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BATTERY CHARGER TECHNICAL MANUAL

MODEL: UY2000-HF2460-1

VERSION: V1.0

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1. Revised History

Table 1. Revised History

Version	Detail	Date
V1.0	The initial version	03/25/2014

2. Warning

Please use the charger in accordance with the parameters and connections in the manual, and do not disassemble it. Or we will not be liable for the resulting loss.

3. Notes

(1) High voltage inside the case, may cause harm to the human body. If the charger fails, please contact us. Users and non-professional maintenance staff is forbidden to open the charger.

(2) Charger should not be used where in damp, water, direct sunlight or near heat sources.

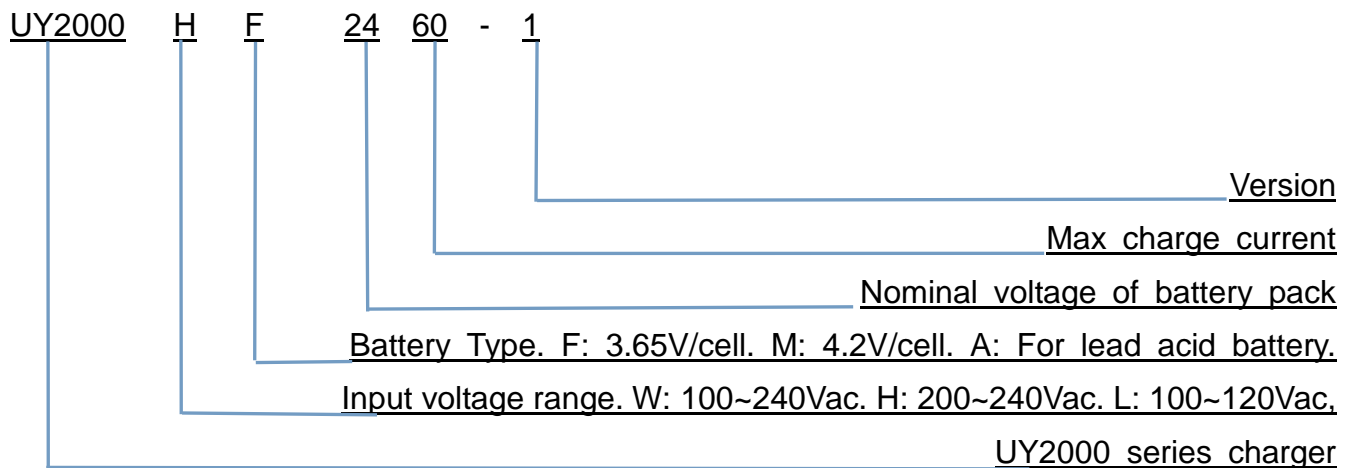
(3) Charger should be used where clean and well ventilated. Don't sheltered inlet or outlet during charging, and make sure that both inlet and outlet have air space of at least 10cm.

(4) Charger should be used to prevent children closer and touch.

(5) Is prohibited that the charger used or stored near flammable, explosive goods.

(6) While cleaning the charger please do not wash with water, we recommend using a clean rag dipped a small amount of alcohol.

4. Product Number System



5. Product Weight And Appearance

UY2000 series charger is about 5.0kg without input AC wire. Charger appearance as figure 1 below.



6. Indicator LEDs

Green: Charge complete, standby

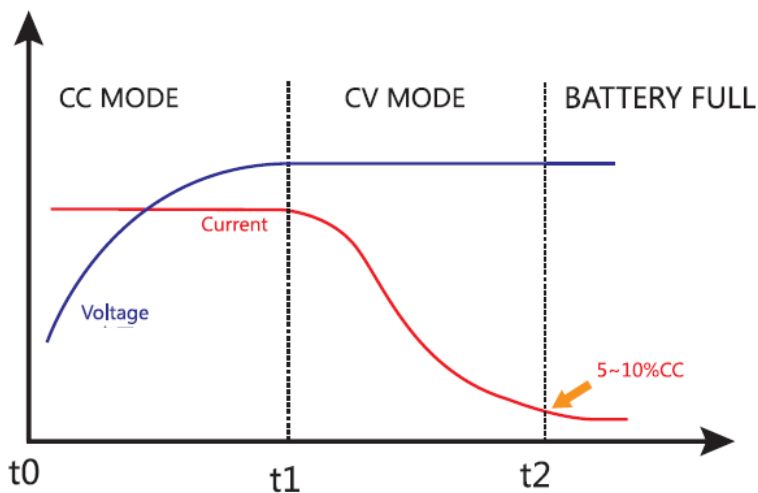
Red: Charging

7. Electronic Characteristics

Table 3. Electronic characteristics

No.	Item	Unit	Min.	Typ.	Max.	Remark
01	Input voltage	Vac	200	220	260	
02	Input power	W	-	-	2323.2	
03	Constant charge voltage	Vdc	28.9	29.2	29.5	
04	Float voltage(for lead acid battery only)	Vdc	-	-	-	
05	Constant charge current	A	57	60	63	
06	Charge complete current	A	4.65	4.8	4.95	
07	Ripple voltage	-	-	-	Constant charge voltage*1%	
08	Efficiency	%	85	-	-	Full load

Charge Curve



8. Protect Characteristics

8.1 Output Over Voltage Protection

When the charger output voltage exceeds the maximum charging voltage, the charger enters the standby state protection. Troubleshooting can be automatically restored to normal working condition.

8.2 Output Over Current Protection

When the charger output current exceeds the maximum charging current, the charger enters the over current protection status. Troubleshooting automatically restored to normal working condition.

8.3 Short Circuit Protection

When the charger has short circuit at output, the charger enters short-circuit protection status. Troubleshooting automatically return to normal working condition.

8.4 Reverse Polarity Protection

When the charger output positive negative pole and battery pack are connected in reverse, the internal relay of the charger is not sucked and there is no voltage current at the output terminal of the charger. After the correct connection, the charger can be charged normally.

8.5 Over Temperature Protection

When charger internal temperature exceed 75°C, it will be into the over-temperature protection state and the cuts off output and the cooling fan is still working. When the temperature returns to 65°C, the charge is restored again.

9. Environmental

9.1 Working Conditions

Ambient temperature: -5°C ~ +40°C;

RH: 5% ~ 95%;

Max. altitude: 2000 meter;

Cooling: UY series chargers use of forced air cooling system. Under dustless and ventilated conditions, the full load temperature rise not exceeding 40°C.

9.2 Storage Conditions

Ambient temperature: -40°C ~ +70°C;

RH: 0% ~ 95%;

Max. altitude: 20000 meter.

10. Reliability

Table 4. Reliability

No.	Item	Description	Remark
01	MTBF	average operating life ≥ 30000 h	25°C
02	Anti-vibration	5mm/50Hz/600s vibration test	PASS

11. Safety

11.1 Insulation Characteristics

Table 5. Insulation characteristics

Insulation resistant	Input to output	DC500V 50M Ω min (25°C, Humidity \leq 70%)
	Input to case	DC500V 50M Ω min (25°C, Humidity \leq 70%)
	Output to case	DC500V 50M Ω min (25°C, Humidity \leq 70%)
Hi-Pot	Input to output	1500Vac 50Hz 1minute \leq 10mA
	Input to case	1500Vac 50Hz 1minute \leq 10mA
	Output to case	500Vac 50Hz 1minute \leq 10mA

11.2 Leakage Current

With max input and full load, the leakage current < 0.75 m A, meet to Class II.