



## THE MOST ADVANCED PLATFORM OF POWERFUL AC SOLUTIONS

The California Instruments Tahoe Series combines intelligence and flexibility with high power to create an advanced platform of AC solutions. Using a state-of-the-art SiC power switching architecture and Digital Signal Processing, the Tahoe Series combines a robust, high-power AC/DC source with an advanced power analyzer in a single floor-standing chassis.

This easy-to-configure power product covers a wide spectrum of single and multi-phase AC or single channel and multi-channel DC power applications at an affordable cost. With add-on test application routines for military and commercial avionics testing, the Tahoe Series can fulfill your power test requirement.

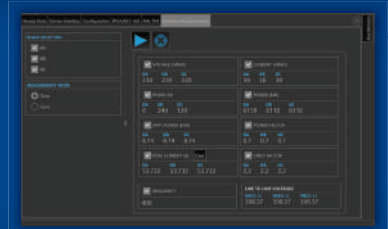
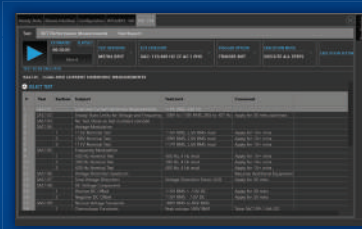
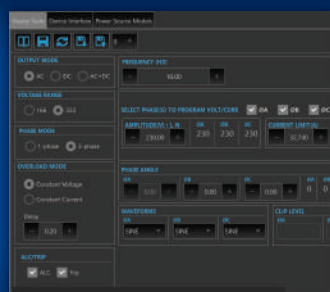


### FEATURES AND CAPABILITIES

- High Power AC and DC Power Source
- Auto paralleling for higher power system expansion
- Single and three phase modes
- Arbitrary & Harmonic Waveform Generation
- Standard LXI LAN, USB, and RS-232, Optional GPIB
- 500uS time resolution for Transients
- Complete avionics test suites
- 15kVA to 1MVA Power Levels
- Intuitive 5" color display for ease of navigation
- Internationally accepted test routines for EMI/EMC, Safety compliance
- Dual Voltage ranges that support over voltage testing on 480V based systems

### Virtual Panels

(Graphical User Interface)  
Virtual Panels allow remote control of the Tahoe Series as well as programming communication and monitoring without front panel display.



