

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



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



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



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

## Product Overview

These RF Power Generator adopt all solid state RF amplifier technology and are indispensable equipment for semiconductor manufacturing, LED, solar photovoltaic industries, plasma generation in scientific experiments, RF induction heating, medical beauty, atmospheric plasma disinfection and cleaning industries. Its main applications include RF sputtering, reactive ion etching, RF bias, polymorphic plasma, plasma surface treatment, inductive coupling, and RF laser plasma systems.

## 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 RJ45 ports**
- **Support continuously adjust output power from the minimum to the maximum rate with advanced power amplifier technology**
- **Support arc and standing wave protection, quick respond to protect equipment safety in case of abnormalities**
- **Support overload, overcurrent and overheat protection**

## Tech Parameters

Items	Tech Parameters			
Mains	3 Phase 380 V 50 / 60 Hz, Rectangular heavy-duty connector			
Output Freq	13.56 MHz/ 27.12 MHz as per order			
Power stability	±0.005 %			
Rated power	3 k W	6 k W	12 k W	20 k W
Output power range	50 W- 3 k W	50 W- 6 k W	50 W-12 k W	50 W- 20 k W
Max reflected power	600 W	1200 W	2400 W	4000 W
RF output connector	L 29 type		7/8" Flange	1-5/8" Flange
Connectors	RS485, RJ45, DB9-Female (for connecting matching box)			
Tuning Time	< 10 ms			
Power Stability	1.0% of set point or 0.1% of full rated power, whichever is greater			
Output Mode	CW/ Pulsing ( as per order)			
Pulsing frequency	100 Hz- 30 kHz			
Duty cycle	1 - 99 % (Minimum ON/ OFF time is 12 us)			
Harmonic	<- 50 d Bc			
Spurious	<- 50 d Bc			
Efficiency	≥70 % (Z= 50 Ω , 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			
Power switch on real panel	Hydraulic air switch			
Cooling medium	Water (Min≥4 L/min)	Water (Min≥6 L/min)	Air+ Water (Min≥12 L/ min)	Air+ Water (Min≥24 L/ min)
Water connector	water pipe with an outer diameter of 12mm			
Ambient Temp.	+ 5 ℃ - + 40 ℃			
Operating humidity	5 % - 70 %			
Dimensions (D* W* Hmm)	423 * 483 * 132	546 * 483 * 176	835 * 483 * 176	1010 * 483 * 354

## Order Guide

Model NO.	Frequency	Power
DX-RFS-13030	13.56 MHz	3 kW
DX-RFS-13060		6 kW
DX-RFS-13120		12 kW
DX-RFS-13200		20 kW
DX-RFS-27030	27.12MHz	3 kW
DX-RFS-27060		6 kW
DX-RFS-27120		12 kW

## 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  
...



**Dexin Digital Technology Corp. Ltd.**

No.10 & No.12, Wuxing 4th Road, Wuhou District, Chengdu, 610045 China  
Tel:+86 -28 -85550524 Fax:+86 -28 -85585255 Email: info@dsdvb.com