			Title		
			12S2P Module Interface Specification (ME600-050)		
	RESPONSIBLE	DATE	SIZE	DOCUMENT NO.	REV
AUTHORS			A4	P300-5085	00
USER					
RELEASE			MANUAL CHANGE PROHIBITED		SHEET 1 OF 4

12S2P Module Interface Specification


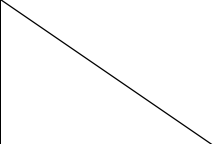
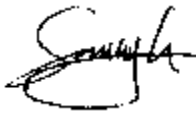
ME600-050, 44.4V, 60Ah

Enertech International, Inc.

269, Chungjuhosu-ro, Chungju-si, Chungcheongbuk-do, Korea

TEL: 82-43-850-1803 FAX: 82-43-855-9172

<http://www.enertechint.com>

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1. Battery System Parameters

Specific parameters for the battery system blocks are detailed in the chart below

Parameter	Units	Specification	Note
Cell	Ah	30	SPB58253172V4
Series	n/a	12	One Module
Parallel	n/a	2	One Module
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	30	From cell specification
Battery Configuration			
Cell Element	Cell	24	element contains 24 cells (12s2p)
Battery Capacity (BOL)			
Theoretical	Ah	60	Calculated based on cell capacity
Rated	Ah	-	Estimated when C/3 rate is used to determine capacity; current taper applied at end of charge
Battery Capacity (EOL)			
Theoretical	Ah	42	Estimated at 70%
Battery Voltage			
Max	V	50.4	Determined at maximum cell voltage
Nom	V	44.4	Determined at nominal cell voltage
Min	V	32.4	Determined at minimum cell voltage
Battery Energy			
Theoretical	kWh	2.66	Calculated value based on theoretical system capacity
Rated	kWh	-	Calculated value based on rated system capacity
Usable (typical)	kWh	-	Estimated energy between 20% and 80% SOC, de-rated specific to system application
Usable (max)	kWh	-	Estimated energy between 8% and 90% SOC, de-rated specific to system application
Battery Discharge Power			
Continuous	kW	0.111	At nominal system voltage (30A*3.7V)
Max	kW	0.555	At nominal system voltage (150A*3.7V)
Peak	kW	-	At nominal system voltage (system/cell peak, duration less than 10s)
Battery Charge Power			

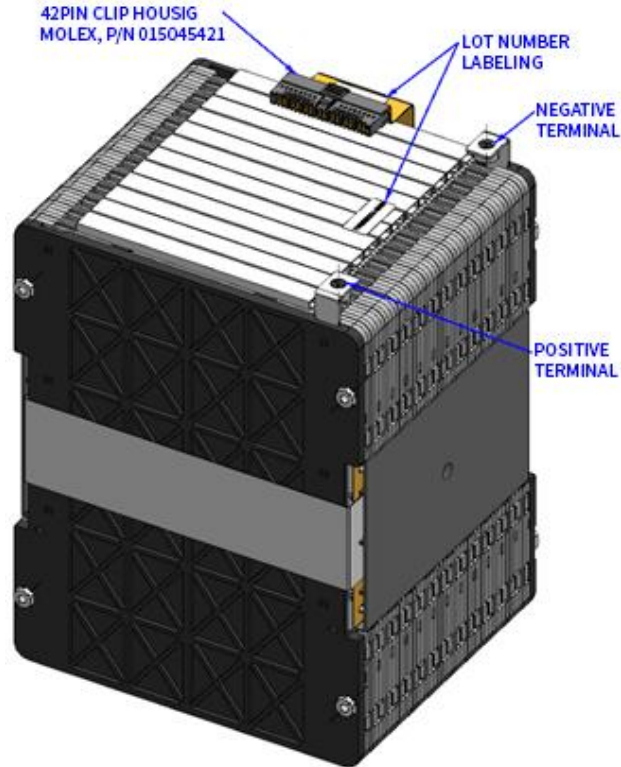
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Parameter	Units	Specification	Note
Continuous	kW	0.111	At nominal system voltage (30A*3.7V)
Max	kW	0.370	At nominal system voltage (100A*3.7V)
Peak	kW	-	At nominal system voltage (system/cell peak, duration less than 1s)
Battery Discharge Current			
Continuous	A	30.0	Continuous between 20% and 100% SOC, specific to system application
Max	A	150.0	Continuous between 20% and 100% SOC (system maximum continuous)
Peak	A	-	Between 20% and 100% SOC (system/cell maximum surge, duration less than 1s)
Battery Charge Current			
Continuous	A	30.0	Continuous between 0% and 80% SOC, specific to system application
Max	A	100.0	Continuous between 0% and 80% SOC (system maximum continuous)
Peak	A	-	Between 0% and 80% SOC (system/cell maximum surge, duration less than 10s)
Mass	kg	14.5	Approximate calculated value
Battery Shelf Life	years	5	Continuous between 20% and 80% SOC
Cell Balancing	Type	-	BMS Temperature Diagnostics
Thermal Management	Type	-	BMS Current Limited above normal cell operating temperature
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	(-)20 to 25 <1year	Range (cell min/max)
Pre-Charge	Type	-	HV Load Capacitance protection
GFD	n/a	-	BMS Isolated Diagnostics
EPO	n/a	-	Emergency Power OFF (interlock)

