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# ACTIONPOWER

## PRODUCT CATALOG

### 2025



Powering Action  
Empowering the Future

[actionpowertest.com](http://actionpowertest.com)

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Founded in 1996, Xi'an ActionPower Electric Co., Ltd. is a specialized power electronics company with nearly three decades of experience in designing and manufacturing power supply systems. Our product lines cover test power supplies, power quality control solutions, and industrial power equipment, supporting sectors such as renewable energy, electric vehicles, aerospace, and industrial automation.

Today, ActionPower's power systems—from modular designs to megawatt-scale cabinet solutions—are trusted by leading enterprises in renewable energy industry. Guided by our overseas slogan, "Powering Action, Empowering the Future," we continue to support the global transition toward clean energy and efficient power systems through reliable solutions and long-term collaboration.

## WE ARE PROFESSIONAL POWER SUPPLY PRODUCTS AND TEST SOLUTION PROVIDER

1100+	2+	249+	40000m <sup>2</sup>	3000m <sup>2</sup>
Employees	R&D Production Bases	Authorized Patents	Intelligent Manufacturing Plant	R&D Experiment Center



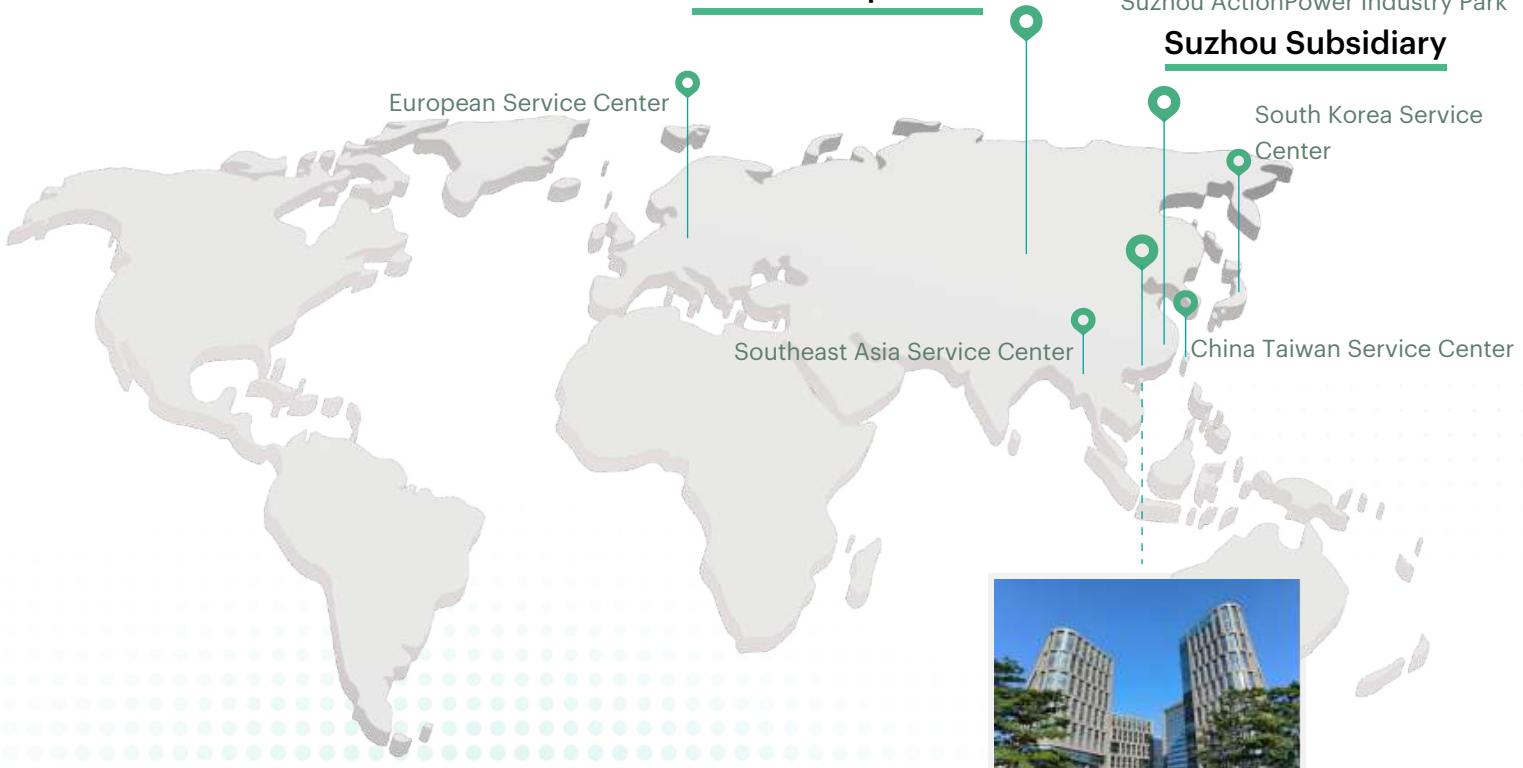
Xi'an ActionPower Industry Park

### Xi'an Headquarters



Suzhou ActionPower Industry Park

### Suzhou Subsidiary



Shenzhen Lab and  
Marketing Service Center

### Shenzhen Branch



## Milestones & Achievements

1996 - 2003

Founded in **Xi'an**, started business with Customized Power Products;  
Kept Focusing on product R&D and start new fields of **Harmonic Suppression**



2004-2014

In 2011, won Chinese Awards for Progress in Science and Technology by **Active Power Filter**;  
Sales Revenue exceeding **\$13.9 million**



2015-2022

In 2015, won Chinese Awards for Progress in Science and Technology again with **Accelerator Power Supply**;  
In 2020, established partnership with **Huawei, BYD**;  
In 2021, sales revenue exceeding **\$69.481 million**



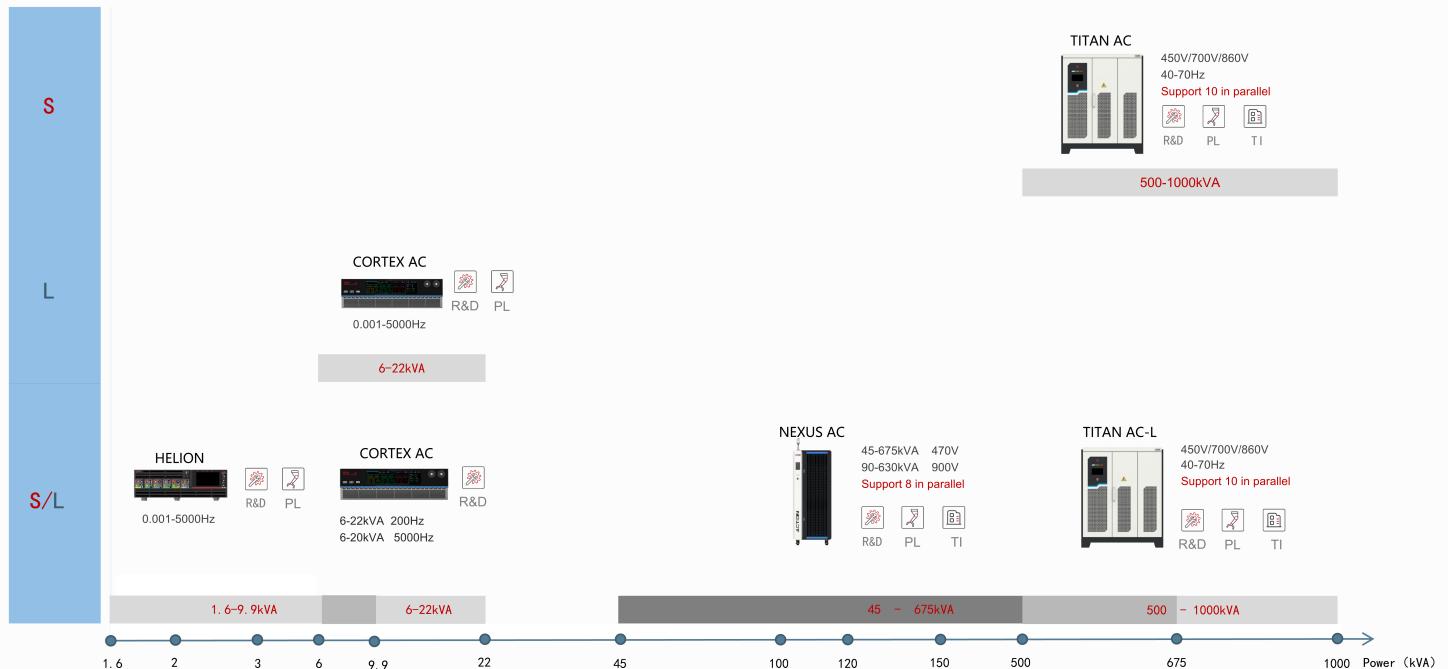
2022-2024

Successful listed in Sci-Tech innovation board (**ACTIONPOWER 688719**);  
Sales revenue exceeding **\$138.96 million**;  
New Industry Park started construction in Xi'an;  
Launched **Overseas Business Operations**

