IMV VIBRATION TEST SYSTEMS

A series

Air-cooled Vibration Test Systems

A74/EM10HAM

A-series is the “new standard” in vibration testing, with a solid test performance.
A-series increases the relative excitation force and has a displacement of 76.2 mmp-p (3 inch stroke) *1 which gives good balance between specification of velocity, acceleration and displacement.
It also provides a maximum of 3.5 m/s shock velocity testing, which responds to the demand in lithium battery testing. Rapid creation of a test from a set of pre-defined templates conforming to most international test standards. Simply select the standard required to generate the main test settings.
*1) Only for A30, A45, A65, A74

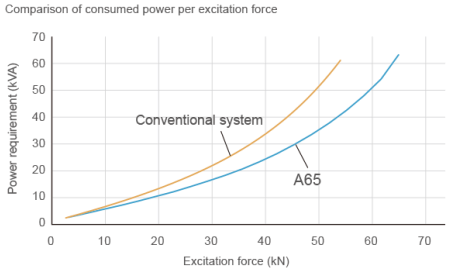
1. Improvement of performance

Expansion of test cases and responses to high spec. tests allow the A-series to meet a wide range of testing needs.

- Improvement in excitation force
- Standard 76.2 mmp-p displacement
- Expansion in frequency range
- High velocity shock test

2. User friendly and secure

Greater security and functionality with improved energy savings.



3. User first principle

Intuitive interface guides the operator for easy use.

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System Specification		
System Model		A74/EM10HAM
Frequency Range (Hz)		0-2,600*4
Rated Force	Sine (kN)	74
	Random (kN rms) *1	74
	Shock (kN)	222
	High Velocity Shock (kN) *5	170
Maximum Acc.	Sine (m/s²)	1,000
	Random (m/s² rms)	630
	Shock (m/s²)	2,000
	High Velocity Shock (m/s² peak) *5	2,000
Maximum Vel.	Sine (m/s)	2.0
	Shock (m/s peak)	2.5
	High Velocity Shock (m/s peak) *5	3.5
Maximum Disp.	Sine (mmp-p)	76.2
	High Velocity Shock (mmp-p)	76.2
Maximum Travel (mmp-p)		82
Maximum Load (kg)		1,000
Power Requirements (kVA) *2		100
Breaker Capacity (A) *3		250

Vibration Generator (A74)	
Armature Mass (kg)	74
Armature Diameter (ϕmm)	446
Armature Resonance (Hz)	1,770
Allowance Eccentric Moment (N･in)	1,550
Mass (kg)	3,500

Power Amplifier (EM10HAM-A74)	
Maximum Output (kVA)	118
Mass (kg)	2,400

Cooling (VAPE900/N2R)		
Mass (kg)		320
Cooling Air Flow (m³/min)		70
Environmental Data		
Input Voltage Supply (3ϕ, V)		380/400/415/440
Compressed Air Supply (Mpa)		0.7
Working Ambient Temperature	Shaker (℃)	0-40
	Amplifier (℃)	0-40

*1) Random force ratings are specified in accordance with ISO5344 conditions. Please contact IMV or your local distributor with specific test requirements..
*2) Power supply: 3-phase 380/400/415/440 V, 50/60 Hz. A transformer is required for other supply voltages.
*3) Breaker capacity for 480 V.
*4) Above 4000 Hz, the force rolls-off at a rate of -6 dB/oct.
*5) Maximum velocity 4.6 m/s. High velocity restricts maximum Shock force.
*6) Measured 150 mm above table at full-field.
* The specification shows the maximum system performance.
For long-duration tests, de-rating by up to 70 % must be applied. Continuous use at maximum levels may cause failure.
* In the case of Random vibration test, please set the test definition of the peak value of acceleration waveform to be operated less than the maximum acceleration of Shock.
* Frequency range values vary according to sensor and vibration controller.
* Armature mass and acceleration may change when chamber is combined.

Vibration Generator (A74)

a: W 1,310 mm
b: H 1,253 mm
c: D 1,040 mm

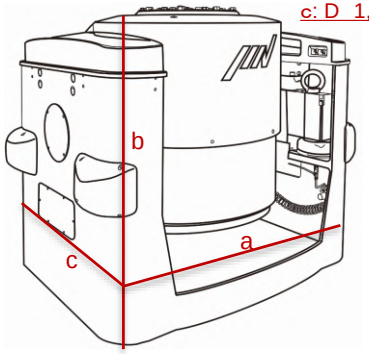
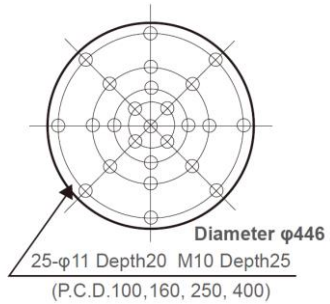
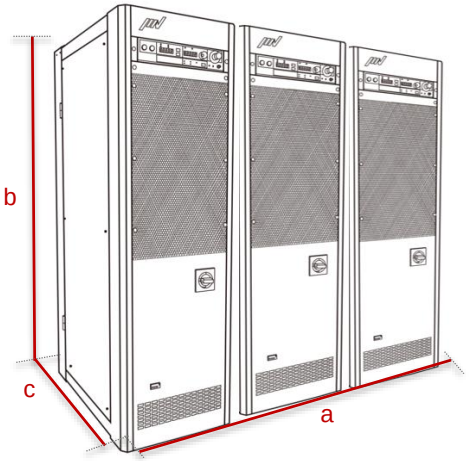


Table Insert Pattern (unit: mm)



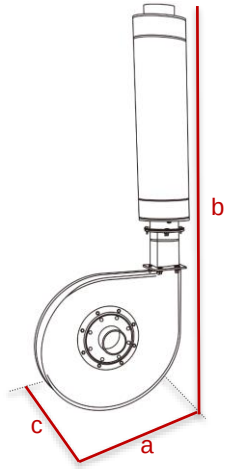
Amplifier

a: W 1,740mm
b: H 1,950mm
c: D 850mm



Blower

a: W 1,462 mm
b: H 2,800 mm
c: D 930 mm



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