



# “P” Series Power Amplifier

for use with Energizer BLACK and SILVER, PM500HP, and C-Series Shakers

The MB Dynamics “P” Series Power Amplifiers are designed for use with MB’s largest permanent magnet and field-coil-based vibration exciters. They drive these exciters to full rated performance over a broad frequency range. All are supplied in a 19” rack-mount cabinet that includes a high fidelity, low-noise power module (s) designed for and used in medical imaging applications, a modular power supply for the amplifier (and another for the field supply when required), and a power transformer. For Squeak and Rattle Test Systems, a separate Remote Control Unit (RCU) houses the amplifier ON/OFF, DC offset, and GAIN controls as well as status LEDs for up to four exciters in a test system. For such low-noise tests, the RCU is placed in the quiet environment near the exciter while the amplifier cabinet, with its cooling fans, is placed in a less-noise-sensitive location. All required exciter and system interlocks (over-temperature, over-travel, etc.) are provided. Amplifier protection includes peak over-current, modulation fault, and over/under rail voltage. S/N Ratio is >90dB; THD is <0.2% @ 200 Hz, 60 Amps RMS; and input impedance is >10 kΩ. Amplifiers have CE Mark & are voltage-feedback (PVL-B switchable to current-feedback also).



Specifications	PVL-B	PVL-S	PVX	PVX-2	PVX-3	PVX-4
Frequency Range	DC -- 5,000 Hz		DC -- 3,000 Hz, -3dB at 5,000 Hz			
Line Voltage Required	190 -- 500 VAC, 50/60 Hz, 1- or 3-Phase		380 -- 500 VAC, 50/60 Hz, 3 Phase			
Input Power Required: amp only + field supply, shaker cooling	5 kVA	9.5 kVA	35 kVA (amplifier and field supply, if used)	100 kVA (amplifier and field supply)	140 kVA (amplifier and field supply)	140 kVA (amplifier and field supply)
Amplifier Output kVA Available	4 kVA	7.5 kVA	18 kVA	40 kVA	75 kVA	75 kVA
Amplifier Max. Output Voltage	56 Volts RMS	165 Volts RMS	150 Volts RMS	165 Volts RMS	200 Volts RMS	150 Volts RMS
Amplifier Max. Output Current	56 Amps RMS	55 Amps RMS	125 Amps RMS	250 Amps RMS	375 Amps RMS	500 Amps RMS
Power Module Max. Output Volts	79 Volts peak 56 Volts RMS	300 Volts peak 215 Volts RMS				
Power Module Max. Output Amps	79 Amps peak 56 Amps RMS	140 Amps peak 70 Amps RMS	400 Amps peak 125 Amps RMS	400 Amps peak 125 Amps RMS	400 Amps peak 125 Amps RMS	400 Amps peak 125 Amps RMS
Dimensions (Outside)	22" x 31.5" x 30" H	22" x 31.5" x 30" H	22" x 31.5" x 76" H	44" x 31.5" x 76" H	44" x 48" x 76" H	44" x 48" x 76" H
Weight	300 lbs. (136kg)	300 lbs. (136kg)	800 lbs. (365kg)	1500 lbs. (685kg)	1800 lbs. (820kg)	2000 lbs. (910kg)