

SPECIFICATION

Model NO	3640SR (36V 20A)
Engineer	
ENG's sample shipping date	
Confirm date	

PE	Sale	Engineer	Approval	Revision
	SUMMER			05

Contents

1. Main product specification	3
2. Environmental condition	3
3. Electrical characteristics	3
1).Input characteristics	3
2).Output characteristics	3
3). Protection characteristics	3
4). Charger (LED) indicator	3
4. Safety & EMC	4
5. Environmental testing requirements	5
6. Mechanical characteristics	6
1).Input terminator diagram & definition	6
2).Output terminator diagram & definition	6
3).WEIGHT: (ABOUT 3.5Kg)	6
7. Package, transportation & storage	6
8. Reliability requirements	7
9. charger wiring	7
10.Label	7
11. Charging curve	8
12.Mechanical outline	9

1. Main products specification

output power	Input voltage	Output voltage	Output current
882W	90Vac--264Vac	44.1Vdc	20A

2. Environmental condition

No.	Item	Technical specification	Unit	Remark
1	Humidity	5%-95%		With package
2	Altitude	≤3000	m	Work normally
3	Cooling	The power supply is cooled by 80*80*25mm 12VDC ball-bearing fans Foreed air		Working under full load

3. Electrical characteristics

1 Input characteristics				
No.	Item	Technical specification	Unit	Remark
1.1	Rated input voltage	115--230	Vac	WITH PFC
1.2	Input voltage range	90-264	Vac	
1.3	AC input voltage frequency	47—63	Hz	
1.4	Inrush current	≤100	A	264Vac input/start-up in cold condition /environmental temperature is 25℃
1.5	Max input current	12/5	A	Vin=90/230Vac, rated load
2 Output characteristics				
No.	Item	Technical requirements	Unit	Remark
2.1	Max charging voltage	44.1	Vdc	
2.2	Power efficiency	≥85%		Vin=220Vac, rated load

3 Protection characteristics				
No.	Item	Technical requirements		Remark
3.1	Output over voltage protection	46	V	Lockout
3.2	Software over voltage protection	The charger software limits the maximum output voltage to a level suitable for the connected battery system		
3.3	Thermal cutback	An internal temperature monitor reduce charger output power in extreme operational temperature to prevent damage		
3.4	Output current limiting protection	20A	A	@CC MODE
3.5	Output short circuit protection	Short circuit protection should be automatically recovery after remove the condition		
3.6	Electronic reverse battery protection	The charger is electronically protected against permanent revers battery connection		
3.7	Cell short circuit timer	Internal software protection		
4 Charger(LED) indicator				
No.	Item	Status LED		Remark
1	charging	yellow LED flash		
2	Waiting/full charged	Green LED on		
3	Error	Red LED flash		

4. Safety & EMC

No.	Item		Standard (or testing condition)	Remark
1	Electric strength test	Input—output	1500Vac/10mA/1min	No breakdown
2	Isolation resistance	Input—ground	$\geq 10M\Omega@500Vdc$	
		Output—ground	$\geq 10M\Omega@500Vdc$	
3	Leakage current		$<3.5mA$	$Vin=264Vac,50—60Hz$

4	SAFETY			
5	EMC	RE	CLASS B	EN55014
		CE	CLASS B	EN55014
		Air discharge	LEVEL 3	EN61000-4-2(discrimination B)
		Contact discharge	LEVEL 3	EN61000-4-2(discrimination B)
		RS	LEVEL 3	EN61000-4-6(discrimination A)
		CS	LEVEL 3	EN61000-4-3 (discrimination A)
		EFT	LEVEL 3	EN61000-4-4 (discrimination B)
		Surge	LEVEL 3	EN61000-4-5, differential module 1 KV, common module 2KV(discrimination B)

Remark: discrimination A— function OK under technical requirement range; discrimination B--function temporarily debasement without reposition and halt is allowed; discrimination R— physical damage or failure of equipment are not allowed, but damage of protection device (fuse) caused by interference signal of outside is allowed, and the whole equipment can work normally after replacement of protection device and reset of running parameter.

