INFORMATION ON REGULATION (EU) 2023/1542 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL Article 10 - Performance and Durability Requirements Lithium Prismatic Batteries



48V 105 Ah Battery Rated Capacity in Ah
Capacity Fade in %
Rated capacity fade (in 80%SOH)
Power (W) [mean power]
Power Fade in %
Power capability at 80% SOC at BoL
Power capability at 20% SOC at BoL
Internal Resistance (m Ω) @ 0 cycle
Internal Resistance increase in % @ 4000 cycles
Round Trip efficiency @ 1 cycle

		Conditions @25°C±2°C			
		Applied	Applied	Depth of	
48V 105 Ah Battery		Discharge rate	Charge rate	Discharge	Comment
Rated Capacity in Ah	100 Ah	0.33C	0.5C	100	
Capacity Fade in %	20%	0.33C	0.5C	100	
Rated capacity fade (in 80%SOH)	80 Ah	0.33C	0.5C	100	
Power (W) [mean power]	7680 W	1.5C	N/A	Inst (~3 sec)	
Power Fade in %	20%	0.33C	0.5C	Inst (~3 sec)	
Power capability at 80% SOC at BoL	7680 W	1.5C	N/A	Inst (~3 sec)	Calculations based on P4 with 1.5C(150A) discharge at 80% SOC, at calculation, it is 7680W.
Power capability at 20% SOC at BoL	6000 W	1.2 C	N/A	Inst (~3 sec)	
Internal Resistance (mΩ) @ 0 cycle	10 mΩ	N/A	N/A	N/A	
Internal Resistance increase in % @ 4000 cycles	32%	0.33C	0.5C	100	
Round Trip efficiency @ 1 cycle	92.5%	0.5C	0.5C	100	
Fade in Round Trip efficiency in % @ 4000 cycles	91.5%	0.5C	0.5C	100	
Expected Life-time in cycles	4000	0.5C	0.5C	100	Approx. 8 years

