

**Asterion**<sup>®</sup>  
Performance. Reliance. Brilliance.

*The Future of  
AC Power Sources.*



## California Instruments™ Asterion<sup>®</sup> Programmable AC, DC & AC + DC Power (500 VA - 36000 VA, 200 / 400 Vac, 250 / 500 Vdc)

### Performance. Reliance. Brilliance.

Inspired by the enduring power of a brilliant star, the new California Instruments™ Asterion<sup>®</sup> line of AC power sources by AMETEK Programmable Power combines intelligence and flexibility to create an entirely new platform of AC solutions. This easy-to-configure design features sophisticated technology for delivering high performance, programmable AC and DC power. Its sleek design packs maximum power density into a low-profile form factor with an intuitive touch screen interface placing that power at your fingertips. Centralized control and unparalleled modularity make Asterion the most adaptable platform on the market. Its ground-breaking capabilities set a new standard for affordable, precision power sources.

A star is born.  
**Introducing  
Asterion.**



#### Advantages:

- ➔ Maximize space utilization with leading AC power density in 1U/2U/4U/14U chassis
- ➔ Full output power over widest voltage range with iX2™ technology
- ➔ Quickly and expertly control AC source with intuitive touch screen
- ➔ 1U models - single phase  
2U/4U models - 1 or 3 phase

#### Advanced Features:

- ➔ High power density in 1/2/4/14U chassis up to 18 kVA
- ➔ Intuitive touch panel control
- ➔ Innovative iX2™ current doubling technology
- ➔ Multi-language display for global operation
- ➔ Auto paralleling for higher power
- ➔ Combine units for multiple phase configurations.
- ➔ Complete avionic test suites (optional)
- ➔ ATE version available

#### Applications:

- ➔ Commercial and military avionics test
- ➔ AC power simulation
- ➔ ATE applications
- ➔ Manufacturing and process control
- ➔ Frequency and voltage conversion
- ➔ IEC standards testing