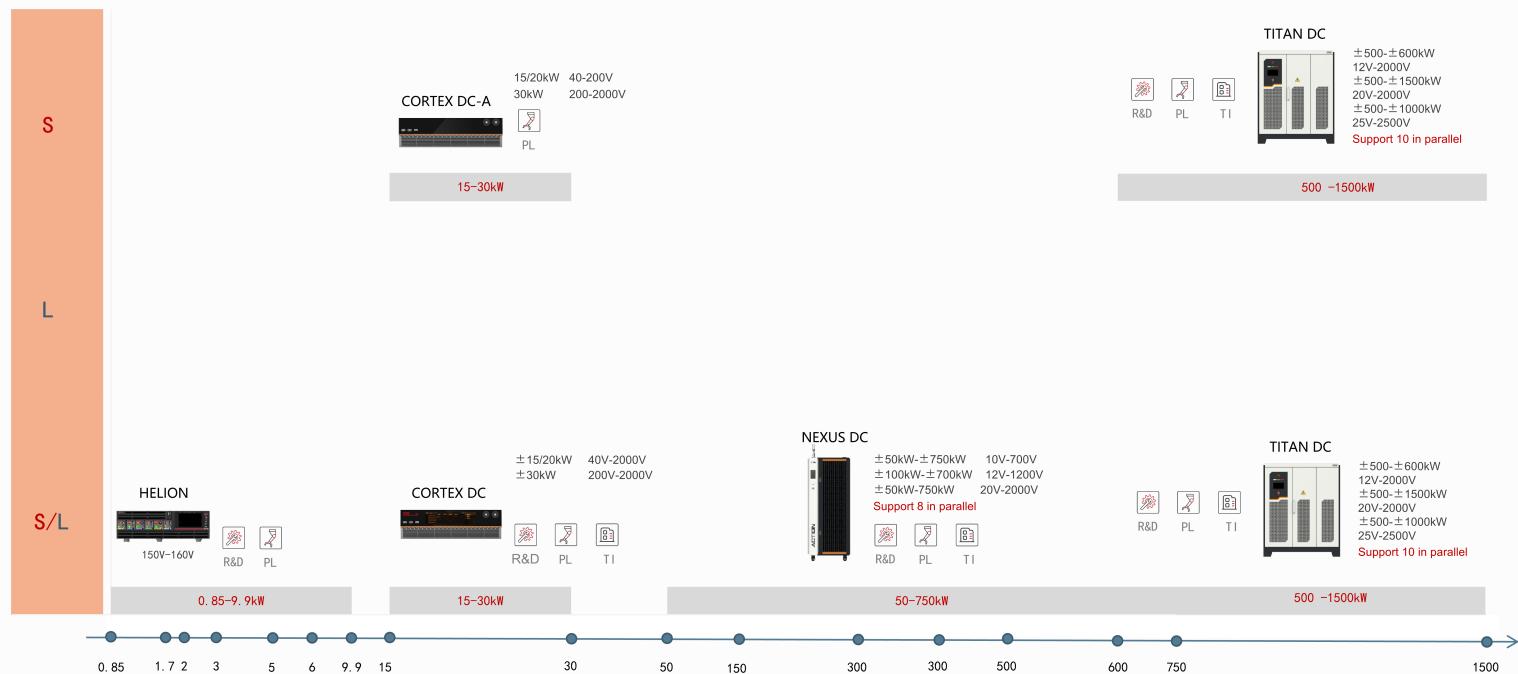


# Product Overview

## AC Power Supply Portfolio



## DC Power Supply Portfolio



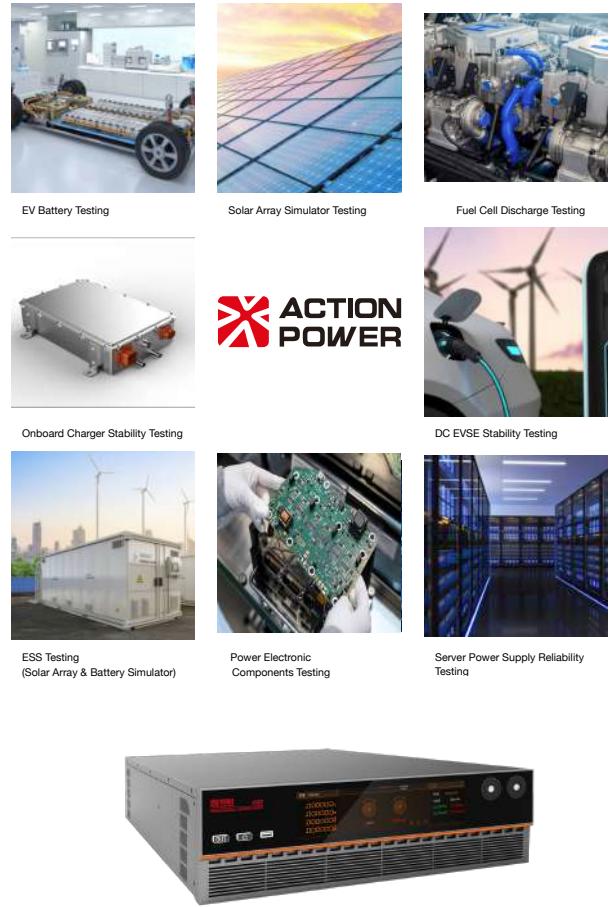
# Cortex DC series

## OVERVIEW

The Cortex DC series is a new-generation bidirectional programmable DC power supply with source and sink capability, enabling automatic two-quadrant operation and energy feedback absorption.

## ADVANTAGES

- ▶ High Dynamic : 500μs
- ▶ High Accuracy : 0.02%
- ▶ High Voltage Output : 2000Vdc
- ▶ Support Zero Volt Input
- ▶ Digital Matrix Parallel System : up to 3MW
- ▶ Automatic Sourcing and Loading
- ▶ Function Generation
- ▶ High Power Density : 30kW/3U
- ▶ Battery Simulation
- ▶ PV Simulation



Power	Model	Voltage	Current
15kW	CD15-040B	40	±667
	CD15-060B	60	±667
	CD15-080B	80	±667
	CD15-200B	200	±160
	CD15-360B	360	±160
	CD15-500B	500	±120
	CD15-600B	600	±120
	CD15-800B	800	±54
	CD15-1K0B	1000	±54
	CD15-1K5B	1500	±45
	CD15-2K0B	2000	±45

Power	Model	Voltage	Current
20kW	CD20-040B	40	±667
	CD20-060B	60	±667
	CD20-080B	80	±667
	CD20-200B	200	±240
	CD20-360B	360	±240
	CD20-500B	500	±180
	CD20-600B	600	±180
	CD20-800B	800	±80
	CD20-1K0B	1000	±80
	CD20-1K5B	1500	±60
	CD20-2K0B	2000	±60

Power	Model	Voltage	Current
30kW	CD30-200B	200	±240
	CD30-360B	360	±240
	CD30-500B	500	±180
	CD30-600B	600	±180
	CD30-800B	800	±80
	CD30-1K0B	1000	±80
	CD30-1K5B	1500	±60
	CD30-2K0B	2000	±60

Model	40V/60V/80V	200V/360V	500V/600V	800V/1000V	1500V/2000V
<b>AC Input</b>					
Voltage, Phases	304Vac to 480Vac / 380V±20%, 3ph+PE				
Frequency	47Hz to 63Hz				
Inrush Current	<50A				
Power Factor	0.99				
Efficiency up to	93.5%	94%	95%	94%	95%
<b>DC Output Voltage</b>					
Accuracy	±0.02% F.S.				
Resolution	±1mV	±10mV			
Display Accuracy	±0.02% F.S.				
Line Regulation CV	±0.01% F.S. (208-408V AC±10% input voltage, constant load and constant temperature)				
Load Regulation CV	±0.01% F.S. (0-100% load, constant load and constant temperature)				
Ripple (rms) CV	<25mV	<60mV	<200mV	<200mV	<400mV
Ripple and Noise p-p CV	<300mVpp	<480mVpp	<1000mVpp	<1200mVpp	<2400mVpp
Remote Compensation	Max.voltage±1V	Max.voltage and 2%F.S.±1V			
Rise Time 10%90% CV	2.5ms				
Fall Time 90%-10% CV	2.5ms	500µs			
Voltage Slew Rate	50V/ms	200V/ms	1500V/ms	600V/ms	5000V/ms
Recovery Time	2.5ms±0.75%F.S.	500µs ±0.75% F.S. (50% -100% or 100% -50% load)			
Discharge Time	≤20s	≤20s	≤30s	≤20s	≤30s
<b>DC Output Current</b>					
Accuracy	±0.15% F.S.	±0.02% F.S.			
Resolution	±100mA	±10mA			
Display Accuracy	±0.15% F.S.	±0.02% F.S.			
Display Resolution	±10mA	±1mA			
Line Regulation CC	±0.01% F.S. (208-408V AC±10% input voltage, constant load and constant temperature)				
Load Regulation CC	±0.05% F.S. (0-100% load, constant load and constant temperature)				
Rise Time 10%-90% CC	2.5ms	500µs			
Fall Time 90%-10% CC	2.5ms	500µs			
<b>DC Output Power</b>					
Accuracy	±30W	±3W	±0.01% F.S.	±3W	±0.01% F.S.
Resolution	±10W	±1W			
Display Accuracy	±30W	±3W			
Display Resolution	±10W	±1W			
<b>Resistance</b>					
Range	0.003-100Ω	0.05-100Ω	0.5-3000Ω	0.05-100Ω	0.5-3000Ω
Programming Accuracy	1mΩ	0.01Ω	0.1Ω	0.01Ω	0.1Ω
Programming Resolution	1mΩ	0.01Ω	0.1Ω	0.01Ω	0.1Ω
<b>Protective Functions</b>					
OVP	Over-voltage protection, adjustable 0 - 110% UNominal (±1% F.S.)				
OCP	Over-current protection, Adjustable 0V- ±110% INominal (±1% F.S.)				
OPP	Over-power protection, range 0V ~ ±110% PNominal (±1% F.S.)				
OTP	Over-temperature protection				
<b>Interface</b>					
Type-B USB, Ethernet, CAN, RS232, RS485, ModBus TCP					
<b>Device Configuration</b>					
Parallel Operation	Up to 100 units with energy-matrix bus (3MW)				
<b>Environmental Conditions</b>					
Operating Temperature	0 to 50 (°C) (power derating over 35°C)				
Storage Temperature	-20 to 70(°C)				
Humidity	≤ 90%. Not condensing				
Altitude	Output current derating 2%/100m above 2000m or derating 1°C/100m				
Cooling	Air cooling				
<b>Dimension &amp; Weight</b>					
Dimensions (WxHxD)	435mm x 132mm x 781mm				
Weight	40kg	35kg			

