

ATMOCE

Data Sheet

M-ELV Battery

MS-7K-U/MS-7K16A-S



Key Features

Ultimate Safety

- <30 Vdc extra low voltage
- Lithium iron phosphate (LFP) chemistry
- Cell level management and optimization
- Galvanic isolation between battery and grid

Higher Power

- 90% AC round trip efficiency
- 3.75 kVA Max. continuous input power, 5 kVA Max. output power
- 126 kWh scalability^a

Flexibility & Adaptability

- One SKU for all 1-phase, 3-phase & stand alone installations
- AC coupling, compatible with 3rd-party PV and EMS systems
- Supports self-consumption, TOU and grid ancillary services modes

More Reliability

- 15-year warranty
- 10,000 cycles
- Electrolytic capacitors free



a. This value defines the maximum scalable capacity achievable with one M-Gateway.

Items	Unit	MS-7K-U	MS-7K16A-S
Electrical Parameters			
Max. Continuous Output Power	kVA	4.5	3.68
Max. Output Power	kVA	5	3.68
Max. Continuous Input Power	kVA	3.75	3.68
Nominal Voltage	V _{a.c.}	1/N/PE ~ 220, 1/N/PE ~ 230 3/N/PE ~ 220/380, 3/N/PE ~ 230/400	1/N/PE ~ 230
Operating Voltage Range (L to N)	V _{a.c.}	176 - 276	
Nominal Frequency	Hz	50 / 60	
Frequency Range	Hz	45-55 @50 Hz, 55-65 @60 Hz	
Max. Input Current	A	17.05 @ 220 V _{a.c.} , 5.70 @ 380 V _{a.c.} 16.30 @ 230 V _{a.c.} , 5.41 @ 400 V _{a.c.}	16.00 @ 230 V _{a.c.}
Max. Output Current	A	22.73 @ 220 V _{a.c.} , 7.58 @ 380 V _{a.c.} 21.74 @ 230 V _{a.c.} , 7.25 @ 400 V _{a.c.}	16.00 @ 230 V _{a.c.}
Power Factor (Adjustable)		0.8 leading~0.8 lagging	
AC Round-Trip Efficiency	%	90	
THDi	%	<3	
Battery			
Rated Battery Energy	kWh	7	
Nominal Battery Capacity	Ah	280	
Nominal DC Voltage	V	25.6	
Max. DC Voltage	V	28.8	
Chemistry		Lithium Iron Phosphate (LFP)	
Number of Cycles		10,000	
DC Round-Trip Efficiency	%	96	
80% of Initial Capacity after 10 Years		YES	
BMS		YES	
Mechanical data			
Dimensions (without Bracket)	mm	830 × 480 × 195 (H x W x D)	
Lifting Weight (without Bracket)	kg	73.5	
Mounting		Floor or Wall Mount	
Ambient Operating Temperature Range	°C	-20 to 55	
Optimum Operating Temperature Range	°C	0 to 30	
Storage Temperature	°C	-20 to 55	
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	
Operation Noise	dB	< 35	

Items	Unit	MS-7K-U	MS-7K16A-S
Protection			
AC Port Overvoltage Class			III
AC Surge Protection			TYP II
Galvanic Isolation			YES
Insulation Resistance Monitor			YES
Anti-Islanding Protection			YES
Features and Compliance			
Indicator		LEDs for SOC & Status	
Communication		CAN	
Services ^b		Self-Consumption, TOU, Grid Ancillary Services	
Cloud Service		ATMOCE Cloud & ATMOZEN APP	
Compliance		IEC 62619, ISO 13849, IEC 61000-6-1, IEC 61000-6-3, IEC 63056, IEC 62477-1, VDE- AR-E 2510-50	

b. Work together with ATMOCE Gateway.