ScandiNova

K-SERIES **K200**

RF PEAK POWER UP TO 35 MW
MODULATOR PEAK POWER UP TO 80 MW

This mid-range solid-state pulse modulator is designed to handle a wide range of different klystrons with a RF peak power from 7 MW to 35 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.

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SYSTEM SPECIFICATIONS	UNIT	DATA	NOTES
Klystron RF Peak Power	MW	7–35	Depends on choice of klystron
Klystron RF Average Power	kW	20	Maximum
Modulator Peak Power	MW	80	Maximum
Modulator Average Power	kW	55	Maximum
Pulse Voltage	kV	160–290	Typical range
Pulse Current	A	120–280	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 average power.
Flatness (Voltage)	%	+/-1	Flat top (see options)
Modulator Voltage Stability, RMS	%	0.015	(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	ISO G1 1/2"	
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
TH2128E	E3754
TH2130	E3776
TH2170	
TH2171	
TH2172	

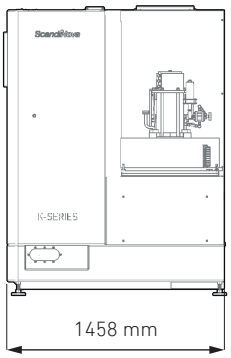
Options

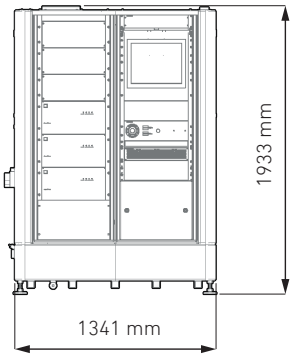
Pulse/RF Diagnostics
Enhanced PRF Range (up to 1000 Hz)
Enhanced Stability (down to 0.003%)
Enhanced Flatness (+/-0.1-0.5%)
Neutron Resistant Switching

Size and Weight

Weight approx. 1700 kg
(excl. oil, klystron, solenoid)

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





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