Company Introduction & Rectifier Solution

Green Power Co., Ltd.
Hubei Green Power Co., Ltd.

www.gprectifier.com
1. Advantages of Green Power
2. Benefit of OEM/CEM partners with Green Power
3. Service and Products of Green Power
4. Team of Green Power
5. Technical Capability
6. Certifications
7. Production Capability
8. International sales & service network
9. Milestone Projects
10. Quality Control
11. Service Capability
Company Introduction

- Green Power Co., Ltd., have R&D and production in China. Hubei Green Power is subsidiary company and manufacturing factory of Green Power.

- Green Power are diversified technology company and global professional manufacturer of power supplies and power quality products, dedicated to consistent R&D for more than 20 years, High-tech company.

- Also provide OEM, ODM, CEM for international partners.

- Have R&D office and factory more than 16000m².
Europe technology, Europe quality

- Turn-key solution
- Europe Technology
- Europe Quality
- Quick After sale service
- Exported to USA, Europe
Power Supply Applications

- Crystal growth heating
- Oil, gas pipe cathode protection
- Electrolysis
- Melting furnace heating
- Metal Electrowinning
- Plasma Heating
- Electroplating
- Aluminum Anodizing
- Waste water treatment
- Battery charging
1. Service and Products of Green Power

- IGBT Rectifier
- SCR Rectifier
- Active Harmonic Filter
- STATCOM (Static Var Generator)
- Dynamic Voltage Regulator
2. Advantages of Green Power

① One of best power supply manufacturers for international partners, more than 20 years experience, partner of top 500 companies

② Knowing the load application very well, provide optimized and reliable power supply solutions.

③ Rich foreign trade experience, familiar with all export process, exported to more than 40 countries, meet CE, UL, CSA standard requirement, have international sales and service network, English, Spanish, Russia available

④ Strong technical ability, self-developed mature and advanced technology, consistent R&D of power supply for 20 years

⑤ More than 1000 units production capability, 16000m2 factory, in-house SMT

⑥ USA and Europe quality, high reliability and high stability(0.03%), meet UL, CSA, CE standard and certifications

⑦ Efficient and professional service, provide technical support and lifelong after sale service, onsite commissioning available

⑧ High performance price ratio, optimised power supply design & reasonable power supply price
3. Benefit to partners from GP

- Reliable supplier, we do what we say
- Reliable technology, reliable quality and reliable running
- Optimized solution provided to match load characteristics
- Competitive price than Europe or USA suppliers, saving cost
- Efficient and professional after sale service
- Ensured delivery date
4. Team of Green Power

- 1 Professors
- 6 Doctors in Power Electronics
- 1 Doctor in Management Psychology
- 5 Master degree of MBA
- 10 Senior engineers
- 20 Master degree engineers
- Engineers have first class technology level and rich experience
- 60% bachelor degree above
- All workers are experienced in electrical industry
Chairman Introduction

- Was invited by former Premier Wen Jiabao as one of 10 representatives
- PhD in power electronics
- Professor in Beijing Jiaotong University
- One of Millions Talent
- Model worker
- Enjoy special allowance of Chinese Government
- Have 20 major awards
- Has 24 authorized patents, 5 software copyright
- Published more than 70 papers
- Published 4 books
- Member of National Power Electronics Standardization Committee
- Executive director of the fifth executive board in Beijing Electric Power Electronics Association
- Lead the team fulfilled many national grade important projects
<table>
<thead>
<tr>
<th>No.</th>
<th>Award name / honorary title / result name</th>
<th>Name of winning project</th>
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<th>Personal Record/Total Quantity</th>
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<td>Multi channel chopper power supply system for preparing polycrystalline direct current reduction system</td>
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<td>Topological structure of capacitor self balancing T type multilevel rectifier</td>
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<td>Single phase modular active power filter for traction power supply</td>
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<td>Direct hanging mode of traction power supply high voltage comprehensive compensation device</td>
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<td>A power factor control method for multilevel T converters</td>
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<td>Control method of three-phase voltage source PWM rectifier under unbalanced network voltage</td>
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<td>Simplified method of topology for multilevel T converter</td>
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<td>22</td>
<td>Connection mode of large current parallel switch in direct current reduction system for preparing polycrystalline silicon</td>
<td>ZL201010125520.7</td>
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<td>23</td>
<td>A modular dynamic voltage regulation system based on cascade structure</td>
<td>ZL201210232759.3</td>
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<td>24</td>
<td>Square wave pulse cycle regulating method for modular combination multilevel converter</td>
<td>ZL201210105237.7</td>
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</table>
5. Technical Capability

- High-tech company
- More than 20 years power electronics R&D and engineering experience
- Talented technical team, Ph.D degree
- Experience in industrial applications more than 20 years, have rich experience of both technical design and onsite service.
- Mutual R&D with universities
- Patent and Software Copyright certification
- Self developed DSP(USA TI company's chip) digital controller
- Self developed and designed products
- Products design meet UL, CE, CSA and etc. standards

