ATMOCE

Data Sheet

M-ELV Battery

MS-8K-U / MS-8K-U Pro

Key Features

Reliability

- Up to 25-year warranty
- DAB-based AC architecture
- Up to 15,000-cycle LFP battery

Efficiency

- 90.0% AC round-trip efficiency[a]
- Up to 8 kWh capacity with 5 kW output
- Maximizes self-consumption Maximizes self-consumption

Safety

- Human-safe voltage under 30 V
- Built-in safe AC system, no DC arc
- Precision sensing, thermal control and fire suppression system

Scalability

- One SKU for all retrofit scenarios
- Compatible for 1-phase/3-phase/split-phase
- Compatible with 3rd-party PV systems

Smart

- Dynamic tariff optimisation
- VPP-ready architecture

Scenario-based

- Matrix phase control for higher self-consumption
- Backup power support

a. Measured under the following conditions: Charged and discharged at a constant power of 700 W at ambient temperature.

Items	Unit	MS-8K-U	MS-8K-U PRO
Electrical Parameters[b]			
Max. continuous output power	kVA	4.5	
Max. output power	kVA	5	
Max. continuous input power	kVA	4	
Nominal voltage	$V_{a.c.}$	1/N/PE ~ 220, 1/N/PE ~ 230 | 3/N/PE ~ 220/380, 3/N/PE ~ 230/400	
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. intput current	A	18.18 @ 220 Va.c., 6.08 @ 380 Va.c. 17.39 @ 230 Va.c., 5.77 @ 400 Va.c.	
Max. output current	A	22.73 @ 220 Va.c., 7.60 @ 380 Va.c. 21.74 @ 230 Va.c., 7.22 @ 400 Va.c.	
Power factor (on-grid)		0.8 leading···0.8 lagging	
Power factor (off-grid)		1.0 leading···1.0 lagging	
AC round-trip efficiency	%	90[a]	
THDi	%	<3	
Battery			
Rated battery energy	kWh	8	
Nominal battery capacity	Ah	314	
Nominal DC voltage	V	25.6	
Max. DC voltage	V	28.8	
Chemistry		Lithium iron phosphate (LFP)	
Number of cycles		10,000	15,000
DC round-trip efficiency	%	96[c]	
Mechanical data			
Dimensions (without bracket)	mm	830 × 480 × 195 (H x W x D)	
Lifting weight (without bracket)	kg	76.5	
Mounting		Floor or wall mount	
Ambient operating temperature range	℃	-30 to 55	
Optimum operating temperature range	℃	0 to 30	
Storage temperature	℃	-30 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	

b. On-site power limit settings can be configured in accordance with grid requirements.
c. Measured under the following conditions: Charged and discharged at a constant power of 0.2C.

Items	Unit	MS-8K-U	MS-8K-U PRO
Protection			
AC port overvoltage class		III	
AC surge protection		TYPE II	
Galvanic Isolation		YES	
Insulation resistance monitor		YES	
Features and compliance			
Indicator		LEDs for SOC & Status	
Communication		CAN	
Services[d]		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	

d. Work together with ATMOCE Gateway.

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