iNFiNiPOWER
Powering Trust, Driving Innovation

CUT SHEET

RPS-5000
Regenerative Power System

Bi-Directional AC/DC Source and Load System

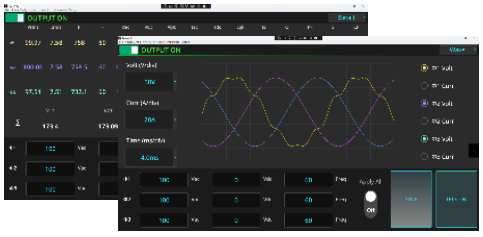
RPS-5000 regenerative power system delivers 30 kVA – 225 kVA of high-performance power, integrating an AC/DC source, load, and grid simulator in a single platform. With advanced waveform harmonic analysis and simulation, it ensures precise, efficient, and reliable power testing. Designed for AI server 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 15+ 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	
	Voltage			200 - 220 V_{L-L} ± 10% / 380 - 400 V_{L-L} ± 10% / 440 - 480 V_{L-L} ± 10%	
	Frequency			47 - 63Hz	
	Max. Current / phase			66A @ 380 V_{L-L} ± 10%	99A @ 380 V_{L-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 - 400V_{L-N}, 0 - 692V_{L-L}, 0-800V_{L-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% Line, ± 0.2% Load	
MAX. AC CURRENT	RMS*			200A(1Ø)/66.7A(3Ø/Split)	300A(1Ø)/100A(3Ø/Split)
	Peak			550A(1Ø)/183A(3Ø/Split)	825A(1Ø)/275A(3Ø/Split)
	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			±565VDC, ±1130VDC(Split phase)	
	Resolution / Accuracy			0.1V / ± (0.1% of setting + 0.2% F.S.)	
DC CURRENT	MAX.			200A(1Ø)/66.7A(3Ø/Split)	300A(1Ø)/100A(3Ø/Split)
HARMONIC	Synthesis Function			up to 50 Harmonic orders @ 50/60Hz fundamental frequency	
MEASUREMENT	Voltage (AC)	Range		0 - 400VL-N, 0 - 692VL-L, 0 – 800VL-L(Split)	
		Resolution		0.01V, Accuracy: ± (0.1% of reading + 0.2% F.S.) at Voltage > 5V	
	Voltage (DC)	Range		±565VDC, ±1130VDC (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, Ethernet, External I/O(DB25), Option: GPIB, 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			Yes	
	Efficiency*			90% (Typical)	
	Dimension(H x W x D)(with casters)			1000 x 704 x 910 mm / 39.37 x 27.72 x 35.83 inch	
	Weight			510kg / 1124.3 lbs	
REGULATORY COMPLIANCE	Safety			Low Voltage Directive 2014/30/EU, EN 61010-1:2017	
	EMC			CE marked for EMC Directive 2014/30/EU per EN 61326-1:2013 Class A	
	CE Mark LVD Categories			Installation Overvoltage Category: ll; Pollution Degree: 2; indoor use only.	

*For further details, please consult the datasheet.