iNFiNiPOWER
Powering Trust, Driving Innovation

RPS-9000

Megawatt-Scale Power Platform

800 kW integrated System
Scalable to **8 MW**



Megawatt Power. Integrated Testing.

The RPS-9000 combines AC/DC power sourcing, regenerative loading, and grid simulation in one scalable platform. Expandable to 8 MW through parallel operation, it delivers high-current capability and up to 90% energy recovery for demanding applications—from AI power infrastructure and megawatt charging to energy storage and grid-connected systems.

True Power

At 180 V, RPS-9000 maintains full rated power, delivering over 30% more usable power than conventional systems.

Proven Precision

Every number matters. Precise voltage, current, frequency, and arbitrary waveforms deliver repeatable output within specified operating conditions.

TÜV-Certified Quality

Products are certified by TÜV Rheinland, with manufacturing facilities compliant with IATF 16949, TL 9000, ISO 27001, and IEC 62443-4-1 standards.

Built with Substance

More copper. Rigid construction. With 20% more material by weight, RPS-9000 is built for greater durability, thermal stability, and reliable high-power operation.

+30% More Usable Power*

Up to **8 MW** Scalable Power

65% Lower System Weight*

60% Smaller Installation Footprint*

*At 180 V L-N, three-phase output, compared with a conventional 630 kVA system rated at 840 Arms per phase. Based on published ratings.

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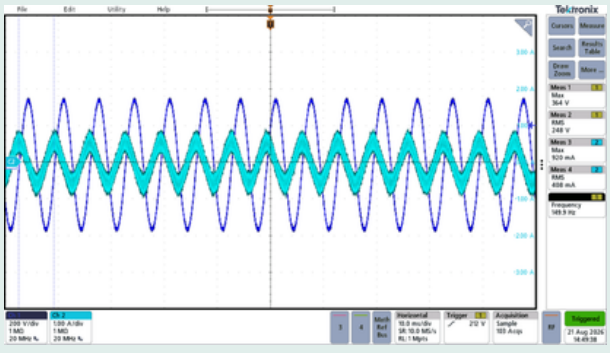
Key Specifications

- 200 kW Power Platform per Cabinet
- 800 kW Integrated System, Scalable to 8 MW
- Four-Quadrant Regenerative Platform
- Integrated Source, Load & Grid Simulation
- Up to 90% Energy Regeneration
- Scalable Parallel Architecture
- Single-Phase, Three-Phase & Split-Phase Output
- CV, CC & CP Operating Modes
- LIST, STEP, PULSE, TRANSIENT & Arbitrary
- Advanced Grid Disturbance Simulation &
- Harmonic Analysis
- IEC 61000, IEEE 1547, UL 1741 & IEC 62116 Compliance
- USB, LAN, GPIB, CAN & External I/O

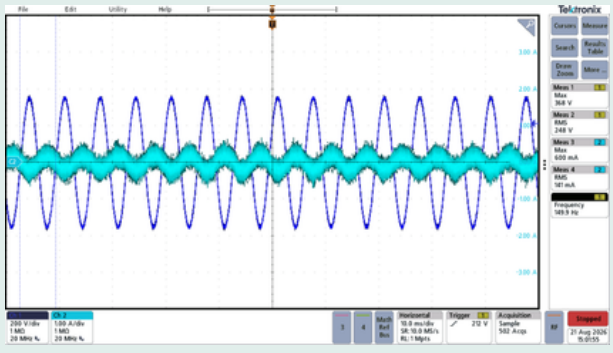


High-Speed Synchronization Minimizes Circulating Current

Conventional parallel systems can introduce latency and synchronization mismatch, causing circulating current and waveform distortion. RPS-9000 combines high-speed DSP control with FPGA hardware synchronization, delivering up to 50 times faster synchronization for stable, scalable high-power operation.



