Professional Industrial
Battery charger Manufacturer
Customize Charge Solution Supplier

Young Energy is one of the top industrial EV charging equipment manufacturer in China. Our main products are battery chargers, energy feedback system, DC converters, battery discharging indicators, wire harness, as well as vehicle accelerator etc. All our chargers fulfill environmental certificates and legal and technical requirements in safety mandated by the European Union and USA or other countries. To better serve as a humanized supplier, besides taking OEM orders, we also provide overall solution for the core parts of new energy vehicle.

As a professional technology company, we have 1,000 m² research center, more than sixteen patents and innovation. Our company have been awarded the certificate of ISO9001:2015 Quality System and CE, TUV, UL safety certificates. The production capacity is 15,000-20,000 units per month. We have first level technology, persisting in chasing high performance both for quality and customer experience. More than 30,000 units quantity proved up to 99.8% quality stability. Our annual amount for last year is 10 Million USD, this data will increase 50% in the new year.

With over 10 years of production experience, good credit and excellent service, we have established long term cooperative relationships with numbers of enterprises. Current and past global strategic clients include Jungheinrich (German), Bishamun (Japan), Bidgee (USA) and so on.

Our Benefits

- Long life expectancy and proven in service record
- Designed for use in harsh conditions
- Smart modular design for simple and cost effective
- Highest efficiency, up to 97%
- Fast and simple installation, plug and play
- Cost effective spare parts philosophy
- Large range of chargers to match your application and optimise efficiency
The Main Products

Products Application

12V Series
- ESCH12V4A
- ESCH12V8A
- ESCH12V12A
- ESCH12V15A
- ESCH12V20A

24V Series
- ESCH24V4A
- ESCH24V8A
- ESCH24V12A
- ESCH24V15A
- ESCH24V20A
- ESCH24V25A
- ESCH24V30A
- ESCH24V40A
- ESCH24V50A
- ESCH24V60A
- ESCH24V80A
- ESCH24V100A

36V Series
- ESCH36V100A
- ESCH36V120A
- ESCH36V140A
- ESCH36V150A

36V Series
- ESCH48V10A
- ESCH48V15A
- YECH48V25A
- ESCH48V30A
- ESCH48V40A
- ESCH48V50A
- ESCH48V60A
- ESCH48V80A
- ESCH48V100A

48V Series
- ESCH48V10A
- ESCH48V15A
- YECH48V25A
- ESCH48V30A
- ESCH48V40A
- ESCH48V50A
- ESCH48V60A
- ESCH48V80A
- ESCH48V100A

80V Series
- ESCH80V100A
- ESCH80V150A
- YECH80V200A
- ESCH80V200A
- ESCH80V200A

Lithium
- Battery charger
  - YNCH24V10A
  - YNCH48V200A
  - YNCH80V200A

Other
- Customize parts
- DC Converter
- Battery Discharge Indicator
- Wire Harness
- Energy Feeder Back System