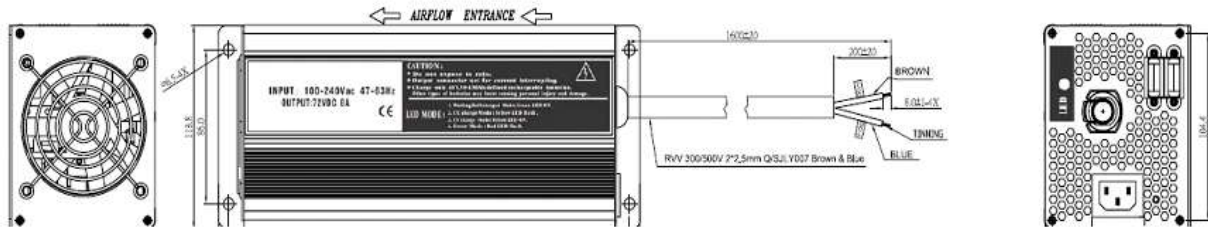
5. Environmental testing requirements

No.	Item	Technical specification	Remark
1	High temperature ambient operating	+40°C	Features ok
2	Low temperature ambient operating	-5°C	Features ok
3	High temperature storage	+70°C	Work normally after recovery under normal temperature for two hours
4	Low temperature storage	-20°C	Work normally after recovery under normal temperature for two hours
5	Random Vibration	20Hz to 2000Hz 3Grms 20hours per axis	
6	Repetitive Shock	40g peak 3 orthogonal axes,3+ and 3- in each axis ,11ms Pulse width	
7	Thermal shock:	-35°C to +75°C,<3minute transition,2.5hour dwell,200cycle	

8	Drop test:	BS EN60068-2-32:1993 fall,appendix B	Test Ed:Free	
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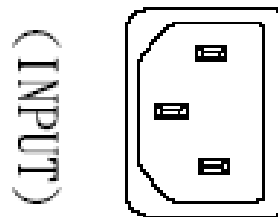
6. Mechanical characteristics (open end)

Outline dimension (Unit : mm) length × width × height=292×114×92



Tolerance of outline dimension is ±0.5mm, others are ±0.2mm in the diagram;

1)、 Input terminator diagram & definition (EU plug)



2)、 Output terminator diagram & definition

With Open end

3)、 WEIGHT: (ABOUT 3.5Kg)

7. Package, transportation & storage

1)、 Package

There are product name, model, making of manufacturer, safety approval, and manufacturing date on the package box, and manual of specifications and packing list in the package box.

2)、 Transportation

Suit for transportation by truck, ship, and plane. The products should be shielded by tent from sunshine, and loaded and unloaded carefully.

3)、 Storage

Products should be stored in package box when it is not used. And warehouse temperature should be -20°C — $+70^{\circ}\text{C}$, and relative humidity is 5%—95%. In the warehouse, there should not be harmful gas, inflammable, explosive products, and corrosive chemical products, and strong mechanical vibration, shock and strong magnetic field affection. The package box should be over ground at least 20cm height, and 50cm away from wall, thermal source, and vent. Under this requirement, product has 2 years of storage period, and should be rechecked when over 2 years.

8. Reliability requirements

1)、 Reliability

MTBF (standard, environmental temperature, load requirement) $\geq 15\text{Khour}$;
 testing condition : 25°C , full load, testing proved value. (1 year full warranty)