Model	40V/60V/80V	800V/1000V	1500V/2000V			
<b>AC Input</b>						
Voltage, Phases	304Vac to 480Vac / 380V±20%, 3ph+PE					
Frequency	47Hz to 63Hz					
Inrush Current	<50A					
Power Factor	0.99					
Efficiency up to	93.5%	94%	95%			
<b>DC Output Voltage</b>						
Accuracy	10mv	50mv	100mv			
Resolution	±1mV	±10mV				
Display Accuracy	±0.02% F.S.					
Line Regulation CV	±0.01% F.S. (208-408V AC±10% input voltage, constant load and constant temperature)					
Load Regulation CV	±0.01% F.S. (0-100% load, constant load and constant temperature)					
Ripple (rms) CV	<25mV	<200mV	<400mV <300mVpp			
Ripple and Noise p-p CV	<480mVpp	<1200mVpp	<2400mVpp Max.voltage±1V			
Remote Compensation	Max.voltage and 2%F.S.±1V					
Rise Time 10%90% CV	2.5ms	800μs				
Voltage Slew Rate	500V/ms	1500V/ms	3000V/ms			
Recovery Time	2.5ms±0.75%F.S.	600μs ±0.75% F.S. (50% -100% or 100% -50% load)				
Discharge Time	≤20s	≤20s	≤30s			
<b>DC Output Current</b>						
Accuracy	±0.15% F.S.	±0.02% F.S.				
Resolution	±100mA	±10mA				
Display Accuracy	±0.15% F.S.	±0.02% F.S.				
Display Resolution	±10mA					
Line Regulation CC	±0.01% F.S. (208-408V AC±10% input voltage, constant load and constant temperature)					
Load Regulation CC	±0.05% F.S. (0-100% load, constant load and constant temperature)					
Rise Time 10%-90% CC	2.5ms	500μs				
Fall Time 90%-10% CC	2.5ms	500μs				
<b>DC Output Power</b>						
Accuracy	±30W	±3W	±0.01% F.S. ±10W			
Resolution	±1W					
Display Accuracy	±30W	±3W				
Display Resolution	±10W	±30W				
<b>Resistance</b>						
Range	0.003-100Ω	0.05-100Ω	0.5-3000Ω 1mΩ			
Programming Accuracy	0.01Ω	0.01Ω	0.1Ω			
Programming Resolution	1mΩ	0.01Ω	0.1Ω			
<b>Protective Functions</b>						
OVP	Over-voltage protection, adjustable 0 - 110% UNominal (±1% F.S.)					
OCP	Over-current protection, Adjustable 0V- ±110% INominal (±1% F.S.)					
OPP	Over-power protection, range 0V ~ ±110% PNominal (±1% F.S.)					
OTP	Over-temperature protection					
<b>Interface</b>						
Type-B USB, Ethernet, CAN, RS232, RS485, ModBus TCP						
<b>Device Configuration</b>						
Parallel Operation	Up to 100 units with energy-matrix bus (3MW)					
<b>Environmental Conditions</b>						
Operating Temperature	0 to 50 (°C) (power derating over 35°C)					
Storage Temperature	-20 to 70(°C)					
Humidity	≤ 90%. Not condensing					
Altitude	Output current derating 2%/100m above 2000m or derating 1°C/100m					
Cooling	Air cooling					
<b>Dimension &amp; Weight</b>						
Dimensions (WxHxD)	435mm x 132mm x 781mm					
Weight	40kg	35kg				

# Cortex AC series

## OVERVIEW

The Cortex AC series is a regenerative AC source and load in one, supporting four-quadrant operation. It enables grid simulation, anti-islanding testing, and off-grid load emulation for new energy systems.

## ADVANTAGES

- ▶ High Dynamic : 3V/μs
- ▶ High Accuracy :  $\pm(0.01\%+0.05\% \text{ F.S.})$
- ▶ High Voltage Output : 450Vac(L-N)
- ▶ Four Output Modes : AC, DC, AC+DC, DC+AC
- ▶ Built-in Library of Waveform for Testing Standard
- ▶ Digital Matrix Parallel System : up to 220kVA
- ▶ 12 \* RLC Combinations to Simulate Real Conditions
- ▶ High Power Density : 22kVA/3U
- ▶ Regenerative AC Load
- ▶ Grid Simulation



ESS Testing

PV Inverter Testing

Wind Turbine Testing

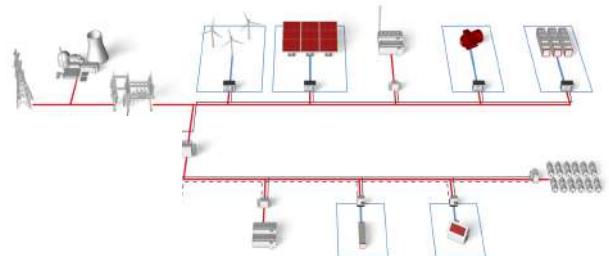


AC/DC Power Supply Testing

Power HiL



EV Charger & EVSE Testing



Model	Power (kVA)	Voltage Range (LN_AC)	Frequency Range (Hz)	3-Phase Maximum Current (A)		1-Phase Maximum Current (A)		Voltage (V_DC)	Current (A_DC) Range
				rms	peak	rms	peak		
CA06-450	6	0-450	0.001-200	30	90	90	270	±636	±90
CA7.5-450	7.5	0-450	0.001-200	30	90	90	270	±636	±90
CA09-450	9	0-450	0.001-200	35	105	105	315	±636	±105
CA12-450	12	0-450	0.001-200	35	105	105	315	±636	±105
CA15-450	15	0-450	0.001-200	35	105	105	315	±636	±105
CA22-450	20	0-450	0.001-200	35	105	105	315	±636	±105

Model	Power (kVA)	Voltage Range (LN_AC)	Frequency Range (Hz)	3-Phase Maximum Current (A)		1-Phase Maximum Current (A)		Voltage Range (V_DC)	Current Range (A_DC)
				rms	peak	rms	peak		
CA06-450HF	6	0-450	0.001-500	30	90	90	270	±636	±105
CA7.5-450HF	7.5	0-450	0.001-500	30	90	90	270	±636	±90
CA09-450HF	9	0-450	0.001-5000	35	105	105	315	±636	±90
CA12-450HF	12	0-450	0.001-5000	35	105	105	315	±636	±105
CA15-450HF	15	0-450	0.001-5000	35	105	105	315	±636	±105
CA20-450HF	20	0-450	0.001-5000	35	105	105	315	±636	±105

Specification			
		CA series	CA HF series
Output Type		AC,DC,AC+DC,DC+AC	
Working Mode		Regenerative,source & load integrated	
Number of phases of output		Single-phase, three-phase,three phases independent	
<b>AC Input</b>			
Voltage, Phases		304Vac to 480Vac / 380V±20%, 3ph+PE	
Frequency		47Hz to 63Hz	
Peak Current		<1.5 * Rated Current	
Power Factor		0.99	
Efficiency		>91%	
<b>AC Voltage Output</b>			
Voltage Range		L-N/0-450V@0.001-200Hz L-N/0-300V@200-1600Hz L-N/0-250V@1600-2000Hz L-N/0-100V@2000-5000Hz	
Resolution		0.01V	
Accuracy		±(0.01%+0.05% F.S.)@0.001-400Hz ±(0.1%+0.1% F.S.)@400-3000Hz ±(0.3%+0.3% F.S.)@43000-5000Hz	
Waveform Type		Sine, triangle wave, impulse wave, clipping wave, half wave, multi-wave, 30 groups of DST, user defined	
DC Component		<20mV	
Load Regulation		±0.05% F.S.	
Line Regulation		±0.01% F.S. @10%	
Voltage Slew Rate		AC>3.0V/μs	
Voltage Distortion		<0.3%@50Hz/60Hz <1%@0.001Hz-200Hz	
<1%@60-400Hz <1.5%@400-1600Hz <2%@1600-5000Hz			
Compensation		Adaptive	
<b>DC Voltage Output</b>			
Accuracy		±(0.01%+0.05% F.S.)	
Resolution		0.01V	
Load Regulation		±0.05% F.S.	
Line Regulation		±0.01% F.S. @10%	
Voltage Slew Rate		DC>3.0V/μs	