Energy Feeder Back System
## Chargers For Different Application

<table>
<thead>
<tr>
<th>Machine category</th>
<th>Application description</th>
<th>Battery pack voltage</th>
<th>Battery pack capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fork Lift, Pallet Trucks, Walkie</td>
<td>Heavy materials loaders and movers in warehouses, shopping depots, etc.</td>
<td>24V/36V/48V/72V</td>
<td>200-800Ah</td>
</tr>
<tr>
<td>Pallet Jacks</td>
<td>Light-duty material handling applications in large facilities, Larger battery pack capacity and lifting capability</td>
<td>24V/36V/48V/72V</td>
<td>200-800Ah</td>
</tr>
<tr>
<td>Utility Vehicles</td>
<td>Equipment for cutting and maintaining grass, plants and ground</td>
<td>24V/36V/48V/72V</td>
<td>200-800Ah</td>
</tr>
<tr>
<td>Electric Rangers &amp; Grounds</td>
<td>Small electric vehicles (including golf carts), often used in large areas in developing markets as an alternative to gasoline engines</td>
<td>24V/36V/48V/72V</td>
<td>200-800Ah</td>
</tr>
<tr>
<td>Aerial Platforms for High Work at Height</td>
<td>Aerial Platforms for higher work than with scissor lifts</td>
<td>24V/36V/48V/72V</td>
<td>200-800Ah</td>
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<td>200-800Ah</td>
</tr>
<tr>
<td>Electric Golf Cars</td>
<td>Hybrid electric power for longer times, inside/outside work</td>
<td>24V/36V/48V/72V</td>
<td>200-800Ah</td>
</tr>
<tr>
<td>Float golf cars</td>
<td>Utility vehicles for carrying people and clubs around golf courses</td>
<td>24V/36V/48V/72V</td>
<td>200-800Ah</td>
</tr>
<tr>
<td>Specialty Golf</td>
<td>Floor cleaning machines for scrubbing and drying interior floor surfaces</td>
<td>24V/36V/48V/72V</td>
<td>200-800Ah</td>
</tr>
<tr>
<td>Scrubbers/Scrubber-driers</td>
<td>Industrial or urban cleaning machines to remove debris, including walk-behind and rider-sweepers</td>
<td>24V/36V/48V/72V</td>
<td>200-800Ah</td>
</tr>
<tr>
<td>Battery-powered sweepers</td>
<td>Shrinking and polishing machines in facilities with solid floors. User cares about completion— battery life is important</td>
<td>24V/36V/48V/72V</td>
<td>200-800Ah</td>
</tr>
<tr>
<td>Burnishers</td>
<td>Electric motorcycles with similar speed and handling to gas-powered motorcycles</td>
<td>24V/36V/48V/72V</td>
<td>200-800Ah</td>
</tr>
<tr>
<td>Motorcycles, Scooters/Bikes, Trikes</td>
<td>Industrial or urban cleaning machines to remove debris, including walk-behind and rider-sweepers</td>
<td>24V/36V/48V/72V</td>
<td>200-800Ah</td>
</tr>
<tr>
<td>Battery-powered sweepers</td>
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<td>24V/36V/48V/72V</td>
<td>200-800Ah</td>
</tr>
<tr>
<td>Scooters/Bikes, Trikes</td>
<td>Industrial or urban cleaning machines to remove debris, including walk-behind and rider-sweepers</td>
<td>24V/36V/48V/72V</td>
<td>200-800Ah</td>
</tr>
<tr>
<td>Utility vehicles, quadricycles</td>
<td>Lower-speed electric scooters and e-bikes used in large urban centers</td>
<td>24V/36V/48V/72V</td>
<td>200-800Ah</td>
</tr>
</tbody>
</table>
Charger 12V Series

Intelligent protection design:
- Over current limit
- Output short circuit protection
- Reverse connect protection
- Over voltage protection
- Temperature compensation
- Customize charge profile

Charger integrates active power factor correction (PFC), can achieve zero pollution of the power grid and avoid the impact of large current grid. Input voltage range is very wide, AC100V-AC265V, suitable for any region's voltage level of the world, have a great convenience for the power grid fluctuations and vehicle exports.

The efficiency is very high, can reach more than 93%, the traditional charger can only reach about 80%.

The intelligent temperature compensation function of the charging process can avoid the damage caused by the over charger or under charge of the battery, and the service life of the battery can be prolonged.

Do the internal charger seismic processing, seismic grade up to SAEJ1378, fully meet the electric vehicle-using standard.

Use the LLC resonance technology, whole charging processing working under soft switching condition, with the less heating of the whole machine.

Model | Max Output Current | Max Output Power | Input Vol Range | Max Efficiency | Cooling Model | Dimensions L*W*H(mm) | Input Under Protection (VAC) | Output over voltage Protection (VDC) |
---|---|---|---|---|---|---|---|---|
ESCH12V4A | 4A | 60W | 100V-208V | 93% | Air | 128*123*65 | <185V | 165V1 |
ESCH12V8A | 8A | 120W | 100V-208V | 93% | Air | 128*123*65 | <185V | 165V1 |
ESCH12V10A | 10A | 150W | 100V-208V | 93% | Air | 128*123*65 | <185V | 165V1 |
ESCH12V12A | 12A | 180W | 100V-208V | 93% | Air | 128*123*102 | <90V | 95V1 |
ESCH12V15A | 15A | 225W | 100V-208V | 93% | Air | 128*123*102 | <90V | 95V1 |
ESCH12V20A | 20A | 300W | 100V-208V | 93% | Air | 128*123*102 | <90V | 95V1 |

12V SERIES PRODUCT OVERVIEW:
- Can make up to IP67 waterproof design
- Customize cable & connector according different market and application
- CE, UL, CEC certified

Sing Chip Microcomputer (SCM) according to the lead-acid batteries tolerance current capacity, life curve, gas analysis point and other information to complete the full charge of the whole process.

With the environmental temperature compensation function, to ensure that the temperature of the weather conditions, can automatically resist over-charge and under-charge.

With pulse charging function, the battery is filled with the premise of ensuing the best life of the battery.

