

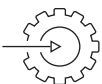
## ZEN 35 high-energy battery pack

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



Full day operations with optimized passenger capacity

+ Excellent energy density of 125 Wh/kg



Easy integration

- + Scalable modular system of 34.9 kWh packs connected in parallel
- + Optimal mechanical design for bus' roof & back integration
- + Cooling by natural convection



High reliability & safety

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



Great Total Cost of Ownership (TCO) & fast availability

- + High-volume series production

# Zen 35 high-energy Li-ion NMC battery system

PHYSICAL SPECIFICATIONS	CONDITIONS	UNIT	# PACKS CONNECTED IN PARALLEL							
			1	5	6	7	8	9	10	15
<b>VOLTAGE</b>										
Minimal		V	440							
Nominal		V	642							
End of charge		V	739							
<b>ENERGY / CAPACITY</b>										
Nominal energy	1C, BOL, @25°C	kWh	34.9	175	209	244	279	314	349	524
Nominal capacity	1C, BOL, @25°C	Ah	54.3	272	326	380	434	489	543	815
Minimum capacity available	1C, BOL, @25°C	kWh	34	170	204	238	272	306	340	510
Minimal capacity	1C, BOL, @25°C	Ah	53	265	318	371	424	477	530	795
<b>POWER</b>										
Maximum continuous power in discharge	SOC 50%, @25°C	kW	19	87	104	122	139	156	174	261
Recommended continuous power in charge / discharge	SOC 50%, @25°C	kW	12	52	63	73	84	94	105	157
Peak power in discharge	SOC 50%, @25°C	kW	28	127	152	178	203	228	254	381
<b>CURRENT</b>										
Maximum continuous current in discharge	SOC 50%, @25°C	A	30	135	162	189	216	243	270	405
Recommended continuous current in charge / discharge	SOC 50%, @25°C	A (C/3)	18	81	97	113	130	146	162	243
Peak current in discharge	SOC 50%, @25°C	A (1C)	44	198	238	277	317	356	396	594
<b>ENERGY</b>										
Specific energy	-	Wh/kg	125							
Energy density	-	Wh/L	157							
Power density	-	W/kg	42							
<b>MECHANICAL CHARACTERISTICS</b>										
Volume		Liter	268	-	-	-	-	-	-	-
Weight		kg	280	1400	1680	1900	2240	2520	2800	4200
Height		mm	349	-	-	-	-	-	-	-
Width		mm	445	-	-	-	-	-	-	-
Depth		mm	1,720	-	-	-	-	-	-	-

SOC: State Of Charge

BOL: Beginning Of Life