

			Title		
			System Interface Specification (1.11MWh MEGA BESS)		
	RESPONSIBLE	DATE	SIZE	DOCUMENT NO.	REV
AUTHORS			A4	P400-5112	00
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MANUAL CHANGE PROHIBITED				SHEET 1 OF 4	

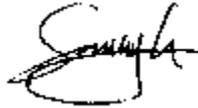
System Interface Specification

1.11MWh MEGA BESS Battery System

Customer	Approved

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1. Container String Parameters

Specific parameters for the Pack are detailed in the chart below

Parameter	Units	Specification	Note
Cell	Ah	60	ETI123100302 E60A
Series	N/A	336	One String
Parallel	N/A	3	One String
Cell Voltage			
Max	V	4.2	At 100% SOC
Nom	V	3.7	At 50% SOC
Min	V	2.7	At 0% SOC
Cell Capacity			
Rated	Ah	60	From cell specification
Minimum	Ah	58.8	From cell specification
String Configuration			
Cell Element	Module	84	element contains 12 cells (4s3p)
String Capacity (BOL)			
Rated	Ah	180	Calculated based on cell capacity
Minimum	Ah	176.4	Calculated based on cell minimum capacity
String Capacity (EOL)			
Rated	Ah	126	Estimated at 70%
Minimum	Ah	123.48	Calculated based on cell minimum capacity with estimated at 70%
String Voltage			
Max	V	1411.2	Determined at maximum Pack voltage
Nom	V	1243.2	Determined at nominal Pack voltage
Min	V	907.2	Determined at minimum Pack voltage
String Energy			
Rated	kWh	223.77	Calculated value based on rated system capacity
Minimum	kWh	219.30	Calculated value based on minimum capacity
Usable (typical)	kWh	134.26	Estimated energy between 20% and 80% SOC, de-rated specific to system application
Usable (max)	kWh	190.20	Estimated energy between 10% and 95% SOC, de-rated specific to system application
String Discharge Power			
Continuous	kW	55.94	At nominal system voltage (45A*1243.2)
Max	kW	111.88	At nominal system voltage (90A*1243.2)
Peak	kW	N/A	-
String Charge Power			
Continuous	kW	55.94	At nominal system voltage (45A*1243.2)
Max	kW	111.88	At nominal system voltage (90A*1243.2)
Peak	kW	N/A	-
String Discharge Current			
Continuous	A	45	Continuous between 20% and 100% SOC, specific to system application
Max	A	90	Continuous between 20% and 100% SOC (system maximum continuous)
Peak	A	N/A	-
String Charge Current			

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Parameter	Units	Specification	Note
Continuous	A	45	Continuous between 0% and 80% SOC, specific to system application
Max	A	90	Continuous between 0% and 80% SOC (system maximum continuous)
Peak	A	N/A	-
Container Specification			
Mass	kg	TBD	Approximate calculated value
Battery Shelf Life	years	5	Continuous between 20% and 80% SOC
Operating Temperature/Humidity			
Max	% RH	85	Range (cell min/max)
Min	% RH	45	Range (cell min/max)
Max	Degrees °C	55	Zero Current Limited Above Max Operating Temp
Min(Discharge)	Degrees °C	(-)20	Zero Current Limited Below Min Operating Temp
Min(Charge)	Degrees °C	0	Zero Current Limited Below Min Operating Temp
Storage Temperature	Degrees °C	0 to 25 ≤1year	Range (cell min/max)
		0 to 45 ≤3Month	Range (cell min/max)
		-30 to 60 ≤1Month	Range (cell min/max)
1.11 MWh Container Parameter			
String	ea	5	One container contains 5 strings connected in parallel.
Rated	MWh	1.11	Calculated value based on rated system capacity
Minimum	MWh	1.09	Calculated value based on minimum capacity
Usable (typical)	kWh	671.32	Estimated energy between 20% and 80% SOC, de-rated specific to system application
Usable (max)	kWh	951.04	Estimated energy between 10% and 95% SOC, de-rated specific to system application

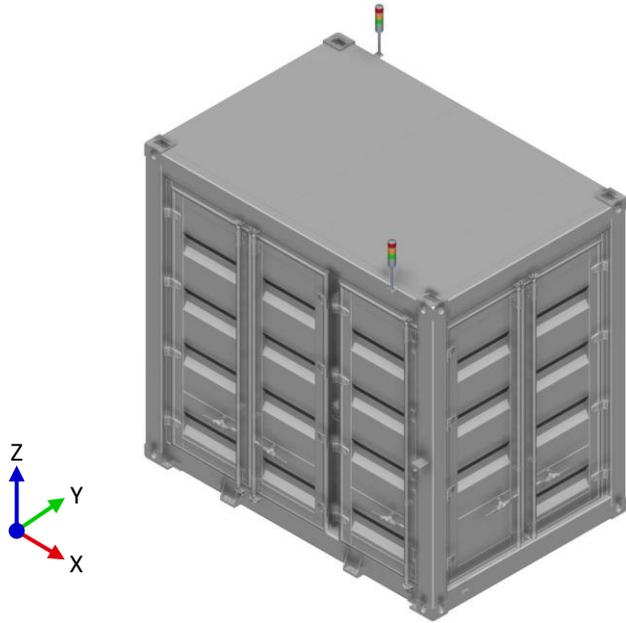
※ **Total MEGA BESS specification**

Battery Capacity : 3.35MWh or 2.23MWh(1.11MWh Container x 3ea or 2ea)

Table 1 - Product Technical Specifications

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2. Mechanical Drawings



Parameter	Unit	Value
X Dimension	mm	3,050
Y Dimension	mm	2,050
Z Dimension	mm	2,907
Mass	Ton	TBD

Figure 1 Container Outline Drawing