Specification		
	CA series	CA HF series
Frequency Output		
Accuracy	±0.01%	
Resolution	0.001Hz	
Range	0.001 - 200Hz	
<b>Phase Angle Control</b>		
Accuracy	±0.1°@0.001-200Hz	
Resolution	±0.1°	
Phase Angle Range	0 - 359.9°	
Phase Control	Single-phase, Three-phase, Three-phase independent	
<b>Harmonics Injection</b>		
Range	up to 100th order @ 40-70Hz fundamental frequency;	
Content	40%	
Magnitude Error	±5%@ set value or 0.1% of the fundamental frequency;	
<b>Current</b>		
Accuracy	±(0.1%+0.1% F.S.)	
Resolution	0.01A	
<b>Internal Resistance Mode</b>		
R Range (Ω) : 0-10	L Range (mH) : 0-2	
Resolution : 0.001	Accuracy : ±0.01%+0.02% F.S.	
<b>RLC Load</b>		
Resistance Range (Ω) : 0.001 to 1000	Resistance Resolution (Ω) : 0.001	Resistance Accuracy : ±0.1% F.S.
Inductors Range (mH) : 0.1 to 5000	Inductors Resolution (mH) : 0.001	Inductors Accuracy : ±0.1% F.S.
Capacitance Range (mF) : 1 to 5000	Capacitance Resolution (mF) : 0.1	Capacitance Accuracy : ±0.1% F.S.
Crest Factor Range : 1.000 to 5.000	Crest Resolution : 0.001	
Power Factor Range : -1.000 to 1.000	Power Resolution : 0.001	
<b>Transient Functions</b>		
Programming	List, Wave, Step, Pulse, Advanced, Harmonics, Inter-harmonics, DST	
Time of Step Resolution	100μs	
Number of Programmed Waveforms	100	
Analog Programming	RMS, Amplitude, Instantaneous value(Amplifier mode)	
<b>Environmental Conditions</b>		
Cooling	Air cooling	
Temperature	Operating : 0 to 50°C Storage : -20 to 70°C	
Humidity	<80%, non-condensing	
<b>Dimension &amp; Weight</b>		
Dimension (mm)	435(W) x 132(H) x 781(D)	
Weight	35kg	

# Helion series

## OVERVIEW

The Helion Series Hybrid Programmable Power Supply System is an innovative power supply solution, specifically designed to meet the high-accuracy and multifunctional power requirements of laboratories, R&D centers, and industrial automation testing. The system features a modular design, enabling users to flexibly configure AC and DC modules according to actual needs, providing efficient and adaptable power supply solutions. It is widely used in the development and application of micro-inverters, micro-storage, portable energy storage, household appliances, industrial electronics, and related products.



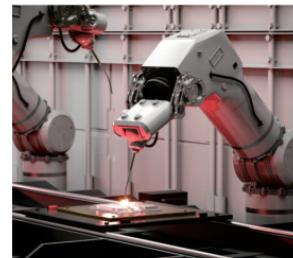
## ADVANTAGES

**Adaptive modular design:** Supports plug-and-play quick installation, flexible replacement of AC/DC modules, and automatic system recognition of power module types.



Portable Energy Storage

**Hybrid multi-channel:** Six-channel hybrid interface within a 3U enclosure, offering flexible configuration. Supports common topologies including AC/AC, AC/DC, DC/AC, and DC/DC testing.



Industrial Electronics

**High accuracy output:** Employs advanced digital control technology to deliver high accuracy, low ripple voltage and current output, ensuring precise test results.



**Comprehensive communication interfaces:** Built-in USB and LAN, with optional RS232/RS485 interfaces, supporting SCPI/MODBUS command sets for seamless integration into automated test systems, enabling remote control and monitoring.

**Bidirectional energy flow:** The AC and DC modules support energy feedback functionality.

**Web-based control:** allowing power supply management and monitoring through a standard browser.

**Convenient front panel output:** All six front panel channels support banana plug connections up to 10A.

## Mainframe System

System Configuration & Model Selection



3U Rack					
Product Model	Rated Output Power (kW)	Input Voltage Range (V)	Number of Channels	Input Type	Appearance
H-C6-6.6	6.6	L1-N: (200-240)Vac L1-L2: (200-440)Vac	6	Two-wire	3U Standard Width
H-C6-9.9	9.9	200-480V	6	Three-phase	

## AC Module

Model Selection Specification Table:



Product Model	Power (kVA)	Maximum Voltage (V_rms)	Frequency Range (Hz)	Maximum Current	Maximum Voltage (V_DC)	Maximum Current (A_DC)
				(A_rms)		
A1-3.0-450-16	3	450	DC,0.001-5000	16	±630	±16
A1-1.6-450-16	1.6	450	DC,0.001-5000	16	±630	±16

## DC Module

Model Selection Specification Table:



Product Model	Power Rating (kW)	Voltage (V)	Current Rating (A)	Maximum Efficiency	Type
D1-3.0-160-50	±3.00	0-160	±50	92%	Bidirectional DC Module
D1-1.6-160-30	±1.65	0-160	±30	90%	Bidirectional DC Module
D1-0.8-160-15	±0.85	0-160	±15	90%	Bidirectional DC Module
D1-3.0-100-60	±3.00	0-100	±60	92%	Bidirectional DC Module
D1-1.6-100-45	±1.65	0-100	±45	90%	Bidirectional DC Module
D1-0.8-100-30	±0.85	0-100	±30	90%	Bidirectional DC Module
D2-3.0-160-50	3.00	0-160	50	92%	PV Simulation Module
D2-1.6-160-30	1.65	0-160	30	90%	PV Simulation Module
D2-0.8-160-15	0.85	0-160	15	90%	PV Simulation Module
D2-3.0-100-60	3.00	0-100	60	92%	PV Simulation Module
D2-1.6-100-45	1.65	0-100	45	90%	PV Simulation Module
D2-0.8-100-30	0.85	0-100	30	90%	PV Simulation Module

# Nexus series

## OVERVIEW

The Nexus series is ActionPower's third-generation bidirectional power supply for high-power AC/DC testing. It simulates grid, battery, and PV panel characteristics with high precision and dynamic response.



## ADVANTAGES

**Multiple Output Modes:** CC, CV, CP, CR

**Soft Start:** Smooth output ramp-up

**Adjustable Slew Rate:** Configurable rise/fall speed of voltage, current, and power

**Parallel Operation:** Supports vertical and horizontal expansion via fiber-optic linking

**Grid-Friendly:** PF up to 0.99, THDi < 3%, minimal grid interference

**Wide Output Range:** Voltage exceeds rated values with constant power at high output

**Internal Resistance Setting:** Programmable for specialized test scenarios

**Multiple Protections:** OC, OV, OP, OT protection



2000V	1200V	700V	900V	470V
100kW-200kW 200A-400A	100kW-200kW 300A-600A	100kW-200kW 600A-1200A	90kVA-180kVA 100A-200A	45kVA-225kVA 100A-500A
300kW-500kW 600A-1000A	300kW-500kW 900A-1500A	300kW-500kW 1800A-3000A	270kVA-450kVA 300A-500A	270kVA-450kVA 600A-1000A
600kW-750kW 1200A-1500A	600kW-700kW 1800A-2100A	600kW-750kW 3600A-4500A	540kVA-630kVA 600A-700A	540kVA-675kVA 1200A-1500A

# Nexus DC series

The Nexus bidirectional programmable DC power supply delivers 100kW to 750 kW per unit with multiple voltage levels. It simulates various battery and PV characteristics to support a wide range of testing scenarios.



Model	Power [kW]	Output Voltage [V]	Output Current [A]	Size (WDH) [mm]	Weight [kg]
ND100-700	±100	20-2000	±200	800x1000x1950	600
ND200-2K0	±200	20-2000	±400	800x1000x1950	800
ND300-1K2	±300	20-2000	±600	1400x1000x1950	1,310
ND400-2K0	±400	20-2000	±800	1400x1000x1950	1,510
ND500-2K0	±500	20-2000	±1000	1400x1000x1950	1,710
ND600-2K0	±600	20-2000	±1200	2000x1000x1950	2,220
ND700-2K0	±700	20-2000	±1400	2000x1000x1950	2,420
ND750-2K0	±750	20-2000	±1500	2000x1000x1950	2,520
ND100-1K2	±100	12-1200	±300	800x1000x1950	600
ND200-1K2	±200	12-1200	±600	800x1000x1950	800
ND300-1K2	±300	12-1200	±900	1400x1000x1950	1,310
ND400-1K2	±400	12-1200	±1200	1400x1000x1950	1,510
ND500-1K2	±500	12-1200	±1500	1400x1000x1950	1,710
ND600-1K2	±600	12-1200	±1800	2000x1000x1950	2,220
ND700-1K2	±700	12-1200	±2100	2000x1000x1950	2,420
ND100-2K0	±100	10-700	±600	800x1000x1950	600
ND200-700	±200	10-700	±1200	800x1000x1950	800
ND300-700	±300	10-700	±1800	1400x1000x1950	1,310
ND400-700	±400	10-700	±2400	1400x1000x1950	1,510
ND500-700	±500	10-700	±3000	1400x1000x1950	1,710
ND600-700	±600	10-700	±3600	2000x1000x1950	2,220
ND700-700	±700	10-700	±4200	2000x1000x1950	2,420
ND750-700	±750	10-700	±4500	2000x1000x1950	2,520

