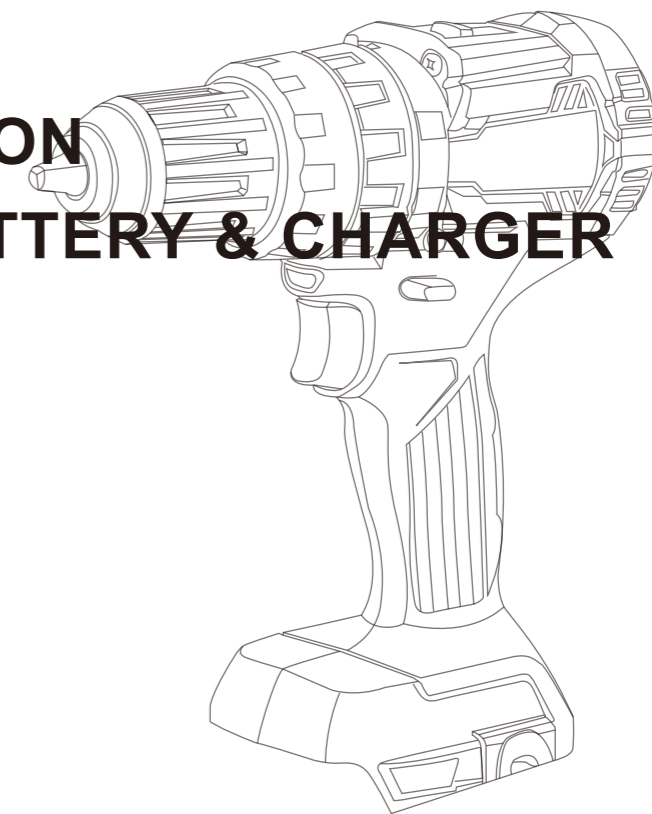




# BATTERY SOLUTION POWER TOOL BATTERY & CHARGER

工具电池  
电池解决方案



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Website: <https://www.rhybattery.com>



PARTNERS



中国·深圳  
SHENZHEN CHINA

深圳市富浩源能源科技有限公司  
SHENZHEN RICH HAOYUAN ENERGY TECHNOLOGY CO. LTD

# OVERVIEW

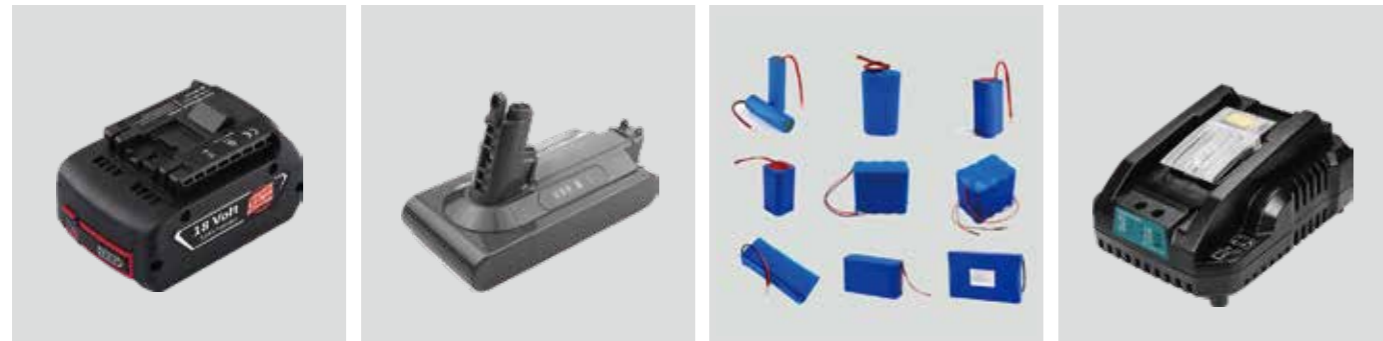
## 概述

### 产品简介

Product introduction

RHY is engaged in the manufacture of battery packs and is committed to providing customers with one-stop battery solutions. All processes from design and development to production and testing are independently completed by RHY. Our battery products can be applied to power tools, garden tools, vacuum cleaners, e-bikes, vacuum pumps, sprayers, scooters, electronic toys, etc.

