

# IMV VIBRATION TEST SYSTEMS

## i series

Air cooled Vibration Test Systems

**i220 / SA1AM**

**i220 / EM1AM**



Vibration tests have diversified and specifications have become increasingly strict. i-series offer a user-friendly lineup with enhanced performance and durability.



**[Expanded maximum test range]**

Max. velocity of Sine force: 2.2 m/s, Max. velocity of Shock force 2.2 m/s, Max. displacement: 51 mmp-p

**[Patented upper (armature) support system PS Guide]** Parallel Slope Guide is standard.

**[Low noise]** Optimised design of the air intake based on fluid dynamics has reduced the air-intake noise.

**[All models can be directly coupled to a climatic chamber.]**



**① High durability with PS guide**

PS guide (parallel slope guide) is an upper support system conforming to continued vibration testing at high velocity.



■ PS guide system

**② Improvement of Testing Environment**

With the operation of Intelligence Shaker Management (ISM), EM range can reduce power consumption and CO2 emissions automatically.

**eco-shaker**

**③ User first principle**

Compatible with K2 vibration controller. Intuitive interface leads The operator with user-friendly guidance.



**IMV CORPORATION**

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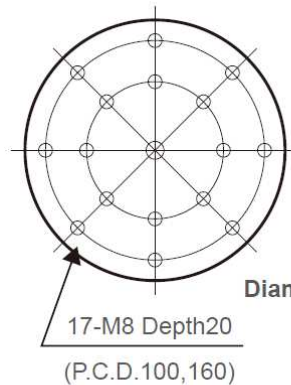
System Specifications			
System Model		i220/SA1AM	i220/EM1AM
Frequency Range (Hz)		0-3300	
Rated Force	Sine (kN)	8	
	Random (kN rms) <sup>*1</sup>	8	
	Shock (kN)	16	
Maximum Acc.	Sine (m/s <sup>2</sup> )	1250	
	Random (m/s <sup>2</sup> rms)	875	
	Shock (m/s <sup>2</sup> )	2000	
Maximum Vel.	Sine (m/s)	2.2	
	Shock (m/s peak)	2.2	2.2(3.5) <sup>*3</sup>
Maximum Disp.	Sine (mmp-p)	51	
	Maximum Travel (mmp-p)	60	

Vibration Generator (i220)	
Armature Mass (kg)	6.4
Armature Diameter (φ mm)	190
Armature Resonance (Hz)	3100
Allowance Eccentric Moment (N·m)	294
Maximum Payload (kg)	200
Mass (kg)	900

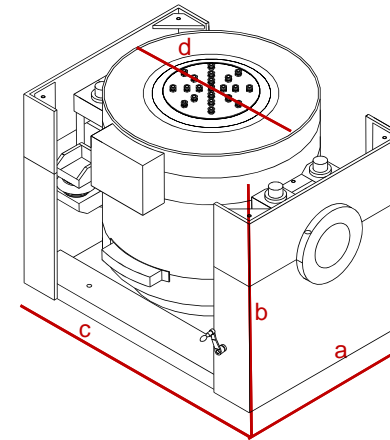
<sup>\*1</sup> Random force ratings are specified in accordance with ISO5344 conditions.  
<sup>\*2</sup> Power supply: 3-phase 380/400/415/440 V, 50/60 Hz. A transformer is required for other supply voltages.  
<sup>\*3</sup> Maximum velocity 4.6 m/s. High velocity restricts maximum Shock force.  
 Please contact IMV or your local distributor with specific test requirements.  
<sup>\*</sup> 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.  
<sup>\*</sup> 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.  
<sup>\*</sup> Frequency range values vary according to sensor and vibration controller.

Cooling Blower		
Model		VAPE/N 560/2R
Mass (kg)		85
Environmental Data		
Power Requirement (kVA) <sup>*2</sup>		16.4
Input Voltage Supply (3φ, V)		380/400/415/440
Compressed Air Supply (Mpa)		0.7
Working Ambient	Temperature (°C)	0 - 40
	Humidity (%RH)	0 - 85

Power Amplifier			
System Model		SA1AM-i20	EM1AM-i20
Maximum Output [kVA]		10	
Mass [kg]		280	

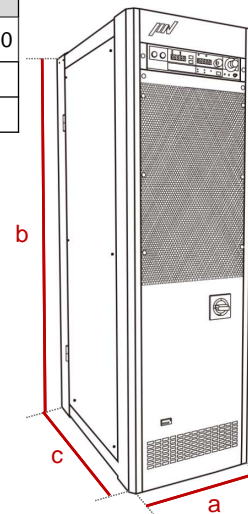


i220



**Shaker**  
 Model: i220

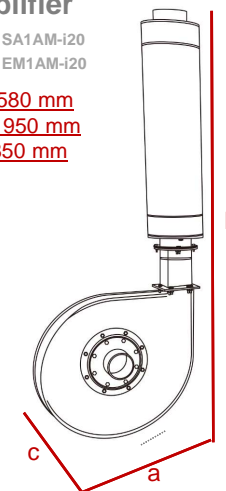
a: W 1020 mm  
 b: H 903 mm  
 c: D 550 mm  
 d: 550 φmm



**Amplifier**

Model: SA1AM-i20  
 Model: EM1AM-i20

a: W 580 mm  
 b: H 1950 mm  
 c: D 850 mm



**Blower**

Model: VAPE/N 500/2R

a: W 808 mm  
 b: H 2085 mm  
 c: D 733 mm