

Protection Circuit Module Specifications For 12.8V LiFePO4 Battery Packs

CU-J877

No.	Test item (Test at normal temperature 25±2°C)		Criterion
1	Communication Interface		SMBus
2	Capacity	Designing battery capacity (PCM) 26650-4S2P	1000mAh*6 times
		Max capacity (Battery pack)	32000mAh
		Min capacity (Battery pack)	500mAh
		External capacity Indication	/
		Gas gauge algorithm	CEDV
3	Voltage	Charging voltage	DC: 14.4V CC/CV (3.6v/Cell)
4	Supply Current	Normal mode (Firmware running, no flash writes)	500uA
		Sleep mode	100uA
		Shutdown mode	1uA
		Maximal continuous charging current	30A
		Maximal continuous discharging current	30A
		Maximal continuous discharging current	60A (Max. 5 minute)
5	Over-charge Protection (single cell)	Over-charge detection voltage	3.900±0.025V
		Over-charge detection delay time	/
		Over-charge release voltage	3.800±0.025V
7	Over-discharge protection (single cell)	Over-discharge detection voltage	2.200±0.05V
		Over-discharge detection delay time	/
		Over-discharge release voltage	2.500±0.05V
9	Current protection (Battery pack)	Charge over-current (1st Tier)	15A*6 times
		Charge over-current detection delay time (1st Tier)	2s
		Discharging over-current (1st Tier)	20A*6 times
		Discharging over-current detection delay time (1st Tier)	2s
		Release condition	Cut load
10	Short protection	Charge short-circuiting (2nd Level Safety)	20A*6 times
		Charge short-circuiting detection delay time (2nd Level Safety)	0S
		Discharge short-circuiting (2nd Level Safety)	22A*6 times
		Discharge short-circuiting detection delay time (2nd Level Safety)	0S
		Detection condition	Exterior short circuit
		Release condition	Cut load
11	Resistance	Protection circuitry	≤30mΩ
12	Temperature protection	Charge temperature (1st Level Safety)	55°C
		Charge temperature detection delay time (1st Level Safety)	2s
		Charge release temperature (1st Level Safety)	50°C
		Discharge temperature (1st Level Safety)	60°C
		Discharge temperature detection delay time (1st Level Safety)	2s
		Discharge release temperature (1st Level Safety)	50°C
		Charge temperature (2nd Level Safety)	65°C
		Charge temperature detection delay time (2st Level Safety)	0s
		Discharge temperature (2st Level Safety)	75°C
		Discharge temperature detection delay time (2st Level Safety)	0s
		Operating temperature	-40~+85°C
		Functional temperature	-40~+110°C
		Storage temperature range	-65~+150°C

B+: Battery+

B-: Battery-

SMBD: SMBus data line

SMBC: SMBus clock line

P+: Charge+/discharge+

P-: Charge-/discharge-

NTC1/NTC2: Over temperature Protection

Connect: B-/B1/B2/B3/B+

L102*W50*T5mm

