

样品承认书

SAMPLE APPROVAL SHEET

安德普料号:
ADY PART NO. :
产品型号:
PRODUCT MODEL: ADY6102 high frequency intelligent charger
品名/规格:
NAME/SPEC: 48V 50A
客户名称:
CUSTOMER NAME:

	Electrical	Material	Structure	Other
PASS				
Fail				
Other				
Director				

Remark:

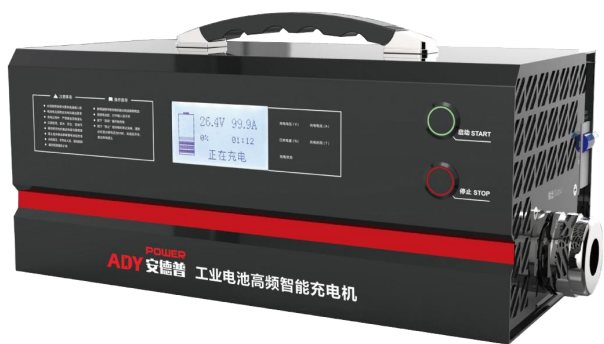
承认 ISSUE	审核 CHECK	批准 APPROVAL

QMS-21-001 V0

File Name:	ADY6102 48V50A Charger product Spec.			Confidential
File Attributes:	Product spec	Version:	V0	Pages: 2

ADY6102

Charger Product Spec



Spec

48V 50A

Version

V0

Compile:	Check:	Approve:
Zhiqiang Zhang	Zhaojun Liao	Tao Wu

ADY-RD-002 V0

File Name:	ADY6102 48V50A Charger product Spec.				Confidential
File Attributes:	Product spec	Version:	V0	Pages:	3

Compile	Zhiqiang Zhang	QE	Desheng Liao
Hardware	Zhaojun Liao	Check	Zhaojun Liao
Software	Weijie He	Approve	Tao Wu

Change Record

Version No.	Update No.	Update date	Modify the description	Compile
V0		2019-06-21	First version	Qiong Chen

