			Title		
			System Interface Specification (MP412300-2107010-10)		
	RESPONSIBLE	DATE	SIZE	DOCUMENT NO.	REV
AUTHORS			A4	P300-5069	00
USER					
RELEASE			MANUAL CHANGE PROHIBITED		SHEET 1 OF 4

# *System Interface Specification*


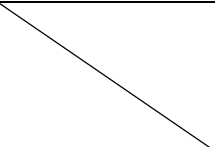
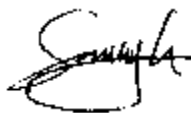
**MP412300-2107010-10\_5.1kWh**

**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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TITLE	SIZE	DOCUMENT NO.	REV
System Interface Specification (UMP BATTERY)	A4	P300-5069	00
	MANUAL CHANGE PROHIBITED		SHEET 2 OF 4

# 1. Battery System Parameters

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

Parameter	Units	Specification	Note
Pack Cell Configuration:			PHEV
Series	n/a	88	
Parallel	n/a	1	
Pack Strings in Parallel	n/a	1	
<b>Cell Voltage</b>			
Max	V	4.1	at 100% SOC
Nom	V	3.65	at 50%SOC
Min	V	2.5	at 0% SOC
<b>Cell Capacity</b>			
Rated	Ah	16.0	from Cell specification
<b>Battery Configuration</b>			
Cell Modules	Modules	4	Each cell module contains cells (22s1p)
<b>Pack Capacity (BOL)</b>			
Rated	Ah	16.0	calculated value based on rated cell capacity
Min. Available	Ah	14.2	estimated when C/3 rate is used to determine capacity; Current taper applied at the end of charge
<b>Pack Capacity (EOL)</b>			
Rated	Ah	11.4	estimated at 80%
<b>Pack Voltage</b>			
Max	V	361	determined at Max. Cell Voltage
Nom	V	321	determined at Nom. Cell Voltage @50% SOC
Min	V	220	determined at Min. Cell Voltage
<b>Pack Energy</b>			
Rated Energy	kWh	5.1	calculated value based on rated cell capacity
Min. Available Energy	kWh	4.5	calculated value based on de-rated cell capacity
<b>Discharge Power</b>			
Typical (continuous)	kW	12.8	at nominal cell voltage
Max Rate (continuous)	kW	25.7	at nominal cell voltage
Peak Rate (pulse)	kW	77.3	at nominal cell voltage
<b>Charge Power</b>			
Typical (continuous)	kW	12.8	at nominal cell voltage
<b>Discharge Current</b>			

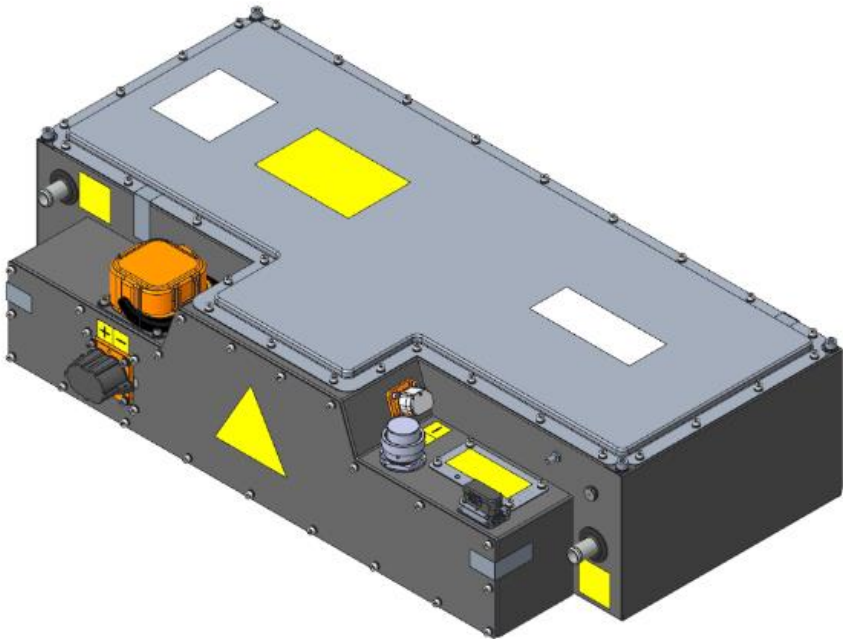
TITLE	SIZE	DOCUMENT NO.	REV
System Interface Specification (UMP BATTERY)	A4	P300-5069	00
	MANUAL CHANGE PROHIBITED		SHEET 3 OF 4