富浩源主营电池包的制造,致力于为客户提供一站式的电池解决方案。从设计开发到生产测试均由富浩源自主完成。电池产品可适用于电动工具、园林工具、吸尘器、真空泵、喷雾器、滑板车、电动自行车、电子玩具等



### 功能特征

Characteristics

- 1** Fireproof ABS+PC plastic  
防火材料,更耐用
- 2** Reliable battery cells  
进口电芯,更可靠
- 3** Multiple circuit protection  
多重电路保护,更安全
- 4** Build to order  
按需定制,更灵活
- 5** 1 year warranty  
一年质保,更放心
- 6** Factory price, high quality  
工厂价格,出口质量



Powerful  
动力强劲



Long Cycle Life  
循环寿命长



Certified  
认证齐全



Fast delivery  
交期短

# RHY BATTERY SOLUTION APPLICATIONS

## 电池方案应用举例



Garden tools



E-bikes



E-scooters

# COMPANY INTRODUCTION

## 公司介绍

### 业务范围

Our Business

Founded in 2013, Shenzhen Rich Haoyuan Energy Technology Co., Ltd. is an integrated enterprise specializing in design, development, production and sales of battery packs. The company covers a total area of over 240,000 sq.ft. with 2 factories and more than 300 employees. Main products are Li-ion/Ni-MH/Ni-Cd battery packs, power tool batteries, OEM battery packs, battery solutions, UPS batteries, chargers, adapters, etc. Our company integrates product design, tooling, injection molding, SMT, assembly, sales and service, which makes us capable of supplying all kinds of battery packs, chargers and adapters, providing one-stop battery solutions and OEM/ODM/OBM services.

深圳市富浩源能源科技有限公司成立于2013年，注册资金5000万元，是一家专业从事电池包开发、生产和销售的综合性企业。公司总面积超过23000平方米，拥有2个工厂及300余名员工。主营业务为锂离子/镍氢/镍镉电池包、电动工具电池、OEM电池包、电池解决方案、UPS电池、自行车电池、充电器、适配器等。公司集产品研发、开模注塑、SMT贴片、组装、销售、服务于一体，能供应各种电池包、充电器及适配器，提供一整套电池解决方案及OEM/ODM/OBM服务。

23,000m<sup>2</sup>

Total area

2

Factories

300+

Employees

### 产品与服务

Products and Services

We produce replacement batteries and chargers compatible with brands like Makita, Dewalt, Bosch, Dyson, Milwaukee, etc. Our custom battery packs can be applied to power tools, garden tools, e-bikes, vacuum cleaners, vacuum pumps, strapping tools, sprayers, etc. We have rich experiences exporting to North America, Europe, Australia, Japan, Korea, the Middle East and many other countries and regions, with a turnover of over 80 million U.S. dollars per year. The company has been honored ISO9001:2015, BSCI and SQP, while our products are certified by standards like CE, UL, FCC, PSE, KC, RoHS, UN38.3. Each product comes with a 1-year warranty. With advanced equipment and professional R&D team, we guarantee the most superior products and thoughtful services offered to every customer.

公司生产与牧田、得伟、博世、戴森、米沃奇等知名品牌兼容的备用电池和充电器。我司生产的定制电池包可应用于电动工具、园林工具、电动自行车、吸尘器、真空泵、捆扎机、喷雾器等等。我们的产品远销北美、欧洲、澳大利亚、日本、韩国、中东等国家和地区，年销售额超过3亿人民币。公司已通过ISO9001:2015、BSCI、SQP认证，产品通过CE、UL、FCC、PSE、KC、RoHS、UN38.3等国际标准认证，并享有一年质保。凭借先进的设备和专业的研发团队，公司确保为每位客户提供最优质的产品和最周到的服务。

### 取得成绩

Achievements

Adhering to the development philosophy of "Insist on innovation, strive for perfection and persist in integrity-based cooperation", we constantly upgrade products and improve service quality. After years of growth, RHY has been recognized as one of the top battery manufacturers in Shenzhen and even China. We have established long-term cooperation relationships with hundreds of manufacturers, designers and distributors in the world.

