

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.



3. User first principle

Intuitive interface guides the operator for easy use.



IMV CORPORATION



Air-cooled Vibration Test Systems A11/SA1HAG A11/EM1HAG



| system Specificat e (Hz) (kN) | A11/ SA1HAG 0-4,500 *4 | A11/ EM1HAG | Vibrati Armature Mass (kg) | on Generator | (A11) | |
|--|--|--|---|--|---|---|
| () | SA1HAG | EM1HAG | Armature Mass (kg) | | | |
| () | 0-4,500 *4 | | Armature Mass (kg) | | | 11 |
| (kN) | | 0-4,500 *4 | Armature Diameter (ϕ mm) | | | 210 |
| | 11 | 11 | Armature Resonance (Hz) | | | 3,160 |
| Rated Random (kN rms) *1 | | 11 | Allowance Eccentric Moment (Nm) | | | 294 |
| Force Shock (kN) | 22 | 22 | Mass (kg) | | | 1,080 |
| elocity Shock (kN)*5 | - | 16.5 | | | | |
| (m/s²) | 1,000 | 1,000 | Power Amplif | ier 1BG | H1- | 2BGH1- |
| Maximum Acc. Random (m/s ² rms) Shock (m/s ²) | 630 | 630 | | | 1 | 🖉 A11 |
| | 2,000 | 2,000 | Maximum Output (kVA) | | | 12 |
| High Velocity Shock (m/s ² peak) *5 | | 1,500 | Mass (kg) | | 280 470 | |
| (m/s) | 2.0 | 2.0 | | | | |
| Maximum Vel. Shock (m/s peak) | | 2.5 | Cooling (VAPC630/P2R1) | | | |
| High Velocity Shock (m/s peak)*5 | - | 3.5 | Mass (kg) | | 150 | |
| (mmp-p) | 51 | 51 | Cooling Air Flow (m ³ /r | nin) | | 15 |
| Disp. High Velocity Shock (mmp-p) | - | 55 | Environmental Data | | | |
| Maximum Travel (mmp-p) | | 64 | Input Voltage Supply $(3\phi, V)$ | | 38 | 30/400/415/440 |
| kg) | 200 | 200 | Compressed Air Supp | ly (Mpa) | | 0.7 |
| ents (kVA)*2 | 20.4 | 20.4 | Working Ambient Shaker (°C) | | | 0-40 |
| Breaker Capacity (A) *3 | | 40 | Temperature | Amplifier (°C) | | 0-40 |
| | c (kN rms) *1 c (kN) tooity Shock (kN) *5 m/s²) om (m/s² rms) c (m/s²) tooity Shock (m/s² peak) *5 m/s) c (m/s peak) tooity Shock (m/s peak) *5 mmp-p) elocity Shock (mmp-p) (mmp-p) cg) ents (kVA) *2 | wm (kN rms) *1 11 (kN) 22 locity Shock (kN) *5 - m/s²) 1,000 pom (m/s² rms) 630 c (m/s²) 2,000 locity Shock (m/s² peak)*5 - m/s) 2.0 c (m/s peak) 2.5 locity Shock (m/s peak)*5 - mmp-p) 51 elocity Shock (mmp-p) - (mmp-p) 64 kg) 200 ents (kVA)*2 20.4 | born (kN rms) *1 11 11 k (kN) 22 22 bort (kN) - 16.5 m/s²) 1,000 1,000 born (m/s² rms) 630 630 c (m/s²) 2,000 2,000 born (m/s² rms) 630 630 c (m/s²) 2,000 2,000 born (m/s² peak)*5 - 1,500 m/s) 2.0 2.0 c (m/s peak) 2.5 2.5 booty Shock (m/s peak)*5 - 3.5 mmp-p) 51 51 elocity Shock (mmp-p) - 55 (mmp-p) 64 64 cg) 200 200 ents (kVA)*2 20.4 20.4 | Orm (kN rms) *1 11 11 11 ic (kN) 22 22 Allowance Eccentric M ic (kN) 22 22 Mass (kg) ic (kN)** - 16.5 m/s2) 1,000 1,000 cm (m/s2 rms) 630 630 cm (m/s2) 2,000 2,000 ic (m/s2) 2,000 2,000 ic (m/s peak) 2.0 2.0 ic (m/s peak) 2.5 2.5 ic (m/s peak) 2.5 2.5 ic (m/s peak) 5.1 5.1 elocity Shock (mmp-p) - 55 (mmp-p) 64 64 input Voltage Supply Compressed Air Supp input K(kVA)*2 20.4 20.4 | porm (kN rms) *1 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 10 16.5 m/s'2) 1,000 1,000 10 1000 2,000 11 1500 Mass (kg) 11 11 14 Mass (kg) Cooling (VAPC630/P2 Mass (kg) Mass (kg) Cooling Air Flow (m³/min) Environmental Da Input Voltage Supply (3 ϕ , V) Compresse | cm (kN rms) *1 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 100 1,000 11 1,000 1,000 11 1000 1,000 11 1000 1,000 11 1000 1,000 11 1000 2,000 11 11 Mass (kg) 280 11 11 Mass (kg) 280 11 11 Mass (kg) 1000000000000000000000000000000000000 |

*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.

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

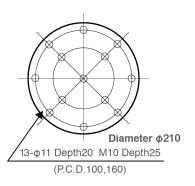
Continuous use at maximum levels may cause failure. Please contact IMV if your system operates at more than 70%.

*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 *Frequency range values vary according to the sensor and vibration controller.

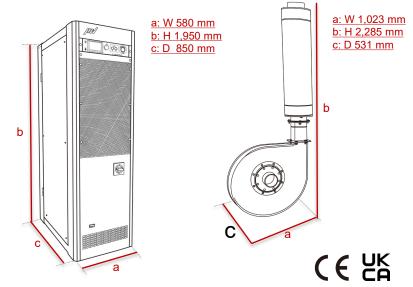
*Armature mass and acceleration may change when a chamber is added.

Vibration Generator (A11) a: W 946 mm b: H 827 mm c: D 676 mm 18.8 h

Table Insert Pattern (unit: mm)



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



Blower

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