



48V 75AH

Specifications



Parameters

Items	Parameter
Nominal Voltage	48V
Nominal Capacity	75Ah
Energy	3840Wh
Limited Charge Voltage	54.75±0.2V
Charge Method	CC/CV
Discharge Cut-off Voltage	37.5V
Recommended Charge Current	15A
Continuous Discharge Current	200A
Max. Discharge Current (<10min)	380A Peak
Dimension (mm)	Customized
Weight	61.729±0.4409Lb. (28±0.2Kg.)
Charge Temperature Range	32~131°F (0~55°C)
Discharge Temperature Range	-4 ~ 167°F (-20 ~ 75°C)
Recommended Operating Temperature	59 ~ 113°F (15 ~ 45°C)
Storage Temperature & Humidity Range (Less than 1 month)	-4 ~ 95°F (-20 ~ 35°C), 45 ~ 75%RH
Storage Temperature & Humidity Range (Less than 3 months)	14 ~ 95°F (-10 ~ 35°C), 45 ~ 75%RH
Recommended Storage Temperature & Humidity Range	59 ~ 95°F (15 ~ 35°C), 45 ~ 75%RH

The battery can be connected in parallel, but can not be used to increase current

Built-in BMS

Item	Test Item	Criterion
Voltage	Charging Voltage	DC:54.8V CC/CV
	Balance voltage for single cell	3.50±0.025V
Current	Balance voltage for single cell	35±5mA
	Current consumption	≤50μA
	Maximal continuous charging current	22A
	Rated continuous discharging current	200A (Peak 300A)
Over charge Protection	Over charge detection voltage for single cell	3.65V±0.025V
	Over charge detection delay time	0.7S–1.3S
	Over charge release voltage for single cell	3.550±0.05V
Over discharge Protection	Over discharge detection voltage for single cell	2.50V±0.07V
	Over discharge detection delay time	1.6±0.5S
	Over discharge release voltage for single cell	3.00±0.75V
Over current Protection	Over current detection current	500±50A
	Over current detection delay time	1.6±0.5S
Short Protection	Release condition	Cut load
	Detection condition	Exterior short circuit
	Detection delay time	230uS–500uS
	Release condition	Cut load

Safety Performance

Item	Test Methods	Standard
Overcharge performance	After the standard battery is charged, the initial state of the battery is measured. When the battery status is normal, the current is charged to 10.0V at 3C current, and then the constant voltage is charged to the current of 0.01C. Observe the appearance of the battery changes.	Do not fire, do not explode
Over discharge performance	After the battery is charged, measure the initial state of the battery and discharge it to 0 V at 0.5C when the battery status is normal. Observe the battery appearance changes.	Do not fire, do not explode
External short circuit	After the battery is charged, the initial state of the battery is measured and the positive and negative poles (the total resistance of the line is not more than 50mΩ) are directly shortened in the explosion proof hood. When the battery temperature drops below the peak temperature by about 50°F (10°C), the test ends. Observe the battery temperature and appearance changes.	Do not fire, do not explode
Hot abuse	Measure the initial state of the battery, the battery standard charge, placed in the oven, the temperature (41±35.6°F / 5 ± 2°C) / min rate rose to 266 ± 35.6°F (130 ± 2°C) and heat 30min. Observe the battery appearance changes.	Do not fire, do not explode
Fall	Test the initial capacity of the battery, the standard charge, the initial state of the battery, the test battery from the height (lowest point height) to 1m vertical position, the horizontal direction of free fall to the concrete floor, asked to fall 2 times.	Do not fire, do not explode
Heavy impact	A steel rod with a diameter of 0.622 in (15.8 mm) was placed in the middle of the fully charged battery; then the weight of 22.04 lb (10 kg) was dropped from the height of 39.37 in (1.0 m) to the upper part of the battery.	Do not fire, do not explode
Extrusion test	The batteries were placed between the two extruded surfaces of the extrusion apparatus, the cylindrical cores were parallel to the extrusion surface, gradually increasing the pressure to 13 kN, maintaining the pressure for 1 min.	Do not fire, do not explode