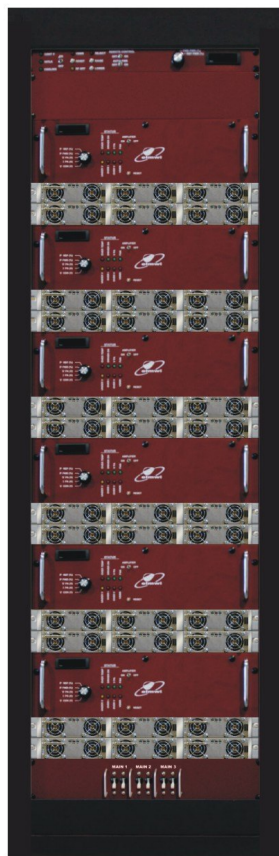




# Scientific and Industrial

## Scientific and Industrial RF

Particle accelerators, imaging, welding, sputtering, and other diverse applications make up the industrial RF offering by e.l. marsden wireless, inc. These applications though not unique set us apart from the other markets we pursue. We use the diversity of applications to improve our product offerings for all markets. The building blocks for these products are our amplifiers, and as in the case of the amplifiers we can take your concept to the proposal stage and make those concepts a reality.



**B20KAIV  
Industrial Amplifier**

Model	B20KAIV
<b>General Description, Environmental</b>	
Temperature	0 - 45° Centigrade
Humidity	Up to 95%
Altitude	2286 Meters (7500 feet) (For higher altitude, consult factory)
AC Power	208/240 V Single Phase or Three Phase Delta Wye (Neutral not necessary), 50/60 Hz 380 V Wye with neutral 50/60Hz
<b>Technical Specifications</b>	
RF Frequency Ranges	30 to 50 MHz, 45 to 90 MHz, 86 to 110 MHz, 95 to 135 MHz (freq. response across band +/-0.5dB or better) 170 to 230 MHz, 200-500MHz, 500MHz - 1GHz
CW Output Power	Available in 4kW power steps up to 24 kW per equipment cabinet
Amplifier Device	4000W PA Module
	All Modules Solid State
Modulation System	PWM (Pulse Width Modulation)
Spurious Emission	50 mW or less
Output Impedance	50 Ohms Unbalanced
Permissible VSWR	Less than 1:2.0
Output Flange	As appropriate
S/N Ratio	<50dB (95% Modulation, 1000Hz)
Carrier Shift	<3% (95% Modulation, 1000Hz)
Carrier Frequency Stability	Within $\pm 1 \times 10^{-6}$ Hz
Duty Cycle	Continuous
Overall Efficiency	>55%
Cooling System	Forced Air or liquid cooled
Power Consumption	Depends on overall power; consult factory
Overall Dimensions	Single Cabinet with RF combiner mounted on cabinet top
Remote Operation	System "ON" / Standby
	RF "ON" / "OFF"
	Alarm Reset
	Monitor remotely, FWD power output, reflected power output, Total PA current, PA voltage, current for each amplifier
Remote Monitor each 4kW Amplifier	Amplifier DC Current, Amplifier DC Voltage, Power Forward, Power Reflected, Heatsink Temperature
Remote Monitor Total Cabinet	Power (Forward / Reflected)
Remote Alarm Indications	Over Temperature, High VSWR, 3Ø Power Failure