Industrial Equipment

Programmable Power Source

Energy Recycling System

Automatic Test System

www.Deltaww.com

ABOUT DELTA

Delta was founded in 1971 and has been the global leader in switching power supply solutions since 2002 and DC brushless fans since 2006. Delta offers some of the most energy efficient power products in the industry, including switching power supplies with efficient over 90%, telecom power with up to 98%, and PV inverters with up to 98.8% efficient. We have also developed the world's first server power supply certified as 80 Plus Titanium with over 96% efficient. We regularly invest 6% to 7% of our annual sales revenues in R&D and have worldwide R&D facilities in Taiwan,China, Europe, India, Japan, Singapore,Thailand, and the U.S.

BUSINESS CATEGORIES

Power Electronics

- Components
- Embedded Power
- Fan & Thermal Management
- Automotive Electronics
- Merchant & Mobile Power

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Automation

- Industrial Automation
- Building Automation

Infrastructure

- ICT Infrastructure
- Energy Infrastructure & Industrial Solutions

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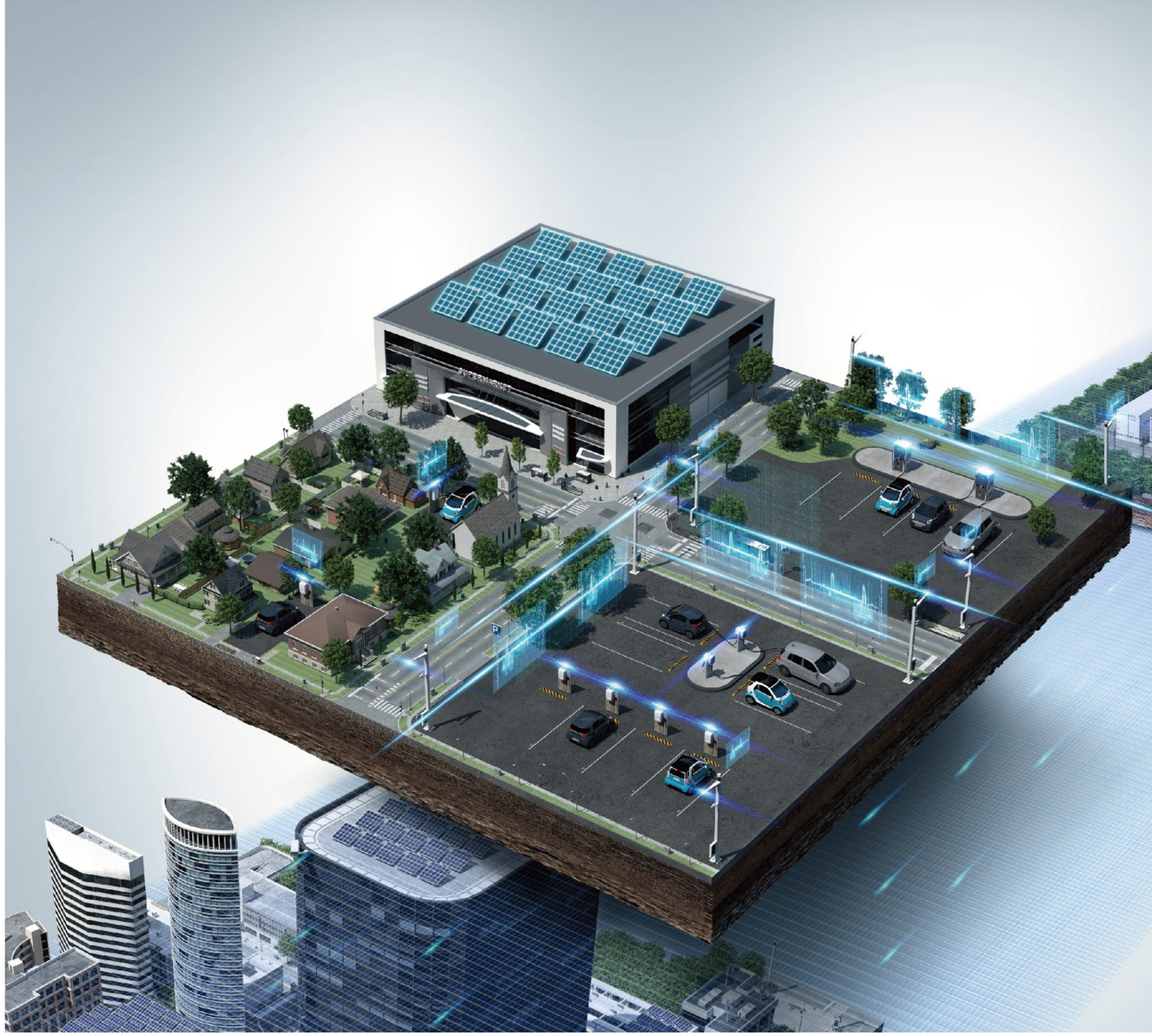
DELTA

