



FLEX 7 energy & power battery module

Opportunity-charging system for all-electric and hybrid heavy vehicles

	Full day operations or opportunity charging	+ High power-to-energy ratio
	Easy integration	<ul style="list-style-type: none"> + Scalable modular system of 7 kWh modules connected both in series and in parallel + Optimized weight and volume for high vehicle's capacity
	High reliability & safety	<ul style="list-style-type: none"> + Liquid thermal management + Best-in-class proprietary BMS technology + R100-2, R10.5 certifications
	Great Total Cost of Ownership (TCO) & fast availability	<ul style="list-style-type: none"> + High cycle life up to 10 years + High-volume series production

Flex 7 energy & power Li-ion NMC battery module

PHYSICAL SPECIFICATIONS	CONDITIONS	UNITÉ	# MODULES							
			1	2	3	4	5	6	7	8
VOLTAGE										
Minimal	-	V	65	130	194	259	324	389	454	519
Nominal	-	V	89	178	266	355	444	533	622	711
End of charge	-	V	98	197	295	394	492	590	689	787
Maximum (Regeneration)	-	V	101	202	302	403	504	605	706	807
ENERGY / CAPACITY										
Embedded energy	C/2, BOL	kWh	7,1	14,2	21,3	28,4	35,5	42,6	49,7	56,8
Self discharge	BOL	%	< 1.54% per month							
System capacity	BOL		80 Ah - two cells of 40 Ah in parallel							
POWER										
Max. continuous power in discharge	SOC 50%	kW	18	36	53	71	89	107	124	142
Peak power in discharge (30 s)	SOC 50%	kW	27	53	80	107	133	160	186	213
Max. continuous power in charge	SOC 50%	kW	18	36	53	71	89	107	124	142
Peak power in charge (30 s)	SOC 50%	kW	27	53	80	107	133	160	186	213
CURRENT										
Max. continuous current in discharge	-	A	200 (2.5 C)							
Peak current in discharge (30 s)	SOC 50%	A	300 (3.5 C)							
Max. continuous current in charge*	-	A	200 (2.5 C)							
Peak current in discharge (10 s)	SOC 50%	A	300 (3.5 C)							
DENSITÉ										
Energie spécifique	BOL	Wh/kg	88							
Densité d'énergie	BOL	Wh/L	130							
Densité de puissance	BOL	W/kg	219							
CYCLE LIFE										
Cycle life	80% DOD, 1C/1C		> 10,000 cycles							
MECHANICAL CHARACTERISTICS										
Weight without water		kg	81	162	243	324	405	486	567	648
Weight with water		kg	83	166	249	332	415	498	581	664
Volume		L	55	-	-	-	-	-	-	-
Height		mm	274	-	-	-	-	-	-	-
Width		mm	280	-	-	-	-	-	-	-
Depth without connectors		mm	670	-	-	-	-	-	-	-
Depth with connectors		mm	713	-	-	-	-	-	-	-

@ 25°C | * to maximize lifetime, 1C charge is recommended | SOC : State Of Charge SOH : State Of Health DOD : Depth Of Discharge BOL : Beginning of Life

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