ScandiNova
Part of Nodica Group

M-SERIES M100D

DUAL-ENERGY

COMPACT

UP TO 3.1 MW RF PEAK POWER

FULLY COMPUTERIZED

MINIMIZED CONSUMABLES

MAGNETRON MODULATOR UP TO 3.1 MW

ScandiNova's M100D is a dual-energy pulse Modulator in a very compact enclosure. Our dual-energy models are for applications where there is a need to switch between two different energy levels. The Modulator is optimized for a wide range of different magnetrons with an RF peak power ranging from 1.0 MW to 3.1 MW. The M100D is also available as a single-energy (stand-alone) and integrated version (see M100, M100-i, and M100D-i).

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 M100D 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.

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.

Excellence in pulsed power
www.scandinovasystems.com

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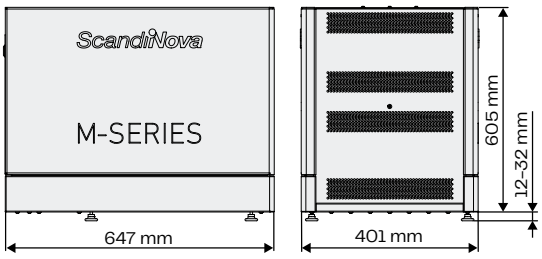
SPECIFICATIONS	UNIT	VALUE	NOTES
Magnetron RF peak power, high	MW	1–3.1	Depends on choice of magnetron
Magnetron RF peak power, low	MW	0.9–2.5	Depends on choice of magnetron
Magnetron RF average power	kW	2.8	Maximum, depends on choice of magnetron
Modulator peak power, high	MW	6.2	Maximum
Modulator peak power, low	MW	5.2	Maximum
Modulator average power	kW	8	Maximum
Pulse voltage	kV	30–52	
Pulse current	A	30–120	
RF pulse length, top	µs	0.5–5	Depends on max average power
Pulse repetition rate	Hz	0–500	2x250 Hz, depends on max average power
Modulator Voltage Stability, RMS	%	0.4	Verified on resistive load (see options)
Water cooling	l/min	8	18–40 °C, non-condensing

INTERFACE	CONNECTOR	DEFAULT	OPTION
Mains power, three-phase	Terminal block (4-wire)	400±10 % VAC, 50/60 Hz	208/380/480 VAC
Mains power, single-phase	C20	230±10 % VAC, 50/60 Hz	115 VAC
Control interface	RJ45	Modbus TCP	
Water cooling interface	12 mm	Legris Push-in	Swagelock
Trig input	BNC	Electrical	Optical
Diagnostics	BNC	Pulse voltage & current signals	

SIZE AND WEIGHT	UNIT	VALUE
Weight (incl. oil)	kg	180

For more information, visit www.scandinovasystems.com/M100



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

- Pulse/RF diagnostics
- Enhanced PRF range (500–1000 Hz)
- Enhanced stability (down to 0.1 %)
- Digitizer
- 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 contractz

Typical Magnetron Loads

BVERI
VE2110

Nisshinbo (NJRC)
M1603
M1466
MX7640
M1466N
M1466T

E2V
MG5193
MG6090
MG6493
MG7095

GLVAC
VE2110A
VE2098

GLM
GLM5193
GLM5810
GLM6090

CPI
VMC3109
VMC3136

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

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