



RPS-5000 Regenerative Power System

AC Source · AC Load · Grid Simulator

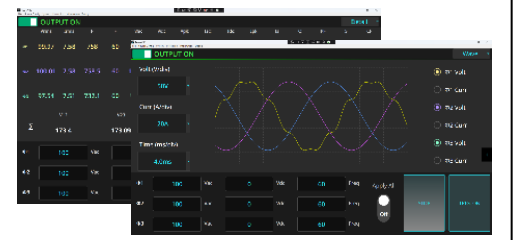
RPS-5000 regenerative power system delivers 30 kVA – 225 kVA of high-performance power, integrating an AC/DC source, load, and grid simulator in a single platform. With advanced waveform harmonic analysis and simulation, it ensures precise, efficient, and reliable power testing. Designed for AI server power new energy, electric vehicles (EVs), and power electronics, it not only meets IEC 61000 compliance requirements but also enhances testing flexibility and energy utilization with its bidirectional regenerative design.

KEY FEATURES

- Power range: 30 kVA – 225 kVA.
- AC source, load, and grid simulator in a single unit.
- 35% power boost with constant power capability.
- Boosts efficiency to 91% from 80%.
- 50th order harmonic analysis for advanced testing.
- Analog and digital control for PHIL testing.
- Flexible output: single, three, or split-phase.
- Auto-paralleling for capacity expansion.
- Trigger in & out enables seamless synchronization.
- LIST, PULSE, STEP, TRANSIENT, and Arbitrary Waveform.
- Multiple communication interfaces, including RS232, USB, Ethernet, and optional GPIB.
- PowerVue remote management software for intuitive operation.
- Modular design with built-in DSP enables fast maintenance and calibration.
- Function Test: IEC 61000-3-2/-3-3/-3-11/-3-12/-4-11/-4-13/-4-14/-4-28/-4-34

PowerVUE:

The remote control software supports PC-based operation, configuration, waveform monitoring, and IEC 61000 compliance testing (e.g., 4-11, 4-13, 4-14, 4-17, 4-28, 4-29).



About iNFINiPOWER:

With 20+ years of R&D expertise in power testing, iNFINiPOWER delivers industry-leading solutions with trusted performance, precision, and stability. Backed by world-class manufacturing from Delta Electronics and TÜV certification, iNFINiPOWER empowers customers—powering trust, driving innovation in the new energy era.

Technical Specifications

Item		RPS-5030	RPS-5045		
AC INPUT	Phase	3Ø3W+PE			
	Voltage	200 - 220 VL-L ± 10% / 380 - 400 VL-L ± 10% / 440 - 480 VL-L ± 10%			
	Frequency	47 - 63Hz			
	Max. Current / phase	126A @ 200 - 220 VL-L ± 10% 66A @ 380 - 400 VL-L ± 10% 57A @ 440 - 480 VL-L ± 10%	188A @ 200 - 220 VL-L ± 10% 99A @ 380 - 400 VL-L ± 10% 86A @ 440 - 480 VL-L ± 10%		
	Power Factor*	0.98(Typical)			
AC OUTPUT	Phase Modes	3Ø, 1Ø or Split phase selectable			
	Max. Power	30kVA/20kVA(Split phase)	45kVA/30kVA(Split phase)		
	Phase/Channel	10kVA	15kVA		
AC VOLTAGE	Range	0 - 350VL-N, 0 - 606VL-L, 0 - 700VL-L(Split phase)			
	Resolution / Accuracy	0.1V / ± (0.1% of setting + 0.2% F.S.)			
	Total Harmonic Distortion (THD)*	<0.4% @ 50/60Hz, <0.9% @ 30-150Hz			
	Line & Load Regulation	± 0.1% of Vout(Line), ± 0.2% of Vout(Load)			
MAX. AC CURRENT	RMS*	200A(1Ø)/66.7A(3Ø/ Split phase)	300A(1Ø)/100A(3Ø/ Split phase)		
	Peak	550A(1Ø)/183A(3Ø/ Split phase)	825A(1Ø)/275A(3Ø/ Split phase)		
	Crest Factor	2.75	2.75		
FREQUENCY	Range	30Hz - 150Hz			
	Resolution / Accuracy*	0.01Hz / ± 0.01% F.S.			
DC OUTPUT	Max. Power	30kW/20kW(Split phase)	45kW/30kW(Split phase)		
	Per Phase/Channel	10kW	15kW		
DC VOLTAGE	Range	±495VDC, ±990VDC (Split phase)			
	Resolution / Accuracy	0.1V / ± (0.1% of setting + 0.2% F.S.)			
DC CURRENT	MAX.	200A(1Ø)/66.7A(3Ø/ Split phase)	300A(1Ø)/100A(3Ø/ Split phase)		
HARMONIC	Synthesis Function	up to 50 Harmonic orders @ 50/60Hz fundamental frequency			
MEASUREMENT	Voltage (AC)	Range	0 - 350VL-N, 0 - 606VL-L, 0 - 700VL-L(Split phase)		
		Resolution / Accuracy	0.01V/ ± (0.1% of reading + 0.2% F.S.) at Voltage > 5V		
	Voltage (DC)	Range	±495VDC, ±990VDC (Split phase)		
		Resolution / Accuracy	0.01V / ± (0.1% of reading + 0.2% F.S.) at Voltage > 5V		
	Current (AC,DC)	Range	1Ø	0.10A - 200.00A	0.10A - 300A
			3Ø/Split phase	0.10A - 66.70A	0.10A - 100A
			Resolution/ Accuracy	0.01A / ± (0.4% of reading + 0.3% F.S.)	
	Peak Current	Range	1Ø	0.0Apk - 550.0Apk	0.0Apk - 825.0Apk
			3Ø/Split phase	0.0Apk - 183.0Apk	0.0Apk - 275.0Apk
			Resolution	0.1A, Accuracy: ± (0.4% of reading + 0.6% F.S.)	
	Power Apparent (VA)	Range	1Ø	0.0VA - 30kVA	0.0VA - 45kVA
			3Ø/Split phase	0.0VA - 10kVA/0.0VA - 20kVA	0.0VA - 15kVA/0.0VA - 30kVA
		Resolution	0.1VA at 0.0 - 9999.9VA / 1VA at Power ≥10000VA		
			Accuracy	V×A, Calculated value	
Power (AC,DC)	Range	1Ø	0.0W - 30kW	0.0W - 45kW	
		3Ø/Split phase	0.0W - 10kW/0.0W - 20kW	0.0W - 15kW/0.0W - 30kW	
	Resolution	0.1W at 0.0 - 9999.9W, 1W at Power ≥10000W			
		Accuracy	± (0.4% of reading + 0.4% F.S.)		
GENERAL	Interface	USB, RS232, LAN, External I/O(DB25), GPIB Option: CAN Bus			
	Display	Full Color, Touch LCD Display, 7" Diagonal size, 800 x 400 Pixels resolution			
	Protection	OCP, OVP, OPP, OTP, SHORT, FAN			
	V Sense / Efficiency*	Yes / 90% (Typical)			
	Dimension(H x W x D)(with casters)	1004 x 704 x 910 mm / 39.53 x 27.72 x 35.83 inch			
	Weight	550kg / 1212.542 lbs			
REGULATORY COMPLIANCE	Safety	Low Voltage Directive 2014/35/EU, EN 61010-1:2010 + A1:2019			
	EMC	CE marked for EMC Directive 2014/30/EU per EN 61326-1:2021 Class A			
	CE Mark LVD Categories	Installation Overvoltage Category: II; Pollution Degree: 2; indoor use only.			

*For further details, please consult the datasheet.