

RPS-7000

回收式 AC/DC 電源、電子負載與電網模擬器

高功率・高效能

打造值得信賴的電力測試



Regenerative



Easy Use



Compliance



High Range



Constant Power



High Current



主要特點

- 輸出功率：每台 9 kVA – 22.5 kVA
- 可擴充功率容量：最高 225 kVA
- 輸出電壓：0 – 350 V ; 0 – 400 V (選配)
- 頻率：DC、30 – 150 Hz ; 30 – 1000 Hz (選配)
- 最大電流提升 35%
- 關鍵元件散熱效率提升 20%
- 支援並聯連接以擴充高功率容量
- 輸出模式：單相、三相或分相 (最高可達額定電壓的 200%)
- 三種操作模式：定電壓、定電流與定功率
- LIST、STEP、PULSE 與 TRANSIENT 模式
- 任意波形編輯與電力線擾動 (PLD) 模擬
- 諧波擾動 / 波形疊加
- 諧波分析：電壓與電流最高可量測至第 50 次諧波

- 符合 LVRT、相位偏移、頻率變動等併網標準
- 標準符合性：IEC 61000-3-2/-3-3/-3-11/-3-12/-4-11/-4-13/-4-14/-4-28/-4-34 測試
- 支援介面：USB、LAN、GPIB、CAN 與 Std I/O

應用領域:

- AI 伺服器、資料中心與 HDVC 應用
- EV 充電器、BOBC、V2G、V2H、V2X、EV 充電線
- 太陽能 PV 逆變器、併網逆變器與風力發電系統
- 工業與住宅用儲能 (ESS)、電力轉換 (PCS)
- 不斷電系統 (UPS) 與電源分配單元 (PDU)
- 法規測試：IEEE 1547、UL 1741、IEC 62116 等
- 微電網測試、PHIL (Power Hardware-in-the-Loop) 與孤島保護測試。

產品介紹

RPS-7000 是一款高效能回生式 AC/DC 電源與負載系統，專為進階電力測試應用而設計。支援四象限操作，可同時具備電源與負載功能，並將能量回收至電網。單機功率範圍為 9 kVA 至 22.5 kVA，透過並聯操作最高可達 225 kVA。RPS-7000 可提供高電流、精準波形控制與可靠效能，適用於 AI 伺服器、EV 充電、儲能系統與電力電子驗證。可選配置包含 G、L、S 與 B Series。

Platform	Application Example	Conventional 35A Systems	RPS-7000 Series (48A per Phase)
1 ϕ 7.4kW (230V / EU)	Residential AC Charger / OBC	2 UNITS	1 UNIT
3 ϕ 11kW (208V / US)	Commercial AC Charger / OBC	2 UNITS	1 UNIT
3 ϕ 22kW (208V / US)	High-Power AC Charger / OBC	3 UNITS	2 UNITS

圖 1：更高電流，更少設備

應用領域

RPS-7000 為研發與生產提供完整的測試支援。在再生能源領域，它可作為太陽能 PV 逆變器、電力轉換系統 (PCS) 與儲能系統 (ESS) 測試的重要工具，能精準模擬電網異常並提升能量回收效率。也非常適合驗證車載充電器及各類 V2G、V2H、V2X 設備的雙向充放電性能。

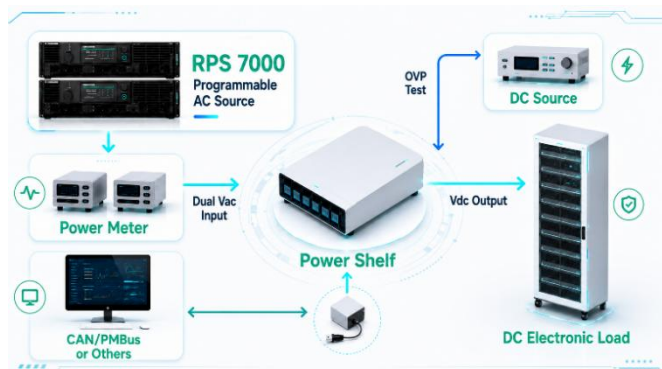


圖 2：Power Shelf 測試架構

針對數位基礎設施，RPS-7000 是 AI 伺服器、資料中心與高壓直流 (HVDC) 應用的最佳解決方案，支援 AC、DC 與 AC+DC 模式，可精準模擬高壓直流的電壓漣

波與負載瞬變，確保供電穩定性。

恆定功率與高電流輸出

RPS-7000 採用新一代 SiC MOS 技術，支援最高 400 V L-N 輸出電壓；針對風力發電等高電壓應用，更可支援最高 690 V L-L 線電壓。其恆定功率輸出設計可在低輸出電壓時提供高電流、高輸出電壓時提供低電流，無需手動切換高、低電壓範圍。相較於傳統系統在量程切換時可能造成輸出中斷，RPS-7000 能夠提供連續且不中斷的輸出，滿足各種實際應用需求。

RPS-7000 的最大輸出電流提升 35%，並可在 200–220 Vac 市電供電條件下維持 100% 額定輸出功率，無需降額使用。相較之下，傳統可編程電源系統在相同低電壓條件下，輸出能力可能僅剩 80%、60%，甚至完全無法輸出 (0%)。RPS-7000 即使在低電壓環境下，仍能維持完整的輸出性能，充分滿足高電流測試需求。此架構可為 AI 伺服器電源、電動車充電系統、電池測試平台 與新一代電力電子設備提供穩定可靠的測試能力，同時充分發揮設備的可用輸出功率。

圖 3：全電壓範圍滿功率輸出



並聯連接以實現高功率

RPS-7000 支援多台並聯運轉以提升輸出功率額定值，滿足各類測試需求。透過數位訊號處理器 (DSP) 與高速通訊所實現的即時主動均流技術，系統總功率最高可達 225 kVA。並聯運轉時，所有功能與精度皆不受影響。此外，設備可透過單一纜線連接，啟用並聯模式後，系統會自動完成設定，無需複雜的額外配置。

直覺控制與進階分析

RPS-7000 配備 5 吋觸控螢幕並搭配實體旋鈕，提供直覺式操作介面，可在波形編輯、即時量測與法規設定之間順暢切換。此友善設計可讓使用者快速熟悉系統，並在多樣化測試環境中高效率操作。

