

M-ELV BattBank

MS-16K-U



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Key Features

Reliability

- Up to 10-year warranty
- IP66 protection rating
- No single point of failure impacts system operation
- Maintenance-free design

Safety

- Inherent safety: Extra-low voltage below 60 Vdc
- Passive safety: Fire suppression built into every pack
- Active safety: Multi-sensor intelligence and protection

Smart

- Inter-pack automatic balancing
- Fast commissioning with smart system
- Pack-level monitoring for rapid fault location

Efficiency

- >90.0% AC round-trip efficiency ^a

Scalability

- Max. stackable capacity: 112 kWh/cluster
- Modular design for scalable adaptation
- Maximum battery capacity with minimal footprint

Scenario-based

- Matrix phase control
- Compatible with all grid configurations



a. Measured under the following conditions: Single battery pack charged and discharged at a constant power of 5 kW at ambient temperature.

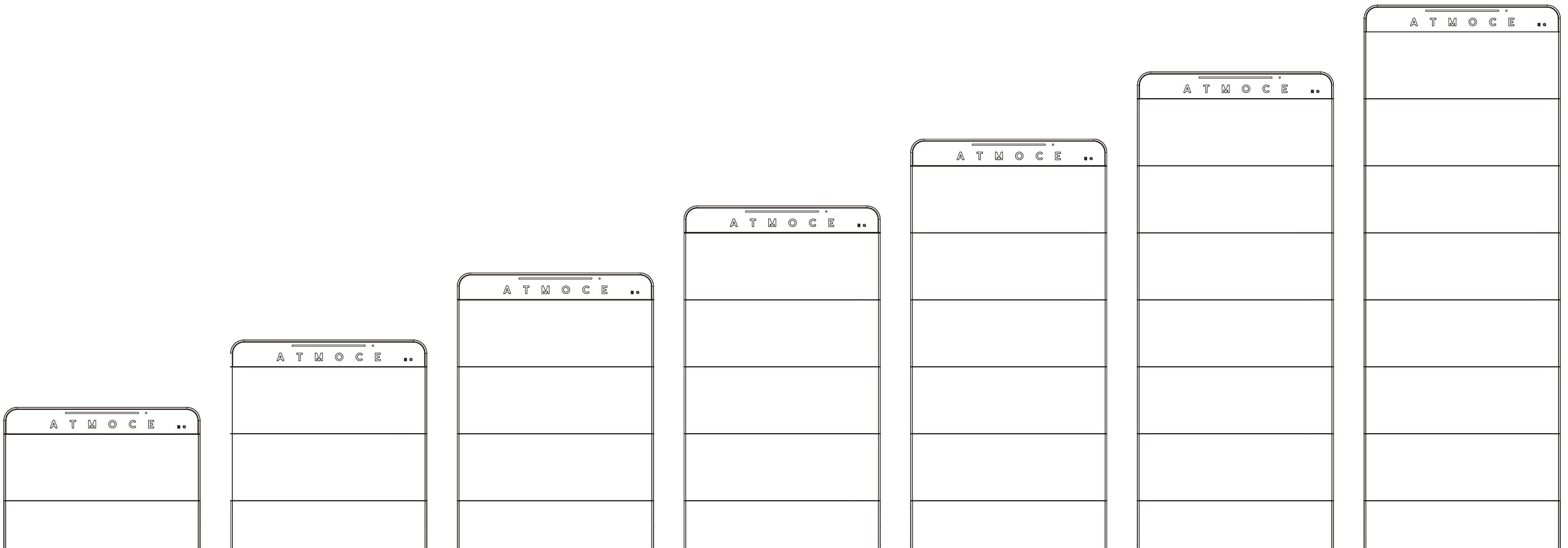
Items	Unit	MS-SCU-CNI ^b
General Data		
Indicator		LEDs for SOC & Status
Communication mode		FE, RS485, WLAN, Bluetooth, DI/DO
Cloud Service		ATMOCE Cloud & ATMOZEN APP
Communication interface		
FE		3 x RJ45
DRM		1 x RJ45
USB		1 x USB
COM		2 x RS485, 2 x DI, 1x 12V DO, 1 x NTC
Mechanical Data		
Weight	kg	8.5
Dimensions	mm	880 × 120 × 483 (W x H x D)

