

High Power Type

12.5kWh Battery Module



- › Highly versatile air cooling module suitable for a wide range of applications
- › Exceptionally high power performance (Up to 6 C-rate)
- › High reliability and unparalleled safety
- › Long cycle and calendar life (Over 8,000 cycles and up to 15 years*)
- › Efficient thermal management via air vent holes
- › Easy to transport, install, and maintain
- › Modular design combined with high scalability
- › Highly intelligent BMS** for sophisticated system control and monitoring

*Depending on the load profile, the warranty condition may differ / **BMS: Battery Management System

System Configuration

Item	Specification	Remarks
Configuration	Up to 12 modules in series	Module + BPU + Fuse Box

Module Specification

Model: KBM-255P-F-20S-HP-85-125-IM-C

Item	Specification	Remarks	
Electrical			
Module Configuration	2P20S	Cell: 125255255G1H (85Ah)	
Installed Energy	12.5kWh	-	
Usable Energy	11.5kWh	@ 1P discharge, BOL	
Nominal Voltage	73.6Vdc	-	
Operating Voltage Range	66.0~82.6Vdc	-	
Max. Charge Power	25.0kW	@ 2P, 1 Cycle	
Max. Charge Current	340A	@ 2C, 1 Cycle	
Rated Charge Power	12.5kW	@ 1P	
Rated Charge Current	170A	@ 1C	
Peak Discharge Power	75.0kW	@ 6P, ≤10 sec, ≥SOC 50%	
Peak Discharge Current	1,020A	@ 6C, ≤10 sec, ≥SOC 50%	
Max. Discharge Power	37.5kW	@ 3P, 1 Cycle	
Max. Discharge Current	510A	@ 3C, 1 Cycle	
Rated Discharge Power	12.5kW	@ 1P	
Rated Discharge Current	170A	@ 1C	
Round Trip DC Efficiency	>95%	@ 1P, BOL	
Control Power	DC 73V Internal Power	-	
Mechanical			
Dimension	310 (W) x 687 (D) x 318 (H) mm	± 2mm	
Weight	Approx. 93kg	-	
Communication			
Communication Interface	Ethernet/RS-485/CAN2.0B	ModBus TCP/ModBus RTU	
Monitoring	RS-232C	-	
Environment			
Operating Temperature	Charging	0 ~ 10°C	@ <0.2P
		10 ~ 35°C	@ <2P
		35 ~ 45°C	@ <1P
	Discharging	0 ~ 55°C	-
Operating Temperature		22 ~ 28°C	Recommended
Storage Humidity		<60 ± 25% RH	Non-condensing
Storage Temperature	1 Year	-20 ~ 25°C	SOC 50 ± 5%
	6 Months	25 ~ 35°C	
	3 Months	35 ~ 45°C	
	< 1 Week	45 ~ 60°C	
Expected Cycle & Calendar Life**			
Cycle Life @ DoD 90%	≥6,000 cycles	@ 25±3°C, 1C/1C, SOH 70%	
Cycle Life @ DoD 80%	≥8,000 cycles	@ 25±3°C, 1C/1C, SOH 70%	
Calendar Life	Up to 15 years	-	
Certification			
Certification	U1642, CB, UN38.3	@ Cell Level	
	UL1973	@ Cell Level, Available by 3Q 2020	
	UL9540A	@ Cell Level, Available by 4Q 2020	

*P : Power-rate / C : Current-rate

**Depending on the load profile, the warranty condition may differ

BPU Specification

Model: MS-BU-A035-IS-A

Item	Specification	Remarks
General		
Embedded Safety Devices	String BMS, Switch Disconnecter, contactor, etc.	Fuse box is provided separately
Electrical		
Input Supply Power	AC 220V External Power	100~260Vac
On/ Off Management	Manual Switch	-
String BMS self-consumption	<3.6W	-
Switch Disconnect	1,100Vdc	-
Operating Max. Current	500A	-
Mechanical		
Dimension	490 (W) x 450 (D) x 285 (H) mm	± 5%
Weight	32kg	± 5%
IP Grade	20	-
Communication		
Communication Interface	Ethernet/RS-485/CAN2.0B	ModBus TCP/ModBus RTU
Monitoring	RS-232C	-

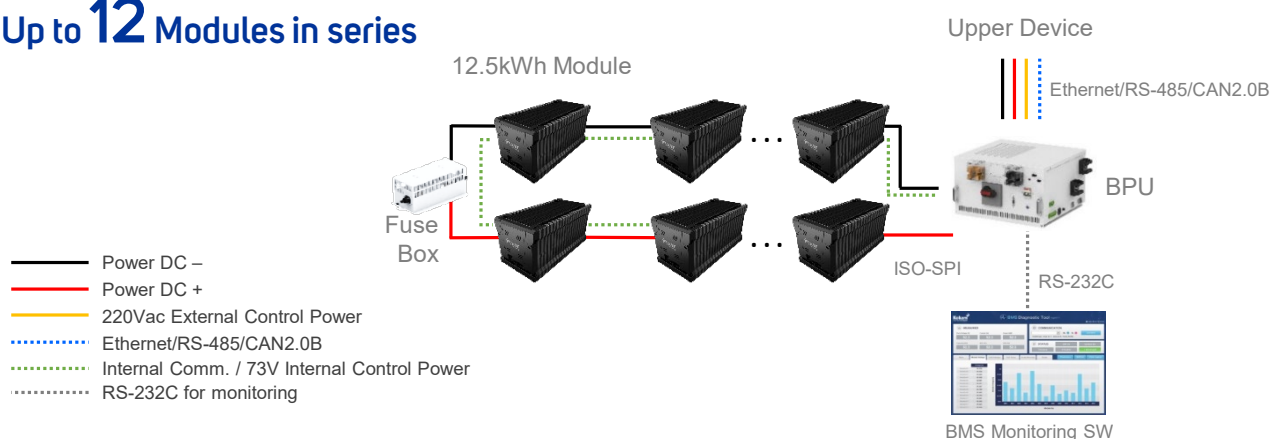
*The BPU does not support parallel connection

Fuse Box Specification

Model: MA-HI-A003

Item	Specification	Remarks
Electrical		
Rated Voltage	1,100Vdc	-
Rated Current	500A	-
Rated Breaking Capacity	47kA for DC	-
Mechanical		
Dimension	390 (W) x 195 (D) x 152 (H) mm	± 2mm, excluding connectors
Weight	Approx. 5kg	-
IP Grade	20	-

Up to 12 Modules in series



*The products above are references. The actual products may look different.

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