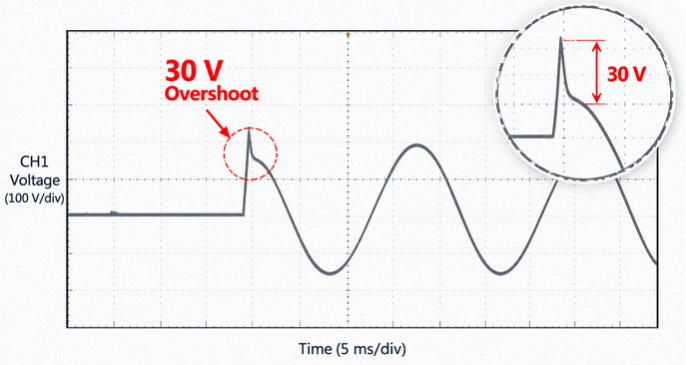
Traditional External Parallel



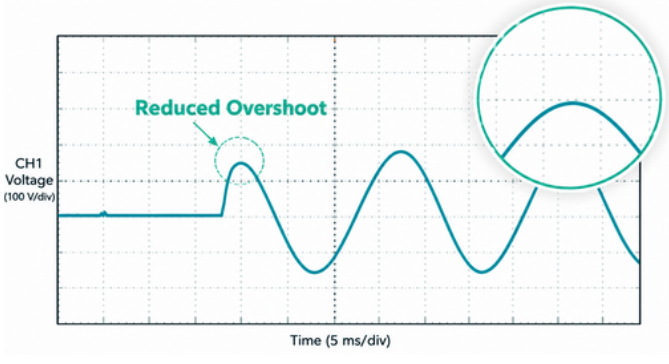
RPS-9000 DirectSync™

Reducing Voltage Overshoot

Traditional external parallel architectures can experience voltage overshoot during fast dynamic transitions. RPS-9000's high-speed internal synchronization architecture improves transient response and reduces voltage overshoot, helping ensure stable output and reliable DUT protection.



Traditional External Parallel



RPS-9000 DirectSync™

Item				RPS-9200	RPS-9400
AC INPUT	Phase			3Ø3W+PE	
	Voltage			380 - 480 VL-L ± 10%	
	Frequency			47 - 63Hz	
	Max. Current			426A/phase (380 - 480 VL-L ± 10%)	853A/phase (380 - 480 VL-L ± 10%)
	Power Factor(*1)			0.99(Typical)	
AC OUTPUT	Phase Modes			3Ø, 1Ø or Split phase selectable	
	Max. Power			202.5kVA/135kVA(Split phase)	405kVA/270kVA(Split phase)
	Per Phase/Channel			67.5kVA	135kVA
AC VOLTAGE	Range			0 - 350VL-N, 0 - 606VL-L, 0-700VL-L(Split phase) Option : 0 - 400VL-N, 0 - 692VL-L, 0-800VL-L(Split phase)	
	Resolution			0.1V	
	Setting Accuracy			± (0.1% of setting + 0.2% F.S.)	
	Total Harmonic Distortion (THD)(*2)			<0.3% @ 50/60Hz; <1% @ 15-100Hz; <1.5% @ 15-1500Hz	
	Line Regulation (*3)			± 0.1%	
	Load Regulation (*4)			± 0.2%	
	Phase Angle	Range		0 - 359.9°	
		Resolution		0.1°	
MAX. AC CURRENT	RMS(*5)			1296A(1Ø)/432A(3Ø/Split)	2592A(1Ø)/864A(3Ø/Split)
	Peak			3888A(1Ø)/1296A(3Ø/Split)	7776A(1Ø)/2592A(3Ø/Split)
	Crest Factor			3	3
FREQUENCY	Range			DC, 15.00 – 100.0 Hz; Option : DC, 15.00 - 1500.0 Hz	
	Resolution			0.01Hz	
	Accuracy(*6)			± 0.01% F.S.	
DC OUTPUT	Max. Power			202.5kW/135kW (Split phase)	405kW/270kW(Split phase)
	Per Phase/Channel			67.5kW	135kW
DC VOLTAGE	Range			±495VDC, ±990VDC(Split phase); Option : ±565VDC, ±1130VDC(Split phase)	
	Resolution			0.1V	
	Setting Accuracy			± (0.1% of setting + 0.2% F.S.)	
MAX. DC CURRENT	Range			972A(1Ø)/324A(3Ø/Split)	1944A(1Ø)/648A(3Ø/Split)
HARMONIC SYNTHESIS	up to 50 Harmonic orders @ 50/60Hz fundamental frequency				
REGENERATIVE FUNCTION	Current Total Harmonic Distortion (iTHD)(*7)			<5%(Typical)	<5%(Typical)
	Power Factor(*8)			>0.97(Typical)	
CURRENT LIMIT FUNCTION	Setting	Range	1Ø	15 - 1296A	30 - 2592A
			3Ø/Split phase	5 - 432A	10 - 864A
		Resolution		1A	
		Accuracy		± (2.0% of setting + 0.5% F.S.)	
	Response Time			< 0.5s	
AC Load Function					
INPUT	Phase			3Ø3W+PE	
	Voltage			380 - 480 VL-L ± 10%	
	Frequency			47 - 63Hz	
	Max. Current			356A/phase (380 - 480 VL-L ± 10%)	712A/phase (380 - 480 VL-L ± 10%)
	Power Factor(*9)			0.95(Typical)	
Operating Range	Power Rating			202.5kVA(3Ø/1Ø)	405kVA(3Ø/1Ø)
	Current(rms)			432A(3Ø) / 1296A(1Ø)	846A(3Ø) / 2592A(1Ø)
	Current(peak)			1296A(3Ø) / 3888A(1Ø)	2592A(3Ø) / 7776A(1Ø)
	Voltage			AC Mode : 30 - 350V, Option: 30 - 400V DC Mode : 20 - 495V, Option: 20 - 565V	