Smarter. Greener. Together.

Delta Industrial Equipment

In response to industrial needs, Delta commits to the precision electronic measuring instruments and factory automation test systems. We develop a one-stop solution with high accuracy, immediate response, and easy to interpret test equipment and detection systems for industrial manufacturing. Delta provides programmable AC and DC power supplies and energy recycling systems, and have ability to integrate hardware and software to develop an automatic test system, becoming a highly efficient and flexible manufacturing test solution.



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Product Introduction

Programmable AC Power Source

The output power of Delta programmable AC power source is from 1.5KVA to 9KVA. Equipped with advanced DSP technology for accurate electronic parameters. It also has 30 sets of mainstream waveform synchronization built in for simulating various power grids. With comprehensive circuit and fan protection for ultimate safety.

Programmable DC Power Supply

Delta DC power supply is the switch mode power supply. Equipped with active power factor correction, full range input voltage, and auto-switch constant voltage and current output, making it ideal for laboratory or large-scale mass production testing.

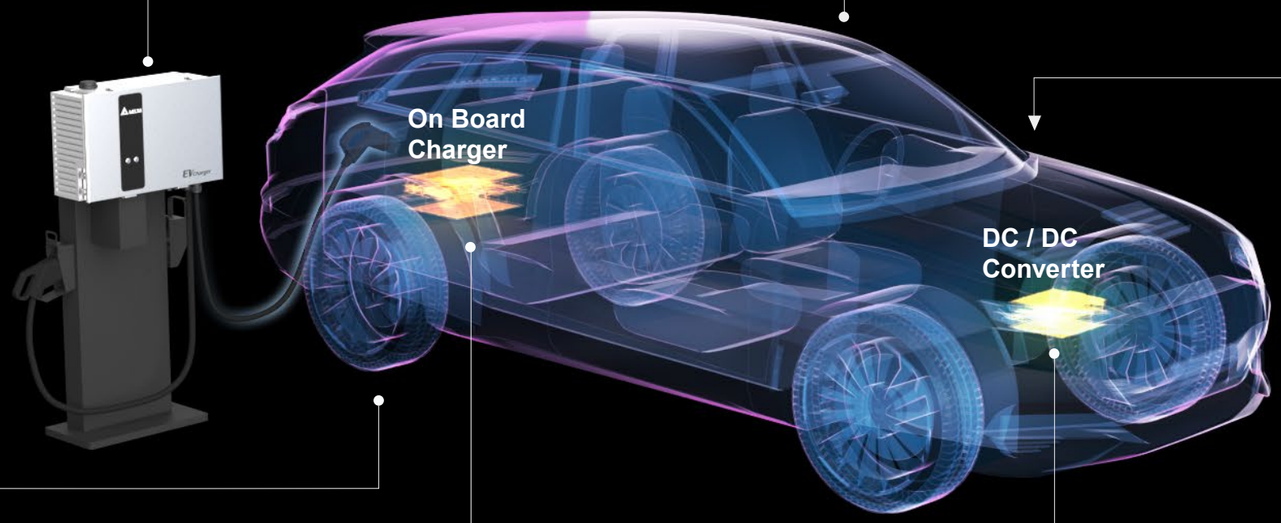
Energy Recycling System

Delta's energy recycling system can recycle up to 93% of power consumption during the burn-in testing. The system has a modular design and can be customized to meet the requirements of different industries. We also provide one-stop, integrated systems including burn-in testing, monitoring software, and energy recycling systems, enabling data nalysis and remote monitoring via cloud platform. As an energy optimization expert, Delta can effectively help you save on your utility costs.