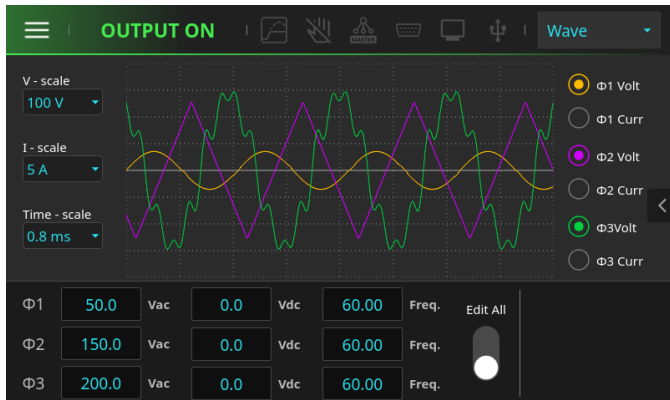


圖 4：波形監控功能

為協助最佳化產品設計，RPS-7000 整合即時波形監控與高精度諧波分析，無需外接示波器。它可同時擷取並顯示三相電壓與電流波形，讓使用者即時掌握系統效能。

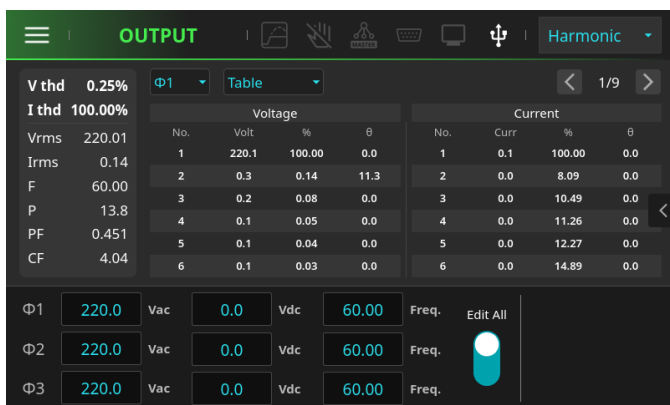


圖 5：諧波即時分析清單

本系列亦提供進階診斷能力，包括總諧波失真 (THD) 量測，以及最高至第 50 次諧波的分析。透過提供各次諧波成分的精確振幅與相位資料，協助工程師準確識別並降低干擾，確保最高等級的電能品質與法規符合性。

AC/DC 負載模擬

RPS-7000 Model L 回生式電子負載適用於廣泛的再生能源測試應用。除了恆定電流、恆定功率與恆定阻抗等基本功能外，亦支援進階負載模擬能力，包括如圖 6 所示

的感性與容性負載模擬。使用者可模擬複雜負載情境，在不同電壓與電流條件下精準測試受測裝置效能，包括負載角度、負載移除與循環設定。

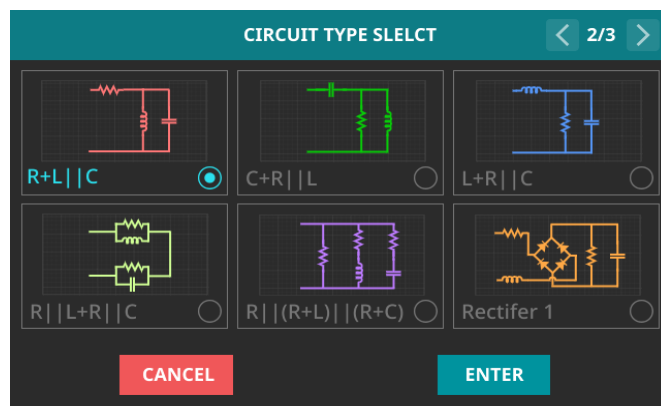


圖 6：多模式負載模擬

此外，其獨特的整合式諧波與擾動模擬功能可產生各類諧波成分，用於評估電源處理不同諧波負載的能力。

結合 AC/DC 負載模擬的多功能性，RPS-7000 Model L 可滿足電動車供電設備 (EVSE)、車載充電器 (OBC) 與不斷電系統 (UPS) 等多元應用需求。其回生式設計可避免傳統電阻式負載常見的能量浪費與散熱需求，大幅提升效率。

任意波形編輯

RPS-7000 系列為研發、法規符合性與實驗室應用提供進階可程式化電源模擬。它支援 List、Step、Pulse、Transient、Harmonic Synthesis 與 Inter-Harmonic 模式，並具備獨立相位控制，可建立彈性的測試情境，同時支援 IEC 61000-4-3、IEC 61000-4-11、UL 1741 SA、IEEE 1547 與 IEC 62116 等標準的符合性驗證。

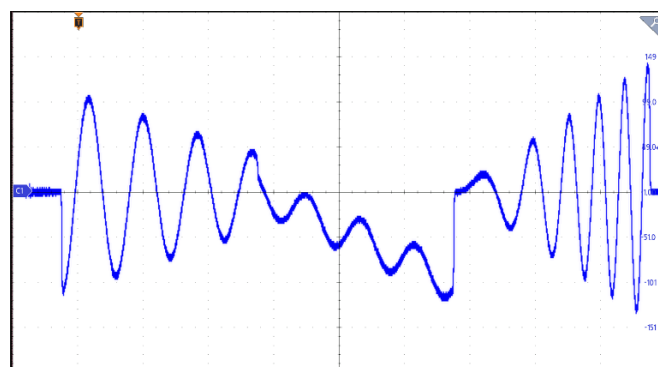


圖 7：List 模式波形

Step 模式可逐步調整電壓或頻率，以評估受測裝置在不同條件下的反應。Pulse 模式可產生短時間高電壓或高電流脈衝，用於突波測試。此外，Inter-Harmonic 模式可模擬電力系統中的諧波擾動，以評估受測裝置對諧波干擾的耐受能力；Transient 模式則可重現電力系統的瞬時響應，用於測試受測裝置有效承受快速變化的能力。

Synthesis 模式提供彈性的自訂波形設計功能。使用者可透過直覺式程式介面，精準調整各次諧波的振幅與相位，以產生多階諧波合成波形。此模式支援最高第 50 次諧波成分，可協助測試人員模擬非正弦波電源環境，以滿足不同測試需求。

PowerVUE 遠端控制軟體

RPS-7000 配備 PC 軟體 PowerVUE，使用者可直接透過電腦操作設備。透過 PowerVUE，使用者能輕鬆調整參數、監控效能、快速建立測試程式並產生報告。軟體亦提供 IEC 61000-4-11、4-13、4-14、4-28 與 4-34 等標準的預設測試模式，使使用者可依照法規定義的參數操作系統，確保符合各項國際標準。