Nexus DC series		Specification
<b>AC Input</b>		
Voltage, Phases	380V $\pm$ 15%, 3ph+PE	
Frequency	47Hz to 63Hz	
Power Factor	$\geq$ 0.96	
Efficiency	>94.2%	
<b>DC Voltage Output</b>		
Setting Resolution	$\pm$ 0.01.V	
Accuracy	0.1V% F.S	
Ripple	1.5Vrms	
Voltage slew rate	1000V/ms	
Voltage rise time	$\leq$ 2ms	
<b>DC Output Current</b>		
Setting resolution	0.01A	
Accuracy	$\pm$ 0.1%F.S.	
Rise time	$\leq$ 1ms (10%~90% rated current)	
Switching time	$\leq$ 2ms (-90% to +90% rated current)	
<b>DC Output Power</b>		
Set resolution	0.001kW	
Accuracy	$\pm$ (0.1% Setting +0.1%F.S.)	
<b>Battery Simulation</b>		
Battery type	Simulate various battery types including lithium manganese oxide, lithium cobalt oxide, lithium iron phosphate, nickel-metal hydride, ternary lithium, lithium titanate, and lead-acid batteries. Customizable battery types with open 1-stage, 2-stage, and 3-stage RC battery models.	
Parameter	Series Count, Parallel Count, Initial SOC (State of Charge), Initial Temperature, Internal Resistance, Cell Capacity, and other parameters	
Data input	Import of CSV user-defined model is supported	
Update rate	200 $\mu$ s	
<b>I-V Curve</b>		
Open-Circuit Voltage Setting Range	Full Voltage Range Adjustable	
Short-Circuit Current Setting Range	0A~Ie	
Simulated Fill Factor Range	0.3 - 0.95	
Photovoltaic Panel Type Selection	c-si, Thin-film, Customization	
I-V Curve Update Rate	Typical Time: 1 ms, with Online Curve Switching Function	
I-V Curve Standard	Sandia, EN50530, Simple	
<b>Resistor Parameters</b>		
Range	0.5-3000 $\Omega$	
Accuracy	$\pm$ (0.1%Setting+0.2% F.S. )	
Resolution	0.01 $\Omega$	
<b>Programmable</b>		
Mode	List, Wave, Step, Advanced	
Step	200	
Cycle Range	0~9,999,999	
Time Range	0ms-999s	
Minimum Programming Time Step	100 $\mu$ s	
Edit Mode	Add, Delete, Import, Export	
Running Mode	Load, End, Trigger	
<b>Others</b>		
Protection	Input under-voltage/over-voltage/over-frequency/phase loss protection, etc.	
Interface	USB, LAN, RS485, CAN	
Multi-function Interface	“Anyport”, see the user manual for more details	
Control and Display	Local touchscreen control, remote host control; display voltage, current, frequency, power.	
Cooling Mode	Air cooling	
Noise	$\leq$ 70dB	
Operation Temperature	-10°C~50°C	
Humidity	10% ~ 90% RH	
Altitude	$\leq$ 2000m	

# Nexus AC series

The Nexus programmable source/sink power supply offers 45 kVA to 675 kVA per unit, with phase voltage up to 900 V. It integrates both AC source and load functions to support on-grid and off-grid testing.



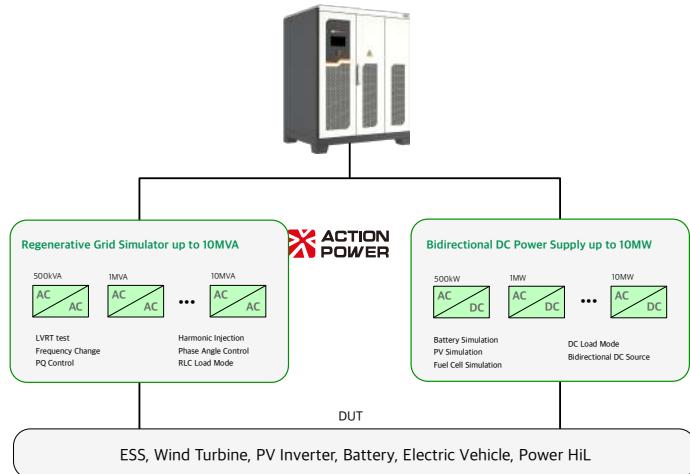
Model	Power [kVA]	Voltage [V]	Frequency [Hz]	Output Current [A]	DC Output Voltage [V_DC]	DC Output Current [A_DC]	Size (WDH) [mm]	Weight [kg]
NA090-470	90	470	DC,0.001-200.0	200	±650	±600	800x1000x1950	600
NA180-470	180	470	DC,0.001-200.0	400	±650	±1200	800x1000x1950	800
NA225-470	225	470	DC,0.001-200.0	500	±650	±1500	800x1000x1950	900
NA270-470	270	470	DC,0.001-200.0	600	±650	±1800	1400x1000x1950	1,310
NA360-470	360	470	DC,0.001-200.0	800	±650	±2400	1400x1000x1950	1,510
NA450-470	450	470	DC,0.001-200.0	1000	±650	±3000	1400x1000x1950	1,710
NA540-470	540	470	DC,0.001-200.0	1200	±650	±3600	2000x1000x1950	2,220
NA630-470	630	470	DC,0.001-200.0	1400	±650	±4200	2000x1000x1950	2,420
NA675-470	675	470	DC,0.001-200.0	1500	±650	±4500	2000x1000x1950	2,520
NA090-900	90	900	DC,0.001-200.0	100	±1250	±300	800x1000x1950	600
NA180-900	180	900	DC,0.001-200.0	200	±1250	±600	800x1000x1950	800
NA270-900	270	900	DC,0.001-200.0	300	±1250	±900	1400x1000x1950	1,310
NA360-900	360	900	DC,0.001-200.0	400	±1250	±1200	1400x1000x1950	1,510
NA450-900	450	900	DC,0.001-200.0	500	±1250	±1500	1400x1000x1950	1,710
NA540-900	540	900	DC,0.001-200.0	600	±1250	±1800	2000x1000x1950	2,220
NA630-900	630	900	DC,0.001-200.0	700	±1250	±2100	2000x1000x1950	2,420

Nexus AC series		Specification
<b>AC Input</b>		
Voltage, Phases	380V $\pm$ 15%, 3ph+PE	
Frequency	47Hz to 63Hz	
Harmonic Current	<3%	
Power Factor	$\geq$ 0.96	
Efficiency	>91%	
<b>AC Voltage Output</b>		
Accuracy	$\pm$ 0.1% F.S.	
Resolution	0.01V	
Load Regulation	$\pm$ 0.05% F.S.	
Line Regulation	$\pm$ 0.05% F.S. @10% variable	
Voltage Slew Rate	AC>1.0V/ $\mu$ s	
Voltage Distortion	<0.5%@50Hz/60Hz	<1%@0.001Hz-200Hz Voltage
Compensation	Adaptive	
<b>DC Voltage Output</b>		
Accuracy	$\pm$ 0.1% F.S.	
Resolution	0.01V	
Load Regulation	$\pm$ 0.05% F.S.	
Line Regulation	$\pm$ 0.01% F.S. @10% variable	
Voltage Slew Rate	DC>1.0V/ $\mu$ s	
<b>Frequency Output</b>		
Accuracy	$\pm$ 0.01%	
Resolution	0.001Hz	
Range	DC, 0.001 - 200Hz	
<b>Phase Angle Control</b>		
Accuracy	$\pm$ 0.1°@15-70Hz, $\pm$ 0.5°@70-200Hz	
Resolution	$\pm$ 0.1°	
Phase Angle Range	Programmable range 0 - 359.9°	
Phase Control	A=0°, B=240°, C=120°(Default)	
<b>Harmonin Injection</b>		
Order	up to 100th@40-70Hz; 25th@70-200Hz	
Content	40%	
Phase Angle Range	0 - 359.9°	
<b>Current</b>		
Accuracy	$\pm$ (0.1%+0.1% F.S.)@15-200Hz	
Resolution	0.01A	
<b>Internal Resistance Mode</b>		
R Range ( $\Omega$ ) : 0-10	L Range (mH) : 0-2	
Resolution : 0.001	Accuracy : $\pm$ 0.01%+0.02% F.S.	
<b>RLC Load</b>		
Resistance Range ( $\Omega$ ) : 0.001 to 1000	Resistance Resolution ( $\Omega$ ) : 0.001	Resistance Accuracy : $\pm$ 0.1% F.S.
Inductors Range (mH) : 0.1 to 5000	Inductors Resolution (mH) : 0.001	Inductors Accuracy : $\pm$ 0.1% F.S.
Capacitance Range (mF) : 1 to 5000	Capacitance Resolution (mF) : 0.1	Capacitance Accuracy : $\pm$ 0.1% F.S.
Crest Factor Range : 1.000 to 5.000	Crest Resolution : 0.001	
Power Factor Range : -1.000 to 1.000	Power Resolution : 0.001	
<b>Transient Functions</b>		
Programming	List, Wave, Step, Pulse, Advanced, Harmonics, Inter-harmonics	
Time of Step Resolution	100 $\mu$ s	
Number of Programmed Waveforms	100	
Analog Programming	RMS, Amplitude, Instantaneous value(Amplifier mode)	
<b>Environmental Conditions</b>		
Cooling	Air cooling	
Temperature	Operating : -10°C to 50°C	Storage : -20 to 70°C
Humidity	$\leq$ 80%, non-condensing	

# Titan DC series

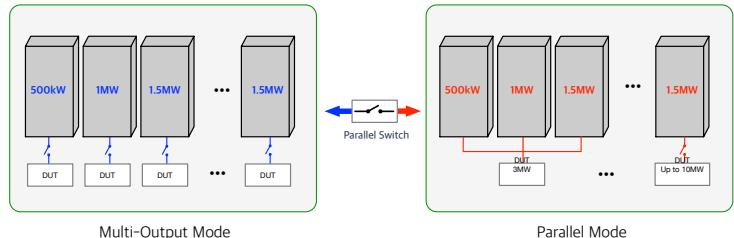
## OVERVIEW

The Titan DC Series battery simulator is a power supply featuring high accuracy, high dynamics, high real-time performance and comprehensive battery characteristic simulation.