Table 1 Product Technical Specifications

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2. Mechanical Drawings



Parameter	Unit	Value
X Dimension	mm	178.0
Y Dimension	mm	198.0
Z Dimension	mm	266.3
Mass	kg	14.5
Volume	liter	9.38

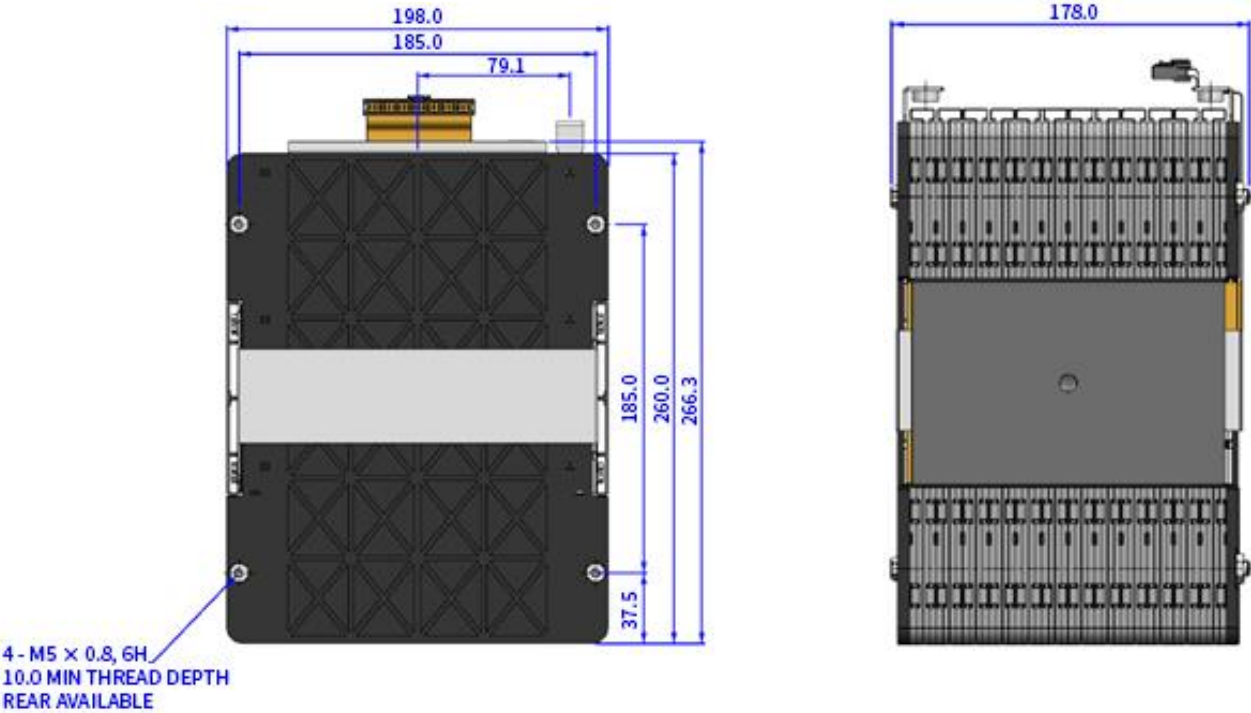


Figure 1 Pack Outline Drawing