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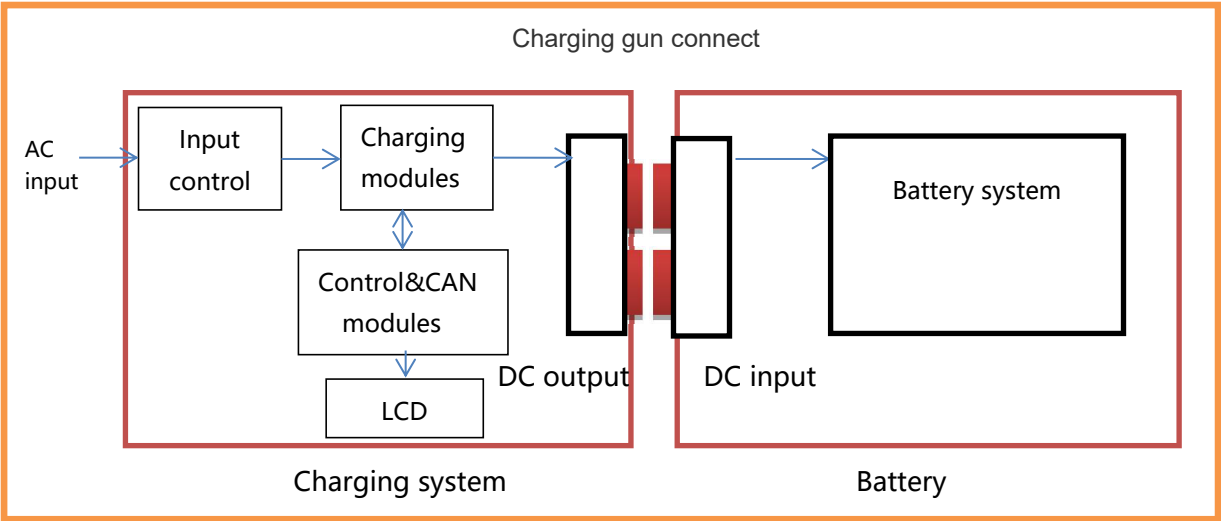
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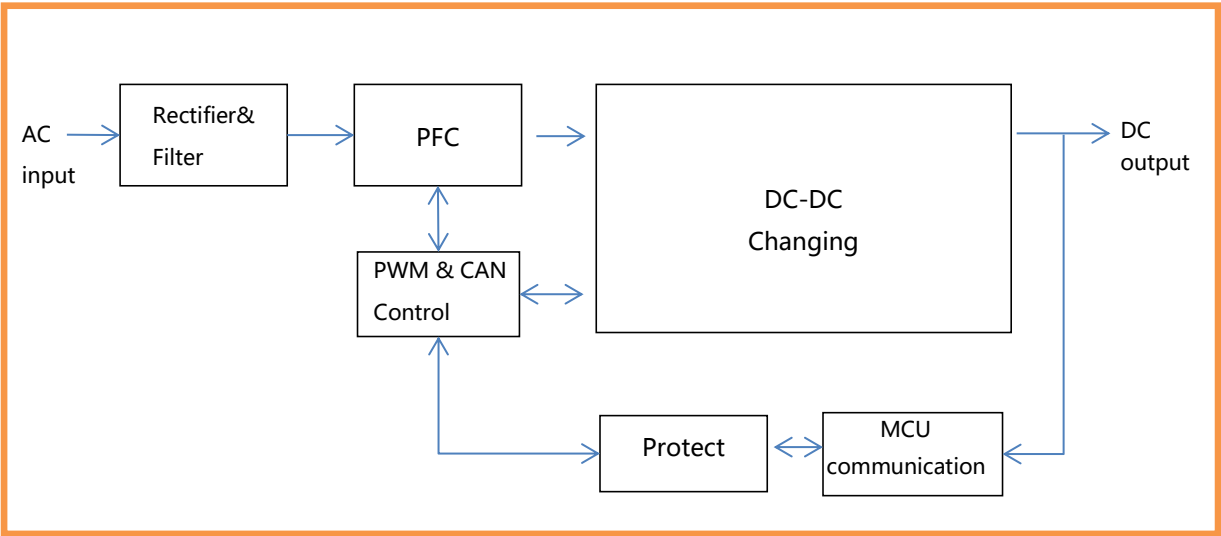
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1 Product Description

Welcome to use ADY6102 Charger made by ADY , this industrial battery intelligent charger is an High-efficiency, fast, small volume, has CAN communication ground charging device for lithium batteries. The intelligent charger has a single-phase power (L ,N, PE) AC input , The maximum output is 3KW. It uses forced air cooling mode, has the protection functions of input over-voltage, under-voltage, output over-voltage, under-voltage, over-current, over-temperature, output short circuit, fan failure and so on. At the same time, it meets the requirements of RoHS and CE certification.



System Architecture



Charging module topology framework

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2 Charger Electrical Parameters

2.1 Charger technical parameters

Item	Parameters	Remark
AC Input :		
Rated input voltage	220Vac	L+N+PE
Input voltage range	175-264Vac	/
Input cable length	3M	/
Frequency range	47-63 Hz	/
Input current	≤15A Max	220Vac
Efficiency	≥93%	Rated input、output
Power factor	≥0.99	Rated input、output
DC Output :		
Rated output voltage	48V	/
Output voltage range	38-60V	Communication adjustment
output current	50A	Max output current
Output power	3000W	Max output power
Auxiliary supply output voltage	12/24V	Optional, power supply for BMS
Auxiliary supply output current	3A	Optional, power supply for BMS
Load regulation	±5%	10% to 90% Load
Current precision	±5%	/
Voltage precision	±5%	/
Ripple voltage	±1%Vo peak	20MHz
MTBF	50000H	25℃
Output cable、connector:		
Output connector	DIN, Anderson, Charger gun, Other	/
Output cable length	3	M
Output cable Spec.	16	mm ²
Communication:		
communication method	RS485, RS232, CAN BUS	Communicate with battery
Communication agreement	/	Communicate agreement with BMS battery
Charger:		
Size	L370*W180*H160 mm	Charger size
Weigth	<10Kg	/