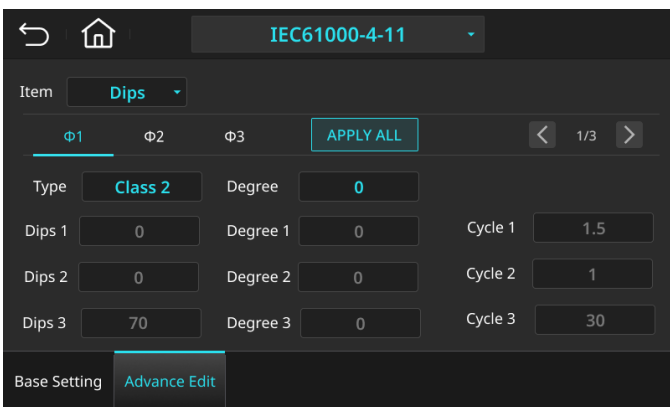


圖 9：IEC61000-4-11 電壓驟降設定

支援標準 SCPI 與 LabVIEW 驅動程式

RPS-7000 支援 SCPI 標準通訊協定，可透過 GPIB、LAN 或 External IO 介面使用 SCPI 指令，無需複雜修改即可無縫整合至既有測試系統。此外，RPS-7000 亦支援 LabVIEW，用於測試、量測與控制應用。

AIoT 智慧預測診斷

PowerSense AI 可實現即時健康監測與預測性預防服務 (PPS)，持續分析系統行為，在故障發生前偵測潛在風險。透過識別功率模組、冷卻系統與運行參數中的異常趨勢，可協助設備可用率提升至 95% 以上、降低非預期停機時間，並保護關鍵研發時程。



圖 10：PowerSense 預測診斷

認證製造卓越品質

RPS-7000 系列於台灣製造，生產系統通過 IEC 62443-4-1、TL 9000、ISO 27001 與 IATF 16949 認證。每台 RPS-7000 系列設備皆依循 TÜV 標準進行嚴謹的工程驗證與確認流程，確保在嚴苛測試環境中具備一致的性、生產品質與長期可靠性。

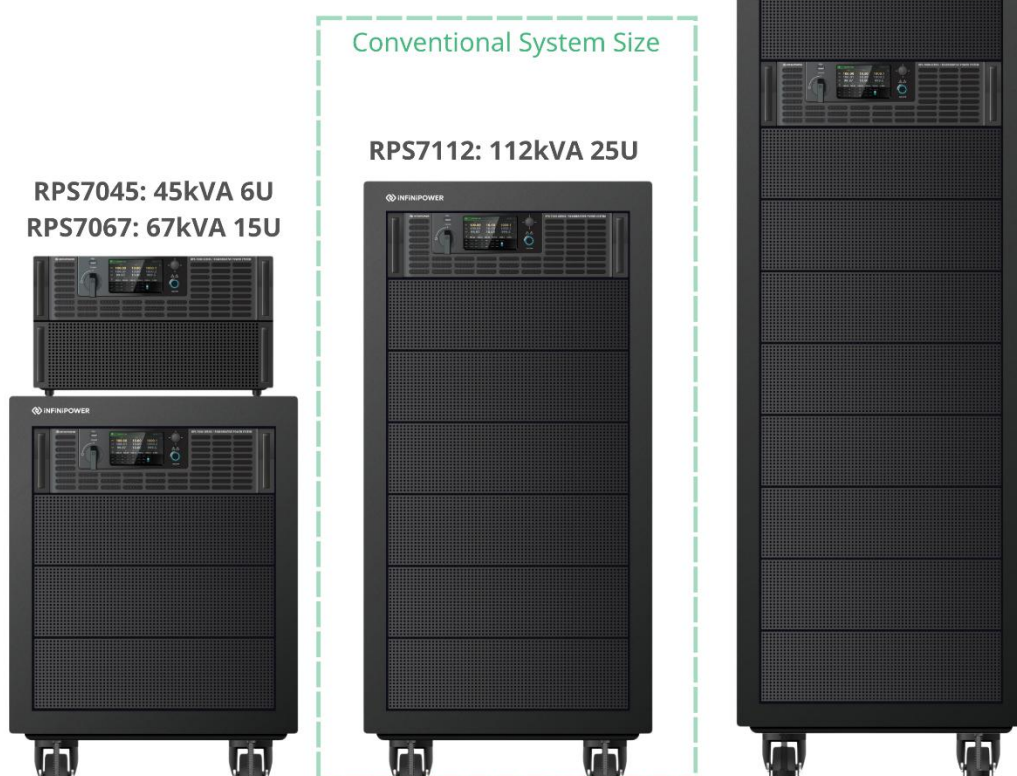


圖 11：認證品質與工程驗證

Model	Output Voltage Vac		Output Current (Aac)		Output Power (Pac)	Phase	Height
	V L-N	V L-L	Arms(1Ø)	Arms(3Ø)			
RPS-7009	350V	606V	96A	32A	9kVA	3Ø,1Ø,Split phase	3U
RPS-7012	350V	606V	105A	35A	12kVA	3Ø,1Ø,Split phase	3U
RPS-7015	350V	606V	120A	40A	15kVA	3Ø,1Ø,Split phase	3U
RPS-7018	350V	606V	144A	48A	18kVA	3Ø,1Ø,Split phase	3U
RPS-7022	350V	606V	144A	48A	22.5kVA	3Ø,1Ø,Split phase	3U
RPS-7045	350V	606V	288A	96A	45kVA	3Ø,1Ø,Split phase	6U
RPS-7067	350V	606V	432A	144A	67.5kVA	3Ø,1Ø,Split phase	15U
RPS-7090	350V	606V	576A	192A	90kVA	3Ø,1Ø,Split phase	25U
RPS-7112	350V	606V	720A	240A	112.5kVA	3Ø,1Ø,Split phase	25U
RPS-7225	350V	606V	1440A	480A	225kVA	3Ø,1Ø,Split phase	42U

Engineered for the Next Power Era

- **+30%** Power Density
- **+35%** Output Current
- Up to **90%** Efficiency
- **0%** derating across 220V to 480V
- Advanced Arbitrary Waveform Control
- AIoT-Driven Predictive Monitoring & Maintenance