Self Developed DSP Controller
6. Certifications

ISO9001:2015 Quality Management Certificate
TUVus Certificate (same to UL)

CE certificates
7. Production Capability

- 1000+ power supplies modules per month capacity
- ERP System for Internal Management
- 12000m² factory
- Flow line assembly lines
- Experienced capable production management team
- Qualified workers team
- Strong craftwork ability
- High efficiency
8. International Sales&Service network

- Have international distributors and agents in 17 countries
- Exported to USA, Canada, Germany, UK, India, Mexico, Korea, Chile, Korea etc. more than 40 countries
- English, Russian, Spanish 3 foreign languages support in Green Power
- Participate in international exhibitions
- Customer visit around the world
International Exhibitions

India, Iran, Germany
International Visits

South Korea, USA, UK, Chile, Columbia, Kazakhstan, Iran, Pakistan, India, Bosnia and Herzegovina, Serbia
Overseas Customer factory visit

USA, Canada, Norway, Germany, Australia, India, Pakistan, Israel...... Mexico
9. Milestone Projects

• 30kA 80V for arc furnace for Canada
• 38kA 40V SCR Power Supply for Pakistan for furnace heating
• Developed high power 90kA 120V low frequency power supply for steel plant
• Developed Highest stability IGBT switch mode power supply for silicon growth and sapphire growth
• Worldwide biggest SCR power system 126MW for China Aerospace arc heating, realized domestic first successful application of MW grade power system
• Power system for USA GTAT in USA for Sapphire growth
• Using IGBT chopper technology developed first MW class (7MW) Polysilicon DC reduction electrical system (Top 3 in the world)
• Using IGBT chopper technology realized MW class power system for Nuclear experiment
• Top 5 manufacturer for Power system in high-speed train supply chain
• Custom design power system for Oil detection on sea for Norway
• Copper electrolysis power system for Kazakhstan biggest copper company
126MW SCR power system
No. 1 worldwide in this field on capacity, most advanced technology and highest degree of automation, voltage reaches 21KV.
30kA 80V arc furnace power supply exported to Canada
38kA 40V arc furnace power supply for Pakistan
24kA 450V arc furnace power supply for Turkey
Power System for Polysilicon heating
Power Supply for Nuclear experiment and nuclear material electrolysis
In our opinion, rectifier quality is determined by the whole company's ability, including concept of the company, technical ability, technology accumulation, application experience, quality control management, communication ability with customer, company internal communication, service ability etc.

Green Power has below measures to ensure quality:

1. “Quality First” concept in our whole company
2. Well-trained employees in every position, pursue high quality work outcome
3. Reliable design based on strong technical ability and more than 20 years experience in power supply industry, DSP digital control
4. Reliable material and components, USA TI DSP chip, Film capacitor used, and so on
5. Quality ensured assembly & wiring, standardized craftwork
6. Quality control in each process, IQC, IPQC, OQC

For more details, welcome check the attachment: Quality Control Measures.
Reliable design

- More than 20 years R&D and engineering experience, know application load very well
- Safe and reliable electrical design and component selection
- Safe and easy maintenance mechanical design
- Self developed software control system and software programming
Reliable material and components
Excellent craftwork

- Using 3D design software for design, well trained workers, have uniform installation and wiring regulation.
- Standardized assembly and wiring guidance documents
- Well trained professional workers
Strict quality control process

- Suppliers Evaluation
- Incoming Inspection
- Intermediate Inspection
- PCB board reliability testing
- Factory commissioning
- Factory testing
PCB board reliability testing

- Complete PCB board function testing
- 72 hours PCB board reliability testing
- Strict quality check to the PCB soldering quality by qualified supplier
Full load testing

- Have high voltage 10kV input power, low voltage 600V, 480V, 415V, 380V, 220V power
- Reliability aging testing platform
  Reliability aging testing facility for PCB board
- Full load finished products testing load
  Water cooled load load for 5MW power supply testing
  Circulated water cooling system
- Testing instrument
  FLUKE power analyzing instrument
  FLUKE harmonic testing analyzing instrument
  Oscilloscope
  Multimeters
- Full load factory testing
- Well-educated experienced commissioning engineer
- Well-educated professional quality check engineer
11. Service Capability

- OEM/CEM/ODM
- Local support
- Custom design
- 1 hour email/skype/mobile reply (7:00 am-11:00 pm UTC+8)
- Provide spare parts
- On-site commissioning available on request
- Technical support online
- Lifelong after sale service
- Software for Customer Management

**Effective & Efficient Communication**

- Sales' rich technical background
- English, Russian, Spanish communication
- Strong technical support
Improve Your Productivity

**Efficient Purchasing**
- Online talking 16 hours available
- Information provided one time
- Confirm order within 1 day

**Efficient Running**
- High reliability, avoid break-down
- Designed for continuous running
- Low running cost, efficiency >90%

**Efficient Troubleshooting**
- Provide spare parts
- Easy to inquire fault reason
- Easy to replace parts