Automatic Test System

AC/DC Charging Automatic Test System

Cable and Connector Safety Automatic Test System



Cable and Connector Temperature Automatic Test System

Electric Vehicle Electrical Automatic Test System

OBC & DCDC Automatic Test System

Programmable AC Power Source

Features

- Programmable control voltage and current limits
- High-peak output current for accurate inrush current testing
- Advanced DSP technology provides accurate electronic parameters
- 30 sets of mainstream waveform synchronization built in for simulating various power grids
- Single-phase parallel or three-phase configurations for different environments (A9000 model)
- Comprehensive circuit and fan protection

A1500

A3000

A6000

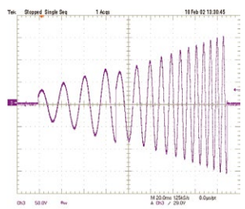
A9000

Specification

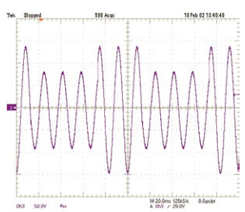
Model Name	A1500	A3000
Electrical		
Input voltage range	90-254Vac (3Φ), 47-63Hz	190-254VAC, 47-63Hz
Max. output power	1500VA	3000VA
Output voltage range	-424 - +424Vdc, 0-300Vac	150V / 300V
Output current range	0-16A	150V / 30Arms & 300V / 15Arms
Output voltage accuracy/resolution	± (0.2% + 0.2%F.S) / 0.1V	± (0.2% + 0.2%F.S) / 0.1V
Output current accuracy/resolution	± (0.4% + 0.3%F.S) / 0.01A	± (0.4% + 0.3%F.S) / 0.01A
Efficiency	78%	Min 82% (Efficiency under the condition of 100% load)
Line voltage regulation	≤ 0.1% of full scale	
Operation mode	CV	
Protection	OVP, OCP, OPP, OTP, SCP, Fan lock	
Certification	CE	
Operating temperature	0 ~ 40°C	
Peak current	90A / 45A (150V / 300V)	
Mechanism		
Cooling system	Fan Cooling	
Dimensions (L x W x H)	500 x 425x 133 mm	570 x 425 x 176 mm
Weight	22 Kg	28 Kg
AC input connector	Terminal	Terminal
DC input connector		Terminal
Communicator	RS232, GPIB	

Model Name	A6000	A9000
Electrical		
Input voltage range	190-254VAC(3Φ), 47-63Hz	190-250V$_{LL}$ (3Φ), 47-63Hz, 3P4W or 329-433V$_{LL}$ (3Φ), 47-63Hz, 3P5W
Max. output power	6000VA	9000VA
Output voltage range	150V / 300V	150V / 300V
Output current range	150V / 60A, 300V / 20A	150V / 90A, 300V / 45A
Output voltage accuracy/resolution	± (0.2% + 0.2%F.S) / 0.1V	± (0.2% + 0.2%F.S) / 0.1V
Output current accuracy/resolution	± (0.4% + 0.3%F.S) / 0.01A	± (0.4% + 0.3%F.S) / 0.01A
Efficiency	Min 80% (Efficiency under the condition of 100% load)	Min 79% (Efficiency under the condition of 100% load)
Line voltage regulation	≤ 0.1% of full scale	
Operation mode	CV	
Protection	OVP, OCP, OPP, OTP, SCP, Fan lock	OCP, OPP, OTP, SCP, Fan Lock
Certification	CE	
Operating temperature	0 ~ 40°C	
Peak current	180A / 90A (150V / 300V)	270A / 135A (150V / 300V)
Mechanism		
Cooling system	Fan Cooling	
Dimensions (L x W x H)	700 x 546 x 757.5 mm	700 x 546 x 940.5 mm
Weight	116 Kg	153 Kg
AC input connector	Terminal	
Communicator	RS232, GPIB	

