

# ATMOCE

Data Sheet

## 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
- Air-cooled, maintenance-free design

## Safety

- The world's first AC stackable C&I battery
- 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% AC round-trip efficiency
- High-power instant discharge: 12 kW/pack (10s)
- Max. discharge power: 10 kW/pack
- Max. stackable capacity: 112 kWh/cluster

## Scalability

- Flexible expansion with minimal inventory and simplified design
- Modular design for easy transportation and scalable adaptation
- Maximum battery capacity with minimal footprint

## Scenario-based

- Matrix phase control
- Compatible with all grid configurations



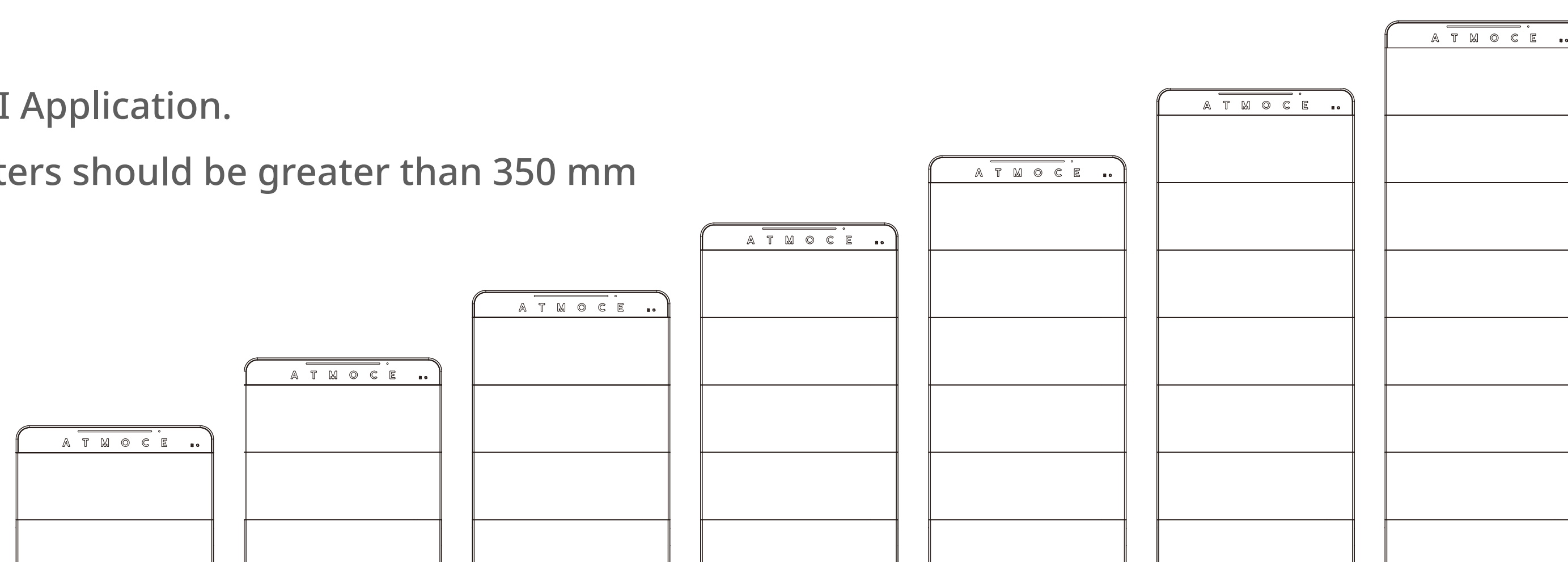
Items	Unit	MS-SCU-CNI <sup>a</sup>
<b>General Data</b>		
Indicator		LEDs for SOC & Status
Communication mode		FE, RS485, WLAN, Bluetooth, DI/DO
Cloud Service		ATMOCE Cloud & ATMOZEN APP
<b>Communication interface</b>		
FE		3 x RJ45
DRM		1 x RJ45
USB		1 x USB
COM		2 x RS485, 2 x DI, 1x 12V DO, 2 x AI,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

Items	Unit	MS-16K-U <sup>b</sup>
<b>Performance Specification</b>		
Rated Output Apparent Power	kVA	8
Max. Output Apparent Power	kVA	10
Rated Input Apparent Power	kVA	8
Nominal Voltage	V <sub>a.c.</sub>	3/N/PE~220/380, 230/400, 240/415, 254/440, 277/480
Operating Voltage Range (L to N)	V <sub>a.c.</sub>	176 to 305
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., 10.5 @ 440 Va.c., 9.6 @ 480 Va.c.
Max. Output Current	A	15.2 @ 380 Va.c., 14.4 @ 400 Va.c., 13.9 @ 415 Va.c., 13.1 @ 440 Va.c., 12.0 @ 480 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
THDi	%	<1.5
<b>Battery Data</b>		
Rated Battery Energy	kWh	16
Nominal Battery Capacity	Ah	314
Nominal DC Voltage	V	51.2
Max. DC Voltage	V	57.6
Chemistry		Lithium Iron Phosphate (LFP)
Number of Cycles		10,000
DC Round-Trip Efficiency	%	96
BMS		YES
<b>System General Data</b>		
Weight	kg	155
Stack Dimensions	mm	880 × 300 × 483 (W x H x D)
Mounting		Floor
Max. Stackbale Amount		7

Items	Unit	MS-16K-U <sup>b</sup>
Ambient Operating Temperature Range	°C	-30 to 55
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
<b>Protection</b>		
AC Port Overvoltage Class		III
AC Surge Protection		TYPE II
Galvanic Isolation		YES
Insulation Resistance Monitor		YES
Anti-Islanding Protection		YES
<b>Standard Compliance</b>		
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 <sup>c</sup>
<b>Mechanical Data</b>		
Weight	kg	35
Dimensions	mm	880 × 220 × 483 (W x H x D)
Ingress Rating		IP66
Cable diameter range	mm <sup>2</sup>	35 to 50

- a. MS-SCU-CNI: Stack Control Unit (SCU) Cap of M-ELV BattBank for C&I Application.
- b. MS-16K-U: 16kWh M-ELV BattBank.
- c. MS-ACCB-CNI: AC Connection Base of M-ELV BattBank for C&I Application.
- d. Installed side by side, the distance between two battery clusters should be greater than 350 mm



Items	Unit	1	2	3	4	5	6	7
Number of Battery Modules	pcs	1	2	3	4	5	6	7
Total Energy Capacity	kWh	16	32	48	64	80	96	112
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	202	357	512	667	822	977	1132
Total Height	mm	640	940	1240	1540	1840	2140	2440
Total Width	mm				880			
Total Depth	mm				483			

Disclaimer: Performance figures are obtained under specific testing conditions by ATMOCE's internal laboratory. These values are not guarantees, and actual performance is subject to variation depending on the final product design, software versions, user behavior, and the operational environment.