

Cubox 2.0

New generation of mobile energy storage power supply

TESS-500-838-LME



Product Overview

Cubox, a new generation of mobile energy storage power supplies, helps operators significantly reduce fuel consumption and CO₂ emissions while providing high performance, low noise, and extremely low maintenance. Utilizing high-density lithium-ion batteries and a high-efficiency inverter system, it achieves efficient energy storage and output. Compared to traditional products, Cubox is more compact and lightweight, and its standard container size facilitates transportation. They are ideal for noise-sensitive environments such as construction sites in large cities, telecommunications leasing applications, and working in conjunction with generators to address low-load conditions.

 The integrated, highly protective structural design  meets the requirements for outdoor installation and long-term use.

 The intelligent monitoring system integrates BMS and EMS for unified management and control, making it more intelligent and secure.

 Silent design, ideal for noise-sensitive environments; 

 Intelligent human-computer interaction design, cloud technology support, remote maintenance and monitoring.

High-density lithium iron phosphate battery system, supporting multiple sets to be used in parallel, covering a power range of 500kW~2MW;

Integrated transportation, convenient installation, and suitable for various application scenarios;

Compatible with diesel generators and grid input, easily handling complex working conditions;



Model	TESS-500-838-LME
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	1164.8V ~ 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	Module liquid cooling + PCS air cooling
Relative humidity	0 ~ 95%, non-condensing
Highest altitude	<2000m (reduction in amount if exceeding 2000m)
Dimensions (W×D×H)	2991×2438×2896mm
Weight	≤11000kg
Certification	
Communication	Battery: IEC61000-6-2/4, IEC62477-1, IEC6219, 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
Display	Touch screen
Communication interface	1RS485 + 1LAN + 1 Dry Contact
Communication Protocol	Modbus TCP/RTU