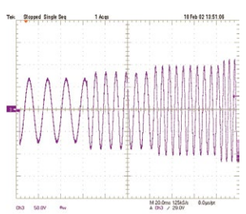
Complete Waveform Simulation



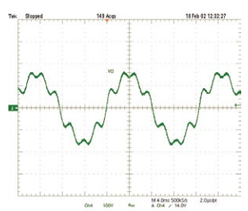
List Mode



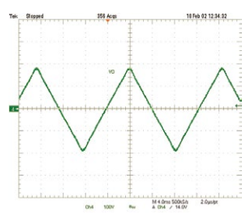
Pulse Mode



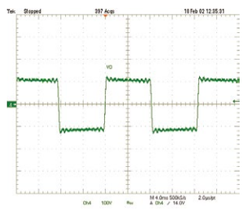
Step Mode



Non Linear



Triangle



Square

Programmable DC Power Supply

Features

- Full range input voltage
- Auto-switch constant voltage and current output
- Superimposed voltage by 2 units of series operation
- Supports active current balance via 4 units of parallel operation
- Comprehensive circuit and fan protection

D750

D3000

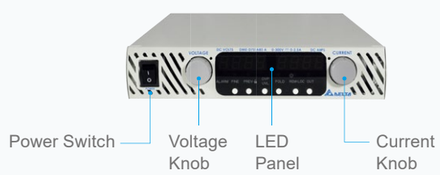
Features

Model Name	D750	D3000
Electrical		
Input voltage range	85-264Vac (1Φ), 47-63Hz	170-265Vac (1Φ), 47-63Hz
Max. output power	750W	3000W
Output voltage range	0 ~ 300V	0 ~ 600Vdc
Output current range	0 ~ 2.5A	0 ~ 6A
Output voltage accuracy/resolution	± (0.05% + 0.05% F.S.) / 0.012% full scale	± (0.05% + 0.05% F.S.) / 0.012% full scale
Output current accuracy/resolution	± (0.1% + 0.2% F.S.) / 0.012% full scale	± (0.1% + 0.2% F.S.) / 0.012% full scale
Efficiency	Min 83 / 87 (100V/ 200V input under 100% load)	88%(200Vac input under 100% load)
Load voltage regulation (CV mode)	≤ 0.01% of full scale +2mV	≤ 0.015% of full scale +5mV
Line voltage regulation (CV mode)	≤ 0.01% of full scale +2mV	≤ 0.01% of full scale +2mV
Load current regulation (CC mode)	≤ 0.02% of full scale +5mA	≤ 0.02% of full scale +5mA
Line current regulation (CC mode)	≤ 0.01% of full scale +2mA	≤ 0.01% of full scale +2mA
Operation mode	CV / CC	CV / CC
Voltage rise time	< 150ms (rated load by fixed resistor)	< 150ms (rated load by fixed resistor)
Voltage fall time	< 150ms (full load) < 2.5s (no load)	< 150ms (full load) < 3s (no load)
Protection	OVP, UVL, OCP, OPP, OTP, SCP, Fan Lock	OVP, UVL, OCP, OPP, OTP, SCP, Fan Lock
Certification	CE	CE
Operating temperature	0 ~ 50°C	0 ~ 50°C
Mechanism		
Cooling system	Fan Cooling	Fan Cooling
Dimensions (L x W x H)	436.7 x 214 x 43.6 mm	437.8 x 422.8 x 43.6 mm
Weight	4.5 Kg	8.8 Kg
AC input connector	RS232, RS485, GPIB	RS232, RS485, GPIB