# Asterion AC Series: Product Specifications & Details

## AC/DC Output Specifications

<b>AST501 - 1U</b>	500VA (500W) 1 $\Phi$ <sup>1</sup>	0-200V/0-400V	(1 $\Phi$ mode) 2.5A/1.25A	(1 $\Phi$ mode) 5A to 100V in 200V Range; 2.5A to 200V in 400V Range	0-250V/0-500V	(1 $\Phi$ mode) 2.0A/1.0A	(1 $\Phi$ mode) 4A to 125V in 250V Range; 2.0A to 250V in 500V Range	90-264VAC <sup>2</sup>
<b>AST751 - 1U</b>	750VA (750W) 1 $\Phi$ <sup>1</sup>	0-200V/0-400V	(1 $\Phi$ mode) 3.75A/1.875A	(1 $\Phi$ mode) 7.5A to 100V in 200V Range; 3.75A to 200V in 400V Range	0-250V/0-500V	(1 $\Phi$ mode) 3.0A/1.5A	(1 $\Phi$ mode) 6A to 125V in 250V Range; 3.0A to 250V in 500V Range	90-264VAC <sup>2</sup>
<b>AST1501<sup>3</sup> / AST1503 - 1U/2U</b>	1500VA (1500W) 1 $\Phi$ /3 $\Phi$ <sup>1</sup>	0-200V/0-400V	(1 $\Phi$ mode) 7.5A/3.75A, (3 $\Phi$ mode) 2.5A/1.25A	(1 $\Phi$ mode) 15A to 100V in 200V Range; 7.5A to 200V in 400V Range, (3 $\Phi$ mode) 5.0A to 100V in 200V Range; 2.5A to 200V in 400V Range	0-250V/0-500V	(1 $\Phi$ mode) 6.0A/3.0A, (3 $\Phi$ mode) 2.0A/1.0A	(1 $\Phi$ mode) 12A to 125V in 250V Range; 6A to 250V in 500V Range, (3 $\Phi$ mode) 4.0A to 125V in 250V Range; 2A to 250V in 500V Range	90-264VAC <sup>2</sup>
<b>AST2253 - 2U</b>	2250VA (2250W) 1 $\Phi$ /3 $\Phi$ <sup>1</sup>	0-200V/0-400V	(1 $\Phi$ mode) 11.25A/5.625A, (3 $\Phi$ mode) 3.75A/1.88A	(1 $\Phi$ mode) 18A to 125V in 250V Range; 9.0A to 250V in 500V Range, (3 $\Phi$ mode) 6.0A to 125V in 250V Range; 3A to 250V in 500V Range	0-250V/0-500V	(1 $\Phi$ mode) 9.0A/4.5A, (3 $\Phi$ mode) 3.0A/1.5A	(1 $\Phi$ mode) 18A to 125V in 250V Range; 9.0A to 250V in 500V Range, (3 $\Phi$ mode) 6.0A to 125V in 250V Range; 3A to 250V in 500V Range	90-264VAC <sup>2</sup>
<b>AST3001<sup>3</sup> / AST3003 - 2U</b>	3000VA (3000W) 1 $\Phi$ /3 $\Phi$ <sup>1</sup>	0-200V/0-400V	(1 $\Phi$ mode) 15A/7.5A, (3 $\Phi$ mode) 5.0A/2.5A	(1 $\Phi$ mode) 24A to 125V in 250V Range; 12A to 250V in 500V Range, (3 $\Phi$ mode) 8.0A to 125V in 250V Range; 4A to 250V in 500V Range	0-250V/0-500V	(1 $\Phi$ mode) 12.0A/6.0A, (3 $\Phi$ mode) 4.0A/2.0A	(1 $\Phi$ mode) 24A to 125V in 250V Range; 12A to 250V in 500V Range, (3 $\Phi$ mode) 8.0A to 125V in 250V Range; 4A to 250V in 500V Range	90-264VAC <sup>2</sup>
<b>AST4503 - 4U</b>	4500 VA (4500W) 1 $\Phi$ /3 $\Phi$ <sup>1</sup>	0-200V/0-400V	(1 $\Phi$ mode) 22.5A/11.25A, (3 $\Phi$ mode) 7.5A/3.75A	(1 $\Phi$ mode) 45A to 100V in 200V Range; 22.5A to 200V in 400V Range, (3 $\Phi$ mode) 15A to 100V in 200V Range; 7.5A to 200V in 400V Range	0-250V/0-500V	(1 $\Phi$ mode) 18A/9A, (3 $\Phi$ mode) 6A/3A	(1 $\Phi$ mode) 36A to 125V in 250V Range; 18A to 250V in 500V Range, (3 $\Phi$ mode) 12A to 125V in 250V Range; 6A to 250V in 500V Range	180 - 264 VAC 3-wire + ground, 342 - 457 VAC 3-wire + neutral + ground
<b>AST6003 - 4U</b>	6000 VA (6000W) 1 $\Phi$ /3 $\Phi$ <sup>1</sup>	0-200V/0-400V	(1 $\Phi$ mode) 30A/15A, (3 $\Phi$ mode) 10A/5A	(1 $\Phi$ mode) 60A to 100V in 200V Range; 30A to 200V in 400V Range, (3 $\Phi$ mode) 20A to 100V in 200V Range; 10A to 200V in 400V Range	0-250V/0-500V	(1 $\Phi$ mode) 24A/12A, (3 $\Phi$ mode) 8A/4A	(1 $\Phi$ mode) 48A to 125V in 250V Range; 24A to 250V in 500V Range, (3 $\Phi$ mode) 16A to 125V in 250V Range; 8A to 250V in 500V Range	180 - 264 VAC 3-wire + ground, 342 - 457 VAC 3-wire + neutral + ground
<b>AST12K3 - 14U</b>	12000 VA (12000W) 1 $\Phi$ /3 $\Phi$ <sup>1</sup>	0-200V/0-400V	(1 $\Phi$ mode) 60A/30A, (3 $\Phi$ mode) 20A/10A	(1 $\Phi$ mode) 120A to 100V in 200V Range; 60A to 200V in 400V Range, (3 $\Phi$ mode) 40A to 100V in 200V Range; 20A to 200V in 400V Range	0-250V/0-500V	(1 $\Phi$ mode) 48A/24A, (3 $\Phi$ mode) 16A/8A	(1 $\Phi$ mode) 96A to 125V in 250V Range; 48A to 250V in 500V Range, (3 $\Phi$ mode) 32A to 125V in 250V Range; 16A to 250V in 500V Range	180 - 264 VAC 3-wire + ground, 342 - 457 VAC 3-wire + neutral + ground
<b>AST18K3 - 14U</b>	18000 VA (18000W) 1 $\Phi$ /3 $\Phi$ <sup>1</sup>	0-200V/0-400V	(1 $\Phi$ mode) 90A/45A, (3 $\Phi$ mode) 30A/15A	(1 $\Phi$ mode) 180A to 100V in 200V Range; 90A to 200V in 400V Range, (3 $\Phi$ mode) 60A to 100V in 200V Range; 30A to 200V in 400V Range	0-250V/0-500V	(1 $\Phi$ mode) 72A/36A, (3 $\Phi$ mode) 24A/12A	(1 $\Phi$ mode) 144A to 125V in 250V Range; 72A to 250V in 500V Range, (3 $\Phi$ mode) 48A to 125V in 250V Range; 24A to 250V in 500V Range	180 - 264 VAC 3-wire + ground, 342 - 457 VAC 3-wire + neutral + ground