As a farsseeing enterprise, we participate in global exhibitions every year and keep expanding our product range to help our customers win more markets. We have set up overseas branches in USA, Japan, Europe and Australia to serve our customers better. More businesses are under planning.

富浩源秉承“坚持创新，精益求精，诚信为本”的发展理念，不断升级产品，提升服务质量。经过数年的发展，富浩源已名列深圳乃至全国电池制造商前茅，产品广受客户好评。目前公司已经与全球数百家电动工具制造商和电池分销商建立了长期的合作关系。

作为一家高瞻远瞩的企业，公司每年参加全球展会，并不断扩大产品范围。为了更好的服务客户，公司已经在美国，日本，欧洲和澳大利亚设立了海外分公司，更多全球布局正在规划中。

# CERTIFICATE

## 证书展示

### 企业资质

Company Honor



ISO9001



BSCI



SQP

### 产品证书

Certificates



CE



UL



FCC



PSE



KC



RoHS

# FACTORY EQUIPMENT

## 工厂设备

Our company has introduced a series of equipment for battery manufacturing. Advanced equipment enables us to put our designs into practice, ensures the consistency and stability of product quality. We have been constantly upgrading our equipment and strive to always stand at the forefront of battery manufacturing.

先进的生产设备让精湛的设计付诸实践的同时,保证了产品质量的一致性和稳定性。我们一直在不断升级我们的设备,力争始终站在电池制造的最前沿。



Injection Machine

注塑机



SMT Machine

贴片机



AOI Test Machine

AOI试验机



Battery Capacity Detection Cabinet

分容柜



Lithium Battery Automatic Separator

锂电池自动分选机



Wave Soldering Machine

波峰式焊接机



Automatic Screw Machine

自动螺杆机



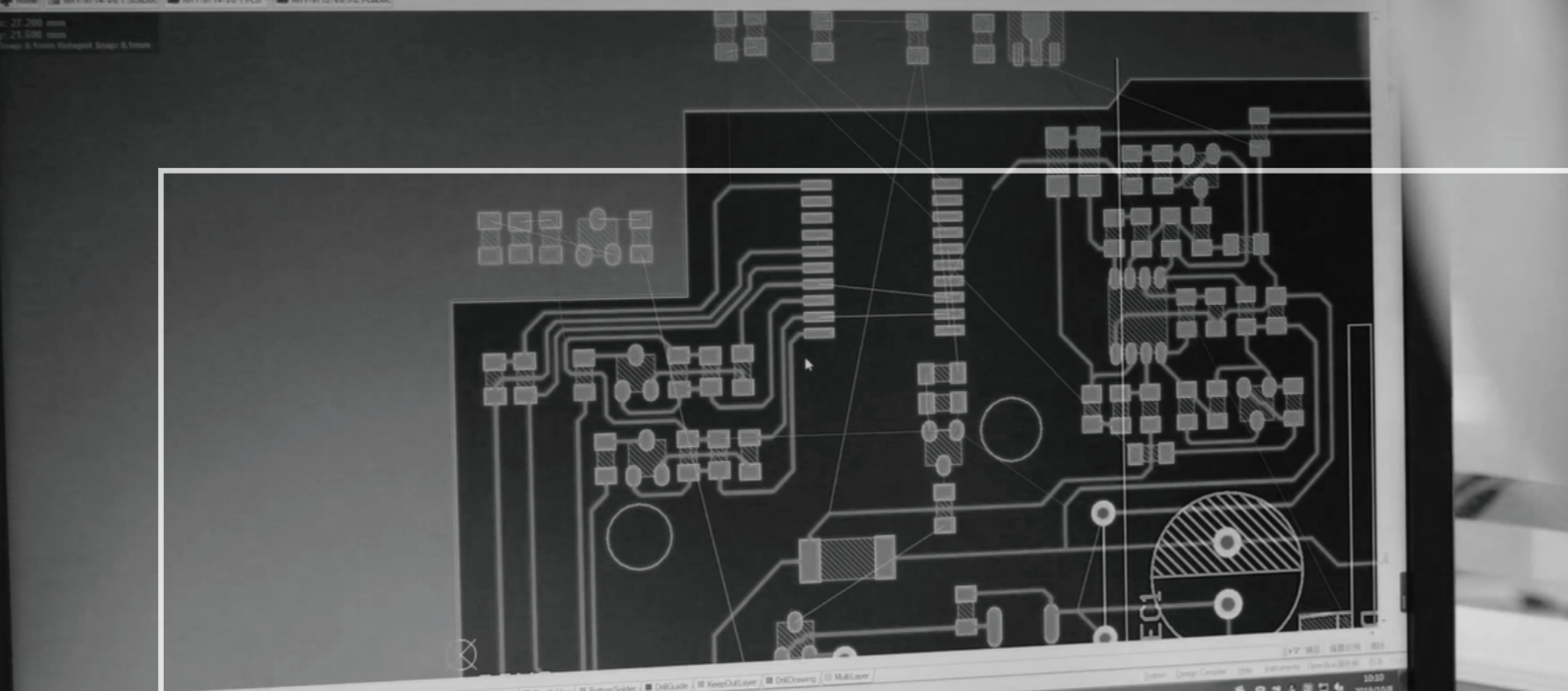
Automatic Test System of Power Supply

电源自动测试系统



Aging Test Cabinet

老化试验箱



# DESIGNED FOR YOUR APPLICATIONS

## 专业电池解决方案

### WHY CHOOSE RHY?

As an ISO9001, SQP, BSCI certified entity manufacturer, RHY integrates all processes from design to manufacture. Our expertise and experience in battery industry enable us to understand your needs faster and better. One-stop battery solutions save you from ignorance of batteries.

作为ISO9001、SQP、BSCI认证的实体制造商，RHY整合了从设计到制造的所有流程，提供一站式配套服务。我们在电池行业的专业知识和经验使我们能够更快速更准确地了解您的需求。

### WHAT CAN WE DO?

RHY is a partner that will do more than read you a data sheet about a battery's features. Our team takes the time to understand your

