

# IMV VIBRATION TEST SYSTEMS

## m series

# m

Low Acoustic Noise and Compact Range  
Air Cooled Vibration Test Systems

## m060 / MA1-CE

IMV compact shaker (m-series) applies a permanent magnet for magnet circuit and the table diameter is 190 mm. To increase the flexibility of system extension, DC Powered cooling fan is built-in to the shaker. In normal mode, it is used for durability testing with high performance. In natural air mode (without fan), it is suitable for squeak & rattle testing. System structure is specialized for high frequency test, maximum travel of armature is almost equal to 0. Displacement of double amplitude is 10  $\mu\text{m}$  when excited with frequency 1 kHz and acceleration 200  $\text{m/s}^2$ . With the extension flexibility of IMV's m-series with high precision multi-point control has broaden the range of vibration test, long and large sized specimens such as exhaust pipe etc is possible as well.



### 1. Compact and Silent design

Silent type appropriate for abnormal noise inspection. DC powered cooling fan is built-into the shaker. Nature air cooling is also used when the cooling fan is stopped for silent operation. (with a reduction in performance.)

- Compact design
- Low noise (ideal for squeak and rattle testing)
- High precision measurement
- Low power consumption

### 2. m-series multi-axis system

A range of small-size systems, including 2-axis and 3-axis simultaneous systems, employing Integrated Cross Coupling Bearing Unit (ICCU) multi-axis armature / load support technology.



### 3. User first principle

Compatible with K2 vibration controller. Intuitive interface leads The operator with user-friendly guidance.





#### System Specifications (m060 / MA1-CE)

System Mode		Normal Mode
Frequency Range (Hz) *1		0-3000
Rated Force	Sine (N)	600
	Random (N rms)	420
	Shock (N)	600
Maximum Acc.	No Load (m/s <sup>2</sup> )	500
	0.5 kg Load (m/s <sup>2</sup> )	352
	1.0 kg Load (m/s <sup>2</sup> )	272
Maximum Vel.	(m/s)	1.6
Maximum Disp.	(mmp-p)	30

#### Vibration Generator (m060-CE)

Armature Support Method	Diaphragm spring
Armature Mass (kg)	1.2
Armature Diameter (φ mm)	114
Maximum Payload (kg)	15
Mass (kg)	40

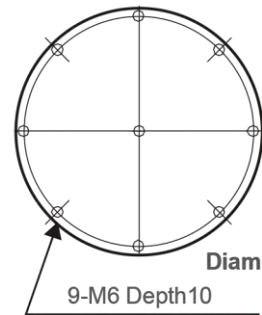
\*1) Frequency range values vary according to sensor and vibration controller.

\*2) Power supply: single-phase 100V or 200-240V, 50/60Hz. A transformer is required for other supply voltages.

\*3) Longer external cables are provided as an option.

#### Cooling

Blower	Housed in vibration generator	
<b>Power Amplifier (MA1-CE)</b>		
Max. Output [kVA]	1 *2	
Mass [kg]	25	
Cooling Method	Air cooling	
External Cables(m)	3 *3	
<b>Environmental Data</b>		
Power Requirement (kVA) *2	0.7	
Input Voltage Supply (1 φ, V) *2	100V or 200-240V ±10% 50/60Hz	
Working Ambient Condition	Temp. (°C)	0 - 24
	Humidity (%RH)	0 - 85



Diameter φ114

9-M6 Depth 10

(P.C.D.100)

**m060-CE**

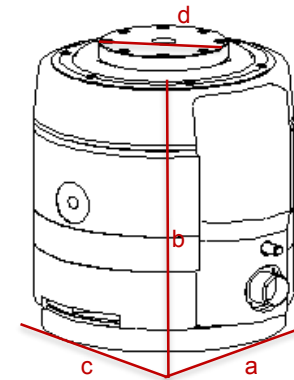
unit: mm

#### Table Insert Pattern

#### Shaker

Model: m060-CE

a: W230 mm  
b: H 281 mm  
c: D230 mm  
d: 114 φmm



#### Amplifier

Model: MA1-CE

a: W 430 mm  
b: H 149 mm  
c: D 430 mm