Technical Specifications

Item			RPS-7012	RPS-7015	RPS-7018	
AC INPUT	Phase		3Ø3W			
	Voltage		200 - 240 VL-L ± 10% 380 - 400 VL-L ± 10% 440 - 480 VL-L ± 10%			
	Frequency		47 - 63Hz			
	Max. Current		47A/phase (200 - 240 VL-L ± 10%) 25A/phase (380 - 480 VL-L ± 10%)	58A/phase (200 - 240 VL-L ± 10%) 31A/phase (380 - 480 VL-L ± 10%)	70A/phase (200 - 240 VL-L ± 10%) 38A/phase (380 - 480 VL-L ± 10%)	
	Power Factor(*1)		0.99(Typical)			
AC OUTPUT	Phase Modes		3Ø, 1Ø or Split phase selectable			
	Max. Power		12kVA/8kVA(Split phase)	15kVA/10kVA(Split phase)	18kVA/12kVA(Split phase)	
	Per Phase/Channel		4kVA	5kVA	6kVA	
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)		<0.5% @ 50/60Hz <1% @ 30-1000Hz			
	Line Regulation (*3)		± 0.1%			
	Load Regulation (*4)		± 0.2%			
	Phase Angle	Range	0 - 359.9°			
		Resolution	0.1°			
MAX. AC CURRENT	RMS(*5)		105A(1Ø)/35A(3Ø/Split)	120A(1Ø)/40A(3Ø/Split)	144A(1Ø)/48A(3Ø/Split)	
	Peak		315A(1Ø)/105A(3Ø/Split)	360A(1Ø)/120A(3Ø/Split)	432A(1Ø)/144A(3Ø/Split)	
	Crest Factor		3	3	3	
FREQUENCY	Range		DC, 30.00 – 150.0 Hz Option : DC, 30.00 - 1000.0 Hz			
	Resolution		0.01Hz			
	Accuracy(*6)		± 0.01% F.S			
DC OUTPUT	Max. Power		12kW/8kW (Split phase)	15kW/10kW(Split phase)	18kW/12kW(Split phase)	
	Per Phase/Channel		4kW	5kW	6kW	
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		78.75A(1Ø)/26.25A(3Ø/Split)	90A(1Ø)/30A(3Ø/Split)	108A(1Ø)/36A(3Ø/Split)	
HARMONIC SYNTHESIS FUNCTION	up to 50 Harmonic orders @ 50/60Hz fundamental frequency					
REGENERATIVE FUNCTION	Current Total Harmonic Distortion (iTHD)(*7)		<6%(Typical)	<5%(Typical)	<5%(Typical)	
	Power Factor(*8)		>0.97(Typical)			
CURRENT LIMIT FUNCTION	Setting	Range	1Ø	0.1 - 105A	0.1 - 120.0A	
			3Ø/Split phase	0.1 - 35A	0.1 - 40.0A	
		Resolution		0.1A		
		Accuracy		± (2.0% of setting + 0.5% F.S.)		
	Response Time		< 0.5s			
MEASUREMENT	Voltage (AC)	Range	0 - 350VL-N, 0 - 606VL-L, 0 – 700VL-L(Split) Option : 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			

Item			RPS-7012	RPS-7015	RPS-7018
MEASUREMENT	Voltage (DC)	Range	$\pm 495\text{VDC}$, $\pm 990\text{VDC}$ (Split phase) / Option : $\pm 565\text{VDC}$, $\pm 1130\text{VDC}$ (Split phase)		
		Resolution	0.01V		
		Accuracy	$\pm (0.1\% \text{ of reading} + 0.2\% \text{ F.S.})$ at Voltage > 5V		
	Current (AC,DC)	Range	1 $\emptyset$	0.00 - 105.00A	0.00 - 120.00A
			3 $\emptyset$ /Split phase	0.00 - 35.00A	0.00 - 40.00A
		Resolution	0.01A		
		Accuracy	$\pm (0.4\% \text{ of reading} + 0.3\% \text{ F.S.})$		
	Peak Current	Range	1 $\emptyset$	0.0 - 315.0A _{pk}	0.0 - 360.0A _{pk}
			3 $\emptyset$ /Split phase	0.0 - 105.0A _{pk}	0.0 - 120.0A _{pk}
		Resolution	0.1A		
		Accuracy	$\pm (0.4\% \text{ of reading} + 0.6\% \text{ F.S.})$		
	Power (AC,DC)	Range	1 $\emptyset$	0.0W - 12kW	0.0W - 15kW
			3 $\emptyset$	0.0W - 4kW	0.0W - 5kW
			Split phase	0.0W - 8kW	0.0W - 10kW
		Resolution	0.1W at 0.0 - 9999.9W / 1W at Power $\geq 10000\text{W}$		
		Accuracy	$\pm (0.4\% \text{ of reading} + 0.4\% \text{ F.S.})$		
	Power Apparent (VA)	Range	1 $\emptyset$	0.0W - 12kVA	0.0W - 15kVA
			3 $\emptyset$	0.0W - 4kVA	0.0W - 5kVA
			Split phase	0.0W - 8kVA	0.0W - 10kVA
		Resolution	0.1VA at 0.0 - 9999.9VA / 1VA at Power $\geq 10000\text{VA}$		
		Accuracy	V $\times$ A, Calculated value		
	Power Factor	Range	0 - 1.000		
		Resolution	0.001		
		Accuracy	W / VA, Calculated and displayed to three significant digits		
	Crest Factor	Range	0 - 10.00		
		Resolution	0.01		
		Accuracy	Ap / A, Calculated and displayed to two significant digits		
GENERAL	Interface		USB, Ethernet, External I/O(DB25), Option: GPIB, CAN Bus		
	Display		Full Color, Touch LCD Display, 5" Diagonal size, 800 x 400 Pixels resolution		
	Protection		OCP, OVP, OPP, OTP, SHORT, FAN		
	V Sense		Yes		
	Efficiency (*9)		90% (Typical)		
	Dimension(H x W x D)		132.8 x 432 x 718 mm		
	Weight		60kg		
ENVIRONMENTAL	Cooling		Variable speed fan cooled, front intake, rear exhaust		
	Operating Temperature		0 to 40°C		
	Storage Temperature		-40 to 85°C		
	Altitude		2000m (6500 feet)		
	Operating Humidity(*10)		0% to 95% RAH		
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: II; Pollution Degree: 2; indoor use only.		

Note.