overall system including how and where it will be used. We then recommend the right battery strategy and explain why it's best suited for your requirements. We will serve you from product design to shipment. All production is done independently by RHY without any third party involvement. We've even got hundreds of off-the-shelf (OTS) battery packs that fit directly into your application.

我们能做的，远不止是为您整理一份产品规格书。我们的团队会深入了解您的整个系统，包括如何使用以及在何处使用。我们会制定最合适的电池方案，并解释为什么它最符合您的要求。我们将从产品设计到生产到售后全程为您服务。所有生产测试均由我司独立完成。我们还提供各种能直接应用在您的设备上的现成 (OTS) 电池组，数百款供您选择。



Professional R&D team  
专业的研发团队



High-efficiency workshop  
高效的生产车间



### HOW TO COOPERATE WITH RHY?

- 01 Understanding: Know about customer's specific ideas, needs and requirements.  
倾听客户的想法和需求
- 02 Confirmation: Appearance, dimensions, materials, specifications, functions, applications, etc.  
确认产品外观、尺寸、材质、规格、功能、用途等
- 03 Research: Determine whether the project is feasible and evaluate the cost.  
可行性分析，计算报价
- 04 Design and Development: Structure, BMS, PCB, tooling.  
设计图纸，电路开发，模具制作
- 05 Sample: T0 sample for actual installment and testing, determine any changes are required.  
T0样品用于实际安装和测试，决定是否需要对产品进行任何改动
- 06 Trial-Production: Foresee and troubleshoot the possible difficulties in production.  
通过试产预知和解决生产中可能遇到的难题
- 07 Production: Produce according to customer's requirements and sample's standard.  
投产，根据客户要求和样品标准进行生产
- 08 Support: 1 year warranty and life-long technical support.  
一年质保，终身技术支持

# R&D TEAM

## 研发团队

Since its establishment, RHY has always attached great importance to the construction of research and development capabilities, and has established a stable team with an advanced laboratory and 20 talented engineers. After years of development, the R&D department has become the heart of the company, mastering the core battery technology, and laying a foundation for the rapid development of products that meet customer needs.