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2.2 Safety Features

Item	Unit	Parameters	Remark
Isolation voltage	Vac	Input to the case 2120 , 1min , leak current<30mA	Remove discharge tube test, require no arc, no breakdown
Isolation voltage	Vac	Input to output2120 ; 1min , leak current<30mA	
Isolation voltage	Vdc	Output to case 225 ; 1min , leak current<30mA	
Insulation resistance	MΩ	Input to output≥1 ; output to case > 5 (25°C,70%RH)	500Vdc test

2.3 Protect Function

Item	Unit	Parameters	Remark
Input overvoltage protection (software、 hardware)	Vac	≥264	Self-recovery
Input undervoltage protection (software、 hardware)	Vac	≤175	Self-recovery
Output overcurrent protection (software、 hardware)	A	≥110%Io	Self-recovery
Output undervoltage protection (software hardware)	Vdc	≤38	Self-recovery
Output overvoltage protection (software hardware)	Vdc	≥105%	Self-recovery
Over-temperature protection (software)	°C	≥80	Outlet side radiator (test point)
Output short-circuit protection (software、 hardware)	/	Yes	Self-recovery
Dynamic response	us	≤500	/
CAN communication interruption	/	Yes	Has Communication interruption and Intelligent shutdown after 5S' timeout

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3 Working Environment

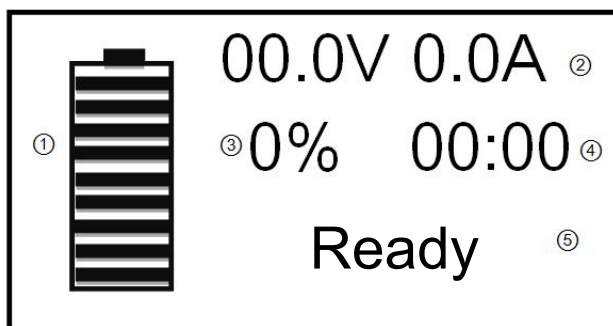
Item	Min	Typ	Max	Unit	Test condition
Working temperature	-20	25	40	°C	
Storage temperature	-40	25	70	°C	
Relative humidity	0	/	93	%	
Protection mode	/	IP20	/	/	
Cooling method	/	Forced Air cooling	/	/	

4 EMC & Safety

Item	Unit	Standard	Remark
CE	/	IEC61000_3_2 IEC61000_3_3 IEC61000_6_2 IEC61000_6_4 EN61851-1:2011 EN61851-23:2014 EN61851-21-1:2017	Refer to relevant certification standards

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5 LCD Display panel and its contents

