

POW4V20A3 CHARGER SPECIFICATION

1. Input characteristics				
No.	Item	Technical specification	Unit	Remark
1-1	Rated input voltage	120V / 230V	Vac	
1-2	Input voltage range	AC 100-240V	Vac	
1-3	AC input voltage frequency	47 - 63	Hz	
1-4	Max input current	2 A	A	

2. Output characteristics				
No.	Item	Technical specification	Unit	Remark
2-1	Nominal charge voltage	3V	Vdc	1 cells @ 3V
2-2	Fast charge voltage	3,65V	Vdc	1 cells @ 3.65V +/- 0.05V DC
2-3	Maintain voltage	3,65V	Vac	(Float voltage)
2-4	Constant current	20 A	A	
2-5	Power efficiency	>80%		@ 230Vac

3. Protection characteristics				
No.	Item	Technical specification	Unit	Remark
3-1	Output over voltage protection	3,7V	Vdc	
3-2	Software over voltage protection	The charger software limits the maximum output voltage to a level suitable for the connected battery cell		
3-3	Thermal cutback	The internal temperature monitor reduces the charger output power in extreme operational temperature to prevent damage		
3-4	Output current limiting protection	21 A	A	@ CC Mode
3-5	Output short circuit protection	Short circuit protection at the output terminals. Automatic recovery after restoring to normal conditions.		
3-6	Electronic reverse battery protection	The charger is electronically protected against permanent reversed battery connection.		

4. Charge indicator (LED)				
No.	Item	Technical specification	Unit	Remark
4-1	Charging	Red LED on		
4-2	Complete charge	Green LED on		

5. Safety & EMC (CE Conformity Requirements)

No.	Item	Technical specification	Unit	Remark
5-1	Electric strength test input – output	1500 V / 10 mA /1 minute	Vac	No breakdown
5-2	Isolation resistance	> 10 MOhm @ 500 Vdc	MOhm	Input – ground (GND)
5-3	Isolation resistance	> 10 MOhm @ 500 Vdc	MOhm	Output – ground (GND)
5-4	Leakage current	< 3.5 mA	A	Vin = 264Vac, 50-60 Hz
5-5	Safety	EU standards for small electrical appliances		CE MARK
5-6	EMC – RE	Class B		EN55014
5-7	EMC – CE	Class B		EN55014
5-8	EMC – air discharge	Level 3		EN61000-4-2 (dis. B)
5-9	EMC – contact discharge	Level 3		EN61000-4-2 (dis. B)
5-10	EMC – RS	Level 3		EN61000-4-6 (dis. A)
5-11	EMC – CS	Level 3		EN61000-4-3 (dis. A)
5-10	EMC – EFT	Level 3		EN61000-4-4 (dis. B)
5-10	EMC – Surge	Level 3		EN61000-4-5 (dis. A) 1 kV, 2 kV (dis. B)

6. Environmental test requirements

No.	Item	Technical specification	Unit	Remark
6-1	High ambient operating temperature	+40 °C	deg C	continuous operation
6-2	Low ambient operating temperature	-10 °C	deg C	continuous operation
6-3	Highest storage temperature	+70 °C	deg C	allow 2 hours to recover to normal temperature
6-4	Lowest storage temperature	-40 °C	deg C	allow 2 hours to recover to normal temperature
6-5	Drop shock	40 g peak		EN60068-2-32:1993

7. Charging curve

