ScandiNova

HVP
High Voltage Products. High Voltage Experts.

M-SERIES **M100**

RF PEAK POWER UP TO 3.1 MW
MODULATOR PEAK POWER UP TO 6.2 MW

This stand-alone pulse modulator is designed to handle a wide range of different magnetrons in the range 1.0 MW to 3.1 MW in a very compact enclosure. We provide everything from a pure high-power pulse modulator to a turn-key RF station including the magnetron, control system and related components. M100 is also available as an integrated and / or dual version (see M100-i, M100D, M100D-i).

HVP High Voltage Products GmbH | +49 89 864 6677-0 | info@hvproducts.de | www.hvproducts.de

Doc. no.: 004504-00 / Version: 2016-09-12

SYSTEM SPECIFICATIONS	UNIT	DATA	NOTES
Magnetron RF Peak Power	MW	1–3.1	Depends on choice of magnetron
Magnetron RF Average Power	kW	2.8	Maximum
Modulator Peak Power	MW	6.2	Maximum
Modulator Average Power	kW	8	Maximum
Pulse Voltage	kV	30–52	Typical range
Pulse Current	A	30–120	Typical range
Pulse Repetition Frequency Range	Hz	0–500	Typical range. Depending on max average power (see options).
Pulse Length, Top	µs	0.5–5	Typical range. Depending on max average power.
Modulator Voltage Stability, RMS	%	0.4	Verified on resistive load (see options)
Cooling		Water	

INTERFACE	DEFAULT	OPTION
Mains Power, 3 Phase	400 VAC, 50/60 Hz	208/380/480 VAC
Mains Power, Single Phase	230 VAC, 50/60 Hz	115 VAC
Control Interface	ModBus TCP	
Water Cooling Interface In/Out	Legris Push-in 12 mm	Swagelock 12 mm
Trig Input	Electrical	Optical
Diagnostics	Pulse Voltage and Current	See Options

Standard Modulator Includes

Control System
Remote Control
Filament PS
Pulse Sensors
Internal Trig Generator

Additional System Components

Circulator & RF Loads
Directional Coupler
Magnet PS
Waveguide windows
Magnetron

Typical Magnetron Loads

BVERI
VE2110

NJRC
M1603
M1466
MX7640
M1466N
M1466T

E2V
MG5193
MG6090
MG6493
MG7095

GLVAC
VE2110A
VE2098

GLM
GLM5193
GLM5810
GLM6090

CPI
VMC3109
VMC3136

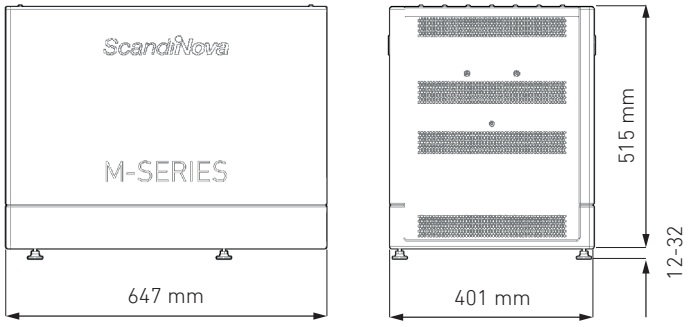
Options

Pulse/RF diagnostics
Enhanced PRF Range (1000–2000 Hz)
Enhanced Stability (down to 0.1%)
Digitizer
Gunport

Size and Weight

Weight approx. 140 kg
(incl. oil)

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



ScandiNova

HVP
High Voltage Products. High Voltage Experts.

M-SERIES **M100D**

RF PEAK POWER UP TO 3.1 MW
MODULATOR PEAK POWER UP TO 6.2 MW

This dual-energy pulse modulator is designed to handle a wide range of different magnetrons in the range 1.0 MW to 3.1 MW in a very compact enclosure. Our dual-energy models are for applications where there is a need to switch between two different energy levels. We provide everything from a pure high-power pulse modulator to a turn-key RF station including the magnetron, control system and related components. M100D is also available as single-energy (stand-alone) and integrated version (see M100, M100-i, M100D-i).

HVP High Voltage Products GmbH | +49 89 864 6677-0 | info@hvproducts.de | www.hvproducts.de

Doc. no.: 004506-00 / Version: 2016-09-12

SYSTEM SPECIFICATIONS	UNIT	DATA	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
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	Typical range
Pulse Current	A	30–120	Typical range
Pulse Repetition Frequency Range	Hz	0–500	Typical range. 2x250 Hz. Depending on max average power (see options).
Pulse Length, Top	µs	0.5–5	Typical range. Depending on max average power.
Modulator Voltage Stability, RMS	%	0.4	Verified on resistive load (see options)
Cooling		Water	

INTERFACE	DEFAULT	OPTION
Mains Power, 3 Phase	400 VAC, 50/60 Hz	208/380/480 VAC
Mains Power, Single Phase	230 VAC, 50/60 Hz	115 VAC
Control Interface	ModBus TCP	
Water Cooling Interface In/Out	Legris Push-in 12mm	Swagelock 12 mm
Trig Input	Electrical	Optical
Diagnostics	Pulse Voltage and Current	See Options

Standard Modulator Includes

Control System
Remote Control
Filament PS
Pulse Sensors
Internal Trig Generator

Additional System Components

Circulator & RF Loads
Directional Coupler
Magnet PS
Waveguide windows
Magnetron

Typical Magnetron Loads

BVERI
VE2110

NJRC
M1603
M1466
MX7640
M1466N
M1466T

E2V
MG5193
MG6090
MG6493
MG7095

GLVAC
VE2110A
VE2098

GLM
GLM5193
GLM5810
GLM6090

CPI
VMC3109
VMC3136

Options

Pulse/RF diagnostics
Enhanced PRF Range (500–1000 Hz)
Enhanced Stability (down to 0.1%)
Digitizer

Size and Weight

Weight approx. 140 kg
(incl. oil)

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