公司成立以来一直十分重视研发能力的建设, 至今已经建立了一个稳定的、具有独立研发能力的研发团队, 团队一共20人。经过多年的发展, 研发部门已经成为了公司的核心, 掌握了电池的核心技术, 为快速研发出满足客户需求的产品奠定了基础。

“  
**RHY BATTERY SOLUTIONS  
POWER UP YOUR BUSINESS**

# TEAM MEMBERS

## 团队成员

The R&D team includes 4 power supply engineers, 4 mechanical engineers, 2 mold design engineers, 2 software engineers, 3 hardware engineers, and 2 project engineers. They take care of the whole process from design to development of batteries and chargers.

团队包括4个电源工程师, 4个结构工程师, 2个模具设计工程师, 2个软件工程师, 3个硬件工程师, 2个项目工程师。他们包揽了电池和充电器研发的所有流程。



陈工 Chen Heng  
Engineering Director

Mr. Chen is the director of the engineering department and joined in 2018. He has his own unique views on the design and manufacture of battery packs and chargers, and attaches great importance to the safety performance. He made RHY's products standardized and customized.



黄工 Huang Youming  
Power Supply Engineer, BMS

Mr. Huang is mainly responsible for the research and development of BMS. The rigorous work attitude allows him to often find and solve the defects in the product development process, thus preventing the occurrence of product defects from the source.



周工 Zhou Dezhi  
Power Supply Engineer, Charger

Mr. Zhou, senior engineer of RHY. Chargers are his forte, and he has developed 90% of the company's chargers to date. His strict control of product function and quality makes the products of RHY widely praised by customers.



赵主管 Zhao Yabin  
Mechanical Engineer

Mr. Zhao is mainly responsible for the research and development of housing, holder, hardware, terminals and other internal structure, and is well aware of all links from design, drawings, tooling to assembly. He also serves as the head of the injection department, managing dozens of workers in the mold room and injection workshop.

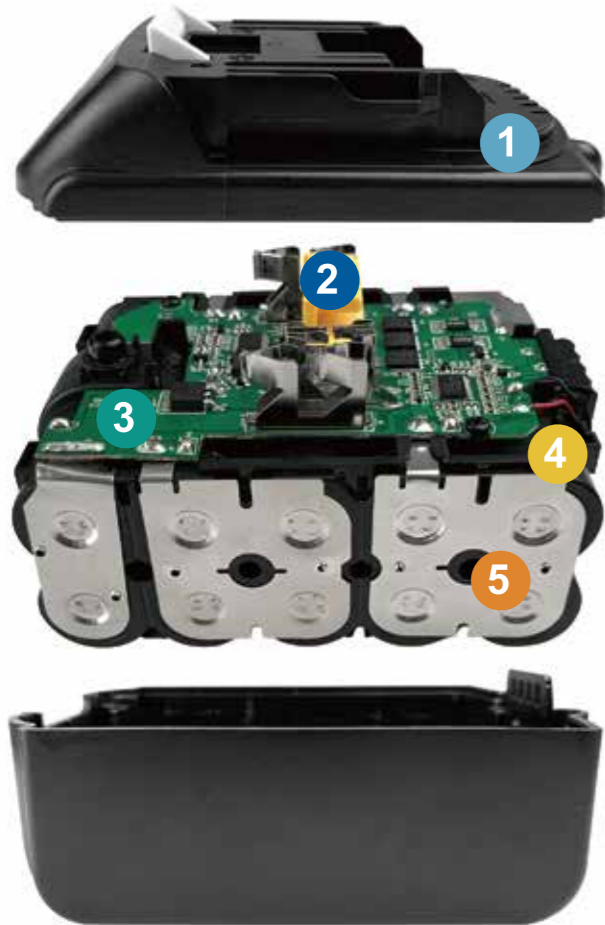
# BATTERY MANUFACTURING

## 电池制作工艺

### CRAFTSMANSHIP

The most exquisite design, excellent craftsmanship and fastidious materials make the best products.