## ADVANTAGES

- ▶ High Dynamic : 2ms (10%~90%)
- ▶ High Voltage Output : 12-2000Vdc
- ▶ Multi-output Mode with Parallel Switch
- ▶ Support Zero Volt Input
- ▶ Digital Matrix Parallel System : up to 10MW
- ▶ Automatic Sourcing and Loading
- ▶ Internal Resistance Function
- ▶ Battery Simulation



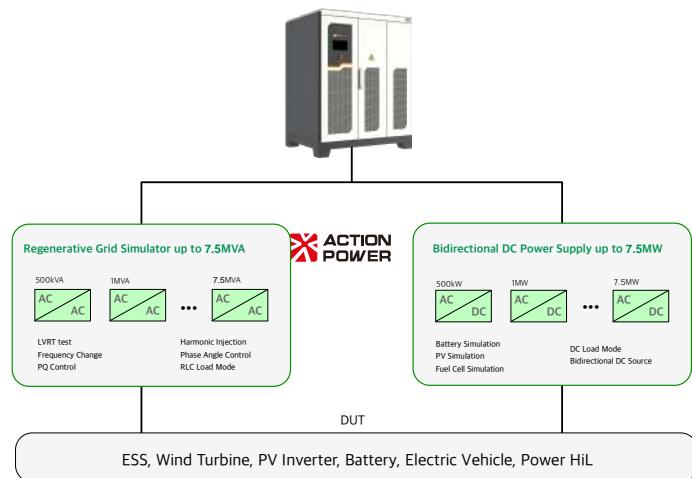
Model	Power [kW]	Output Voltage [V]	Output Current [A]	Size (WHD) [mm]	Weight [kg]
TD300-1K2-10	±300	12-1200	±1000	2010x1955x1200	2,640
TD400-1K2-10	±400	12-1200	±1000	2010x1955x1200	2,850
TD500-1K2-12	±500	12-1200	±1250	2010x1955x1200	3,020
TD600-1K2-12	±600	12-1200	±1250	2410x1955x1200	3,500
TD300-2K0-04	±300	20-2000	±400	1610x1955x1200	1,900
TD400-2K0-06	±400	20-2000	±600	1610x1955x1200	2,430
TD500-2K0-07	±500	20-2000	±700	2010x1955x1200	2,670
TD600-2K0-08	±600	20-2000	±800	3410x1955x1200	3,500
TD750-2K0-10	±750	20-2000	±1000	3410x1955x1200	4,390
TD1K0-2K0-14	±1000	20-2000	±1400	3410x1955x1200	4,940

Titans DC Series		Specification
<b>AC Input</b>		
Voltage, Phases	380V $\pm$ 15%, 3ph+PE	
Frequency	47Hz to 63Hz	
Power Factor	0.99 @ full load	
Efficiency	Model of 300kW and above : >94%, others: >90%	
Harmonic Current	$\leq$ 3%	
<b>DC Output Voltage</b>		
Accuracy	$\pm$ 0.1% F.S.	
Resolution	0.01V	
Ripple(RMS)	0.1% F.S. (resistive load)	
Slew Rate	200V/ms	
<b>DC Output Current</b>		
Accuracy	$\pm$ 0.1% F.S.	
Resolution	0.01A	
Ripple(RMS)	0.1% F.S. (resistive load)	
Slew Rate	500A/ms	
Rise Time	$\leq$ 2ms (10%~90% rated current)	
Switching Time	$\leq$ 4ms (switching from -09% to +90%)	
Peak Time	60s (1200V type)	
<b>Measurement</b>		
Voltage Accuracy	$\pm$ 0.1% F.S.	
Voltage Resolution	0.001V	
Current Accuracy	$\pm$ 0.1% F.S.	
Current Resolution	0.001A	
Power Accuracy	$\pm$ 0.2% F.S.	
Power Resolution	1W	
<b>Protective Functions</b>		
OVP	Over-voltage protection, adjustable 0 - 110% UNominal ( $\pm$ 1% F.S.)	
OCP	Over-current protection, Adjustable 0V- $\pm$ 110% INominal ( $\pm$ 1% F.S.)	
OPP	Over-power protection, range 0V ~ $\pm$ 110% PNominal ( $\pm$ 1% F.S.)	
OTP	Overt-temperature protection	
<b>Battery Simulation</b>		
Battery Type	Different battery types such as lithium manganate, lithium cobaltate, lithium iron phosphate, nickel-hydrogen, ternary lithium, lithium titanate, and lead-acid batteries can be simulated; User-defined battery types and open first, second and third-order RC battery models are supported	
Parameter	Number of batteries in series connection, number of batteries in parallel connection, initial SOC, initial temperature, internal resistance, cell capacity and other parameters	
Interface	Import of CSV user-defined model is supported	
Real-time Performance	1ms command refresh rate	
<b>Interface</b>		
Ethernet, CAN, RS485, ModBus TCP		
<b>Device Configuration</b>		
Parallel Operation	Up to 10MW	
<b>Insulation and Withstanding Voltage</b>		
10M $\Omega$ /DC500V : 3600VAC(5000VDC)/1min		
<b>Environmental Conditions</b>		
Operating Temperature	-10 to 40°C	
Storage Temperature	-20 to 70°C	
Relative Humidity	10 to 90% RAH	
Altitude	$\leq$ 2000m without derating, Above 2000m please contact ACTIONPOWER	
<b>Cooling method</b>		
Air-cooled	Dry clean air	
<b>Option</b>		
Discharging Resistor Cabinet	Under abnormal operating conditions of the system, energy will be safely dissipated through the bleeder resistor cabinet to protect the	
DUT Capacitance Compensation	Voltage drop caused by cable impedance and the voltage ripple of the DUT	

# Titan DC series<sup>CE</sup>

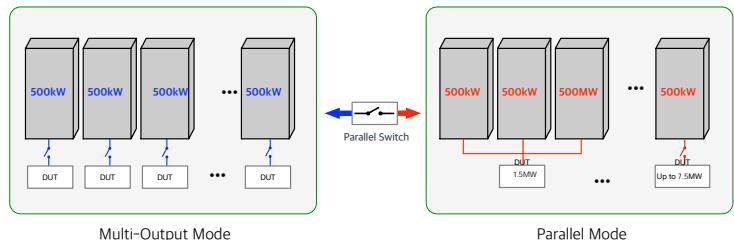
## OVERVIEW

The Titan DC Series battery simulator is a power supply featuring high accuracy, high dynamics, high real-time performance and comprehensive battery characteristic simulation.



## ADVANTAGES

- ▶ High Dynamic : 2ms (10%~90%)
- ▶ High Voltage Output : 20-1500Vdc
- ▶ Multi-output Mode with Parallel Switch
- ▶ Support Zero Volt Input
- ▶ Digital Matrix Parallel System : up to 7.5MW
- ▶ Automatic Sourcing and Loading
- ▶ Internal Resistance Function
- ▶ Battery Simulation



Model	Power [kW]	Output Voltage [V]	Output Current [A]	Size (WHD) [mm]	Weight [kg]
TD300-1K5-04	±300	12-1500	±400	2010x1955x1200	2,850
TD400-1K5-06	±400	12-1500	±600	2010x1955x1200	2,850
TD500-1K5-07	±500	12-1500	±700	2010x1955x1200	2,850
TD600-1K5-08	±600	12-1500	±800	3410x1955x1200	5,080
TD750-1K5-10	±750	20-1500	±1000	3410x1955x1200	5,080

Titan DC Series		Specification
<b>AC Input</b>		
Voltage, Phases	360~440VAC, 3ph+PE	
Frequency	47Hz to 63Hz	
Power Factor	0.99 @ full load	
Efficiency	Model of 300kW and above : >94%, others: >90%	
Harmonic Current	≤3%	
<b>DC Output Voltage</b>		
Accuracy	±0.1% F.S.	
Resolution	0.01V	
Ripple(RMS)	0.1% F.S. (resistive load)	
Slew Rate	300V/ms	
<b>DC Output Current</b>		
Accuracy	±0.1% F.S.	
Resolution	0.01A	
Ripple(RMS)	0.1% F.S. (resistive load)	
Slew Rate	500A/ms	
Rise Time	≤2ms (10%~90% rated current)	
Switching Time	≤4ms (switching from -09% to +90%)	
Peak Time	60s (1200V type)	
<b>Measurement</b>		
Voltage Accuracy	±0.1% F.S.	
Voltage Resolution	0.001V	
Current Accuracy	±0.1% F.S.	
Current Resolution	0.001A	
Power Accuracy	±0.2% F.S.	
Power Resolution	1W	
<b>Protective Functions</b>		
OTP	Overt-temperature protection	
<b>Battery Simulation</b>		
Battery Type	Different battery types such as lithium manganate, lithium cobaltate, lithium iron phosphate, nickel-hydrogen, ternary lithium, lithium titanate, and lead-acid batteries can be simulated; User-defined battery types and open first, second and third-order RC battery models are supported	
Parameter	Number of batteries in series connection, number of batteries in parallel connection, initial SOC, initial temperature, internal resistance, cell capacity	
Interface	Import and export of CSV user-defined model is supported	
Real-time Performance	1ms command refresh rate	
<b>Interface</b>		
Ethernet, CAN, RS485		
<b>Device Configuration</b>		
Parallel Operation	Multiple units of the same model can be installed in parallel up to 7.5MW	
<b>Insulation and Withstanding Voltage</b>		
20MΩ/DC500V : 5000VDC/1min		
<b>Environmental Conditions</b>		
Operating Temperature	-10 to 40°C	
Relative Humidity	10 to 90% no-condensing	
Altitude	≤2000m without derating, Above 2000m please contact ACTIONPOWER	
<b>Cooling method</b>		
Air-cooled	Dry clean air	
<b>Option</b>		
Discharging Resistor Cabinet	Under abnormal operating conditions of the system, energy will be safely dissipated through the bleeder resistor cabinet to protect the	
DUT Capacitance Compensation	Voltage drop caused by cable impedance and the voltage ripple of the DUT	

