



IMV VIBRATION  
TEST SYSTEMS

A series

## Air-cooled Vibration Test Systems

# A30/SA3HAM

# A30/EM3HAM



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

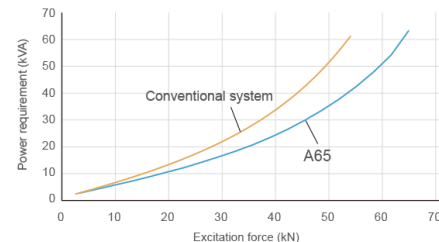
### 2. User friendly and secure

Greater security and functionality with improved energy savings.

### 3. User first principle

Intuitive interface guides the operator for easy use.

Comparison of consumed power per excitation force



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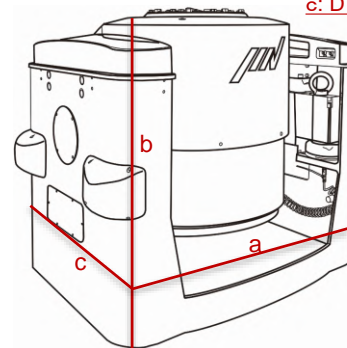
System Specification			
System Model		A30/ SA3HAM	A30/ EM3HAM
Frequency Range (Hz)		0-2,600	0-2,600
Rated Force	Sine (kN)	30	30
	Random (kN rms) *1	30	30
	Shock (kN)	60	60
	High Velocity Shock (kN) *4	-	50
Maximum Acc.	Sine (m/s <sup>2</sup> )	900	900
	Random (m/s <sup>2</sup> rms)	630	630
	Shock (m/s <sup>2</sup> )	1,818	1,818
	High Velocity Shock (m/s <sup>2</sup> peak) *4	-	1,515
Maximum Vel.	Sine (m/s)	2.0	2.0
	Shock (m/s peak)	2.5	2.5
	High Velocity Shock (m/s peak) *4	-	3.5
Maximum Disp.	Sine (mmp-p)	76.2	76.2
	High Velocity Shock (mmp-p)	-	76.2
Maximum Travel (mmp-p)		82	82
Maximum Load (kg)		400	400
Power Requirements (kVA) *2		36	36
Breaker Capacity (A) *3		75	75

Vibration Generator (A30)	
Armature Mass (kg)	33
Armature Diameter (φ mm)	290
Armature Resonance (Hz)	1,980
Allowance Eccentric Moment (N·in)	850
Mass (kg)	2,000

Power Amplifier	SA3HAM-A30	EM3HAM-A30
Maximum Output (kVA)	31	
Mass (kg)	420	500

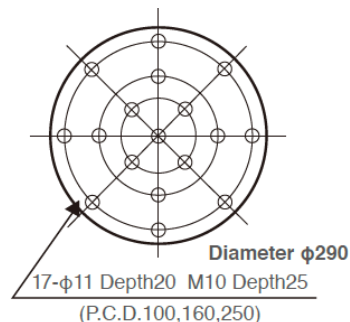
Cooling (VAPE/N 630/N2R)		
Mass (kg)	250	
Cooling Air Flow (m <sup>3</sup> /min)	54	
Environmental Data		
Input Voltage Supply (3 φ, V)	380/400/415/440	
Compressed Air Supply (Mpa)	0.7	
Working Ambient Temperature	Shaker (°C)	0-40
	Amplifier (°C)	0-40

Vibration Generator (A30)

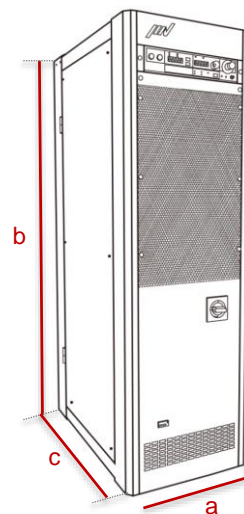


a: W 1,100 mm  
b: H 1,048 mm  
c: D 840 mm

Table Insert Pattern (unit: mm)

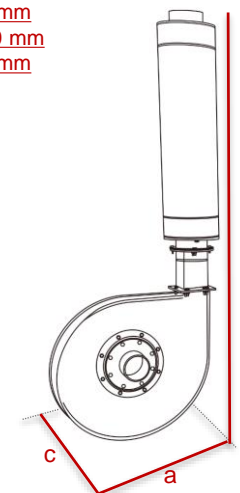


Amplifier (SA3HAM-A30/EM3HAM-A30)



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

Blower



a: W 1,043 mm  
b: H 2,335 mm  
c: D 640 mm

\*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) Maximum velocity 4.6 m/s. High velocity restricts maximum Shock force.

\*5) 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.

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