- *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
- *8 Power factor is tested on input voltage 220Vac with full output power
- *9 Efficiency is tested on input voltage 380V and output voltage 250Vac with full output power under linear load
- *10 In the state of non-condensing

The above specifications are subject to change without prior notice.

AC Load Function			RPS-7012	RPS-7015	RPS-7018
CC Mode (each phase)	Current	Range	0 - 35A	0 - 40A	0 - 48A
		Resolution	0.01A		
		Accuracy	± (0.3% of setting + 0.5% F.S.) at Current > 1.5A		
	Crest Factor	Range	1.414 - 3.000		
		Resolution	0.001		
	Power Factor	Range	0.593 - 1.000(type=PF) / 0.202 - 1.000(type=CFPF)		
		Resolution	0.001		
CP/CS Mode (each phase)	POWER	Range	0 - 4kW, kVA	0 - 5kW, kVA	0 - 6kW, kVA
		Resolution	1W, VA		
		Accuracy	± (0.3% of setting + 0.3% F.S.) at Power > 100W, VA		
	Crest Factor	Range	1.414 - 3.000		
		Resolution	0.001		
	Power Factor	Range	0.593 - 1.000(type=PF) / 0.202 - 1.000(type=CFPF)		
		Resolution	0.001		
CR Mode (each phase)	Resistance	Range	0.45 - 525Ω		
		Resolution	0.01Ω		
		Accuracy	± (0.3% of reading + 0.5% F.S.) at Current > 1.5A		
CZ Mode (each phase)	Impedance	R1 Range	0.01 - 1000Ω		
		R1 Resolution	0.01Ω		
		R2 Range	0.01 - 1000Ω		
		R2 Resolution	0.01Ω		
		R3 Range	0.01 - 1000Ω		
		R3 Resolution	0.01Ω		
		C Range	0.001 - 100.000mF		
		C Resolution	0.001mF		
		L Range	0 - 1000.000mH		
		L Resolution	0.001mH		
DC Load Function			RPS-7012	RPS-7015	RPS-7018
CC Mode (each phase)	Current	Range	0 - 35A	0 - 36A	0 - 36A
		Resolution	0.01A		
		Accuracy	± (0.3% of setting + 0.5% F.S.) at Current > 1.5A		
CV Mode (each phase)	Voltage	Range	20 - 495V		
		Resolution	0.01V		
		Accuracy	± (0.1% of setting + 0.2% F.S.) at Voltage > 20V		
CP Mode (each phase)	Power	Range	0 - 4kW	0 - 5kW	0 - 6kW
		Resolution	1W		
		Accuracy	± (0.3% of setting + 0.3% F.S.) at Power > 200W		
CR Mode (each phase)	Resistance	Range	0.45 - 742.5Ω		
		Resolution	0.01Ω		
		Accuracy	± (0.3% of reading + 0.5% F.S.) at Current > 1.5A		
Advanced Mode (each phase)	Mode		CCD, CRD		

Technical Specifications

Item			RPS-7022	RPS-7045
AC INPUT	Phase		3Ø3W	
	Voltage		380 - 400 VL-L ± 10% 440 - 480 VL-L ± 10%	
	Frequency		47 - 63Hz	
	Max. Current		54A/phase (380 - 480 VL-L ± 10%)	108A/phase (380 - 480 VL-L ± 10%)
	Power Factor(*1)		0.99(Typical)	
AC OUTPUT	Phase Modes		3Ø, 1Ø or Split phase selectable	
	Max. Power		22.5kVA/15kVA(Split phase)	45kVA/30kVA(Split phase)
	Per Phase/Channel		7.5kVA	15kVA
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)		<0.5% @ 50/60Hz <1% @ 30-1000Hz	
	Line Regulation (*3)		± 0.1%	
	Load Regulation (*4)		± 0.2%	
	Phase Angle	Range	0 - 359.9°	
		Resolution	0.1°	
MAX. AC CURRENT	RMS(*5)		144A(1Ø)/48A(3Ø/Split)	288A(1Ø)/96A(3Ø/Split)
	Peak		432A(1Ø)/144A(3Ø/Split)	864A(1Ø)/288A(3Ø/Split)
	Crest Factor		3	3
FREQUENCY	Range		DC, 30.00 – 150.0 Hz Option : DC, 30.00 - 1000.0 Hz	
	Resolution		0.01Hz	
	Accuracy(*6)		± 0.01% F.S	
DC OUTPUT	Max. Power		22.5kW/15kW (Split phase)	45kW/30kW(Split phase)
	Per Phase/Channel		7.5kW	15kW
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		108A(1Ø)/36A(3Ø/Split)	216A(1Ø)/72A(3Ø/Split)
HARMONIC SYNTHESIS FUNCTION	up to 50 Harmonic orders @ 50/60Hz fundamental frequency			
REGENERATIVE FUNCTION	Current Total Harmonic Distortion (iTHD)(*7)		<6%(Typical)	<5%(Typical)
	Power Factor(*8)		>0.97(Typical)	
CURRENT LIMIT FUNCTION	Setting	Range	1Ø	0.1 - 144.0A
			3Ø/Split phase	0.1 - 48.0A
		Resolution	0.1A	
		Accuracy	± (2.0% of setting + 0.5% F.S.)	
	Response Time		< 0.5s	
MEASUREMENT	Voltage (AC)	Range	0 - 350VL-N, 0 - 606VL-L, 0 - 700VL-L(Split) Option : 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	

