

RHYL[®]

RHYL[®] TECHNOLOGY
ALL-IN-ONE CHARGING SOLUTION



CATALOG

What's your industrial battery charging challenge?



POWER FREQUENCY CHARGER

For Lead-acid Batteries

A high-tech power frequency intelligent charges for Lead-acid batteries, equipped with an high-efficiency CPU, can accurately detect various states of the battery.



HIGH FREQUENCY CHARGER

Advanced smart charger series for Lithium Battery Fast Charging.



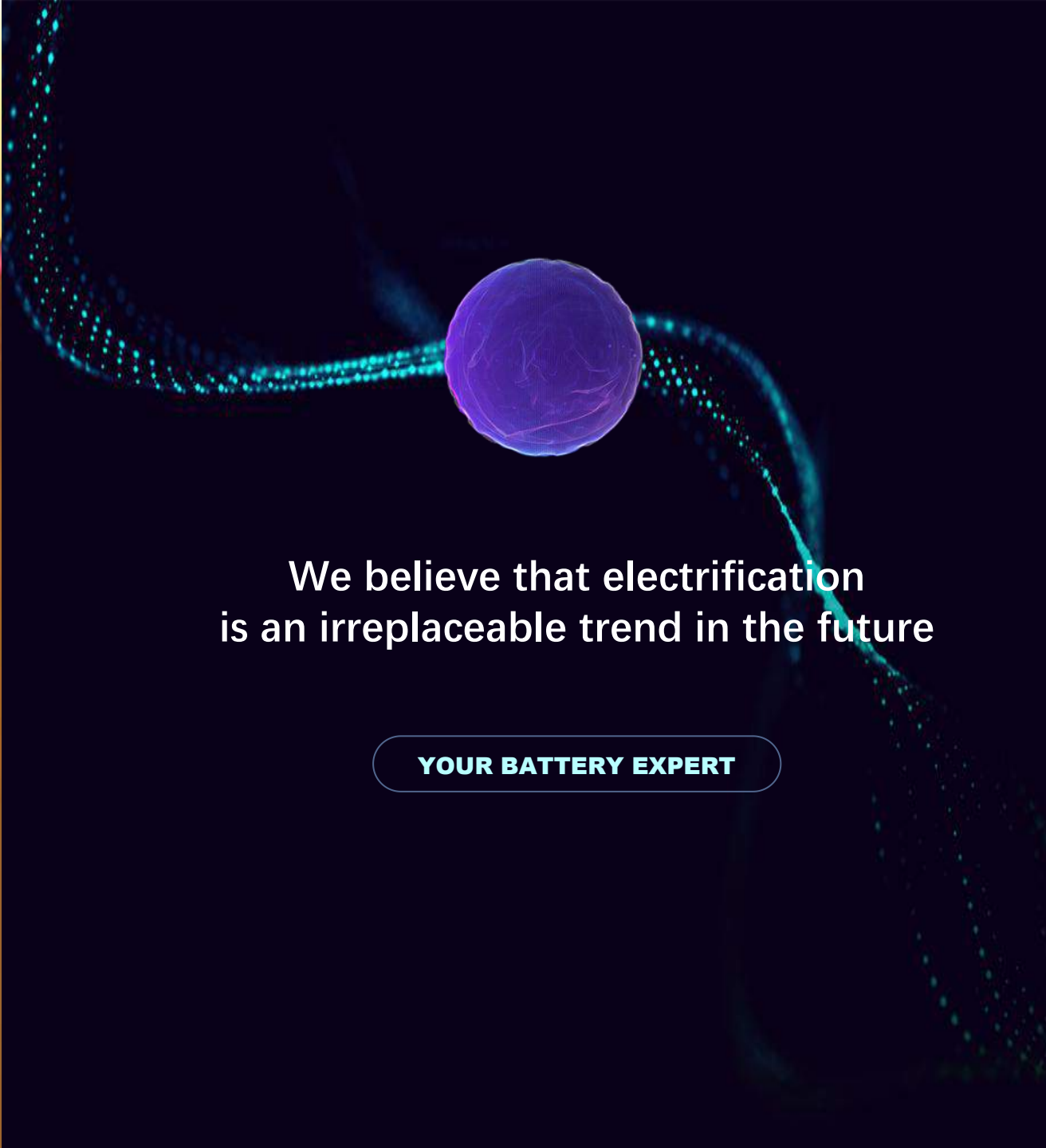
DC-DC CONVERTER

Advanced Intelligent DC/DC Converter

Energy-efficient, safe and reliable. And with the brand new electronic process and efficient circuit design, the efficiency of our converter is up to 93% efficient.



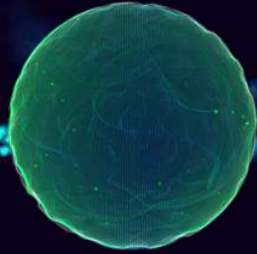
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We believe that electrification
is an irreplaceable trend in the future

YOUR BATTERY EXPERT

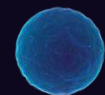
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Professional Battery Charging
Solution For the Material Handling
Equipment and Ground Support
Equipment.