Control Interface

D750

Front



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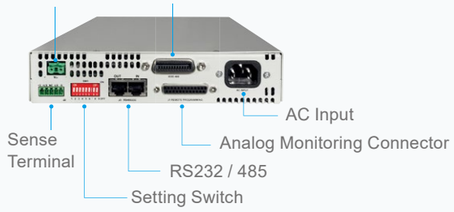
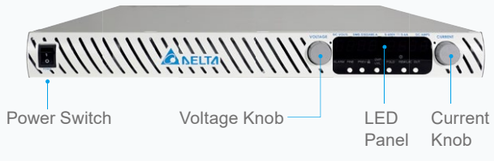


D3000

Front



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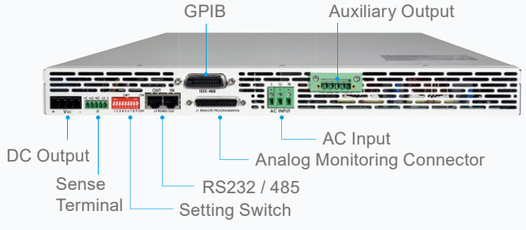


Energy Recycling System

Features

- Effectively recycle up to 93% energy consumption for burn-in testing
- Modular design for flexible configuration
- Improved circuit protection function to protect test objects
- Integrated RS-485 communication control platform
- Exclusive cloud monitoring and control system for burn-in testing
- Customized one-stop energy recycling and burn-in system

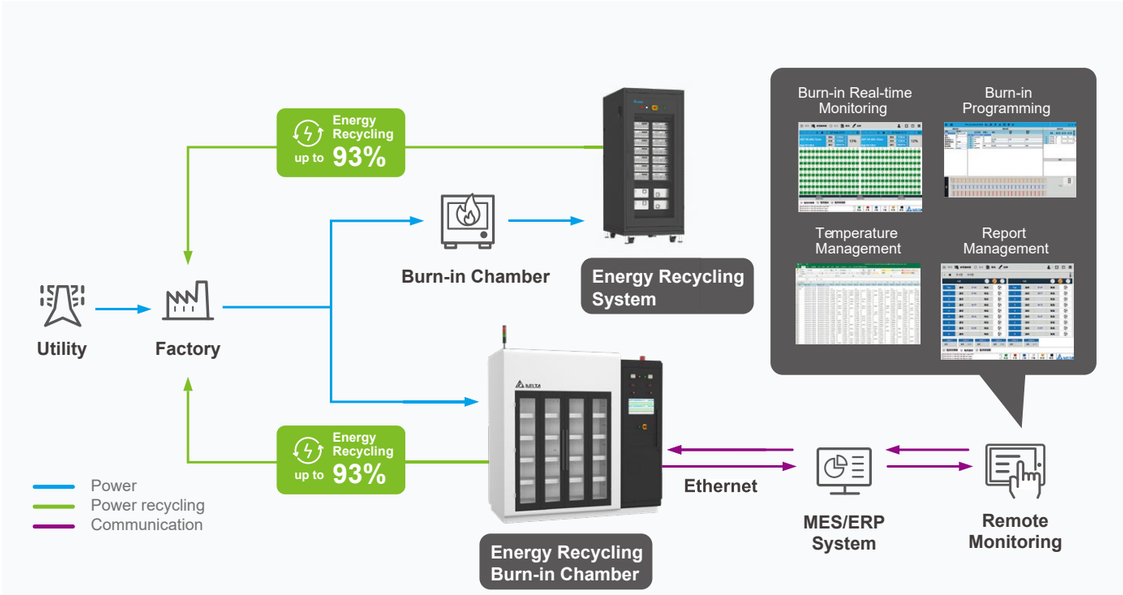
E4000 E6000 LV E2400 E8000 E6000 HV

Features

Model Name	E4000	E6000 LV	E2400
Electrical			
Number of input channels	40CH	2CH	2CH
Input voltage range (per channel)	3.3Vdc ~ 60Vdc	21Vdc ~ 55Vdc	10Vdc ~ 21Vdc
Input voltage accuracy	±1% F.S.	±1% F.S.	±3% F.S.
Input current range (per channel)	0.5A ~ 10A	0.5A ~ 66A	2A ~ 104A
Input current accuracy	±3% F.S.	±2% F.S.	±2% F.S.
Max. input power (per channel)	100W	3000W	1200W
Efficiency	> 85% @ 60Vdc full load	> 91% @ 50Vdc full load	> 86% @ 12.5Vdc full load
Mechanism			
Operating temperature	0°C ~ +40°C		
Remote communication surface	RS485		
Cooling system	Fan cooling		
Unit weight	50kg	16.9kg	16.9kg
Dimensions	237 x 534 x 681 mm	88 x 558 x 525 mm	88 x 558 x 525 mm