After three paint processing and dustproof design, the reliability of the operation is improved.

With digital display function, can display online charging current, voltage, charging time.
Charger

24V Series

Intelligent protection design:
- Over current limit
- Output short circuit protection
- Reverse connect protection
- Over voltage protection
- Temperature compensation
- Customize charge profile

- Can make up to IP67 waterproof design
- Customize cable & connector according different market and application
- CE, UL, CEC certified

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Product Features:
- Sing Chip Microcomputer (SCM) according to the lead-acid batteries tolerance current capacity, life curve, gas analysis point and other information to complete the full charge of the whole process.
- With the environmental temperature compensation function, to ensure that the temperature of the battery, can automatically resist over-charge and under-charge.
- With pulse charging function, the battery is filled with the premise of extending the best life of the battery.
- After three paint processing and dustproof design, the reliability of the operation is improved.
- With digital display function, can display online charging current, voltage, charging time.

24V SERIES PRODUCT OVERVIEW:

- Can make up to IP67 waterproof design
- Customize cable & connector according different market and application
- CE, UL, CEC certified

<table>
<thead>
<tr>
<th>Model</th>
<th>Max Output Current</th>
<th>Max Output Power</th>
<th>Input Vol Range</th>
<th>Max Efficiency</th>
<th>Cooling Model</th>
<th>Dimensions</th>
<th>Input Under Protection (VAC)</th>
<th>Output over-voltage Protection (VDC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESCH24V4A</td>
<td>4A</td>
<td>120W</td>
<td>100V~265V</td>
<td></td>
<td>Air</td>
<td>128<em>123</em>102mm &lt;90V</td>
<td>31V±1</td>
<td></td>
</tr>
<tr>
<td>ESCH24V8A</td>
<td>8A</td>
<td>240W</td>
<td>100V~265V</td>
<td></td>
<td>Air</td>
<td>183<em>123</em>102mm &lt;90V</td>
<td>31V±1</td>
<td></td>
</tr>
<tr>
<td>ESCH24V10A</td>
<td>10A</td>
<td>300W</td>
<td>100V~265V</td>
<td></td>
<td>Air</td>
<td>183<em>123</em>102mm &lt;90V</td>
<td>31V±1</td>
<td></td>
</tr>
<tr>
<td>ESCH24V12A</td>
<td>12A</td>
<td>360W</td>
<td>100V~265V</td>
<td></td>
<td>Air</td>
<td>183<em>123</em>102mm &lt;90V</td>
<td>31V±1</td>
<td></td>
</tr>
<tr>
<td>ESCH24V15A</td>
<td>15A</td>
<td>450W</td>
<td>100V~265V</td>
<td>95%</td>
<td>Fan</td>
<td>193<em>123</em>102mm &lt;90V</td>
<td>31V±1</td>
<td></td>
</tr>
<tr>
<td>ESCH24V20A</td>
<td>20A</td>
<td>600W</td>
<td>100V~265V</td>
<td></td>
<td>Fan</td>
<td>353<em>204</em>172mm &lt;185V</td>
<td>31V±1</td>
<td></td>
</tr>
<tr>
<td>ESCH24V25A</td>
<td>25A</td>
<td>750W</td>
<td>100V~265V</td>
<td></td>
<td>Fan</td>
<td>353<em>204</em>172mm &lt;185V</td>
<td>31V±1</td>
<td></td>
</tr>
<tr>
<td>ESCH24V30A</td>
<td>30A</td>
<td>900W</td>
<td>100V~265V</td>
<td></td>
<td>Fan</td>
<td>353<em>204</em>172mm &lt;185V</td>
<td>31V±1</td>
<td></td>
</tr>
<tr>
<td>ESCH24V40A</td>
<td>40A</td>
<td>1200W</td>
<td>185V-265V</td>
<td></td>
<td>Fan</td>
<td>353<em>204</em>172mm &lt;185V</td>
<td>31V±1</td>
<td></td>
</tr>
<tr>
<td>ESCH24V50A</td>
<td>50A</td>
<td>1500W</td>
<td>185V-265V</td>
<td></td>
<td>Fan</td>
<td>353<em>204</em>172mm &lt;185V</td>
<td>31V±1</td>
<td></td>
</tr>
<tr>
<td>ESCH24V60A</td>
<td>60A</td>
<td>1800W</td>
<td>185V-265V</td>
<td></td>
<td>Fan</td>
<td>353<em>204</em>172mm &lt;185V</td>
<td>31V±1</td>
<td></td>
</tr>
<tr>
<td>ESCH24V80A</td>
<td>80A</td>
<td>2400W</td>
<td>185V-265V</td>
<td></td>
<td>Fan</td>
<td>353<em>204</em>172mm &lt;185V</td>
<td>31V±1</td>
<td></td>
</tr>
<tr>
<td>ESCH24V100A</td>
<td>100A</td>
<td>3000W</td>
<td>185V-265V</td>
<td></td>
<td>Fan</td>
<td>353<em>204</em>172mm &lt;185V</td>
<td>31V±1</td>
<td></td>
</tr>
</tbody>
</table>
Charger
48V Series