Item				RPS-7022		RPS-7045	
MEASUREMENT	Voltage (DC)	Range		±495VDC, ±990VDC (Split phase) / Option : ±565VDC, ±1130VDC (Split phase)			
		Resolution		0.01V			
		Accuracy		± (0.1 % of reading + 0.2% F.S.) at Voltage > 5V			
	Current (AC,DC)	Range	1Ø	0.00 - 144.00A		0.00 - 288.00A	
			3Ø/Split phase	0.00 - 48.00A		0.00 - 96.00A	
		Resolution		0.01A			
	Accuracy		± (0.4% of reading + 0.3% F.S.)				
	Peak Current	Range	1Ø	0.0 - 432.0Apk		0.0 - 864.0Apk	
			3Ø/Split phase	0.0 - 144.0Apk		0.0 - 288.0Apk	
		Resolution		0.1A			
	Accuracy		± (0.4% of reading + 0.6% F.S.)				
	Power (AC,DC)	Range	1Ø	0.0W – 22.5kW		0.0W - 45kW	
			3Ø	0.0W – 7.5kW		0.0W - 15kW	
			Split phase	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.)			
	Power Apparent (VA)	Range	1Ø	0.0W – 22.5kVA		0.0W – 45kVA	
			3Ø	0.0W – 7.5kVA		0.0W - 15kVA	
			Split phase	0.0W – 15kVA		0.0W – 30kVA	
		Resolution		0.1VA at 0.0 - 9999.9VA / 1VA at Power ≥10000VA			
		Accuracy		V×A, Calculated value			
	Power Factor	Range		0 -1.000			
		Resolution		0.001			
		Accuracy		W / VA ,Calculated and displayed to three significant digits			
	Crest Factor	Range		0 - 10.00			
		Resolution		0.01			
		Accuracy		Ap / A ,Calculated and displayed to two significant digits			
GENERAL	Interface			USB, Ethernet, External I/O(DB25), Option: GPIB, CAN Bus			
	Display			Full Color, Touch LCD Display, 5” Diagonal size, 800 x 400 Pixels resolution			
	Protection			OCP, OVP, OPP, OTP, SHORT, FAN			
	V Sense			Yes			
	Efficiency (*9)			90% (Typical)			
	Dimension(H x W x D)			132.8 x 432 x 718 mm		265.6 x 432 x 718 mm	
	Weight			60kg		150kg	
ENVIRONMENTAL	Cooling			Variable speed fan cooled, front intake, rear exhaust			
	Operating Temperature			0 to 40°C			
	Storage Temperature			-40 to 85°C			
	Altitude			2000m (6500 feet)			
	Operating Humidity(*10)			0% to 95% RAH			
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: II; Pollution Degree: 2; indoor use only.			

Note.

- *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
- *8 Power factor is tested on input voltage 220Vac with full output power
- *9 Efficiency is tested on input voltage 380V and output voltage 250Vac with full output power under linear load
- *10 In the state of non-condensing

The above specifications are subject to change without prior notice.

AC Load Function (RPS-7022)

CC Mode (each phase)	Current	Range	0 – 48A
		Resolution	0.01A
		Accuracy	± (0.3% of setting + 0.5% F.S.) at Current > 1.5A
	Crest Factor	Range	1.414 - 3.000
		Resolution	0.001
	Power Factor	Range	0.593 - 1.000(type=PF) / 0.202 - 1.000(type=CFPF)
		Resolution	0.001
CP/CS Mode (each phase)	POWER	Range	0 – 7.5kW, kVA
		Resolution	1W, VA
		Accuracy	± (0.3% of setting + 0.3% F.S.) at Power > 100W, VA
	Crest Factor	Range	1.414 - 3.000
		Resolution	0.001
	Power Factor	Range	0.593 - 1.000(type=PF) / 0.202 - 1.000(type=CFPF)
		Resolution	0.001
CR Mode (each phase)	Resistance	Range	0.45 - 525Ω
		Resolution	0.01Ω
		Accuracy	± (0.3% of reading + 0.5% F.S.) at Current > 1.5A
CZ Mode (each phase)	Impedance	R1 Range	0.01 - 1000Ω
		R1 Resolution	0.01Ω
		R2 Range	0.01 - 1000Ω
		R2 Resolution	0.01Ω
		R3 Range	0.01 - 1000Ω
		R3 Resolution	0.01Ω
		C Range	0.001 - 100.000mF
		C Resolution	0.001mF
		L Range	0 - 1000.000mH
		L Resolution	0.001mH

DC Load Function (RPS-7022)

CC Mode (each phase)	Current	Range	0 - 36A
		Resolution	0.01A
		Accuracy	± (0.3% of setting + 0.5% F.S.) at Current > 1.5A
CV Mode (each phase)	Voltage	Range	20 - 495V
		Resolution	0.01V
		Accuracy	± (0.1% of setting + 0.2% F.S.) at Voltage > 20V
CP Mode (each phase)	Power	Range	0 – 7.5kW, kVA
		Resolution	1W
		Accuracy	± (0.3% of setting + 0.3% F.S.) at Power > 200W
CR Mode (each phase)	Resistance	Range	0.45 - 742.5Ω
		Resolution	0.01Ω
		Accuracy	± (0.3% of reading + 0.5% F.S.) at Current > 1.5A
Advanced Mode (each phase)	Mode	CCD, CRD	

Technical Specifications

Item				RPS-7067	RPS-7090
AC INPUT	Phase			3Ø3W	
	Voltage			380 - 400 VL-L ± 10% 440 - 480 VL-L ± 10%	
	Frequency			47 - 63Hz	
	Max. Current			162A/phase (380 - 480 VL-L ± 10%)	216A/phase (380 - 480 VL-L ± 10%)
	Power Factor(*1)			0.99(Typical)	
AC OUTPUT	Phase Modes			3Ø, 1Ø or Split phase selectable	
	Max. Power			67.5kVA/45kVA(Split phase)	90kVA/60kVA(Split phase)
	Per Phase/Channel			22.5kVA	30kVA
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)			<0.5% @ 50/60Hz <1% @ 30-1000Hz	
	Line Regulation (*3)			± 0.1%	
	Load Regulation (*4)			± 0.2%	
	Phase Angle	Range		0 - 359.9°	
		Resolution		0.1°	
MAX. AC CURRENT	RMS(*5)			432A(1Ø)/144A(3Ø/Split)	576A(1Ø)/192A(3Ø/Split)
	Peak			1296A(1Ø)/432A(3Ø/Split)	1728A(1Ø)/576A(3Ø/Split)
	Crest Factor			3	3
FREQUENCY	Range			DC, 30.00 – 150.0 Hz Option : DC, 30.00 - 1000.0 Hz	
	Resolution			0.01Hz	
	Accuracy(*6)			± 0.01% F.S	
DC OUTPUT	Max. Power			67.5kW/45kW (Split phase)	90kW/60kW(Split phase)
	Per Phase/Channel			22.5kW	30kW
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			324A(1Ø)/108A(3Ø/Split)	432A(1Ø)/144A(3Ø/Split)
HARMONIC SYNTHESIS FUNCTION	up to 50 Harmonic orders @ 50/60Hz fundamental frequency				
REGENERATIVE FUNCTION	Current Total Harmonic Distortion (iTHD)(*7)			<6%(Typical)	<5%(Typical)
	Power Factor(*8)			>0.97(Typical)	
CURRENT LIMIT FUNCTION	Setting	Range	1Ø	0.1 - 432.0A	0.1 - 576.0A
			3Ø/Split phase	0.1 - 144.0A	0.1 - 192.0A
		Resolution		0.1A	
		Accuracy		± (2.0% of setting + 0.5% F.S.)	
	Response Time			< 0.5s	
MEASUREMENT	Voltage (AC)	Range		0 - 350VL-N, 0 - 606VL-L, 0 - 700VL-L(Split) Option : 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	

