

M-SERIES M060



MAGNETRON MODULATOR UP TO 2 MW

The M060 is ScandiNova's smallest magnetron Pulse Modulator. It has a very compact enclosure and is designed for custom integration into your application. The Modulator is air cooled and uses single-phase AC power. It is optimized for a wide range of different magnetrons with an RF peak power ranging from 0.2 MW to 2 MW.

All interlocks and essential diagnostics are fully integrated, and ScandiNova's modern control system offers a user-friendly interface. The pulse length, amplitude and repetition rate can all be changed.

The M060 can be delivered as a pure high-power Pulse Modulator or as part of an RF Unit including magnetron and related components. Different levels of service and support programmes are available.

COMPACT

UP TO 2 MW RF PEAK POWER

AIR COOLED

USES SINGLE-PHASE POWER

MINIMIZED CONSUMABLES

THE M-SERIES

ScandiNova's M-series contains a range of magnetron pulse modulators with high reliability and performance, a compact design and low energy consumption.

Our magnetron pulse modulators require about one third of the space of alternative solutions yet still offer around 30% higher efficiency, two operating advantages that especially appeal to cancer treatment providers.

Their high reliability and performance also attract many industry applications.

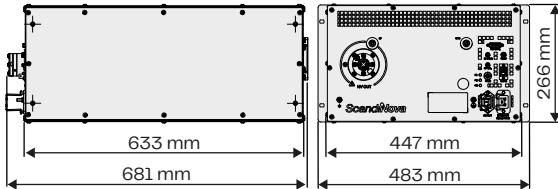
SPECIFICATIONS	UNIT	VALUE*	NOTES
Magnetron RF peak power	MW	0.2-2	Limited by choice of magnetron
Magnetron RF average power	kW	0.4	Maximum, depends on choice of magnetron
Modulator peak power	MW	0.3-3.8	
Modulator average power, 115 V	kW	1	Maximum
Modulator average power, 230 V	kW	1.5	Maximum
Pulse voltage	kV	16-38	
Pulse current	A	20-100	
RF pulse length, top	µs	0.1-4	Limited by max average power
Pulse repetition rate	Hz	1-2410	Limited by max average power
Modulator Voltage Stability, RMS	%	0.4	Verified on resistive load (see options)
Cooling	-	-	Air cooled, ambient temperature +10 to +35 °C

* All maximum values cannot be reached simultaneously.

INTERFACE	CONNECTOR	DEFAULT
Mains power, single-phase	C20	115-230±15 % VAC, 50/60 Hz
Hardwired interface	D-sub 15-pin	
Communication interface	RJ45	Modbus TCP
Trig input	BNC	Electrical
Diagnostics	SMA	Pulse voltage & current signals

SIZE AND WEIGHT	UNIT	VALUE
Weight (incl. oil)	kg	74

For more information, visit www.scandinovasystems.com/M060



Contact ScandiNova for any requirements not covered by this specification.

Information contained in this document is subject to change without notice.

The Standard Modulator Includes

- Filament power supply
- Control system
- Control via Modbus TCP
- Pulse sensors
- HV pulse cable
- Internal trig generator
- Factory acceptance test certificate
- Manuals

Options

- Peaking components

Additional System Components

- Circulator & RF loads
- Directional coupler
- Magnet power supply
- Waveguide windows
- Magnetron

Services

- Training in handling, operation and maintenance
- Shipping
- Installation and start-up
- Service contract

Typical Magnetron Loads

Stellant (L3)	Teledyne e2v
PM2000X	MG5125
L6170	CPI
L4553	VMC2033A
Nisshimbo (NJRC)	VMC3139
MX7637	VMC3162
MX7638	VMC3014
MX7639	VMC1891A
M1913S	SFD373
M1613	SFD341

COMPANY WITH
MANAGEMENT SYSTEM
CERTIFIED BY DNV
ISO 9001 • ISO 14001

HEADQUARTERS

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ScandiNova
Excellence in pulsed power