Intelligent protection design:
- Over current limit
- Output short circuit protection
- Reverse connection protection
- Over voltage protection
- Temperature compensation
- Customize charge profile

Charger integrates active power factor correction (PFC), can achieve zero pollution of the power grid and avoid the impact of large current grid. It has wide AC input range strong adaptability. The module has perfect protection functions such as protection for the input under-voltage or over-voltage, the lack of input phase, output over current, output over-voltage, output short circuit, output isolation protection, and module overheating.

The soft-switching full-bridge PWM technology controlled by the latest mixed mode is adopted to overcome the shortcomings that traditional full-bridge phase-shift circuit circulation loss is great and secondary side diodes working condition is poor. The secondary side diodes realize soft recovery, enable the module to obtain higher efficiency in a wide range of input voltage and load range.

The maximum efficiency is close to 97%, the electromagnetic interference is also greatly reduced, and the volume/weight is greatly reduced.

Improved thermal design, more uniform thermal distribution.

A more perfect circuit board using anti-dust and anti-moisture treatment.

<table>
<thead>
<tr>
<th>Model</th>
<th>Max Output Current</th>
<th>Max Output Power</th>
<th>Input Vol Range</th>
<th>Max Efficiency</th>
<th>Cooling Model</th>
<th>Dimensions L<em>W</em>H(mm)</th>
<th>Input Under Protection (VAC)</th>
<th>Output over-voltage Protection (VDC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>YNCH48V10A</td>
<td>10A</td>
<td>92W</td>
<td>185-265V</td>
<td>90%</td>
<td>Fan</td>
<td>225<em>125</em>88mm</td>
<td>&gt;185V</td>
<td>32V/1</td>
</tr>
<tr>
<td>YNCH48V15A</td>
<td>15A</td>
<td>138W</td>
<td>185-265V</td>
<td>90%</td>
<td>Fan</td>
<td>380<em>165</em>360mm</td>
<td>&gt;284-304V</td>
<td>65V/1</td>
</tr>
<tr>
<td>YECH48V25A</td>
<td>25A</td>
<td>520W</td>
<td>185-265V</td>
<td>95%</td>
<td>Fan</td>
<td>386<em>169</em>360mm</td>
<td>&gt;284-304V</td>
<td>65V/1</td>
</tr>
<tr>
<td>ESCH48V50A</td>
<td>50A</td>
<td>2400W</td>
<td>185-265V</td>
<td>97%</td>
<td>Fan</td>
<td>386<em>169</em>360mm</td>
<td>&gt;284-304V</td>
<td>65V/1</td>
</tr>
<tr>
<td>ESCH48V65A</td>
<td>65A</td>
<td>3965W</td>
<td>185-265V</td>
<td>97%</td>
<td>Fan</td>
<td>386<em>169</em>360mm</td>
<td>&gt;284-304V</td>
<td>65V/1</td>
</tr>
<tr>
<td>ESCH48V80A</td>
<td>80A</td>
<td>5040W</td>
<td>185-265V</td>
<td>97%</td>
<td>Fan</td>
<td>386<em>169</em>360mm</td>
<td>&gt;284-304V</td>
<td>65V/1</td>
</tr>
<tr>
<td>ESCH48V100A</td>
<td>100A</td>
<td>6000W</td>
<td>185-265V</td>
<td>97%</td>
<td>Fan</td>
<td>386<em>169</em>360mm</td>
<td>&gt;284-304V</td>
<td>65V/1</td>
</tr>
</tbody>
</table>

48V SERIES PRODUCT OVERVIEW:
- Charger integrates active power factor correction (PFC), can achieve zero pollution of the power grid and avoid the impact of large current grid.
- It has wide AC input range strong adaptability.
- The module has perfect protection functions such as protection for the input under-voltage or over-voltage, the lack of input phase, output over current, output over-voltage, output short circuit, output isolation protection, and module overheating.
- The soft-switching full-bridge PWM technology controlled by the latest mixed mode is adopted to overcome the shortcomings that traditional full-bridge phase-shift circuit circulation loss is great and secondary side diodes working condition is poor. The secondary side diodes realize soft recovery, enable the module to obtain higher efficiency in a wide range of input voltage and load range.
- The maximum efficiency is close to 97%, the electromagnetic interference is also greatly reduced, and the volume/weight is greatly reduced.
- Improved thermal design, more uniform thermal distribution.
- A more perfect circuit board using anti-dust and anti-moisture treatment.