Typical	A	40	between 15% and 100% SOC
Max	A	80	between 15% and 100% SOC
Max. 10s Peak Pulse	A	240	between 15% and 100% SOC 10 sec
Max. 5s Peak Pulse	A	320	between 15% and 100% SOC 5 sec
Charge Current			
Typical	A	40	between 0% and 80% SOC
Max	A	80	between 0% and 80% SOC
Max. Peak	A	160	between 0% and 80% SOC 10 sec
Mass	kg	103	approximate
Pack Shelf Life	years	5	at 60% SOC
Operating Temperature			
Normal	degrees C	(-)15 to 45	range (min/max)
Max	degrees C	55	Current limited above normal operating temp.
Min	degrees C	(-)25	Current limited below normal operating temp.
Storage Temperature	degrees C	(-)40 to 55	range (min/max)
Pre-charge	Type	Internal	HV Load Capacitance protection (See Section 오류! 참조 원본을 찾을 수 없습니다.)
GFD	n/a	Enabled	HV Impedance Diagnostics (See Section 오류! 참조 원본을 찾을 수 없습니다.)
EPO	n/a	Enabled	External harness-side loop-back (See Section 오류! 참조 원본을 찾을 수 없습니다.)
Estimated Mass	Kg	103	

**Table 1 Product Technical Specifications**

TITLE	SIZE	DOCUMENT NO.	REV
System Interface Specification (UMP BATTERY)	A4	P300-5069	00
	MANUAL CHANGE PROHIBITED		SHEET 4 OF 4

## 2. Mechanical Drawings



Parameter	Unit	Value
X Dimension	mm	939.0
Y Dimension	mm	482.0
Z Dimension	mm	209.0
Mass	kg	110.0
Volume	liter	94.59

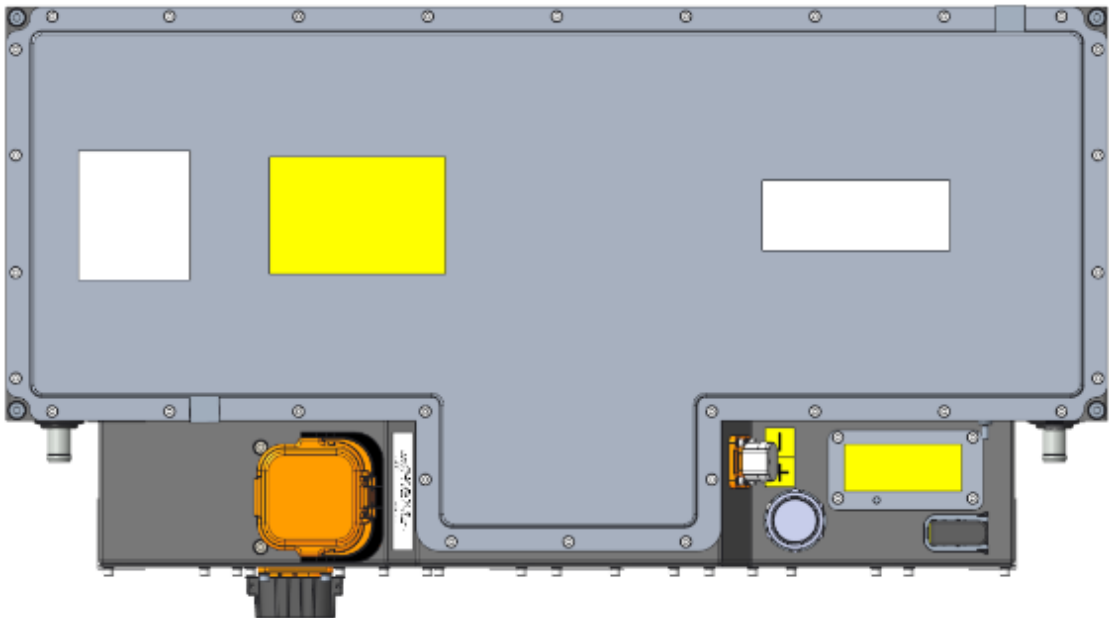


Figure 1 Pack Outline Drawing