Item			RPS-7067	RPS-7090
MEASUREMENT	Voltage (DC)	Range	$\pm 495\text{VDC}$, $\pm 990\text{VDC}$ (Split phase) / Option : $\pm 565\text{VDC}$, $\pm 1130\text{VDC}$ (Split phase)	
		Resolution	0.01V	
		Accuracy	$\pm (0.1\% \text{ of reading} + 0.2\% \text{ F.S.})$ at Voltage > 5V	
	Current (AC,DC)	Range	1 $\emptyset$	0.00 - 432.00A
			3 $\emptyset$ /Split phase	0.00 - 144.00A
		Resolution	0.01A	
		Accuracy	$\pm (0.4\% \text{ of reading} + 0.3\% \text{ F.S.})$	
	Peak Current	Range	1 $\emptyset$	0.0 - 1296.0A _{pk}
			3 $\emptyset$ /Split phase	0.0 - 432.0A _{pk}
		Resolution	0.1A	
		Accuracy	$\pm (0.4\% \text{ of reading} + 0.6\% \text{ F.S.})$	
	Power (AC,DC)	Range	1 $\emptyset$	0.0W - 67.5kW
			3 $\emptyset$	0.0W - 22.5kW
			Split phase	0.0W - 45kW
		Resolution	0.1W at 0.0 - 9999.9W / 1W at Power $\geq 10000\text{W}$	
		Accuracy	$\pm (0.4\% \text{ of reading} + 0.4\% \text{ F.S.})$	
	Power Apparent (VA)	Range	1 $\emptyset$	0.0W - 67.5kVA
			3 $\emptyset$	0.0W - 22.5kVA
			Split phase	0.0W - 45kVA
		Resolution	0.1VA at 0.0 - 9999.9VA / 1VA at Power $\geq 10000\text{VA}$	
		Accuracy	V $\times$ A, Calculated value	
	Power Factor	Range	0 - 1.000	
		Resolution	0.001	
		Accuracy	W / VA ,Calculated and displayed to three significant digits	
	Crest Factor	Range	0 - 10.00	
		Resolution	0.01	
		Accuracy	Ap / A ,Calculated and displayed to two significant digits	
GENERAL	Interface		USB, Ethernet, External I/O(DB25), Option: GPIB, CAN Bus	
	Display		Full Color, Touch LCD Display, 5" Diagonal size, 800 x 400 Pixels resolution	
	Protection		OCP, OVP, OPP, OTP, SHORT, FAN	
	V Sense		Yes	
	Efficiency (*9)		90% (Typical)	
	Dimension(H x W x D)		845 x 600 x 1100 mm	1290 x 600 x 1100 mm
	Weight		235kg	325kg
ENVIRONMENTAL	Cooling		Variable speed fan cooled, front intake, rear exhaust	
	Operating Temperature		0 to 40°C	
	Storage Temperature		-40 to 85°C	
	Altitude		2000m (6500 feet)	
	Operating Humidity(*10)		0% to 95% RAH	
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: II; Pollution Degree: 2; indoor use only.	

Note.

- *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
- *8 Power factor is tested on input voltage 220Vac with full output power
- *9 Efficiency is tested on input voltage 380V and output voltage 250Vac with full output power under linear load
- *10 In the state of non-condensing

The above specifications are subject to change without prior notice.

Technical Specifications

Item			RPS-7112	RPS-7225
AC INPUT	Phase		3Ø3W	
	Voltage		380 - 400 VL-L ± 10% 440 - 480 VL-L ± 10%	
	Frequency		47 - 63Hz	
	Max. Current		270A/phase (380 - 480 VL-L ± 10%)	540A/phase (380 - 480 VL-L ± 10%)
	Power Factor(*1)		0.99(Typical)	
AC OUTPUT	Phase Modes		3Ø, 1Ø or Split phase selectable	
	Max. Power		112.5kVA/75kVA(Split phase)	225kVA/150kVA(Split phase)
	Per Phase/Channel		37.5kVA	75kVA
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)		<0.5% @ 50/60Hz <1% @ 30-1000Hz	
	Line Regulation (*3)		± 0.1%	
	Load Regulation (*4)		± 0.2%	
	Phase Angle	Range	0 - 359.9°	
		Resolution	0.1°	
MAX. AC CURRENT	RMS(*5)		720A(1Ø)/240A(3Ø/Split)	1440A(1Ø)/480A(3Ø/Split)
	Peak		2160A(1Ø)/720A(3Ø/Split)	4320A(1Ø)/1440A(3Ø/Split)
	Crest Factor		3	3
FREQUENCY	Range		DC, 30.00 – 150.0 Hz Option : DC, 30.00 - 1000.0 Hz	
	Resolution		0.01Hz	
	Accuracy(*6)		± 0.01% F.S	
DC OUTPUT	Max. Power		112.5kW/75kW (Split phase)	225kW/150kW (Split phase)
	Per Phase/Channel		37.5kW	75kW
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		540A(1Ø)/180A(3Ø/Split)	1080A(1Ø)/360A(3Ø/Split)
HARMONIC SYNTHESIS FUNCTION	up to 50 Harmonic orders @ 50/60Hz fundamental frequency			
REGENERATIVE FUNCTION	Current Total Harmonic Distortion (iTHD)(*7)		<6%(Typical)	<6%(Typical)
	Power Factor(*8)		>0.97(Typical)	
CURRENT LIMIT FUNCTION	Setting	Range	1Ø	0.1 - 720.0A
			3Ø/Split phase	0.1 - 240.0A
		Resolution		0.1A
		Accuracy		± (2.0% of setting + 0.5% F.S.)
	Response Time		< 0.5s	