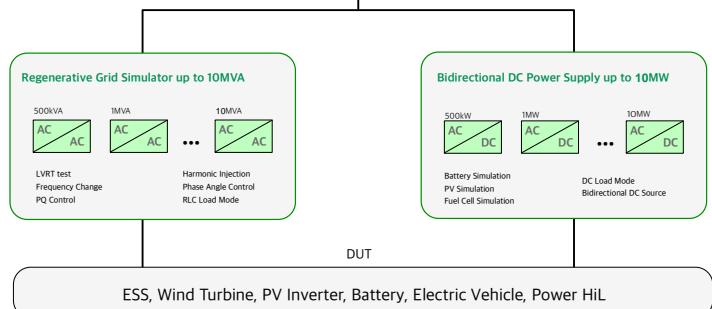
# Titan AC series



## OVERVIEW

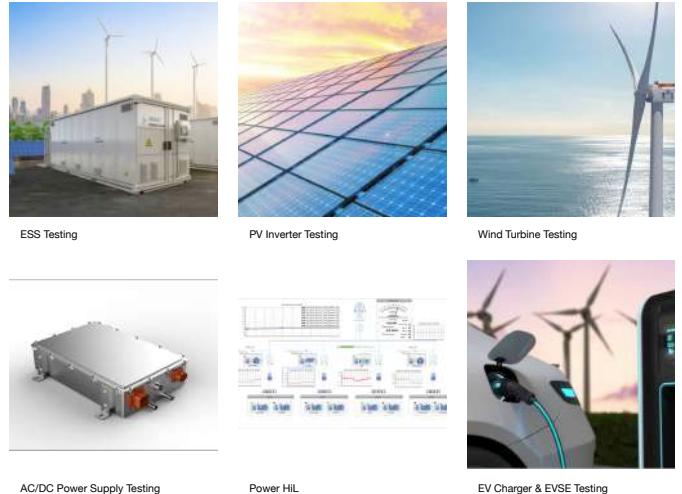
The Titan AC series can be used as a grid simulator for testing devices under variable power conditions.

It supports voltage, frequency, and waveform disturbances per grid standards.



## ADVANTAGES

- ▶ High Dynamic : 1V/μs
- ▶ High Accuracy : 0.1%
- ▶ High Voltage Output : 860Vac(L-N)
- ▶ Harmonic & Inter-harmonic Function
- ▶ Flicker Test : level 1~10
- ▶ Digital Matrix Parallel System : up to 10MVA
- ▶ Independent Setting of Three Phases
- ▶ Three-phase Unbalance Test
- ▶ ZVRT, LVRT and HVRT Test
- ▶ Grid Simulation



Model	Output Power [kVA]	Voltage Range [V] @ L-N	Frequency Range [Hz]	Max. Current [A] @ 3 phase	Size (WHD) [mm]	Weight [kg]
TA300-450-05	300	0-450	40-70	500	2410x1955x1200	2,630
TA400-450-06	400	0-450	40-70	600	2410x1955x1200	2,920
TA500-450-08	500	0-450	40-70	800	3410x1955x1400	3,860
TA600-450-09	600	0-450	40-70	900	3410x1955x1400	4,410
TA750-450-12	750	0-450	40-70	1200	3410x1955x1400	5,310
TA1KO-450-16	1000	0-450	40-70	1600	6810x1955x1400	7,720
TA300-700-03	300	0-700	40-70	300	2410x1955x1200	2,560
TA400-700-04	400	0-700	40-70	400	2410x1955x1200	2,770
TA500-700-05	500	0-700	40-70	500	2410x1955x1200	2,960
TA600-700-06	600	0-700	40-70	600	3410x1955x1200	3,670
TA750-700-07	750	0-700	40-70	700	3410x1955x1400	5,080
TA1KO-700-10	1000	0-700	40-70	1000	3410x1955x1400	5,810
TA300-860-03	300	0-860	40-70	300	2410x1955x1200	2,560
TA400-860-04	400	0-860	40-70	400	2410x1955x1200	2,770
TA500-860-05	500	0-860	40-70	500	2410x1955x1200	2,960
TA600-860-06	600	0-860	40-70	600	3410x1955x1200	3,670
TA750-860-07	750	0-860	40-70	700	3410x1955x1400	5,080
TA1KO-860-10	1000	0-860	40-70	1000	3410x1955x1400	5,810

Titan AC series		Specification
<b>AC Output Voltage</b>		
Accuracy	±0.1% F.S.	
Resolution	0.01V	
Load Regulation	±0.05% F.S. @ Linear load	
Line Regulation	±0.05% F.S. @10% Voltage	
Slew Rate	AC>1.0V/us	
Response Time	<1ms (10%-90%Umax)	
Voltage Distortion	Less than 0.5% @50Hz/60Hz ≥ 220V for no-load	
	Less than 1% @50Hz/60Hz ≥ 220V for linear load	
	Less than 1.0% @ other frequency ≥ 220V for no-load	
	Less than 1.5% @ other frequency ≥ 220V for linear load	
<b>AC Output Current</b>		
Accuracy	±0.2% F.S.	
Resolution	0.01A	
<b>Output Frequency</b>		
Accuracy	±0.01%	
Resolution	0.001Hz	
Range	40-70Hz	
<b>Phase Angle Control</b>		
Accuracy	±0.3°	
Resolution	±0.1°	
Phase Angle Range	0 - 359.9°	
Phase Control	Three-phase independent	
<b>Voltage Ride Through</b>		
Mode	ZVRT / LVRT / HVRT	
Setting Parameter	voltage, frequency, phase, rise time, hold time, trigger phase angle and pulse output	
<b>Harmonic Injection</b>		
Order	50th@50Hz/60Hz	
Content	Max 40% for 2-10 single harmonics, less than 40% for 2-10 total harmonics	
	Max 20% for 10-20 single harmonics, less than 20% for 10-20 total harmonics	
	Max 10% for 21-30 single harmonics, and no more than 10% for total harmonics	
	Max 5% for 31-50 single harmonics, and no more than 5% for total harmonics	
	It can simultaneously synthesis 49 harmonics	
Amplitude Error	±5% harmonic of set value	
Preview Function	Harmonic synthesis waveform can be previewed	
Editing Mode	import, export, read, storage	
<b>Inter Harmonic</b>		
Frequency Range	1Hz-3,000Hz, content <10%	
Programming Steps	100 steps	
Programming Parameters	content, start frequency, end frequency, step length, execution time, interval time, cycle times and sequence	
Editing Mode	add, delete, import, export, store, read	
<b>Flicker</b>		
Flicker Level	1.0-10.0, totally 10 levels in total, and one-key calling	
Adjustment Step Length	1	
Accuracy	±0.2	
Preview Function	Preview of flicker trend chart, ps can be visualized	
Resolution	0.01V	
<b>Three-phase Unbalance</b>		
Adjustment Mode	three-phase voltage, single phase; unbalance factor	
Unbalance Factor Range (%)	1~100	
Unbalance Factor Step Length (%)	1	
Accuracy (%)	±0.5%	
Preview Function	three-phase unbalance trend chart can be previewed	
<b>Measurement</b>		
Voltage Accuracy	±0.1% F.S.	
Frequency Accuracy	±0.01%	
Current Accuracy	±0.2% F.S.	
Active Power Accuracy	±0.3% F.S.	
Apparent Power Accuracy	±0.3% F.S.	

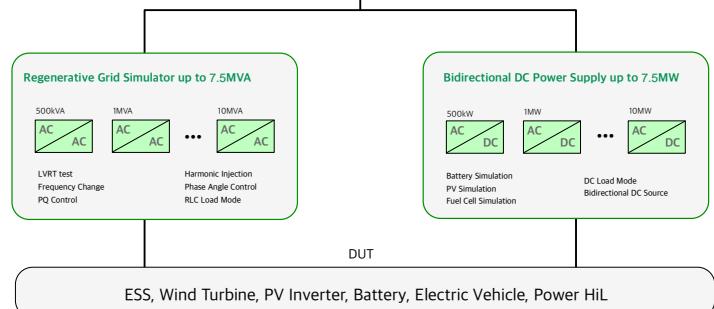
# Titan AC series



## OVERVIEW

The Titan AC series can be used as a grid simulator for testing devices under variable power conditions.

It supports voltage, frequency, and waveform disturbances per grid standards.



