

# Cubox 2.0








New generation of mobile energy storage power supply

TESS-500-838-LME



## Product Overview

The Cubox 2.0, a new generation of mobile energy storage power systems, helps operators significantly reduce fuel consumption and carbon emissions while delivering high performance, low noise, and minimal maintenance requirements. It utilizes high-density lithium-ion batteries and an efficient inverter system to achieve high-efficiency energy storage and output. Compared with traditional products, the Cubox 2.0 features a more compact structure, lighter weight, and a standard container-sized design for easy transportation. It is well-suited for noise-sensitive environments such as urban construction sites and telecom rental applications, and can also coordinate with diesel generators to optimize low-load operations.

-  The integrated, highly protective structural design meets the requirements for outdoor installation and long-term use.
-  High-density lithium iron phosphate battery system, supporting multiple sets to be used in parallel, covering a power range of 500kW~2MW;
-  The intelligent monitoring system integrates BMS and EMS for unified management and control, making it more intelligent and secure.
-  Integrated transportation, convenient installation, and suitable for various application scenarios;
-  Silent design, ideal for noise-sensitive environments;
-  Compatible with diesel generators and grid input, easily handling complex working conditions;
-  Intelligent human-computer interaction design, cloud technology support, remote maintenance and monitoring.



Model	TESS-500-838-LME
AC (grid connection)	AC (grid connection)
Single unit rated power	500kW
Rated charging power of a single unit	419kW
Rated discharge power of a single unit	500kW
Rated voltage	400 / 480 / 600 / 690V AC
Rated current	721 / 601 / 481 / 418A
AC system	3L / N / PE or 3L / PE
Voltage range	-15% ~ +10%
Rated frequency	50 / 60Hz
THDI	<3%(at rated power)
Power factor range	1(Leading) ~ 1(Lagging)
Overload capacity	110% overload (10 min), 120% overload (1 min)
AC (Offline)	
Rated power	500kW
Peak power of single unit discharge	600kW(60s)
Parallel rated discharge power	450kW
Peak power of parallel discharge	540kW(60s)
Rated voltage	400 / 480 / 600 / 690V AC
Rated current	721 / 601 / 481 / 418A
Rated frequency	50 / 60Hz
THDU	<3% (linear load)
DC (battery)	
Cell type	LFP 3.2V / 315Ah
Cell life	6000 times in 10 years
Grouping	416S2P
Charge/discharge rate	≤0.5P
Peak Discharge Rate	0.7P
Battery rated voltage	1331.2V
Battery voltage range	1123.2V ~ 1497.6V DC
Basic parameters	
Noise	<75dB
Protection level	IP54
Corrosion resistance level	C3
Operating temperature	-20 ~ 55°C
Fire extinguishing	Aerosol / Perfluorohexanone
Cooling method	Battery liquid cooling + PCS air cooling
Relative humidity	0 ~ 95%, non-condensing
Highest altitude	≤4000m (reduction in amount if exceeding 2000m)
Dimensions (WxDxH)	2991x2438x2896mm
Weight	≤11000kg
Certification	Battery: IEC61000-6-2/4, IEC62477-1, IEC62619, UL1973, UL9540A, UN38.3 PCS: IEC62477-1:2022, IEC 61000-6-2:2016, EN IEC 61000-6-2:2019, IEC 61000-6-4:2018, ENIEC 61000-6-4:2019, EN 50549-1:2019+A1:2023, EN 50549-2:2019+A1:2023
Communication	
Display	Touch screen
Communication interface	1RS485 + 1LAN + 1Dry Contact
Communication Protocol	Modbus TCP/RTU