Product Features:
- Single Chip Microcomputer (SCM) according to the lead-acid battery parameters, capacity, the cycle, gas analysis point and other information to complete the full charge of the whole process.
- The battery having the environmental temperature compensation function so that the temperature of the weather conditions, can automatically resist over-charge and under-charge.
- With pulse charging function, the battery is filled with the premise of ensuring the best life of the battery.
- The battery also has manual EQU charging function.
- After three paint processing and dustproof design, the reliability of the operation is improved.
- With digital display function, it can display online charging current, voltage and charging time.
- The charger can be wall mounted.
Charger 80V Series

Intelligent protection design:
- Over current limit
- Output short circuit protection
- Reverse connect protection
- Over voltage protection
- Temperature compensation
- Customize charge profile

Charger Lithium Battery Series

<table>
<thead>
<tr>
<th>Model</th>
<th>Max Output Current</th>
<th>Max Output Power</th>
<th>Input Vol Range</th>
<th>Max Efficiency</th>
<th>Cooling Model</th>
<th>Dimensions L<em>W</em>H(mm)</th>
<th>Input Under Protection (VAC)</th>
<th>Output over-voltage Protection (VDC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESCH80V60A</td>
<td>60A</td>
<td>6000W</td>
<td>380V±10%</td>
<td>90%</td>
<td>Fan</td>
<td>380<em>169</em>360mm</td>
<td>&lt;284-304V</td>
<td>65V±1</td>
</tr>
<tr>
<td>ESCH80V100A</td>
<td>100A</td>
<td>8000W</td>
<td>380V±10%</td>
<td>90%</td>
<td>CUSTOMIZABLE</td>
<td>380<em>169</em>360mm</td>
<td>65V±1</td>
<td>65V±1</td>
</tr>
<tr>
<td>ESCH80V150A</td>
<td>150A</td>
<td>12000W</td>
<td>380V±10%</td>
<td>90%</td>
<td>Fan</td>
<td>380<em>169</em>360mm</td>
<td>&lt;284-304V</td>
<td>65V±1</td>
</tr>
<tr>
<td>ESCH80V200A</td>
<td>200A</td>
<td>16000W</td>
<td>380V±10%</td>
<td>90%</td>
<td>Fan</td>
<td>380<em>169</em>360mm</td>
<td>&lt;284-304V</td>
<td>65V±1</td>
</tr>
</tbody>
</table>

DC Output
- Lithium charging voltage 58.8V
- Lithium cells in series 4.2V
- Maximum DC output voltage 58.8V
- Maximum DC output current 100A
- Maximum DC output power 6KW
- Maximum dry contact current rating 320A
- Reverse polarity support
- Short circuit support

AC Input
- AC input voltage range 304~456VAC
- Nominal AC input frequency 45~65Hz
- Maximum AC input current ≤10A
- Nominal AC power factor ≥0.92
- Efficiency ≥96%

Enclosure (防水等级)
- Anti-shock & Vibration grade (抗震等级)

Mechanical
- Dimensions 386*169*360(mm)
- Weight 10KG
- Cooling: Air cooling
- Operating Temperature -25~45 ºC
- Storage Temperature -40~70 ºC

CUSTOMIZABLE Customize cable & connector according different market and application.
Other Electric Core Parts

Packaging and Delivery

- Battery Discharge Indicator
- DC Converter
- Energy Feedback System
- Wire Harness
- Hydraulic Power Unit
- DC Convertor
- Packaging and Delivery

[Images of packaging and delivery setups]
Honor
And Partners

Honor is a period of history, a witness, embodied all the efforts of the Young Energy. Honor is an appreciation, a spur, so that we face the confidence of the road, laughing on the competition. Honor is our heavy harvest, let us have a better vision of the future.

PARTNER: Young Energy will maintain openness, cooperation, win-win philosophy, business cooperation as the core, supported by technical cooperation and human resources, and cooperate with partners to create vibrant ecology.
Marketing and Fair
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