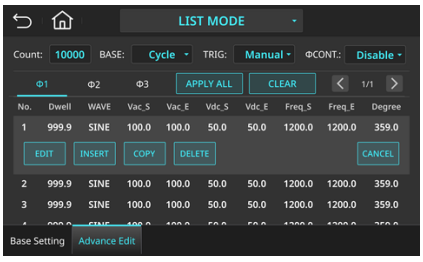
Notes:
*1 Tested on input voltage 380Vac with full output power
*2 Maximum distortion is tested on output voltage 350Vac with full output power under linear load
*3 With respect to changes in the rated range of input voltage.
*4 Load regulation is tested by sine wave and remote sense
*5 At working voltage 125V
*6 When the output voltage is greater than 40V
*7 Current total harmonic distortion is tested on input voltage 220Vac with full output power
*9 Power factor is tested on input voltage 220Vac with full output power
Specifications are subject to change without prior notice.

Configuration Matrix

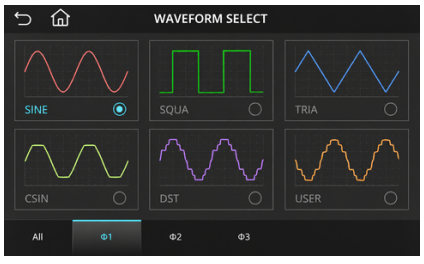
Model	Output Voltage Vac		Output Current (Aac)		Output Power (Pac)	Phase	Height
	V L-N	V L-L	Arms(1Ø)	Arms(3Ø)			
RPS-9200	350V	606V	1296A	432A	202.5kVA	3Ø,1Ø,Split phase	42U
RPS-9400	350V	606V	2592A	864A	405kVA	3Ø,1Ø,Split phase	42U*2
RPS-9600	350V	606V	3888A	1296A	607.5kVA	3Ø,1Ø,Split phase	42U*3
RPS-9800	350V	606V	5184A	1728A	810kVA	3Ø,1Ø,Split phase	42U*4

*Option : 0 - 400VL-N, 0 - 692VL-L

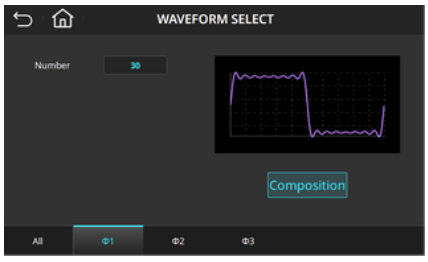
Advanced Power Simulation & Measurement



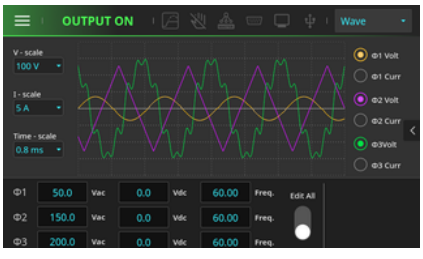
LIST / STEP / PULSE / TRANSIENT
Build programmable transient sequences with controlled voltage, frequency and timing changes.



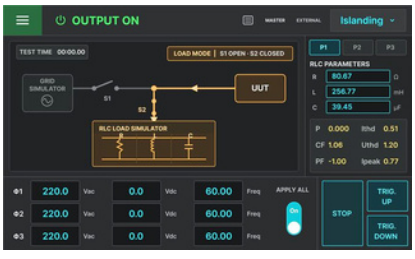
Waveform Library
Select Sine, Square, Triangle, Clipped Sine and user-defined waveforms.



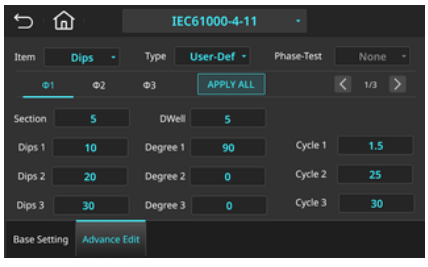
DST Waveforms
Apply built-in distorted waveforms and harmonic synthesis for power-quality simulation.



Real-Time Waveform Monitor
View voltage and current waveforms in real time during operation.



Islanding Test
Simulate grid loss and verify anti-islanding protection.



IEC Compliance Testing
Configure voltage dip and interruption tests for repeatable compliance validation.

AIoT Intelligent Predictive Maintenance

PowerSense™ provides real-time visibility into system health status, performance, and event activity. Continuous health monitoring and operating trend analysis enable early issue detection and predictive maintenance, helping reduce unplanned downtime and ensure reliable long-term operation.