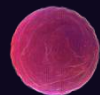
ZERO-EMISSION CLEAN ENERGY





Lithium Battery Fast Charging

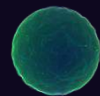
CD series lithium battery fast charge is specially used for electric forklifts, AGV, electric vehicles fast charging.



94% PLUS Efficiency

Modular design, the maximum power of the N+1 mode can reach several hundred kilowatts.

The charging module is fully up to global standards, TUV, CE,UL



All-round Protection

Input over-voltage protection, output over-voltage , over-current , short-circuit , leakage, and emergency stop protection.



HWCD1



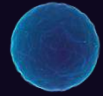
CD1 LITHIUM BATTERY FAST CHARGING SERIES

Input Voltage	AC380V+_15% Three-phase four-wire system
Input Frequency	45-65HZ
Power Factor	≥0.99
Effectiveness	≥94%
Output Voltage Range	18-65Vdc、35-120Vdc、75-235Vdc
Output Current Range	100A-300A
Corrugation Coefficient	<1%
Voltage Regulation Accuracy	<±0.5%
Steady Flow Accuracy	<±0.5%
Operating Temperature	-20°C -55°C
Protective Function	Input overvoltage, output overvoltage, overcurrent, short circuit, leakage, emergency shutdown, etc.
Size	520mm*461mm*839mm



HWCD1





For Lead-acid Batteries

Can reach 82-87% during the whole charging process. Adjustable Charging Factor. Wide Range of Charging Voltages. Automatically Monitor. LCD Screen Display



Automatic Equalization Charging

After the charger is fully charged and turned off, the battery will be equalized and charged by the pulse current to achieve the maintenance charging function.



ALL-ROUND Protection

Open circuit protection, reverse protection, overload protection, short circuit protection, transformer over temperature protection, module over temperature protection, power supply phase loss protection and other fault protection, and is equipped with intelligent alarm function and fault code display.



HWBC21





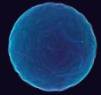
BC21 POWER FREQUENCY CHARGER SERIES

Input Voltage	Two Phase 380V 50HZ Three phase 380V 50HZ
Input Frequency	50HZ
Power Factor	≥0.99
Effectiveness	82-86%
Output Voltage Range	48V-80V (Can be customized according to customer requirements)
Output Current Range	50A-100A (Can be customized according to customer requirements)
Applicable Battery	Lead-acid batteries
Protection Level	IP21
Storage Temperature	-40°C —+85°C
Operating Temperature	-25°C -60°C
Protective Function	Open circuit protection, reverse connection protection, overload, short circuit, transformer over temperature, thermal protection, module over temperature, power supply fault equal protection and alarm function and fault code display.



HWBC21





For Electric Vehicle Battery

A high-tech battery charger designed to supplement the power of the electric vehicle battery. This product has high efficiency, high reliability, high protection level and full protection function.



IP67 Protection Level

Voltage rating, insulation grade, EMC design, mechanical vibration and other indicators meet the technical standards of electric vehicles, ensuring the safe use of RhyL chargers and reliable quality.



Power Factor Correction

Automatically adjust the charging current or voltage parameters and perform corresponding actions according to the data provided by the battery management system (BMS), which can achieve real-time monitoring and self-diagnosis.



HWCM6





AC Input

Input Voltage Single-phase 90-264VAC (rated)

Power Factor ≥ 0.99

Input Maximum Current $\leq 10A$

DC Output

Output Voltage 24V 48V 60V 72V 96V

Output Power 2KW

Effectiveness 95%

Protection Level

Output Protection Overvoltage, undervoltage, overcurrent, short circuit, thermal protection, over temperature protection, battery polarity inversion protection,

Insulation and Pressure Resistance 2KVAC input - output
1.5KVAC input & output - ground

MTBF >300000H

Communication Method CAN communication

Working Temperature / Humidity $-20^{\circ}C - 85^{\circ}C /$
5-95% No condensation

Protection level IP67



HWCM6



For Electric Vehicle Battery

Power Factor Correction

The charger uses advanced active power factor correction tech and digital resonant full bridge soft switching control.

92% Temperature Compensation

Equipped with a new Rhyl electronic process and efficient circuit design, making the charging efficiency up to 92%

Wide Input voltage - AC85V to AC265V

Can be applied to most global voltage, a great convenience for grid fluctuations and vehicle exports.

SAEJ1378 LLC Soft Switching Control

The internal charger is shock-resistant and has a seismic rating of SAEJ1378, which fully complies with the standard for electric vehicles.



