



IMV VIBRATION  
TEST SYSTEMS

Aseries

## Air-cooled Vibration Test Systems

# A11/SA1HAG A11/EM1HAG



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

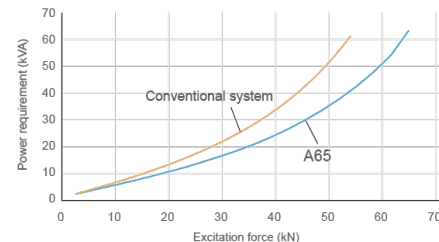
Expansion of test cases and responses to high spec. tests allow the A-series to meet a wide range of testing needs.

- 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.

Comparison of consumed power per excitation force



### 3. User first principle

Intuitive interface guides the operator for easy use.



IMV CORPORATION





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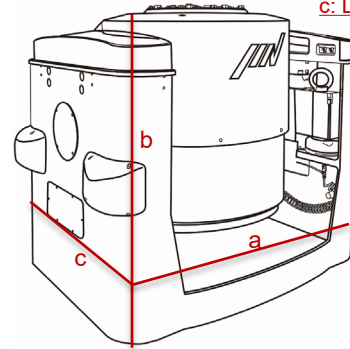
System Specification			
System Model		A11/SA1HAG	A11/EM1HAG
Frequency Range (Hz)		0-4,500 <sup>*4</sup>	0-4,500 <sup>*4</sup>
Rated Force	Sine (kN)	11	11
	Random (kN rms) <sup>*1</sup>	11	11
	Shock (kN)	22	22
	High Velocity Shock (kN) <sup>*5</sup>	-	16.5
Maximum Acc.	Sine (m/s <sup>2</sup> )	1,000	1,000
	Random (m/s <sup>2</sup> rms)	630	630
	Shock (m/s <sup>2</sup> )	2,000	2,000
	High Velocity Shock (m/s <sup>2</sup> peak) <sup>*5</sup>	-	1,500
Maximum Vel.	Sine (m/s)	2.0	2.0
	Shock (m/s peak)	2.5	2.5
	High Velocity Shock (m/s peak) <sup>*5</sup>	-	3.5
Maximum Disp.	Sine (mmp-p)	51	51
	High Velocity Shock (mmp-p)	-	55
Maximum Travel (mmp-p)		64	64
Maximum Load (kg)		200	200
Power Requirements (kVA) <sup>*2</sup>		20.4	20.4
Breaker Capacity (A) <sup>*3</sup>		40	40

Vibration Generator (A11)	
Armature Mass (kg)	11
Armature Diameter (φ mm)	210
Armature Resonance (Hz)	3,160
Allowance Eccentric Moment (Nm)	294
Mass (kg)	1,080

Power Amplifier	1BGH1-A11	2BGH1-A11
Maximum Output (kVA)	12	
Mass (kg)	280	470

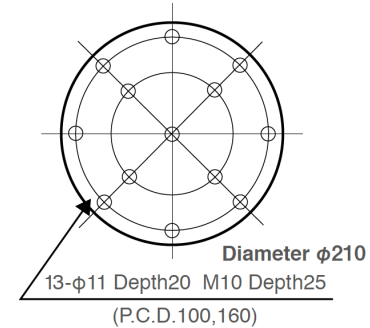
Cooling (VAPC630/P2R1)		
Mass (kg)	150	
Cooling Air Flow (m <sup>3</sup> /min)	15	
Environmental Data		
Input Voltage Supply (3φ, V)	380/400/415/440	
Compressed Air Supply (Mpa)	0.7	
Working Ambient Temperature	Shaker (°C)	0-40
	Amplifier (°C)	0-40

Vibration Generator (A11)

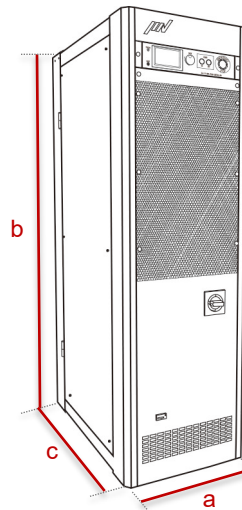


a: W 946 mm  
b: H 827 mm  
c: D 676 mm

Table Insert Pattern (unit: mm)

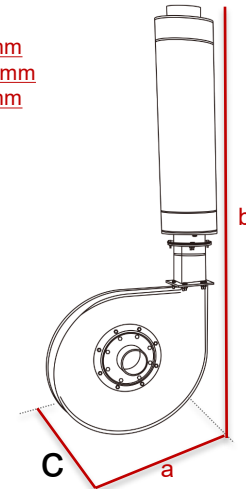


Amplifier (1BGH1-A11/2BGH1-A11)



a: W 580 mm  
b: H 1,950 mm  
c: D 850 mm

Blower



a: W 1,023 mm  
b: H 2,285 mm  
c: D 531 mm

<sup>\*1</sup> Random force ratings are specified in accordance with ISO5344 conditions. Please contact IMV or your local distributor with specific test requirements..

<sup>\*2</sup> Power supply: 3-phase 380/400/415/440 V, 50/60 Hz. A transformer is required for other supply voltages.

<sup>\*3</sup> Breaker capacity for 480 V.

<sup>\*4</sup> Above 4000 Hz, the force rolls-off at a rate of -6 dB/oct.

<sup>\*5</sup> Maximum velocity 4.6 m/s. High velocity restricts maximum Shock force.

<sup>\*</sup>The specification shows the maximum system performance. For long-duration tests, system must be de-rated up to 70%.

Continuous use at maximum levels may cause failure. Please contact IMV if your system operates at more than 70%.

<sup>\*</sup>For random vibration tests, please set the test definition of the peak value of acceleration waveform to operate at less than the maximum acceleration of shock.

<sup>\*</sup>Frequency range values vary according to the sensor and vibration controller.

<sup>\*</sup>Armature mass and acceleration may change when a chamber is added.