

ESS-TT-KB-60KWH-M50K



**TOMMATECH STORAGE SYSTEM
CABINET-D60KWH-INVERTER-M50K
ESS-TT-KB-60KWH-M50K**



Rated power operation the maximum temperature of the battery is less than 40°C



Suitable for high rate cyclic charging and discharging scenarios



Combustible gas, smoke and temperature detection, system active exhaust, and fire alarm



EMS, hybrid inverter and BMS integrated technology, power supply redundancy design, support black start function, Off grid operation, etc



Lithium Iron Phosphate (LFP) Battery, The battery pack and system adopt an aerosol fire extinguishing solution

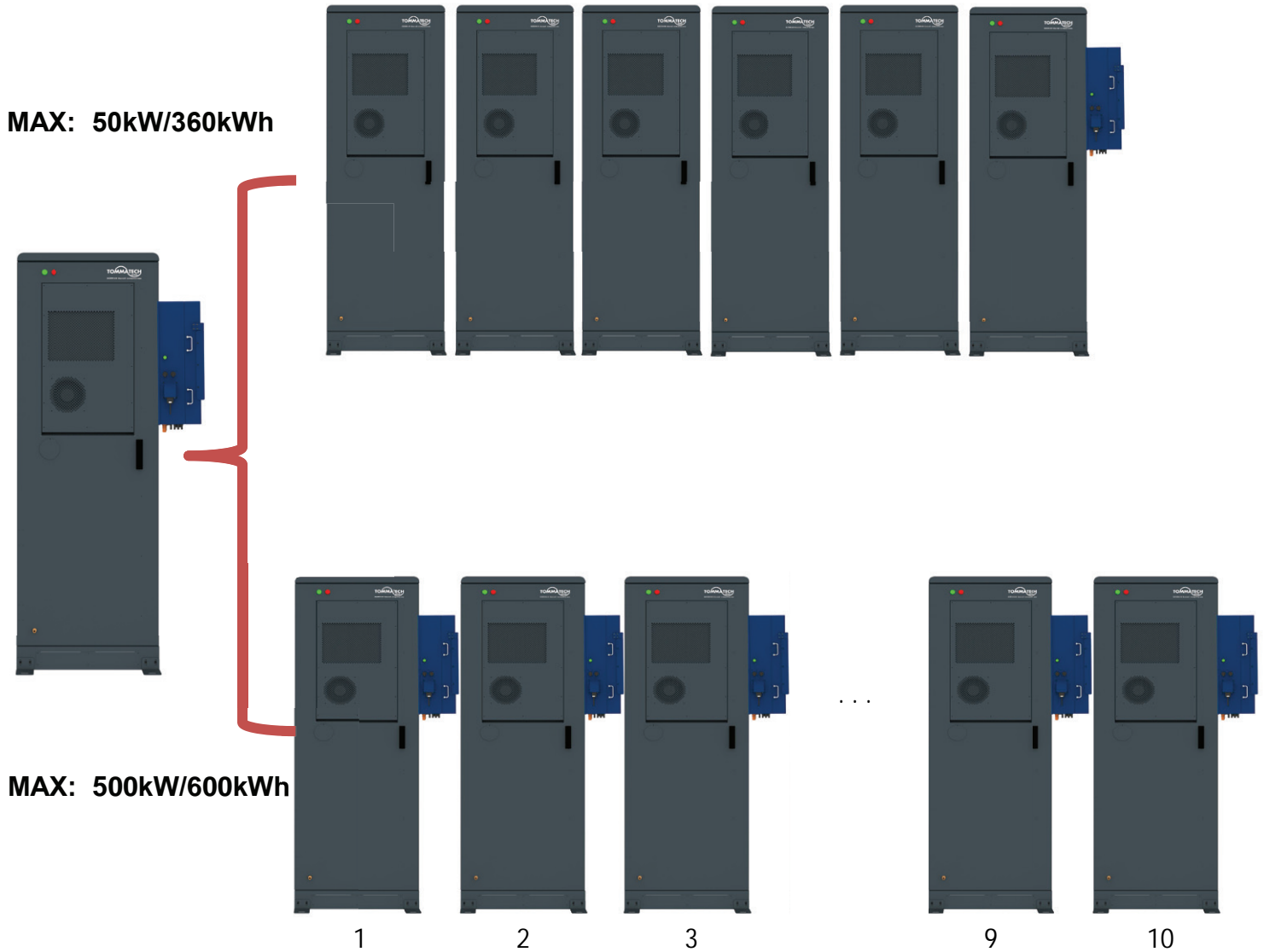


Supports battery expansion, with a maximum capacity of 360KWh

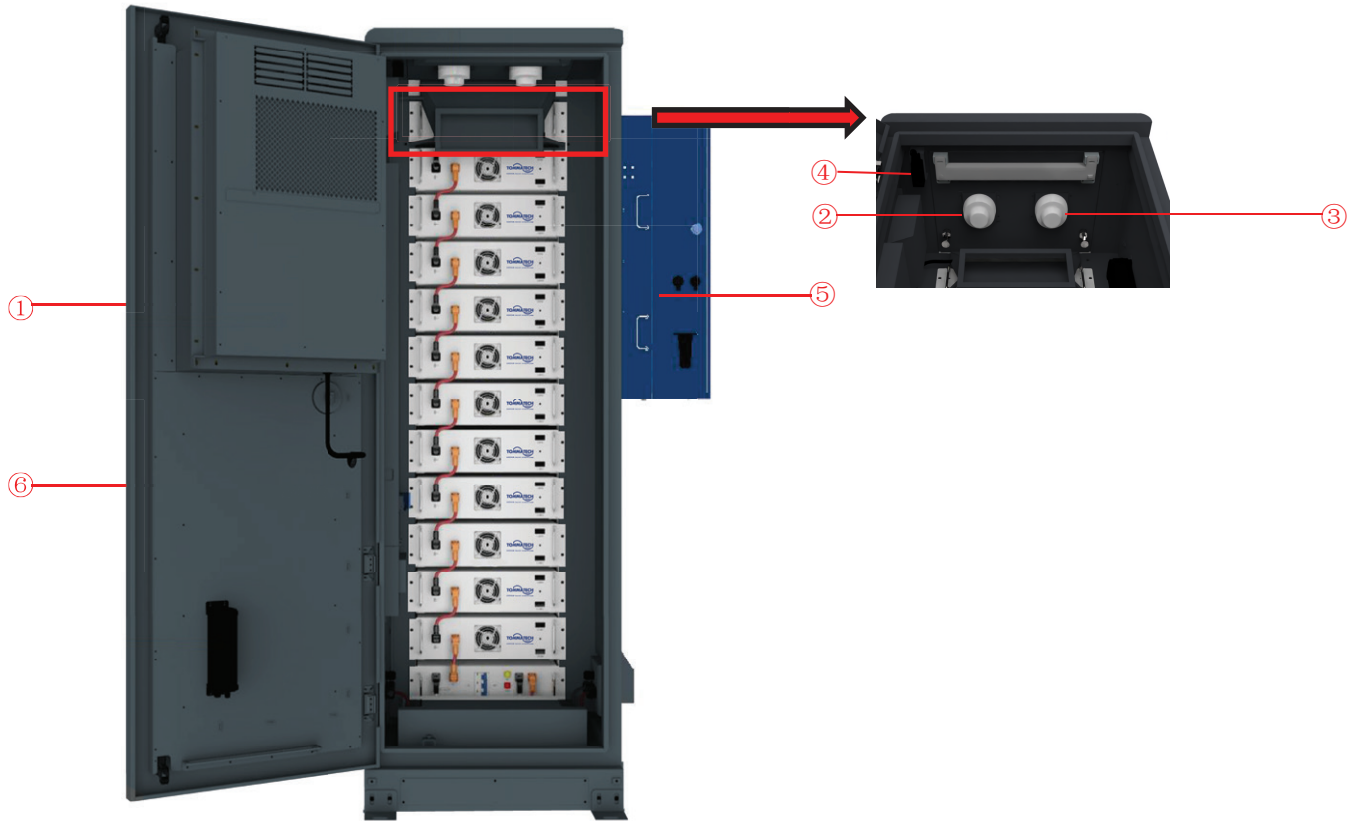
Technical Data

Model	ESS-TT-KB-60KWH-M50K
System Specification	
Nominal Output Power/UPS Power (W)	50000
AC Output Frequency and Voltage	50/60Hz; 3L/N/PE 220/380, 230/400Vac
Grid Type	Three phase
Energy Configuration (kWh)	61.4
Dimension (W x D x H,mm)	735x1050x2250 (no contain inverter)
Weight Appr. (kg)	950 (battery) +80 (inverter)
AC Output Rated Current (A)	75.8
Battery Operating Voltage (V)	500 ~ 700
Max. charging/discharging efficiency	91%
Battery Chemistry	LiFePO4
IP Rating of Enclosure	IP55
Installation Style	Floor-Mounted