## Common Specifications

<b>Control Interfaces</b>	LAN, USB, RS232, Analog/EXTD Standard, GPIB Optional
<b>Power Factor, Typical</b>	0.98 (typical); active PFC, 50/60Hz nominal line
<b>Input Frequency</b>	47-440 Hz
<b>Output Operational Modes</b>	AC, AC + DC, DC
<b>Output Frequency</b>	DC, 16Hz - 1200Hz standard, 5000Hz optional

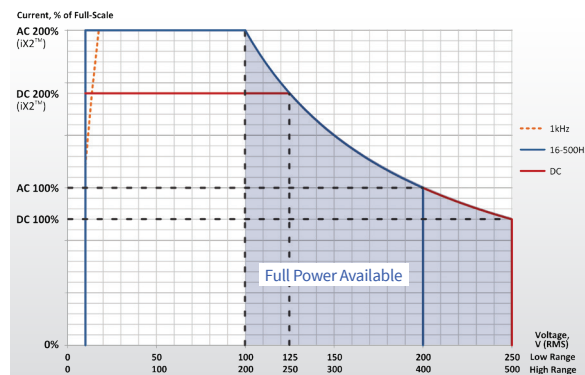
<sup>1</sup> Easily combine chassis for higher power. <sup>2</sup> See manual for output power ratings vs input voltage.

<sup>3</sup> AST1501 & AST3001 are single phase only. See AST1503 & AST3003 for 1 or 3 phase selectable.

## Asterion Output Current Rating for 16Hz and DC

See Data Sheet for Ratings > 1kHz to 5kHz

All Asterion sources employ AMETEK's latest current enhancing technology, iX2™. iX2 current doubling technology enables output current to increase linearly up to two times the full voltage current as the voltage decreases from range maximum to one-half of range voltage. iX2 technology results in a source that **DELIVERS FULL POWER OVER THE WIDEST VOLTAGE RANGES!** This eliminates the need to buy overpowered sources just to reach low line current requirements.



## Virtual Panels Software

Virtual Panels™ allows remote control of the Asterion AC power source as well as programming communication and monitoring for the Asterion ATE model without front panel display.



Avionics Test

Power Simulation

ATE Applications

Manufacturing

Frequency Conversion

IEC Standards Testing

