

Product Info



Efficient, Scalable and Flexible

- Advanced thermal management and SOC balancing guarantees increased efficiency and extended battery cycle life.
- Advanced control algorithm allows for pure AC sinewave output while minimizing harmonic distortion.
- The modular design facilitates parallel connection and straightforward system expansion.
- Outdoor cabinets with IP54 and above for enhanced protection.

Competitive Pricing

- Smart energy management to lower operational costs.
- Optimized performance and increased energy efficiency to ensure max run time and higher power per volume ratio.

Seamless Installation and Operation

- Fully pre-assembled, eliminating the need for on-site battery module handling.
- Installation to commissioning can be completed quickly -- simply place it on a pad and establish electrical connections.
- Seamless transition from Grid-Following (GFL) to Grid-Forming (GFM).
- Being agnostic to battery chemistry provides the flexibility to select various chemistries tailored to specific applications.





Safe and Reliable

- Multi level battery protection layers provided by local and main controllers increases system's fault tolerance
- Predictive maintenance and remote monitoring to proactively address issues and minimize downtime.
- UL 1741-SA/SB, IEC 62109, and CE recognized



BESS M-Series


Product Info


	US	US	US	Europe
				
Model	BESS-M-50kW-48kWh-240 [Kit]	BESS-M-75kW-73kWh-208 [Kit]	BESS-M-150kW-147kWh-480V [Kit]	BESS-M-135kW-132kWh-400V [Kit]
Voltage	240 V	208 V	480 V	400 V
Max AC Current	180 A	180 A	180 A	180 A
Phase	1	3	3	3
AC Output Power	50 kW	75 kW	150 kW	135 kW
Phase	1	3	3	3
Qty PMM per Phase	5	5	10	9
Total PMM	10	15	30	27
Overload	115% for 60 seconds			
Power Factor	Full four quadrant inverter (-1 to 1)			
Frequency	60 (+/- 5%) Hz			
Total harmonic distortion	< 3%			
Max Peak Efficiency	97.50%			


The M-Series employs “first-of-its-kind” multi-level cascade (MLC) topology that builds up the output voltage. This world-class technology provides the best synergy between modules and power electronics allowing higher performance and efficiency that reduces the levelized cost of energy (LCOE).




M-Series is based on 48 V battery modules that has four (4) fundamental components:

Power Management Unit 	Description	Value	Unit	
	Battery Module Input			
	DC Voltage Range	0-58	V	
	DC Current Max	117	A	
	PMU Output			
	AC Voltage RMS	0—43	V	
	AC Current RMS	180	A	
	Ground Voltage	550	V	
	General Data			
	Dimensions (in/mm) L x H x D	1U	19 • 1.71 • 11.5 / 483 • 44 • 292	
Number of DC Input	2			

Coupling Unit 	Description	Value	Unit	
	General Data			
	Voltage Application	120-240	V	
	Current	180	A	
	Fuses	225	A	
	Terminals	2P / 3 W		
	Dimensions (in/mm) L x H x D	5U	19 • 8.72 • 21 / 483 • 222 • 533	
	General Data			
	Voltage Application	208—480	V	
	Current	180	A	
Fuses	225	A		
Terminals	3P / 4 W			
Dimensions (in/mm) L x H x D	8U	19 • 14 • 21 / 483 • 356 • 533		

Main ECU 	Description	Value	Unit	
	General Data			
	Dimension (in/mm) L x H x D	1U	19 • 1.71 • 7.22 / 483 • 44 • 183	
	Communication	Serial, Ethernet	/	
Applications	Microgrid (back-up power), black start, seamless transition, ancillary services, pure AC sinewave, synthetic inertia, functional safety			

Interphase Balancing 	Description	Value	Unit	
	General Data			
	Dimension (in/mm) L x H x D	3U	19 • 7 • 18.4 / 483 • 178 • 470	
	Communication	Serial, Ethernet		
Applications	Interphase balancing			

