

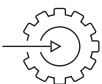
## **PULSE 15** high-power battery pack

### Fast-charging system for all-electric and hybrid heavy vehicles



Fast charge & peak shaving

+ High-power capability: 9 C peak 10s



Easy integration

+ Scalable modular system of 14.6 kWh packs connected in parallel  
+ Optimal mechanical design for bus' roof & back integration



High reliability & safety

+ Liquid thermal management  
+ Best-in-class proprietary BMS technology  
+ R100-2; R10.5 certifications



Great Total Cost of Ownership (TCO) & fast availability

+ Excellent cycle life up to 15 years  
+ High-volume series production

# Pulse 15 high-power Li-ion LTO battery system

PHYSICAL SPECIFICATIONS	CONDITIONS	UNIT	# PACKS CONNECTED IN PARALLEL								
			1	5	6	7	8	9	10	15	
<b>VOLTAGE</b>											
Minimal	-	V	414								
Nominal	-	V	635								
End of charge	-	V	745								
<b>ENERGY</b>											
Energy	-	kWh	14.6	73	88	102	117	131	146	219	
Capacity	C/3, BOL,@25°C	Ah	23	115	138	161	184	207	230	345	
<b>POWER</b>											
Peak power in charge / discharge	pulse 10 s, 4% DOD	kW	127	572	686	800	914	1,029	1,143	1,715	
Continuous power in charge / discharge	Continuous	kW	63	286	343	400	457	514	572	857	
<b>CURRENT</b>											
Peak current in charge / discharge	pulse 10 s, 4% DOD	A	200	900	1,080	1,260	1,440	1,620	1,800	2,700	
Continuous current in charge / discharge	Continuous	A	100	450	540	630	720	810	900	1,350	
<b>DENSITY</b>											
Specific energy	-	Wh/kg	56								
Energy density	-	Wh/L	58								
Power density	-	W/kg	488								
<b>MECHANICAL CHARACTERISTICS</b>											
Volume	-	Liter	253	-	-	-	-	-	-	-	
Weight	-	kg	260*	1,300	1,560	1,820	2,080	2,340	2,600	3,900	
Height	-	mm	330	-	-	-	-	-	-	-	
Width	-	mm	445	-	-	-	-	-	-	-	
Depth	-	mm	1,720								

@ 25°C | DOD: Depth Of Discharge BOL: Beginning of Life

\* +/- 5kg