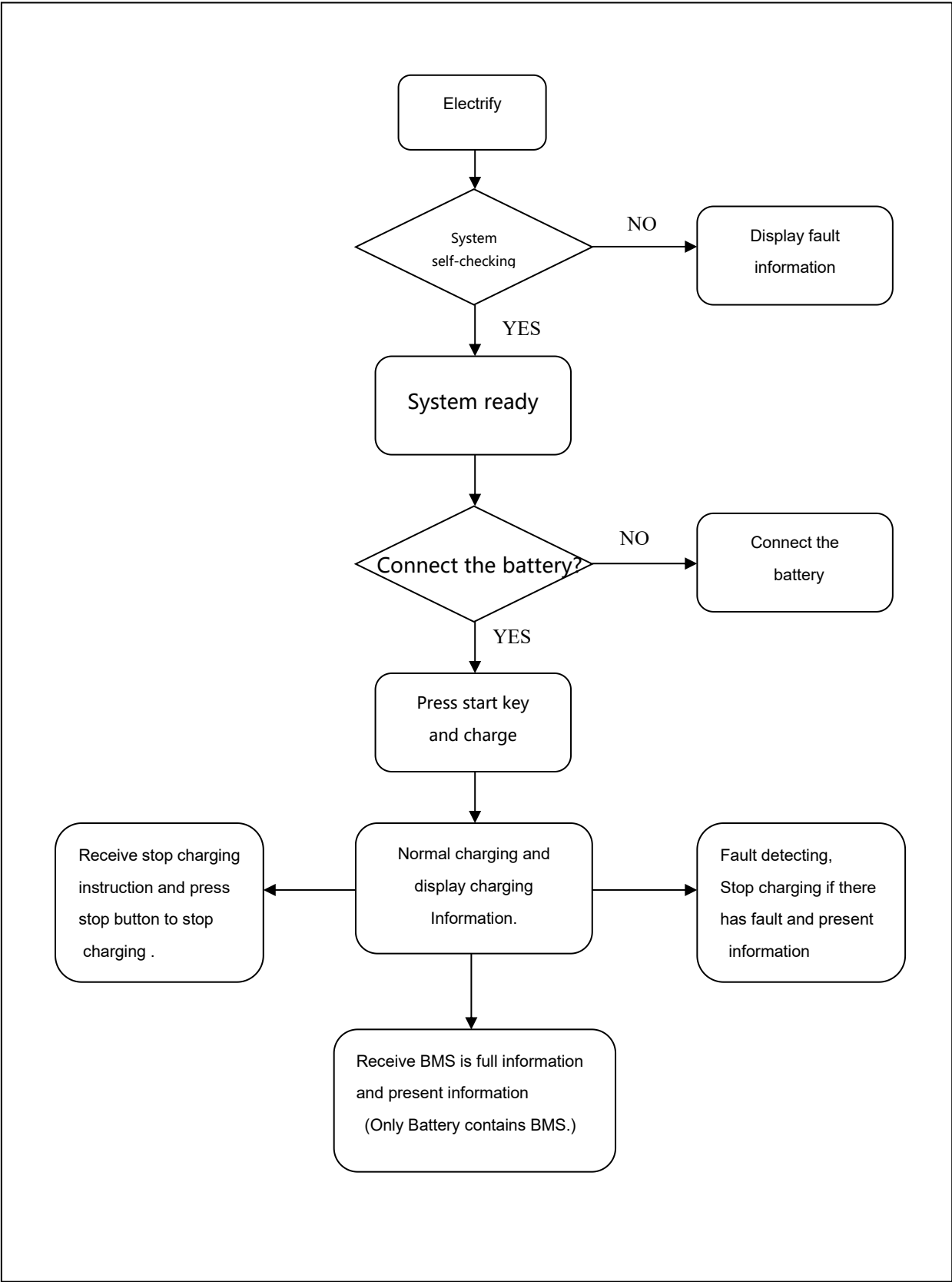


- ① : Battery charging status chart , it will has indication when charging
- ② : Shows current and voltage
- ③ : SOC battery percentage (Provideby BMS)
- ④ : Charging time (Hour: min)
- ⑤ : LCD display will show the status

Charging status:	Description :
Self-checking	Check the battery condition, whether charging is allowed, and whether the charger has faults itself.
Ready	The battery can be charge
Charging	Battery Charging
Fully Charge	Charger complete
Shutting down	Close charger, turn off the main switch
Input abnormal	The charger' s input voltage is higher or lower than the preset value
Connect battery	The charger output line is not connected to the battery, but the communication connection is good.
Disconnect Battery /Error mode	The charger' s charging mode is wrong.
Disable charging	The battery is forbidden to charge
Remark: The above fault codes should do cooperation with BMS'send out,then can show.If the battery without BMS,some fault codes wonot be displayed. Support for customer customization.	

