

K-SERIES K300



RF PEAK POWER UP TO 50 MW

MODULATOR PEAK POWER UP TO 115 MW

This mid-range solid-state pulse modulator is designed to handle a wide range of different klystrons with a RF peak power from 25 MW to 50 MW. ScandiNova offers everything from a standard modulator to a turn-key RF system that includes all necessary system components from the wall socket to the accelerator, such as the klystron, diagnostics and low-level RF. Review our other pulse modulators in the modular K-Series.

EXCELLENCE IN PULSED POWER

SYSTEM SPECIFICATIONS	UNIT	DATA	NOTES
Klystron RF Peak Power	MW	25–50	Depends on choice of klystron
Klystron RF Average Power	kW	30	Maximum
Modulator Peak Power	MW	115	Maximum
Modulator Average Power	kW	80	Maximum
Pulse Voltage	kV	250–360	Typical range
Pulse Current	A	200–350	Typical range
Pulse Repetition Frequency Range	Hz	0–500	Typical range. Depending on max average power (see options).
Pulse Length, Top	µs	0.5–10	Typical range. Depending on max mod. power.
Flatness (Voltage)	%/µs	< 0.5	Flat top. Depending on load (see options).
Modulator Voltage Stability, RMS	%	0.01	(see options)
Cooling (incl. RF parts)	l/min	10-160	Clean 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	BSPP G2" Internal	
Trig Input	Electrical and Optical	
Diagnostics	Pulse Voltage and Current	See Options

Standard Modulator Includes

Control System (ScandiCat)
 Remote Control
 Local Control Panel
 Mains Power Distribution
 Cooling System
 Filament PS
 Klystron Socket
 Pulse Sensors
 Hard Wired Interlock System

Additional System Components

Low Level RF Amplifier/Generator
 Circulator & RF Loads
 Directional Coupler
 Waveguide Windows
 Vacuum PS
 Solenoid PS
 Klystron
 Extended cooling for Klystron,
 Solenoid etc.

Typical Klystron Loads

Thales	Toshiba
TH2100	E3729 (24 MW)
TH2128	E3729 (34 MW)
TH2132	E3765A
TH2173K	E37306
	E37310
CPI	
VKS8262K	Toriy
VKS8262F	K147
VKS8262F2	

Options

Pulse/RF Diagnostics
 Enhanced PRF Range (up to 1000 Hz)
 Enhanced Stability (down to 0.002%)
 Enhanced Flatness (<0.25 %/µs)
 Neutron Resistant Switching

Size and Weight

Weight approx. 2000 kg
 (excl. oil, klystron, solenoid)
 Oil volume approx. 600 l

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

