storage:	< 95%
Operating temperature - battery discharge:	0 ÷ 55 °C **
Expected number of cycles:	6000
Expected service life up to:	15 years

Schematic diagram of the repository



CERTIFICATES AND STANDARDS



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Specifications



Battery rack

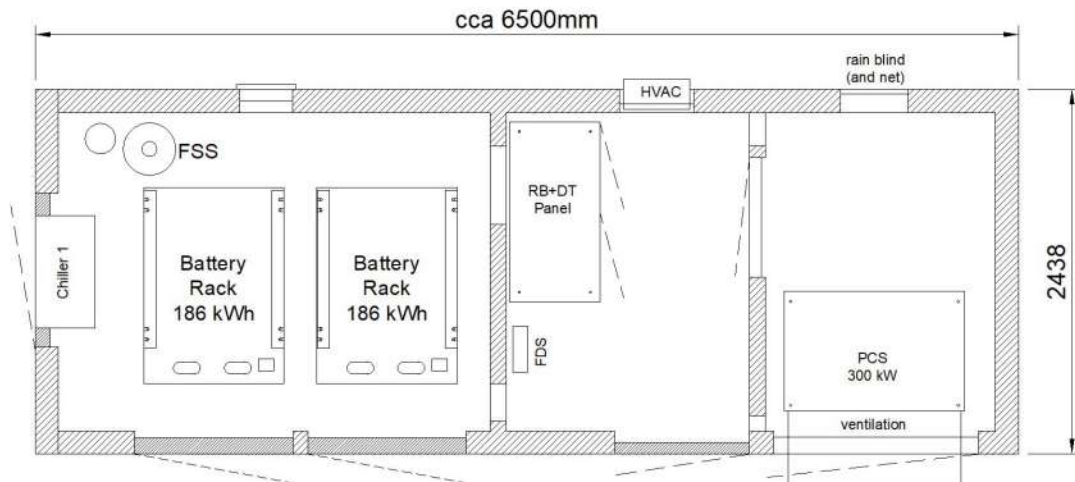
CATL battery rack (illustrative picture of the rack with 8 battery modules installed)
In the project, the battery rack will be equipped with 4 battery modules



Converter MEGA0500
(illustrative image)

Battery storage with an electrical power of 300kW and an installed battery capacity of 372kWh, consisting of:	
Container	1 ks
- Battery room	
- Switchgear room	
- Inverter room	
- Insulation	
- Electrical outlets	
- Power DC distributions, communication distributions, control, AC power	
Bidirectional inverter MEGA0500 500 kW	1 ks
Power and control switchgear RBD1 1	1 ks
- DC circuits, battery protection	
- UPS	
- BMS System	
- Local controller	
- AC/DC power supplies	
Battery rack CATL R452280-P (186.36 kWh)	2 ks
- Cooling with ethylene glycol solution	
Battery cooling system	1 set
- 1x chiller	
- fixtures	
- pipelines	
Battery storage monitoring (cloud access)	Yes
Commissioning and testing	
Commissioning and handover for use	Yes

Execution



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