9. Charger wiring

The basic power wiring for the charger is shown in figure 2

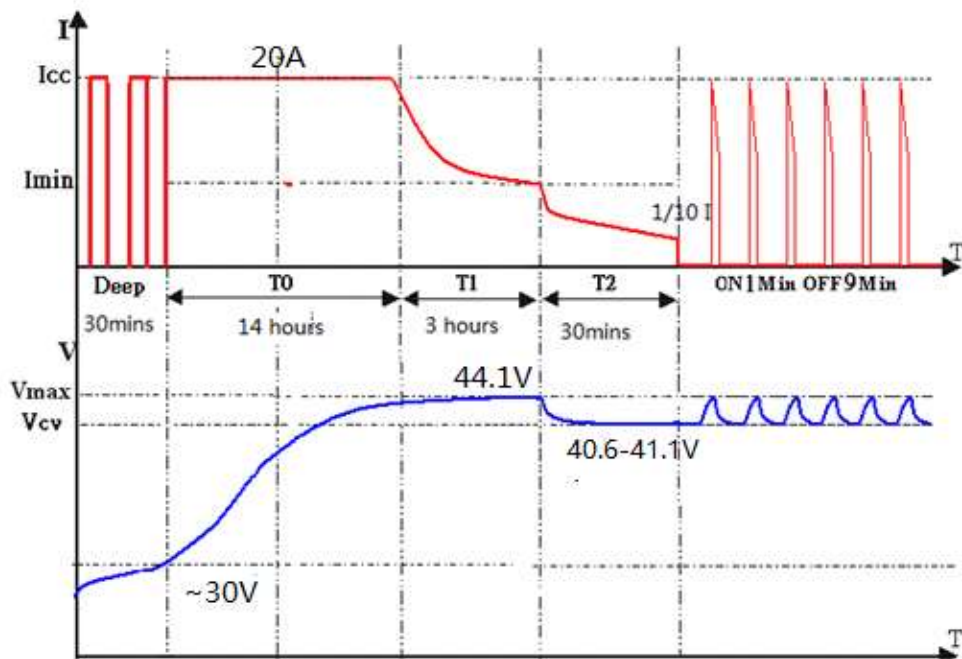
1)、 A spark often on first connection of the charge to the battery terminals due to charging the internal output capacitors ,This is Normal and should not lead to undue concern ,care should be taken to ensure the battery vent caps are closed and there are no flammable object in the vicinity of where the connection will be made

2)、 The charger has been calibrated to take account of the voltage drop in the DC output cables during operation, To prevent the possibility of over or under charging of the battery it is recommended the DC output cable are connected directly to the battery without modification. Soneil can customize cable lengths and connections for volume customers with specific requirements.

