			Title		
			System Interface Specification (PE500-705)		
	RESPONSIBLE	DATE	SIZE	DOCUMENT NO.	REV
AUTHORS			A4	P300-5060	00
USER					
RELEASE			MANUAL CHANGE PROHIBITED		SHEET 1 OF 4

System Interface Specification


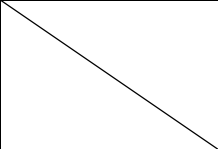
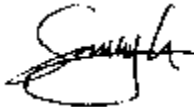
PE500-705, 20.0kWh

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
Pack Cell Configuration:	each	2	SPB58253172V3
Series	n/a	168	One battery pack
Parallel	n/a	2	One battery pack
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	25	From cell specification
Battery Configuration			
Cell Modules	Modules	14	Each cell module contains 24 cells (12s2p)
Battery Capacity (BOL)			
Theoretical	Ah	50	Calculated based on cell capacity
Rated	Ah	32.8	Estimated when C/3 rate is used to determine capacity; current taper applied at end of charge
Battery Capacity (EOL)			
Theoretical	Ah	25.6	Estimated at 80%
Battery Voltage			
Max	V	705.6	Determined at maximum cell voltage
Nom	V	621.6	Determined at nominal cell voltage
Min	V	453.6	Determined at minimum cell voltage
Battery Energy			
Theoretical	kWh	31.0	Calculated value based on theoretical system capacity
Rated	kWh	20.1	Calculated value based on rated system capacity
Usable (typical)	kWh	11.8	Estimated energy between 20% and 80% SOC, de-rated specific to system application
Usable (max)	kWh	16.1	Estimated energy between 8% and 90% SOC, de-rated specific to system application
Battery Discharge Power			
Continuous	kW	49.1	At nominal system voltage (80A*613.2V)
Max	kW	98.1	At nominal system voltage (160A*613.2V)
Peak	kW	150.2	At nominal system voltage (system/cell peak, duration less than 1s) : 245A*613.2V
Battery Charge Power			

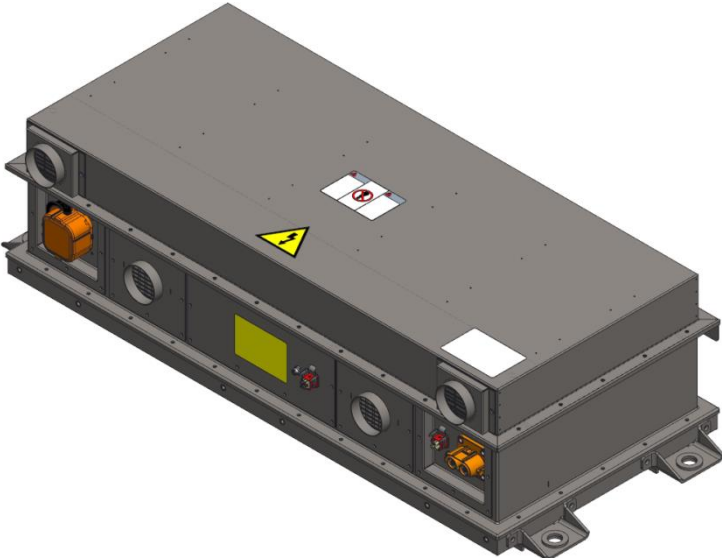
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Parameter	Units	Specification	Note
Continuous	kW	49.1	At nominal system voltage (80A*613.2V)
Max	kW	98.1	At nominal system voltage (160A*613.2V)
Peak	kW	150.2	At nominal system voltage (245A*613.2V)
Battery Discharge Current			
Continuous	A	80	Continuous between 15% and 100% SOC, specific to system application
Max	A	160	Continuous between 15% and 100% SOC (system maximum continuous)
Peak	A	250	Between 15% and 100% SOC (system/cell maximum surge, duration less than 10s)
Battery Charge Current			
Continuous	A	80	Continuous between 0% and 80% SOC, specific to system application
Max	A	160	Continuous between 0% and 80% SOC (system maximum continuous)
Peak	A	250	Continuous between 0% and 70% SOC (system maximum continuous)
Mass	kg	340	Approximate calculated value
Battery Shelf Life	years	5	Continuous between 20% and 80% SOC
Cell Balancing	Type	Dissipative	BMS Temperature Diagnostics
Thermal Management	Type	Limit Controlled	BMS Current Limited above normal cell operating temperature
Operating Temperature/Humidity			
Max	% RH	85	Range (cell min/max)
Min	% RH	45	Current Limited Above Normal Operating Temp
Max(Discharge)	Degrees °C	55	Zero Current Limited Above Max Operating Temp
Min(Discharge)/(Charge)	Degrees °C	(-)25	Zero Current Limited Below Min Operating Temp
Storage Temperature	Degrees °C	(-)40 to 25 <1year	Range (cell min/max)
Pre-Charge	Type	Internal	HV Load Capacitance protection
GFD	n/a	Enabled	We should have a possibility to activate/deactivate the option by CAN BUS message.
EPO	n/a	Enabled	Emergency Power OFF (interlock)

Table 1 Product Technical Specifications

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2. Mechanical Drawings



Parameter	Unit	Value
X Dimension	mm	1405
Y Dimension	mm	651
Z Dimension	mm	384
Mass	kg	320
Volume	liter	351

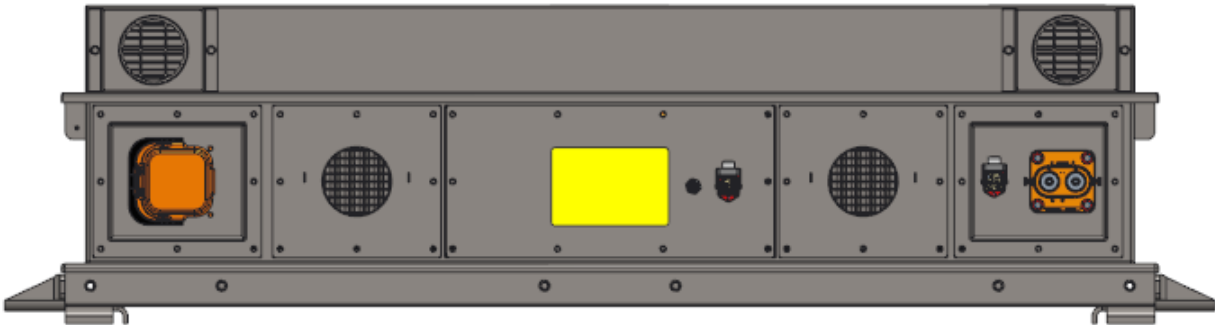


Figure 1 Pack Outline Drawing