



IMV VIBRATION
TEST SYSTEMS

A series

Air cooled Vibration Test Systems

A20/SA2HM

A20/EM2HM



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) which gives good balance between specification of velocity, acceleration and displacement. It also provides a maximum of 3.5m/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 Improvement of performance

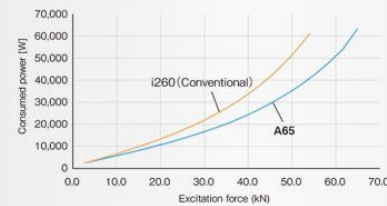
Expansion of test case and respond to high spec. test
Meet the needs for versatile test use.

- Improvement in excitation force
- Standard 76.2mm displacement
- Expansion in frequency range
- Crosstalk reduction
- High velocity shock test

② User friendly and security

Aware of security and functionality and realizes more energy-saving.

Comparison of Consumed power per excitation force A65 vs I260



③ User first principle

Intuitive interface leads the operator with user-friendly guidance.





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System Specifications

System Model		A20/SA2HM	A20/EM2HM
Frequency Range (Hz)		0-3300	0-3300
Rated Force	Sine (kN)	20	20
	Random (kN rms) ^{*1}	20	20
	Shock (kN)	40	40 (32) ^{*3}
Maximum Acc.	Sine (m/s ²)	900	900
	Random (m/s ² rms)	630	630
	Shock (m/s ²)	1818	1818
Maximum Vel.	Sine (m/s)	2.0	2.0
	Shock (m/s peak)	2.5	2.5 (3.5) ^{*3}
Maximum Disp.	Sine (mmp-p)	51	51
	Maximum Travel (mmp-p)	66	66

Vibration Generator (A20)

Armature Mass (kg)	22
Armature Diameter (φ mm)	280
Shaker Body Diameter (φ mm)	678
Armature Resonance (Hz)	2600
Allowance Eccentric Moment (N.m)	700
Maximum Payload (kg)	300
Mass (kg)	1600

*1) Force ratings are specified in accordance with ISO5344 conditions.

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

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

* The specification shows the maximum system performance.

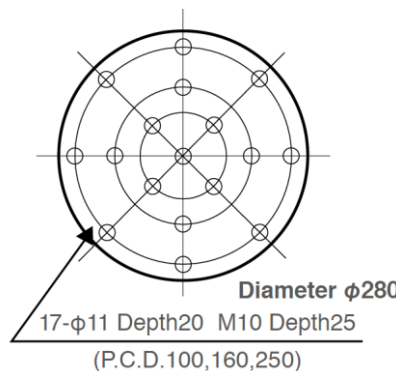
For long-duration tests, de-rating by up to 70 % must be applied. Continuous use at maximum levels may cause failure.

* 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.

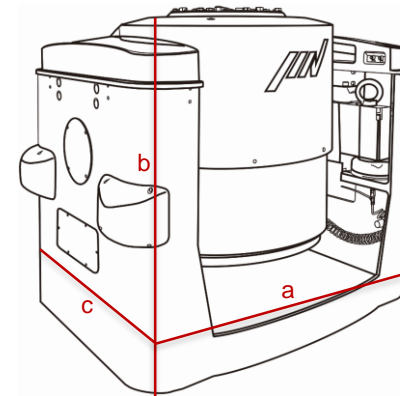
* Frequency range values vary according to sensor and vibration controller.

Cooling		
System Model	VAPE/N 560/2R	
Mass (kg)	150	
Cooling Air Flow (m ³ /min)	20	
Environmental Data		
Power Requirement (kVA) ^{*2}	30	
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

Power Amplifier		
System Model	SA2HM-A20	EM2HM-A20
Maximum Output [kVA]	21	21
Mass [kg]	350	410



unit: mm



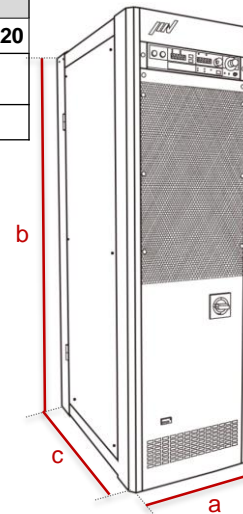
Shaker

Model: A20

a: W 1038 mm

b: H 920 mm

c: D 775 mm



Amplifier

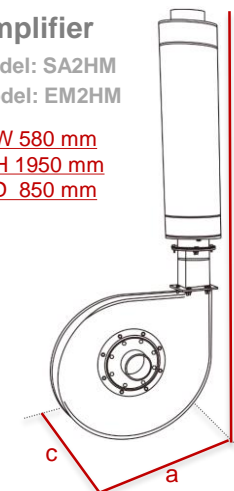
Model: SA2HM

Model: EM2HM

a: W 580 mm

b: H 1950 mm

c: D 850 mm



Blower

Model: VAPE/N 560/2R

a: W 931 mm

b: H 2175 mm

c: D 538 mm

IMV CORPORATION