Warranty	10 years
Inverter Technical Specification	
Max. PV Input Power (W)	65000
Max. PV Input Current (A)	36+36+36+36
Rated PV Input Voltage (Vdc)	600
Start Up DC Voltage (Vdc)	180
MPPT Voltage Range (Vdc)	150-850
Max. PV Short-circuit Current (A)	55+55+55+55
Number of MPPT	4
Peak Power (off grid)	1.5 time of rated power, 10s
Power Factor	0.8 leading to 0.8 lagging
THD	<3%
DC injection current (mA)	<0.5In
Display	LCD
Operating Temperature Range (°C)	-40~60(>45°C derating)
Relative Humidity	15% ~ 85% (No Condensing)
Dimension (W x D x H,mm)	527x294x894
Inverter Communication	CAN,RS485,WIFI,ETH
Safety EMC / Standard	IEC/EN 62109-1,IEC/EN 62109-2, IEC/EN 61000-6-1, IEC/EN 61000-6-2,IEC/EN 61000-6-3,IEC/EN 61000-6-4
Grid Regulation	VDE4105,IEC61727/62116,VDE0126,AS4777.2,CEI 0 21,EN50549-1, G98,G99,C10-11,UNE217002,NBR16149/NBR16150
Max. Efficiency	97.6%
MPPT Efficiency	99.9%
Battery Technical Specification	
Battery Module Nominal Voltage (V)	51.2
Battery Module Energy (kWh)	5.12
BMS Communication	CAN
Battery Module Dimension(W*D*H mm)	440x570x133
Battery Module Weight (kg)	44
Operating Temperature Range	Charge: 0~55°C / Discharge: -20°C~55°C
Cycle Life	≥6000(@25°C±2°C,0.5C/0.5C,70%EOL)
Battery Module Certification	CE, IEC62619, IEC62040, UN38.3