HWC3





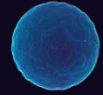
C3 HIGH FREQUENCY ON-BOARD CHARGER SERIES

Input Voltage	85VAC-265VAC
The Output Voltage	12VDC/24VDC/36VDC/48VDC/60VDC
Output Current	20A 10A 6A 5A 4A
Charging Method	/
Full Load Efficiency	92%
Seismic Rating / Protection Rating	IP66
Working/ Storage temperature	-20°C—+50°C/ -40°C—+60°C
Power	300W
Applicable Battery	Lead acid battery, lithium battery, etc.



HWC3





SAEJ1378

Anti-vibration requirements and is for harsh charging situation.



Heat Dissipation Tech

Produced under precise system, with good heat dissipation performance, the electric circuit of the Rhyll converter is stable and reliable.



Safety Monitoring Functions

Over temperature protection, short circuit protection, over current protection, etc.



Modular CAN 2.0

DC/DC converter with CAN2.0 communication protocol installed, responding in the first time for any possible problems.



Dual Output Function

DC/DC converter with dual output function, high efficiency.



HWZ16





DC Input

Input Voltage	48VDC	60VDC	72VDC	80VDC	Customizable
Voltage Accuracy	Better than 1%				

DC Output

Output Voltage	12V DC	24VDC	Customizable Per Customer Demand		
Output Power	420/500W				
Effectiveness	85%				
Max Output Current	42A				

Protection Level & Mechanical

Shell Size	Length 200mm / Width 140mm / Height 71.5mm
Installation Size	130×110mm, 4 Φ5.5 mounting holes (can be customized)
Weight	3.1KG
Protection Level	IP66



HWZ16



CATEGORY	PRODUCT GROUP	PRODUCT FAMILIES	0.1-0.8kw	0.8-2kw	2-3.3kw	3.3-6.6kw	7-30KW	30-120KW
HIGH FREQUENCY ON-BOARD CHARGER	C SERIES	C2B C3 C9	●					
		C4E		●				
		C8 C16			●			
		C19				●		
	CM SERIES	CM10 CM11 CM12	●					
		CM6 CM8 CM8B		●				
		CM1 CM2 CM13			●			
DC-DC CONVERTER	Z SERIES	Z3C Z5 Z8 Z16	●					
		Z3B		●				
	ZM SERIES	ZM18	●					
		ZM9 ZM1 ZM12 ZM4 ZM11 ZM14		●				
		ZM10 ZM2			●			
POWER FREQUENCY 50-60HZ CHARGER	Lead-acid Battery charging	BC18	●	●	●	●		
		BC20/BC21				●	●	
		BC22		●	●	●		
HIGH FREQUENCY LITHIUM BATTERY FAST CHAGING	Lithium Battery Fast Charging	CD1 CD2					●	
		CD3 CD4			●	●	●	
		CD9 CD10 CG1					●	
		CD6 CD8				●		
		CD5						●

ABOUT US

We are a high-tech enterprise from Huawei Electronics. We own Hundreds of successful research and development achievements and have cooperated with Nanjing University of Aeronautics and Astronautics by establishing a master's research point, which highlights the Rhyl's innovative spirit.



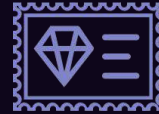
Being Trust Worthy

Being trust worthy, we are the long-term strategic supplier of Heli Group. We are committed to full automation system, passing the German EA automatic test.



Keep Rhyl Fresh

The development and upgrade will never stop in Rhyl, from HWC1 to CM18, forklift charger from CD1 to CD10, DC/DC converter from Z1 to ZM18, power frequency charger from BC1 to BC18



Our Guarantee

Our smart chargers are the safest, highest performing, which have passed TSU16949 quality certification, CE and ISO.



Green Energy Pioneer

Rhyl Technology is committed to researching clean energy, zero-emission charging technology and educational programs that promote earth-friendly operations.

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We are the wholly-owned subsidiary company of CACTI (Zhangjiagang Huawei Electrics Co., Ltd) and Rhyl Tech is the exporting brand of CACTI (Zhangjiagang Huawei Electrics Co., Ltd).







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In addition to the advantages of the Rhyl charger, the Rhyl-consultants bring in their know-how, giving the Rhyl charger an extra value. It is a combination that opens up new perspectives to any fleet! With their experience they quickly discover the bottlenecks in an existing charging system and make creative proposals to solve those problems...

2017 Sep-09, Patrick Wack

"Thanks to the link with Rhyl team, charging system has by and large become an automated and high-efficiency process. Furthermore, At that, Logistics management department enjoys the flawless support from the Rhyl smart charging solution."

2019 Jan-12, Cees Schouten

"A company tour in China Rhyl –. We started our charging solution in September 2008, using all modules and possible features of the Rhyl-tech system. 4 months later – January 1, 2009 – Rhyl-tech system was fully implemented. Now, again 4 months later, we can't imagine Impact without Rhyl-tech in our organisation. It was a textbook implementation."

2018 Jul-09, David Colman

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THANK YOU
FOR LISTENING

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