## ADVANTAGES

- ▶ High Dynamic : 1V/μs
- ▶ High Accuracy : 0.1%
- ▶ High Voltage Output : 860Vac(L-N)
- ▶ Harmonic & Inter-harmonic Function
- ▶ Flicker Test : level 1~10
- ▶ Digital Matrix Parallel System : up to 7.5MVA
- ▶ Independent Setting of Three Phases
- ▶ Three-phase Unbalance Test
- ▶ ZVRT, LVRT and HVRT Test
- ▶ Grid Simulation



ESS Testing



PV Inverter Testing



Wind Turbine Testing



AC/DC Power Supply Testing



Power HiL



EV Charger & EVSE Testing

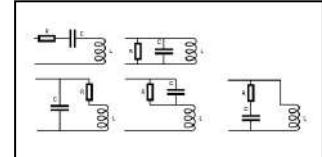
Model	Output Power [kVA]	Voltage Range [V] @ L-N	Frequency Range [Hz]	Max. Current [A] @ 3 phase	Size (WHD) [mm]	Weight [kg]
TA300-450-05	300	0-576	40-70	300	2410x1955x1200	2,960
TA400-450-06	400	0-576	40-70	400	2410x1955x1200	2,960
TA500-450-08	500	0-576	40-70	500	2410x1955x1200	2,960
TA600-450-09	600	0-576	40-70	600	3410x1955x1400	5,300
TA750-450-12	750	0-576	40-70	750	3410x1955x1400	5,300

Titan AC series		Specification
<b>AC Output Voltage</b>		
Accuracy	±0.1% F.S.	
Resolution	0.01V	
Load Regulation	±0.1% F.S. @ Linear load	
Line Regulation	±0.05% F.S. @10% Voltage	
Slew Rate	AC>1.0V/us	
Response Time	<1ms (10%-90%Umax)	
Voltage Distortion	Less than 0.5% @50Hz/60Hz ≥ 220V for no-load	
	Less than 1% @50Hz/60Hz ≥ 220V for linear load	
	Less than 1.0% @ other frequency ≥ 220V for no-load	
	Less than 1.5% @ other frequency ≥ 220V for linear load	
<b>AC Output Current</b>		
Accuracy	±0.2% F.S.	
Resolution	0.1A	
<b>Output Frequency</b>		
Accuracy	±0.005Hz	
Resolution	0.001Hz	
Range	40-70Hz	
<b>Phase Angle Control</b>		
Accuracy	±0.3°	
Resolution	±0.1°	
Phase Angle Range	0 - 359.9°	
Phase Control	Three-phase independent	
<b>Voltage Ride Through</b>		
Mode	ZVRT / LVRT / HVRT	
Setting Parameter	voltage, frequency, phase, rise time, hold time, trigger phase angle and pulse output	
<b>Harmonic Injection</b>		
Order	50th@50Hz/60Hz	
Content	Max 40% for 2-10 single harmonics, less than 40% for 2-10 total harmonics	
	Max 20% for 10-20 single harmonics, less than 20% for 10-20 total harmonics	
	Max 10% for 21-30 single harmonics, and no more than 10% for total harmonics	
	Max 5% for 31-50 single harmonics, and no more than 5% for total harmonics	
	It can simultaneously synthesis 49 harmonics	
Amplitude Error	±1% for no-load; ±3% for linear load	
Preview Function	Harmonic synthesis waveform can be previewed	
Editing Mode	import, export, read, storage	
<b>Inter Harmonic</b>		
Frequency Range	1Hz-3,000Hz, content <10%	
Programming Steps	100 steps	
Programming Parameters	content, start frequency, end frequency, step length, execution time, interval time, cycle times and sequence	
Editing Mode	add, delete, import, export, store, read	
<b>Flicker</b>		
Flicker Level	1.0-10.0, totally 10 levels in total, and one-key calling	
Adjustment Step Length	1	
Accuracy	±0.2	
Preview Function	Preview of flicker trend chart, ps can be visualized	
Resolution	0.01V	
<b>Three-phase Unbalance</b>		
Adjustment Mode	three-phase voltage, single phase; unbalance factor	
Unbalance Factor Range (%)	1~100	
Unbalance Factor Step Length (%)	0.01	
Accuracy (%)	±0.2%	
Preview Function	three-phase unbalance trend chart can be previewed	
<b>Measurement</b>		
Voltage Accuracy	±0.1% F.S.	
Frequency Accuracy	±0.01%	
Current Accuracy	±0.2% F.S.	
Active Power Accuracy	±0.3% F.S.	
Apparent Power Accuracy	±0.3% F.S.	

# Titan AC series-Load

## OVERVIEW

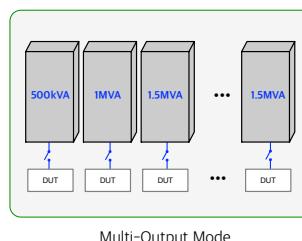
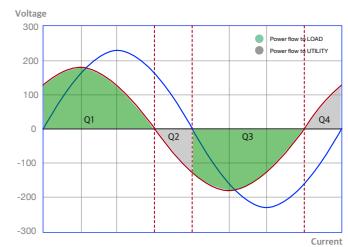
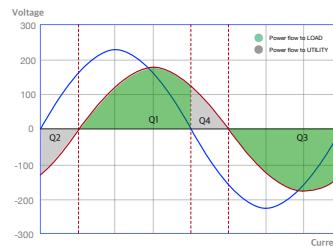
The Titan programmable source/sink power supply is a regenerative AC source and sink integrated unit, offering both grid simulation and AC load simulation functions.



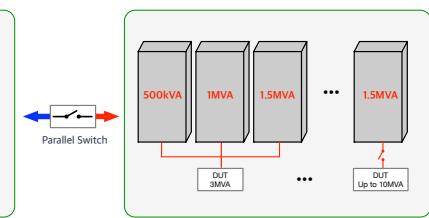
RLC Load Network Topology

## ADVANTAGES

- ▶ Current Dynamic <1ms
- ▶ High Accuracy : 0.1%
- ▶ High Voltage Output : 860Vac(L-N)
- ▶ Linear & Nonlinear Load Simulation
- ▶ Flicker Test : level 1~10
- ▶ Digital Matrix Parallel System : up to 10MVA
- ▶ Independent Setting of Three Phases
- ▶ Three-phase Unbalance Test
- ▶ ZVRT, LVRT and HVRT Test
- ▶ Grid Simulation



Multi-Output Mode



Parallel Mode

Model	Output Power [kVA]	Voltage Range [V] @ L-N	Frequency Range [Hz]	Max. Current [A] @ 3 phase	Size (WHD) [mm]	Weight [kg]
TA300-450-05L	300	0-450	40-70	500	2910x1955x1200	2,930
TA400-450-06L	400	0-450	40-70	600	2910x1955x1200	3,220
TA500-450-08L	500	0-450	40-70	800	4410x1955x1400	4,360
TA600-450-09L	600	0-450	40-70	900	4410x1955x1400	4,910
TA750-450-12L	750	0-450	40-70	1200	4410x1955x1400	6,160
TA1K0-450-16L	1000	0-450	40-70	1600	8810x1955x1400	8,720
TA300-700-03L	300	0-700	40-70	300	2910x1955x1200	2,860
TA400-700-04L	400	0-700	40-70	400	2910x1955x1200	3,040
TA500-700-05L	500	0-700	40-70	500	2910x1955x1200	3,260
TA600-700-06L	600	0-700	40-70	600	4410x1955x1200	4,170
TA750-700-07L	750	0-700	40-70	700	4410x1955x1400	5,880
TA1K0-700-10L	1000	0-700	40-70	1000	4410x1955x1400	6,610
TA300-860-03L	300	0-860	40-70	300	2910x1955x1200	2,860
TA400-860-04L	400	0-860	40-70	400	2910x1955x1200	3,040
TA500-860-05L	500	0-860	40-70	500	2910x1955x1200	3,260
TA600-860-06L	600	0-860	40-70	600	4410x1955x1200	4,170
TA750-860-07L	750	0-860	40-70	700	4410x1955x1400	5,880
TA1K0-860-10L	1000	0-860	40-70	1000	4410x1955x1400	6,610

Titan AC series		Specification_Load
<b>Load Mode</b>		
Linear Load		CC: Current, power factor, load type, current slope, output waveform
Nonlinear Load		CP: Apparent power, power factor, load type, power slope, output waveform
Zero-voltage Start		Current, power, peak factor, current slope, power slope
Simulate on-load start, switch seamlessly to CC or CP after start, with configurable switching condition		
<b>Voltage</b>		
Voltage Distortion Limit		Uthd <10% below 20th
<b>Current</b>		
Resolution		0.01A
Accuracy		±0.2% F.S. @ CC mode
Waveform		sine, square wave, triangular wave, clipping wave, customized waveform
Current Distortion		<2%@50Hz@ full load under rated voltage
Current Slew Rate		10%~90% nominal current > 1A/μs
Response Time		<1ms@10%~90% nominal current
<b>Frequency</b>		
Range		40~70Hz
Accuracy		±0.01Hz
<b>Harmonic Injection</b>		
Order		50th@50Hz/60Hz
Content		Max 40% for 2-10 single harmonics, and no more than 40% for 2-10 total harmonics
		Max 20% for 10-20 single harmonics, and no more than 20% for 10-20 total harmonics
		Max 10% for 21-30 single harmonics, and no more than 10% for total harmonics
		Max 5% for 31-50 single harmonics, and no more than 5% for total harmonics
<b>Power</b>		
Resolution		1VA
Resolution (VA)		±0.5% F.S. @ CP mode
<b>Power Factor</b>		
Power Factor		-1 to 1(resistance inductance, resistance capacity and current direction can be set)
Resolution		0.01
<b>Crest Factor</b>		
Scope		1.414 to 4
Resolution		0.001

\* Specification of AC source mode is same with Titan gird simulator.

# Key Applications & Clients

Industries We Serve | Trusted by Leading Brands



**ACTIONPOWER**

For more information, please contact  
your local ACTIONPOWER representative or visit

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