# TAHOE SERIES

PRECISION PROGRAMMABLE AC AND DC SOURCES

California Instruments™

| MODEL    | AC Output Specifications |                    |   |   | DC Output Specifications |                   |  |  |
|----------|--------------------------|--------------------|---|---|--------------------------|-------------------|--|--|
|          | Power                    | RMS Voltage Ranges | RMS Current per phase at FSV                            | RMS Current per phase (max)                           | Power <sup>[1]</sup>     | DC Voltage        | DC Current per phase at FSV                            | DC Current per phase (max)                             |
| TA0015A1 | 15kVA<br>1Φ              | 0-166V/<br>0-333V  | (1Φ mode)<br>90.3A/45A                                  | (1Φ mode)<br>125A/62.5A                               | 15kVA<br>1Φ              | 0-220V/<br>0-440V | (1Φ mode)<br>45.4A/34.1A                               | (1Φ mode)<br>62.9A/47.3A                               |
| TA0022A1 | 22.5kVA<br>1Φ/3Φ         | 0-166V/<br>0-333V  | (1Φ mode)<br>135A/67.5A<br>(3Φ mode)<br>45A/22.5A       | (1Φ mode)<br>187.5A/93.8A<br>(3Φ mode)<br>62.5A/31.3A | 22.5kVA<br>1Φ/3Φ         | 0-220V/<br>0-440V | (1Φ mode)<br>68.1A/51A<br>(3Φ mode)<br>22.7A/17A       | (1Φ mode)<br>93.9A/70.5A<br>(3Φ mode)<br>31.4A/23.6A   |
| TA0030A1 | 30kVA<br>1Φ/3Φ           | 0-166V/<br>0-333V  | (1Φ mode)<br>180A/90A<br>(3Φ mode)<br>60A/30A           | (1Φ mode)<br>249A/124.5A<br>(3Φ mode)<br>83A/41.5A    | 30kVA<br>1Φ/3Φ           | 0-220V/<br>0-440V | (1Φ mode)<br>90.9A/68.2A<br>(3Φ mode)<br>30.3A/22.7A   | (1Φ mode)<br>125.7A/93.9A<br>(3Φ mode)<br>41.9A/31.5A  |
| TA0045A1 | 45kVA<br>1Φ/3Φ           | 0-166V/<br>0-333V  | (1Φ mode)<br>270.9A/135A<br>(3Φ mode)<br>90.3A/45.1A    | (1Φ mode)<br>375A/187.5A<br>(3Φ mode)<br>125A/62.5A   | 45kVA<br>1Φ/3Φ           | 0-220V/<br>0-440V | (1Φ mode)<br>136.4A/102.3A<br>(3Φ mode)<br>45.5A/34.1A | (1Φ mode)<br>188.7A/141.9A<br>(3Φ mode)<br>62.9A/47.3A |
| TA0090A1 | 90kVA<br>3Φ              | 0-166V/<br>0-333V  | (1Φ mode)<br>540.6A/270.3A<br>(3Φ mode)<br>180.2A/90.1A | (1Φ mode)<br>750A/375A<br>(3Φ mode)<br>250A/125A      | 90kVA<br>1Φ/3Φ           | 0-220V/<br>0-440V | (1Φ mode)<br>272.7A/204.6A<br>(3Φ mode)<br>91A/68.2A   | (1Φ mode)<br>376.4A/282A<br>(3Φ mode)<br>125.8A/94.6A  |

NOTES: <sup>1</sup> DC power in the low range derated to 66% of full power.

| COMMON SPECIFICATIONS |  |
|-----------------------|--|
| Output Frequency      | 16 - 550Hz, 16 - 905Hz with -HF option   |
| Input Voltage         | 208 V <sub>LL</sub> ±10% <sup>[1]</sup> , 230 V <sub>LL</sub> ±10% <sup>[1]</sup> , 380 V <sub>LL</sub> ±10% <sup>[2]</sup> , 400 V <sub>LL</sub> ±10%, 480 V <sub>LL</sub> ±10% |
| Input Frequency       | 47 - 63Hz  |
| Operational Modes     | AC, AC+DC, DC  |
| Control Interfaces    | RS232C, USB, LAN, Analog EXT.D. GPIB Optional  |

NOTES: <sup>1</sup> 208V & 230V input not available on Tahoe-90. <sup>2</sup> 380V input not available on Tahoe-15.

| OPERATIONAL CHARACTERISTICS |  |
|-----------------------------|--|
| Parallel Operation          | Requires no user setup, except to connect the parallel interface and wire the inputs and outputs. 270kVA max with Tahoe-45 configurations and 1.08MVA with Tahoe-90's.   |
| MODE                        | Switches between 1 and 3 phase outputs. This feature is not available on TA15 models.  |
| Emergency Stop              | A mushroom style switch installed on the front panel of each chassis. When activated, the output is disabled. Note that the controller (and front panel display) will still be powered up.   |
| Current Limit Modes         | Two selectable modes of operation: Constant Voltage (CV) & Constant Current (CC). In CC mode, the voltage folds back with automatic recovery during an over-current event. In CV mode, the output is programmed to 0V and the output relays open with an over current event. |
| ALC                         | Automatic Level Control. User-selectable operation enables a digitally implemented feedback control loop to precisely regulate the RMS value of the output voltage.  |
| Transient Generator         | Output could be controlled to produce list transient events with 500 μs programming resolution. Voltage: drop, step, sag, surge, sweep; Frequency: step, sag, surge, sweep; Voltage and Frequency: step, sweep.  |

Power Conditioning Equipment Testing



Avionics & Shipboard Electronics Testing



Regulatory Compliance Testing



Manufacturing Line Testers

