

13.56/27.12MHz RF Generator (3kW – 20kW Series)



DX-RFS-27030 (27.12MHz, 3kW)



DX-RFS-13060 (13.56MHz, 6kW)



DX-RFS-13120 (13.56 MHz, 12kW)



DX-RFS-13200 (13.56 MHz, 20kW)

Product Overview

Dexin high-performance RF generators feature a high-performance amplifier circuit, high-precision VI detection, and fully digital high-speed power control. It provides real-time display of output power, reflected power, and load impedance, with its control circuit enabling rapid dynamic power adjustment to maintain stable output even under load variations. The system supports continuous and pulse output with phase synchronization capabilities, along with rapid arc detection and suppression, effectively protecting both the load and the power supply itself. It finds wide applications in semiconductors, photovoltaics, display panels, plasma technology research, and other related fields.

Product Features

- **Support advanced high-efficiency and high stability RF power amplifier technology**
- **Support high stability and reliability with full digital process**
- **Large output power margin, capable of long-term stable operation**
- **Precise measurement for output power, reflected power and load impedance**
- **Support automatic gain control (AGC), output power accurate control**
- **Supports local control, IO control and remote control with RS485 and EtherCat**
- **Support continuously adjust output power from the minimum to the maximum with advanced power amplifier technology**
- **Support arc protection, quick detection and intelligent extinction**
- **Support AFT (auto frequency tuning) function**
- **Support overload, overcurrent and overheat protection**

Tech Parameters

Items	Tech Parameters			
	DX-RFS-13030/DX-RFS-27030	DX-RFS-13060/DX-RFS-27060	DX-RFS-13120/DX-RFS-27120	DX-RFS-13200
Mains	AC 380V±10%, 50Hz/ 60Hz, Rectangular heavy-duty connector			
Output Freq	13.56MHz/ 27.12MHz as per order			
Frequency stability	±0.005 %			
Rated power	3kW	6kW	12kW	20kW
Output power range	50W-3kW	50W-6kW	50W-12kW	50W-20kW
Max reflected power	600W	1200W	2400W	4000W
RF output connector	7/16 DIN (Female)		7/8" Flange	1-5/8" Flange
IO connector	Analog (DB-25 Female)			
Communication	RS485 (DB-9 Female), EtherCat			
Tuning Time	< 10ms			
Power Stability	1% of set point or 0.1% of full rated power, whichever is greater			

Output Mode	CW/ Pulsing (as per order)			
Pulsing frequency	50Hz-30kHz			
Duty cycle	1% - 99% (Minimum ON/ OFF time: 12us)			
Harmonic	<-50dBc			
Stray	<-50dBc			
Efficiency	≥70% (Z=50Ω, Rated output)			
Control	LCD+ Knob			
Phase sync (CEX)	Support, Optional as order			
Protection	Protection for over voltage, over current, over temperature, reflected power exceeding limit, external lock, and arc detection			
Cooling medium	Water (Min≥4L/min)	Air+ Water (Min≥6L/min)	Air+ Water (Min≥12L/min)	Air+ Water (Min≥24L/min)
Coolant Inlet/Outlet	Hose with outer diameter 12mm		Hose with outer diameter 24mm	1" Flange
Ambient Temp.	+5℃ - +40℃			
Operating humidity	5% - 70%			
Dimensions (D*W*Hmm)	423 * 483 * 132	546 * 483 * 176	835 * 483 * 176	1010 * 483 * 354

Applications



Semiconductor

Wafer Cleaning
Film Deposition
PVD/PECVD/ALD
Magnetron Sputtering
Ion Beam Source
Ion Etching
...

Industrial

LED
Solar Photovoltaic
Crystalline Silicon Coating
Wear-protection layer
...

Medical

Plasma Disinfection
Cancer Treatment
MRI
RF Cosmetology
...



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