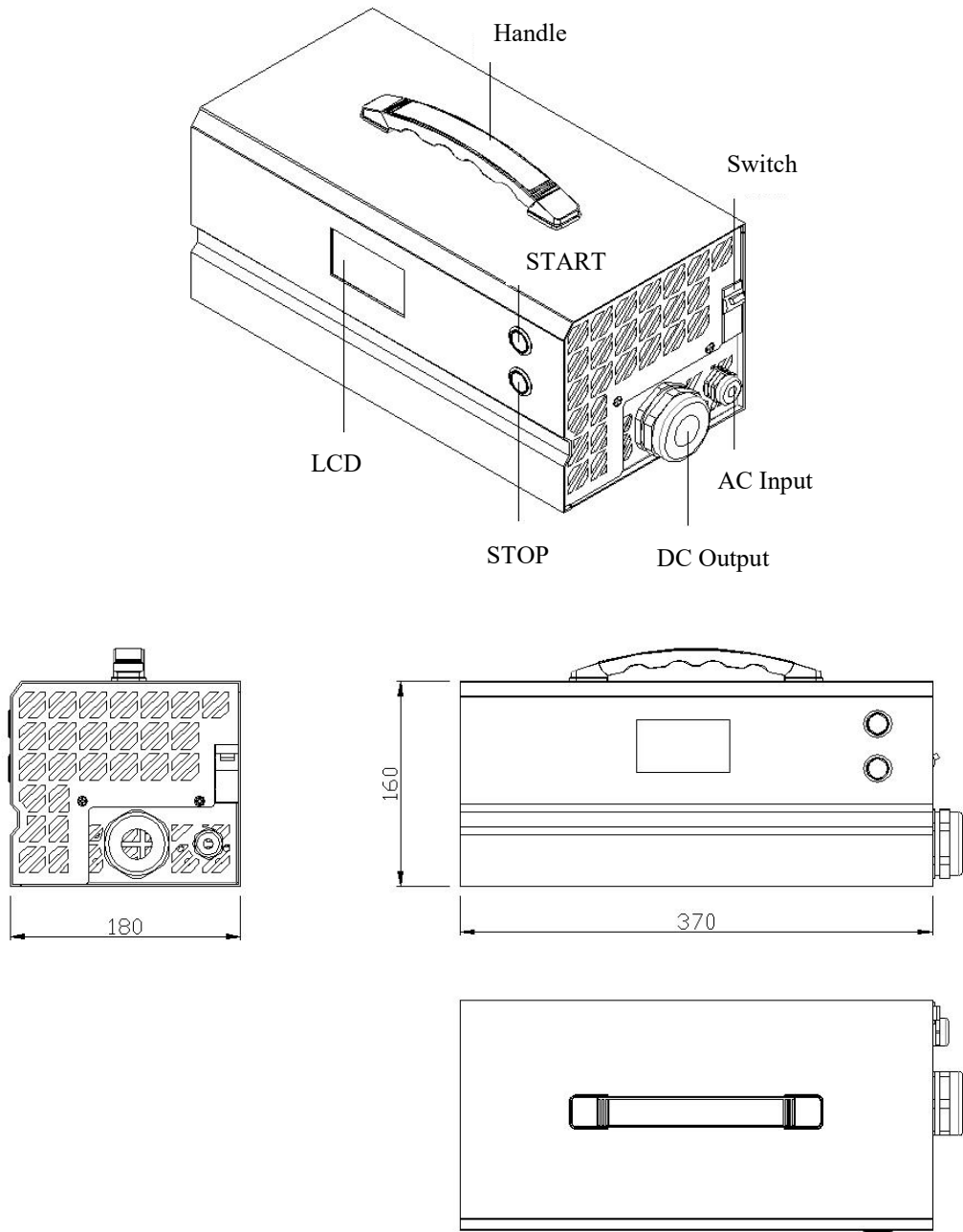
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6 Charging Process