10. Label

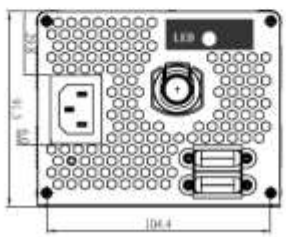
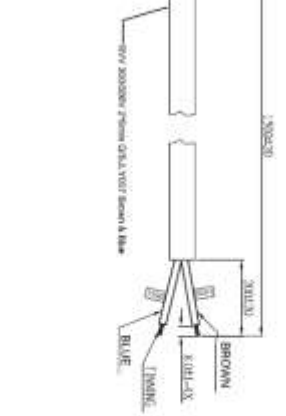
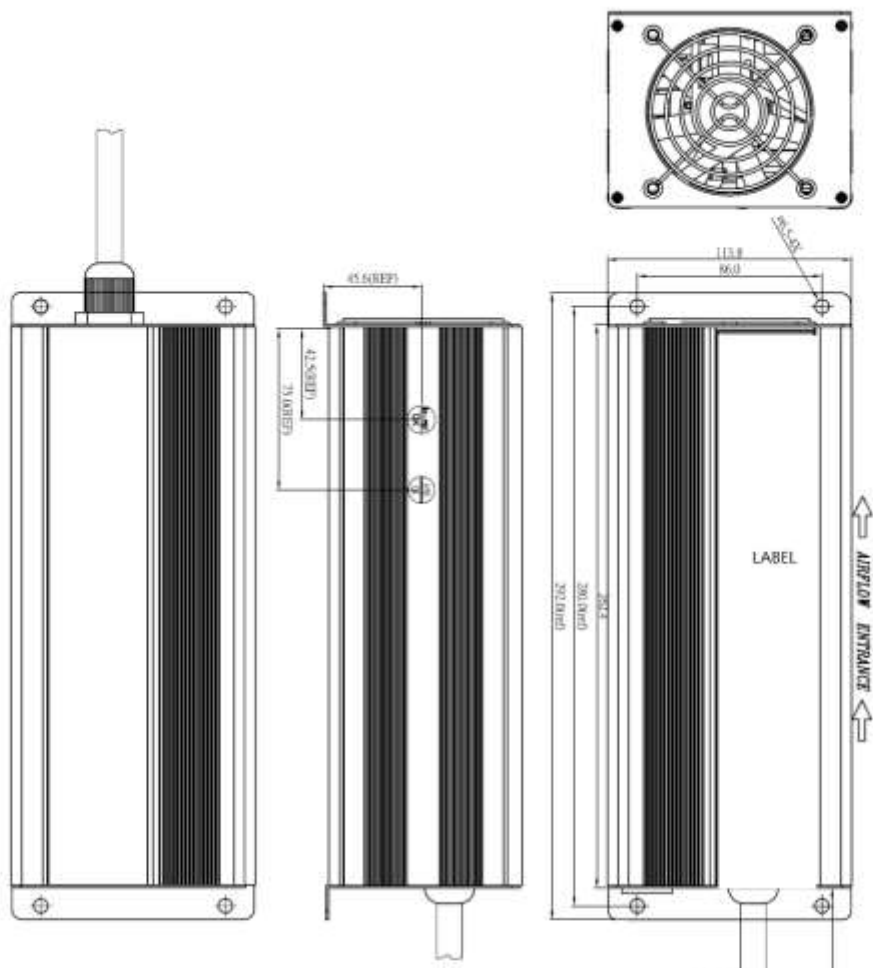
SONEIL – CANADA Tel: 905-565-0360 Fax: 905-799-6821 www.soneil.com MODEL 3640SR PATENT PENDING 	AC Input: 100-240VAC 50/60Hz Max. input current: 12A at 90Vac input DC Output: 36V/20A constant	Charging indicator: LED green on: waiting/full mode LED yellow flash: charging mode LED red flash: error mode DC output wire: Pin 1 Brown: +ve Pin 2 Blue: -ve	Caution: • Risk of electric shock. Do not expose to liquid, vapor or rain. • Charging only lead-acid type rechargeable batteries. Other types of batteries may burst causing personal injury and damage. • Slow Blow AC Fuse: 250V 15A 
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11. Charging curve (for AGM battery)



12. Mechanical outline

UNIT:mm



NOTES:

1. UNIT : MM
2. OUTLINE DIMENSION : 204.0*114*92.0
3. TOLERANCE :
X : ±0.5 XX : ±0.2 XXX : ±0.15
4. SCREW THREAD MUST BE WITHSTAND THE FOLLOWING TORQUE INDICATED
M3 * 0.5 12kg-cm (MIN)
5. ENCLOSURE MATERIAL: SECC. ALUMINUM. POSITIVE ELECTRODES PAINTONE 4S15C
6. DO NOT ALLOW SCRATCH ON THE SURFACE
7. POWER SUPPLY MUST CONFORM TO CUSTOMER'S SPEC.
8. BARCODE LABEL, WARNING LABEL AND INFORMATION LABEL LOCATED ON NOTED SURFACE
9. LABELS OTHER THAN WARNING LABELS TO BE BLACK LETTERS ON A WHITE BACKGROUND
9. INSIDE BRND PAINT TO BE 1. OR FINISH OTHERWISE SPECIFIED.

P/N:.

MODEL NO. : 3640SR		TITLE: 3640SR		SHEET: 1 OF 1		REV:01	
R&D	PE	DRAWN		DATE		10.06.23	
INTERIOR COUNTERSIGN:				LUOWEI			