



RFG 15K-AC

Model RFG 15K-AC-2 (15kW / 15,000 Watts / 2Mhz)

Model RFG 15K-AC-13 (15kW / 15,000 Watts / 13.56Mhz)

Model RFG 15K-AC-27 (15kW / 15,000 Watts / 27.12Mhz)

Model RFG 15K-AC-40 (15kW / 15,000 Watts / 40.68Mhz)

The **RFG 15K-AC (15kW / 15,000 WATT)** RF generator is a precision unit intended for both scientific and industrial applications. The robust construction, using tried and tested components together with the latest design techniques, ensure a long and trouble-free life even in harsh environments. The generator is totally air-cooled which considerably reduces its service requirements and allows simple installation.

It is recommended that the generator be used in conjunction with either a manual or automatic impedance matching network. Both types are available from Coaxial Power Systems Ltd – please see the separate brochure for details. If an automatic network is used, the controller can be fitted to the generator cabinet.



The main features of all models are

- Proven design and track record.
- Forced-air cooled.
- Individual LED displays for incident (forward) and reflected power.
- Precision power control +/- 1% of set point.
- Common exciter input/output.
- Fast pulse operation from TTL/CMOS input (Optional)
- Solid State/Power Tube design for reliable performance.
- The output power of the generator is fully adjustable between zero and maximum power.
- The feedback control system ensures that the set output power remains constant and repeatable.
- 2MHz, 13.56MHz, 27.12MHz and 40.68MHz frequencies available as standard.
- Swivel Lock Castor Wheels.
- Safety Interlock Switchgear on all external panels.
- 380-415 VAC (3 phase) – Standard
- 208 VAC (3 phase) – Optional
- 480 VAC (3 phase) – Optional

(Non-standard frequencies are available - please contact factory for details).

The output power of each generator is fully adjustable between zero and maximum power. The feedback control system ensures that the set output power remains constant and repeatable. Incident (forward) and reflected power measurements are internally calibrated to give high accuracy throughout the power range.

Option (please enquire)

An external voltage of 0 to 5Volts can be used to control the output. This is particularly useful in sputter coating applications where the DC voltage developed across the plasma dark space can be controlled rather than the RF power.

Physical	
Model Variants	RFG 15K-2-AC (2MHz) RFG 15K-13-AC (13.56MHz) RFG 15K-27-AC (27.12MHz) RFG 15K-40-AC (40.68MHz)
Dimensions	600mm (W) x 800mm (L) x 1770mm (H) External connectors protrude extra 60mm MAX (Rear panel).
Weight	510 Kg (1124 lb) max.
Front panel Material / Colour	Aluminium, RAL7035 light grey
Chassis and Cover Material	Stainless Steel / Aluminium (Optional)
Other + Safety	Swivel lock castor wheels / Safety interlock switchgear to all external panels
Connector and Cable Specifications	
RF Output Connector	EIA Flange / 50 Ω
User Port Connector (Analogue)	25-pin, Sub-Miniature 'D' Female, with 8mm 4-40 jack post
AC Power Input Connector / Cable	380-415 VAC Model: Panel Mounted Inlet Connector with lock, 6 contacts 208 VAC Model: Panel Mounted Inlet Connector with lock, 6 contacts 480 VAC Model: Panel Mounted Inlet Connector with lock, 6 contacts
Input + Output CEX / Drive Connector	Input: BNC input 50ohm (max 13dBm) / Output: BNC input 50ohm (max 13dBm)
Pulse Input Connector (Optional)	SMA, Coaxial Sub-Miniature (Optional)
Electrical	
Input Power	380-415 VAC (3 phase) - Standard 208 VAC (3 phase) – Optional 480 VAC (3 phase) – Optional
Amplifier line-up	Solid-state (transistor driven) oscillator and RF driver. Thermionic tube/valve power amplifier.
Output Power / Impedance	15,000-Watts (15kW) Continuous / 50 Ω
Output Frequency Options / Stability	2MHz / +/-4.1kHz 13.56MHz / +/-1.4kHz. 27.12MHz / +/-2.7kHz. 40.68MHz / +/-4.1kHz
Interface Options	Analogue (Standard), RS-232 (Optional), Device-Net (Optional).
Efficiency	84% or greater
Output Envelope Ripple	Less than 1% of full amplitude.
VSWR Capability	Can withstand VSWR at any phase angle.
Harmonic Output	Better than 40 dB below fundamental.
Pulse Operation via SMA input on rear panel	Minimum pulse width 40 μ s (micro-seconds). The external power control signal should vary the peak output from 0 to MAX-power with a pulse-on duty cycle from 0 to continuous (100% duty cycle).
Local Control, Remote Interface and Indicators	
Local Control / Indicators	Accessed via Front-Panel Controls: Line ON/OFF. RF ON/OFF. Output power-set Pulse/CW switch MCB Overload set Remote / Local set Reflected power limit Front Panel Indicators: RF power OFF / ON Forward / Reflected power. Overload. Remote control. Interlock status. VFD Display for driver status.
Remote Interface	Accessed via User-Port. RF ON/OFF Incident Power indication Reflected Power indication Output set 0-5volts = 0-100% Remote output set request.
Diagnostics	Analogue meter/LED indicator show the following parameters: All internal power supply voltages, Driver output incident/reflected power & P.A anode + grid current
Specification is continued on the following page 	