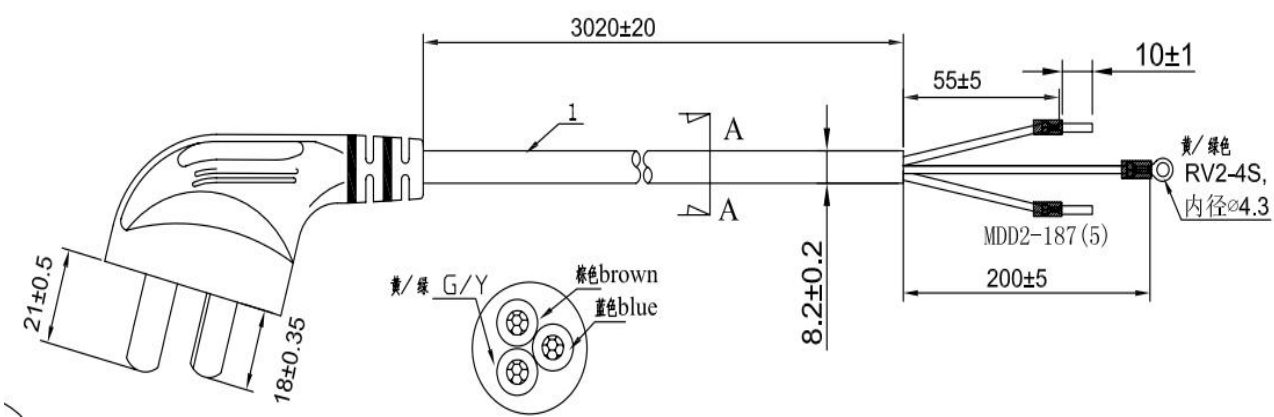
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7 Charger Structure

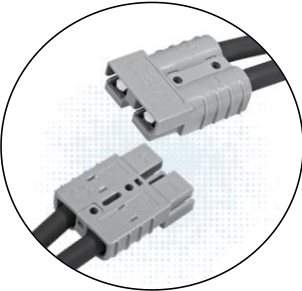


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Input Cable spec.



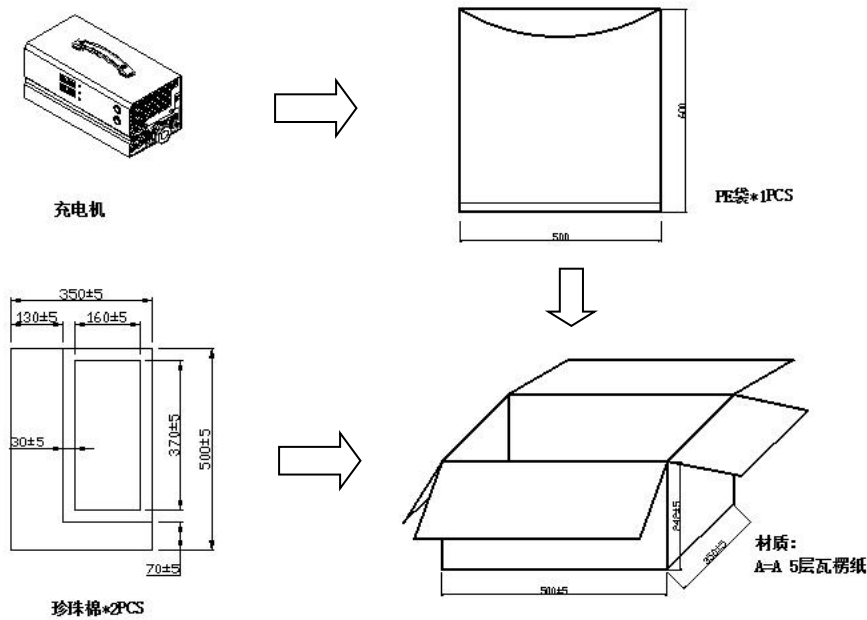
Output Connector

Anderson	DIN	Charger gun	Other
			Other

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8 Packaging

Carton & PE & Foam



9 Appendix