Items	Unit	MS-16K-U ^c
Performance Specification		
Rated Output Apparent Power	kVA	8
Max. Output Apparent Power	kVA	10
Rated Input Apparent Power	kVA	8
Nominal Voltage	V _{a.c.}	3/N/PE~220/380, 230/400, 240/415
Nominal Frequency	Hz	50 / 60
Frequency Range	Hz	45 to 55 @50 Hz, 55 to 65 @60 Hz
Max. Input Current	A	12.2 @ 380 Va.c., 11.6 @ 400 Va.c., 11.1 @ 415 Va.c.
Max. Output Current	A	15.2 @ 380 Va.c., 14.4 @ 400 Va.c., 13.9 @ 415 Va.c.
Peak Output Current (Off grid)	A	18.2 (10s)
Power Factor (On grid)		0.8 leading…0.8 lagging
Power Factor (Off grid)		1 leading…1 lagging
AC Round-Trip Efficiency	%	>90 ^a
THDi	%	<3.0
Battery Data		
Total Battery Capacity	kWh	16.08
Nominal Battery Capacity	Ah	314
Nominal DC Voltage	V	51.2
Max. DC Voltage	V	57.6
Chemistry		Lithium Iron Phosphate (LFP)
DC Round-Trip Efficiency	%	96 ^d
BMS		YES
System General Data		
Weight	kg	155
Stack Dimensions	mm	880 × 300 × 483 (W x H x D)
Mounting		Floor
Max. Stackbale Amount		7

b. MS-SCU-CNI: Stack Control Unit (SCU) Cap of M-ELV BattBank for C&I Application.
c. MS-16K-U: 16kWh M-ELV BattBank. Rated operating condition: In the on-grid scenario,100% depth of discharge (DoD), 0.5C rate charge & discharge at 25°C, and the AC output voltage is 400 Vac.
d. Measured under the following conditions: Single battery pack charged and discharged at a constant power of 0.2C.

Items	Unit	MS-16K-U ^c
Ambient Operating Temperature Range	°C	-30 to 55
Optimum Operating Temperature Range	°C	0 to 30
Storage Temperature	°C	-30 to 60
Protection Class		I
Ingress Rating		IP66
Cooling		Intelligent Air Cooling
Operating Humidity (RH)	%	4 to 100, Condensing
Altitude	m	Up to 3,000
Pollution Rating		PD3
Protection		
AC Port Overvoltage Class		III
AC Surge Protection		TYPE II
Galvanic Isolation		YES
Insulation Resistance Monitor		YES
Anti-Islanding Protection		YES
Standard Compliance		
Compliance		UN38.3, IEC 62619, IEC 61000-6-1/-2/-3/-4, IEC 63056, IEC 62477-1, IEC 62040-1, VDE- AR-E 2510-50, ISO 13849, DIN VDEV0124-100, VDE-AR-N 4105/4110, EN 50549-1, AS4777

Items	Unit	MS-ACCB-CNI ^e
Mechanical Data		
Weight	kg	36
Dimensions	mm	880 × 220 × 483 (W x H x D)
Ingress Rating		IP66
Cable diameter range	mm ²	35 to 50

Items	Unit							
Number of Battery Modules	pcs	1	2	3	4	5	6	7
Total Energy Capacity	kWh	16.08	32.16	48.24	64.32	80.40	96.48	112.56
Rated Input & Output Apparent Power	kVA	8	16	24	32	40	48	56
Max. Output Apparent Power	kVA	10	20	30	40	50	60	70
Total Weight	kg	199.5	354.5	509.5	664.5	819.5	974.5	1129.5
Total Height	mm	640	940	1240	1540	1840	2140	2440
Total Width	mm				880			
Total Depth	mm				483			

e. MS-ACCB-CNI: AC Connection Base of M-ELV BattBank for C&I Application.

*Installed side by side, the distance between two battery clusters should be greater than 350 mm.