Product expansion

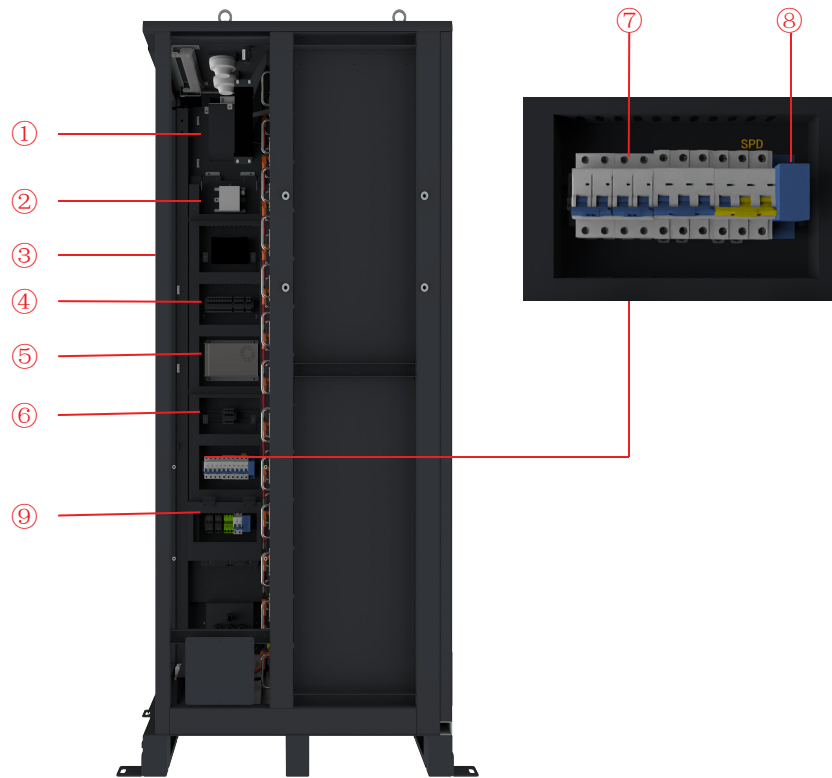


Product introduce



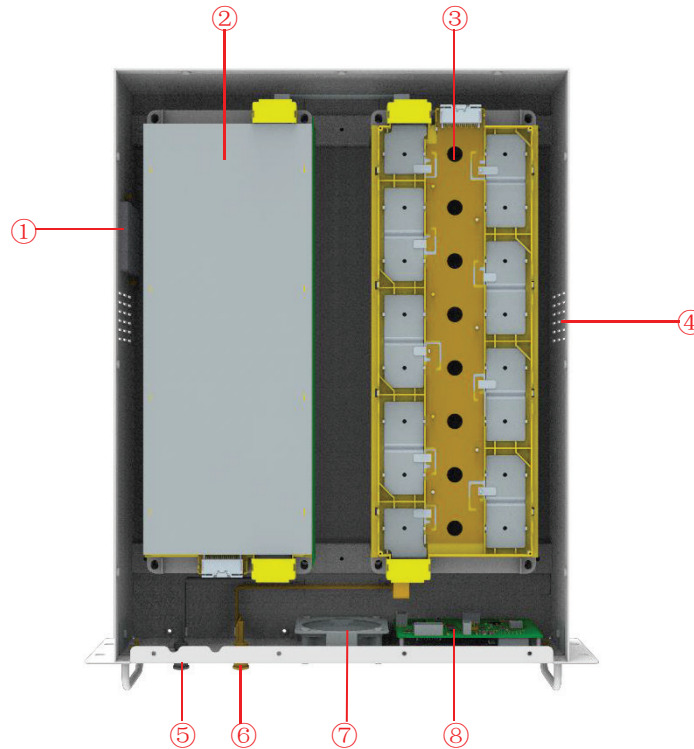
① Air conditioner	Cooling the ESS system
② Smoke detector	A device used to detect smoke in a fire and sound an alarm when smoke is detected.
③ Heat detector	A device used to measure temperature and sound an alarm if it detects excessive temperature.
④ Travel switch	Check whether the ESS system door is closed.
⑤ Inverter	A device that converts direct current generated by a battery into alternating current.
⑥ Aerosol fire extinguishing device	When the ESS is detected to be on fire, aerosol is emitted to extinguish the fire.

Product introduce



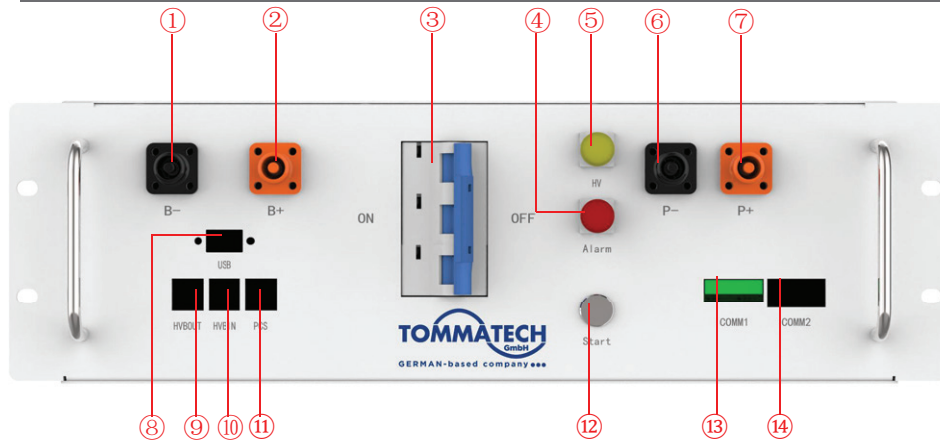
① Fan	Emission of combustible gas
② Combustible gas sensor	Detect combustible gases
③ Serial relay	Control system
④ Terminal line	For connecting cables
⑤ Switching Mode Power Supply	Power source
⑥ Temperature and humidity sensor	Used to measure ambient temperature and humidity
⑦ Miniature circuit breaker	Controlled power-on and power-off
⑧ Water immersion sensor	Check the ESS for water leakage
⑨ Terminal line	Connect external cables

Product introduce



① Aerosol fire extinguishing device	When the pack is detected to be on fire, aerosol is emitted to extinguish the fire.
② Battery module	Provides electrical energy storage and output
③ CCS	Cells Contact System
④ Air inlet	Cold air inlet
⑤ Battery negative-	/
⑥ Battery positive+	/
⑦ Fan	Promote internal and external air flow
⑧ BMU	Battery monitoring

Product introduce



① B-	Connection position of the common negative pole of the battery
② B+	Connection position of the common positive pole of the battery
③ Air switch	Used to manually control the connection between the battery rack and external devices
④ ALRM light indicator	Battery system fault alarm indicator
⑤ HV light indicator	High-voltage hazard indicator
⑥ PCS-	Connection position of PCS negative pole
⑦ PCS+	Connection position of PCS positive pole
⑧ USB	BMS upgrade interface and storage expansion interface
⑨ OUT COM	Connection position with next HVB-100A 750V communication output
⑩ IN COM	Connection position with previous HVB-100A750V communication input
⑪ PCS COM	Communication interface with charging and discharging equipment
⑫ START	A start switch of 12VDC power inside the high-voltage control box
⑬ COMM1	Communicative connection with the cabinet
⑭ COMM2	Communicative connection with the first battery module; and providing 12VDC power for the first battery module.