专业的设计,精湛的工艺,考究的材料,造就高质量的产品。



- 1 V0 Grade Fireproof PC/ABS**
  - Resists Fire, Water, Sun and Crash
- 2 PA+30%GF Connector**
  - High Temp. and Abrasion Resistance
  - Good Flame Retardant Effect
- 3 PCB Designed and Patented by RHY**
  - With Overcharge Protection, Over-discharge Protection, Short Circuit Protection, Over Temp. Protection, Individual Cell Monitoring. Make It Better and Safer.
- 4 World's Trusted Brand Cells**
  - Sony/ Sanyo/ Samsung/ LG...
  - Powerful, Durable and Safe
- 5 Pure Nickel Sheet**
  - Better Conductivity
  - Better Welding Quality

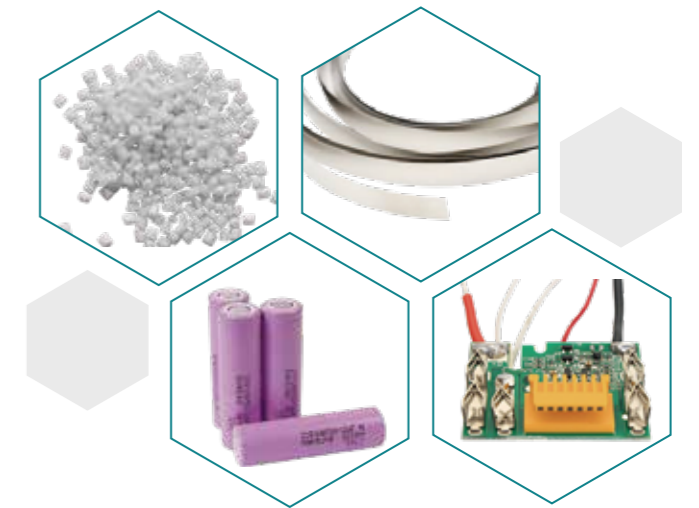
We take battery safety very seriously, which makes us very strict in the selection of raw materials. The plastics are all made of V0 grade fireproof PC/ABS, the connecting sheets are all pure nickel, and the electronic components are all imported and certified materials. Under the ISO9001 management system, we evaluate our suppliers every year and replace the unqualified suppliers in time.



我们非常重视电池产品的安全性,这使我们在原材料的挑选上十分苛刻。壳料均采用V0等级防火PC/ABS料,连接件均为纯镍材质,电子料均为进口认证材料。在ISO9001的管理体系下,我们严格筛选供应商,并每年度对供应商进行评估,及时更换不合格的供应商。

### QUALITY CONTROL

#### 品质管理



Every link from raw materials to shipment is under strict quality control. All products are 100% inspected. The whole quality inspection process is recorded, queryable and traceable. Lithium battery products undergo aging tests to ensure product quality.