Item			RPS-7112	RPS-7225
MEASUREMENT	Voltage (DC)	Range	±495VDC, ±990VDC (Split phase) / Option : ±565VDC, ±1130VDC (Split phase)	
		Resolution	0.01V	
		Accuracy	± (0.1 % of reading + 0.2% F.S.) at Voltage > 5V	
	Current (AC,DC)	Range	1Ø	0.00 - 720.00A
			3Ø/Split phase	0.00 - 240.00A
		Resolution	0.01A	
		Accuracy	± (0.4% of reading + 0.3% F.S.)	
	Peak Current	Range	1Ø	0.0 - 2160.0Apk
			3Ø/Split phase	0.0 - 720.0Apk
		Resolution	0.1A	
		Accuracy	± (0.4% of reading + 0.6% F.S.)	
	Power (AC,DC)	Range	1Ø	0.0W - 112.5kW
			3Ø	0.0W - 37.5kW
			Split phase	0.0W - 75kW
		Resolution	0.1W at 0.0 - 9999.9W / 1W at Power ≥10000W	
		Accuracy	± (0.4% of reading + 0.4% F.S.)	
	Power Apparent (VA)	Range	1Ø	0.0VA - 112.5kVA
			3Ø	0.0VA - 37.5kVA
			Split phase	0.0VA - 75kVA
		Resolution	0.1VA at 0.0 - 9999.9VA / 1VA at Power ≥10000VA	
		Accuracy	V×A, Calculated value	
	Power Factor	Range	0 -1.000	
		Resolution	0.001	
		Accuracy	W / VA ,Calculated and displayed to three significant digits	
	Crest Factor	Range	0 - 10.00	
		Resolution	0.01	
		Accuracy	Ap / A ,Calculated and displayed to two significant digits	
GENERAL	Interface		USB, Ethernet, External I/O(DB25), Option: GPIB, CAN Bus	
	Display		Full Color, Touch LCD Display, 5" Diagonal size, 800 x 400 Pixels resolution	
	Protection		OCP, OVP, OPP, OTP, SHORT, FAN	
	V Sense		Yes	
	Efficiency (*9)		90% (Typical)	
	Dimension(H x W x D)		1290 x 600 x 1100 mm	2045 x 600 x 1100 mm
	Weight		385kg	750kg
ENVIRONMENTAL	Cooling		Variable speed fan cooled, front intake, rear exhaust	
	Operating Temperature		0 to 40°C	
	Storage Temperature		-40 to 85°C	
	Altitude		2000m (6500 feet)	
	Operating Humidity(*10)		0% to 95% RAH	
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: II; Pollution Degree: 2; indoor use only.	

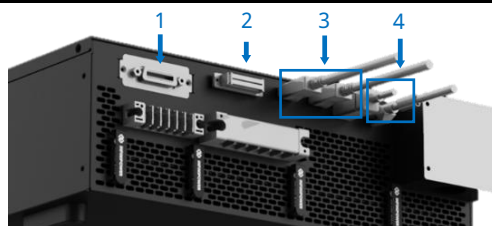
Notes:

- *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
- *8 Power factor is tested on input voltage 220Vac with full output power
- *9 Efficiency is tested on input voltage 380V and output voltage 250Vac with full output power under linear load
- *10 In the state of non-condensing

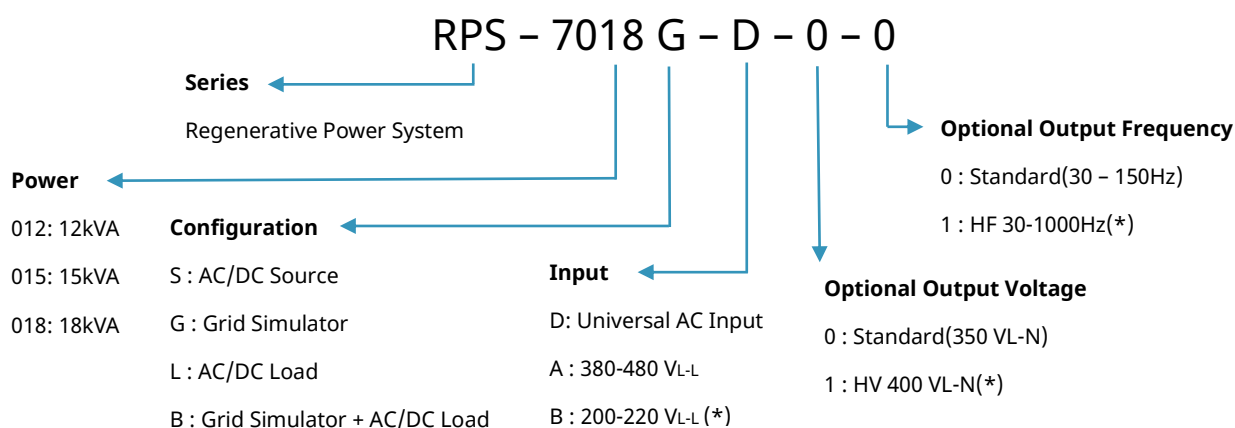
The above specifications are subject to change without prior notice.

RPS-7000 Dimensions



- 1 GPIB/CAN Optional Card
- 2 External I/O (AC_ON, FAULT-OUT, Ext-ON/OFF, etc.).
- 3 Parallel Communication Interface
- 4 Type-B USB, Network control interface

Ordering Information



* Special specifications, please contact the INFINIPOWER Tech. office or your local distributor

* 200-220 V L-L input available for RPS7018 parallel up to 180 kVA.

Accessories list

Typical Delivery Items	Optional accessories
■ Regenerative Power System ■ USB cable (Type A to Type B) (1.5m) ■ LAN cable CAT5E(2m) ■ DB25 adapter board (for I/O signal) ■ Test Report ■ Certificate of Compliance ■ Output shorting adapter (for single phase mode)	■ Parallel cable (Display port) (1.2m) ■ CAN Bus interface card / CAN Bus cable(1.5m) ■ GPIB cable(1.5m) ■ DB25 (male to male) adapter ■ RPS-7000 series input power cable (3m) ■ Output voltage calibration fixture(Remote sense cable)

* Special specifications, please contact the INFINIPOWER Tech. office or your local distributor

工程為本，重新定義電力測試的新標準

英菲菱電源由資深電力電子工程師創立，結合超過 20 年的電力測試研發經驗與精密工程技術，專注於提供高精度、高可靠性的電力測試解決方案。從研發驗證到公用事業級能源測試，每套系統皆依循國際品質標準設計與製造，為客戶提供值得信賴的技術與穩定卓越的測試效能，實踐品牌承諾——Powering Trust, Driving Innovation (精準可靠，無限動力)。