



No	Description	UPower Technical Data
I General Requirement		
1	Life time of BESS	25+ years with no degradation
2	Batteries function and performance	25+ years with no degradation
3	Vanadium Redox Flow Battery	Yes
4	Cycles limited at 100% DOD per year	No limit
5	Cycling duty basis of the energy discharge guarantee	+20,000
6	Self-discharge for long time	<2%
7	No degradation of battery in 20 years	Yes
8	Heat management	Yes
9	Long duration with 100% SOC access	Yes
10	Built-in seamless bypass	Yes
11	Battery modules installation	40i(indoor) / 40o(outdoor)
12	No augmentation	Yes
13	Cooling of battery module by	Air
14	Transportable with pre-charge	Yes
15	Battery modules recyclable	Yes
16	Net recycling value of the battery module	Positive
II Battery Parameters		
1	Technology	Vanadium redox flow
2	Voltage of each module	36-57.6 V
3	Max current of each module	390 A
4	Unit power of charge and discharge	10kW
5	Unit energy discharge capacity	40kWh
6	Max per string	Up to 6 modules
7	Max dimension of each battery	40i(indoor): 875mmW×1775mmD×2060mmH 40o(outdoor): 915mmW×1775mmD×2110mmH
8	Weight of each module	2800kg (40i-Indoor and 40o-Outdoor)
9	Ambient temperature	40i(indoor): 0°C-50°C 40o(outdoor): -25°C-50°C
10	Storage temperature	-15°C-50°C(SOC = 50%)
11	Protection of battery module (Indoor/outdoor)	40i(indoor): IP20 / 40o(outdoor): IP54
12	Short circuit current	1300A
13	Communications	Modbus TCP
14	Auxiliary supply	100-240 VAC 1Φ, 50/60 Hz Off = 20W, Typical = 600W, Max = 800W
15	Energy efficiency	80%DC(without considering self-consumption)
III Certificates		
1	IEC 62932-2-1	Yes
2	IEC 62932-2-2	Yes

Document Version	Release Date	Revision History
V1.0	2025-04-16	Official Launch (V1.0)