从来料到出货的每一个环节都在严格的品控管理措施下,对生产过程中的产品全部实行百分百全检,品检全程有记录、可查询、可追溯。锂电池产品均经过老化测试,确保产品质量。



# PRODUCT CATALOG

Off-the-shelf battery packs, chargers and adapters

FOR RYOBI

LI-ION



**RHY-OP4050**

Voltage: 40V  
Type: Li-ion

Refer: OP4040, OP4026, OP4030, OP4050, OP4060A, OP4050A, OP4040A, BPL3650D2, BPL3640D2

3.0Ah 4.0Ah 5.0Ah 6.0Ah



**RHY-P108-2**

Voltage: 18V  
Type: Li-ion

Refer: P108, P192, P191, RB18L50, RB18L40, RB18L30

3.0Ah 4.0Ah 5.0Ah 6.0Ah



**RHY-P108-1**

Voltage: 18V  
Type: Li-ion

Refer: P108, P189, P190, RB18L25, RB18L20, RB18L15

1.5Ah 2.0Ah 2.5Ah 3.0Ah



**RHY-CB120L**

Voltage: 12V  
Type: Li-ion

Refer: BPL-1220, L1212R, RB12L13, CB120L, CB121L

1.5Ah 2.0Ah 2.5Ah 3.0Ah

NI-MH/NI-CD



**RHY-ABP1801**

Voltage: 18V  
Type: Ni-MH/Ni-Cd

Refer: ABP1801, ABP1803, BPP1820

1.5Ah 2.0Ah 2.5Ah 3.0Ah



**RHY-BID1430**

Voltage: 14.4V  
Type: Ni-MH/Ni-Cd

Refer: 130224010, 130224011, 130281002, 1314702, 1400144, 1400655, 1400656, 1400671, 4400011

1.5Ah 2.0Ah 2.5Ah 3.0Ah



**RHY-BID1230**

Voltage: 12V  
Type: Ni-MH/Ni-Cd

Refer: 1400143, 1400652, 400670, 4400005, B-8286, BPT1025, RY-1204

1.5Ah 2.0Ah 2.5Ah 3.0Ah



**RHY-BID9620**

Voltage: 9.6V  
Type: Ni-MH/Ni-Cd

Refer: B-9620F2, B-967F1, B-963F2, 1400669

1.5Ah 2.0Ah 2.5Ah 3.0Ah

CHARGER



**RHY-OP401**

Battery Type: Li-ion  
Input: 100V-240V  
Output: 40V 1.3A  
Refer: OP401, OP404, OP403, RY36C60A



**RHY-P117**

Battery Type: Li-ion & Ni-MH & Ni-Cd  
Input: 100V-240V  
Output: 9.6V-18V/1.5A-2A  
Refer: P117, P118, RC18150



**RHY-C120D**

Battery Type: Li-ion  
Input: 100V-240V  
Output: 12V/Max3A  
Refer: 130, 503, 001, 140, 503, 000



**RHY-AP4800**

Battery Type: Li-ion  
Input: 100V-240V  
Output: 4V  
Refer: AP4800

## FOR GREENWORKS

### LI-ION >



#### RHY-G40

Voltage: 40V  
Type: Li-ion  
Refer: G40B4, 29472,  
29462, 2901319

3.0Ah 4.0Ah 5.0Ah 6.0Ah



#### RHY-G4824

Voltage:  
Type: Li-ion  
Refer: G24B2

6.0Ah/3.0Ah 8.0Ah/4.0Ah  
10.0Ah/5.0Ah 12.0Ah/6.0Ah

### CHARGER >



#### RHY-9718

Battery Type: Li-ion  
Input: 100V-240V  
Output: 40V 3A  
Refer: 29482



#### RHY-G4824C4

Battery Type: Li-ion  
Input: 100V-240V  
Output: 25.2V/2.5A  
Refer: G4824C4

## FOR EGO

### LI-ION >



#### RHY-BA1400T

Voltage: 56V  
Type: Li-ion  
Refer: BA1400T BA2800T  
BA4200

1.5Ah 2.0Ah 2.5Ah 3.0Ah



#### RHY-BA2800T

Voltage: 56V  
Type: Li-ion  
Refer: BA1400T BA2800T  
BA4200

3.0Ah 4.0Ah 5.0Ah 6.0Ah



#### RHY-BA4200T

Voltage: 56V  
Type: Li-ion  
Refer: BA1400T BA2800T  
BA4200

4.5Ah 6.0Ah 7.5Ah 9.0Ah

# MEET OUR TEAM

团队风采

CREATIVE | PROFESSIONAL | PATIENT

创造性 | 专业性 | 耐心



Our Clients  
我们的客户



# TEAM PERFORMANCE

RHY BATTERY SOLUTIONS POWER UP YOUR BUSINESS

富浩源为您提供一站式电池解决方案

RHY TEAM AT GLOBAL EXHIBITIONS

全球展览会上的RHY团队