Model Name	E8000	E6000 HV
Electrical		
Number of input channels	32CH	2CH
Input voltage range (per channel)	2Vdc ~ 60Vdc	90Vdc ~ 600Vdc
Input voltage accuracy	±2% F.S.	±1% F.S.
Input current range (per channel)	0.5A ~ 20A	1A ~ 20A
Input current accuracy	±3% F.S.	±3% F.S.
Max. input power (per channel)	250W	3000W
Efficiency	> 85% @ 60Vdc full load	> 93% @ 300Vdc full load
Mechanism		
Operating temperature	0°C ~ +40°C	
Remote communication surface	RS485	
Cooling system	Fan cooling	
Unit weight	39.7kg	9.6kg
Dimensions	215 x 500 x 555 mm	88 x 285 x 470 mm

Energy Recycling and Remote Programming



Automatic Test System

Electric Vehicle Electrical Automatic Test System

- Meets GB/T 20234.2 slow-charging and GB/T 20234.3 fast-charging interface requirements
- Up to 5 kVAC withstanding voltage test, suitable for vehicle electrical testing
- Up to 100 μΩ impedance measurement accuracy
- Patented Smart 1 test software with flexibility for editing test items and simple interpretation of test results
- Uninterrupted/cyclic CAN BUS communication
- Multiple sets of resistance values for simulating changes in insulation resistance to ground
- Equipped with emergency stop button for cutting off system operation and power supply for full protection

Test Items

- Vehicle insulation resistance test
- Potential equalization test
- Vehicle insulation testing function verification test
- Charging socket insulation resistance test

Cable and Connector Temperature Automatic Test System

- Cable and connector temperature test
- -20~300 °C temperature measurement range
- Built-in energy recycle system, greatly reducing power consumption
- Protection system that excludes artificial or foreign objects and obtains accurate test results
- Emergency stop button to provide full protection for users

Test Items

- Cable temperature rise test
- Connector temperature rise test
- Fuse over-current and ability test

Cable and Connector Safety Automatic Test System

- Voltage resistance and insulation resistance test between conductors and insulation
- Applicable cable length range 30~130 cm
- Max. 5 core wires in each harness group. Test 6 harness groups simultaneously
- Up to 100 μΩ impedance measurement accuracy
- Protection system that excludes artificial or foreign objects for accurate test results
- Emergency stop button to provide full protection for users

Test Items

- Cable continuity test
- Breakdown voltage test
- Cable and connector on-resistance test
- Cable and connector insulation test
- Cables and connectors withstanding voltage (AC/DC) test

OBC & DCDC Automatic Test System

- Digital display shows up to 4 channels of voltage and current waveforms with waveform storage functionality
- High flexibility to meet various measurement needs
- Self-diagnosis, over power, over current, over voltage, and over temperature protection
- Emergency stop button and insulation leakage protection to provide full protection

Test Items

- AC input power test
- DC output power test
- Response time test
- Input and output protection test
- Communication test

AC/DC charging Automatic Test System

- Supports GPIB/RS232 or RS485/CAN interface for higher test flexibility
- Protection of over temperature, over current, over voltage, over power, reverse protection for output; over voltage, under voltage, phase loss, over current, overload, and short circuit for input
- Emergency stop button and insulation leakage protection to provide full protection
- ±0.1%F.S. output voltage and current accuracy

Test Items

- Workflow test
- Limit value simulation
- Abnormal state test
- Performance test
- Communication test

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