

# IMV VIBRATION TEST SYSTEMS i series

## Air cooled Vibration Test Systems i250/SA5M EM2502

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: 2.4m/s • Max. velocity of Shock force 4.6 m/s • Max. displacement: 100mp-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.

[One of the world's largest class air-cooled systems] Optimized magnetic circuits based on finite element analysis and unique cooling technologies have enabled an excitation force of 65kN with air cooling.

[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 VIBRATION TEST SYSTEMS

## i series

### Air cooled Vibration Test Systems

## i250/SA5M EM2502



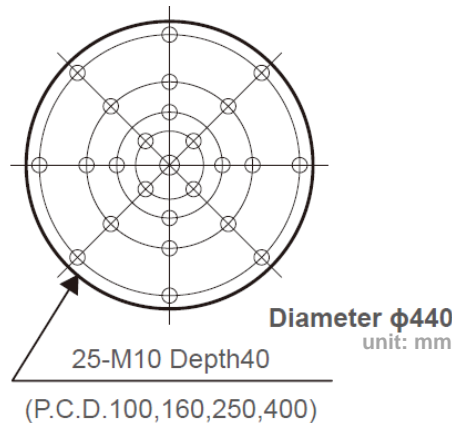
System Specifications		
System Model	i250/SA5M	EM2502
Freq. Range (Hz)	0-2500	
Force	SINE (kN)	40
	RANDOM (kN rms)	40
	SHOCK (kN)	80
Max. Acc.	SINE (m/s <sup>2</sup> )	1142
	RANDOM (m/s <sup>2</sup> rms)	800
	SHOCK (m/s <sup>2</sup> )	2284
Max. Vel.	SINE (m/s)	2.2
	Shock (m/s peak)	2.2*7
Max. Disp.	SINE (mmp-p)	51
	MAX. TRAVEL (mmp-p)	68

Vibration Generator (i250)	
Armature Mass (kg)	35
Armature Diameter (φ mm)	440
Armature Resonance (Hz)	1900
Allowance eccentric moment (N.m)	1550
Maximum Payload (kg)	600
Mass (kg)	3000

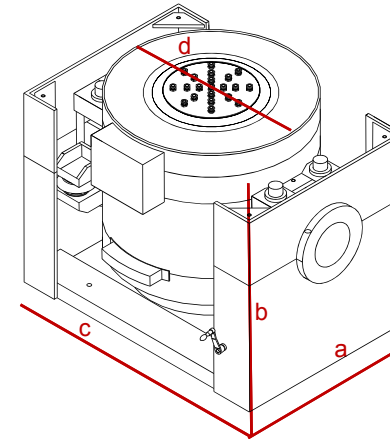
- \*1) Power supply: 3-phase 200/220/240/380/400/415/440V, 50/60Hz.  
A transformer is required for other supply voltages.
- \*2) Random force ratings are specified in accordance with ISO5344 conditions.
- \*3) The specification shows the maximum system performance. For long-duration tests, de-rating by up to 70% must be applied. Continuous use at maximum levels may cause failure.
- \*4) 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.
- \*5) Above 2000 Hz, the force rolls-off at a rate of -12 dB/oct.
- \*6) Frequency range values vary according to sensor and vibration controller.
- \*7) Maximum velocity 4.6m/s. High velocity restricts maximum Shock force.  
Please contact IMV or your local distributor with specific test requirements.

Cooling Blower		
Model	VAPE 710/P2R	
Mass (kg)	250	
Environmental Data		
Power Requirement (kVA)	57	
Input voltage supply (3φ, V)	200/220 or 380/400/415/440	
Compressed Air Supply (Mpa)	0.6	
Working Ambient	Temperature (°C)	0 - 40
	Humidity (%RH)	0 - 85

Power Amplifier		
System Model	SA5M-i50	SA5M-i50EM
Max. Output [kVA]	50	50
Mass [kg]	880	930

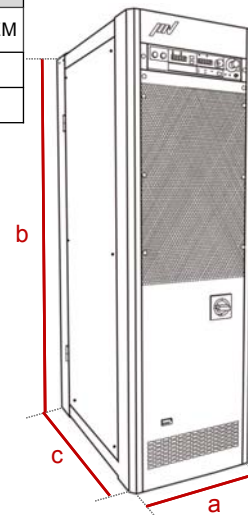


**i250**



**Shaker**  
Model: i250

- a: W 1463mm
- b: H 1187mm
- c: D 1100mm
- d: 860φmm



**Amplifier**

Model: SA5M-i50

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

Model: SA5M-i50EM

- a: W 1160mm
- b: H 1950mm
- c: D 850mm



**Blower**

Model: VAPE 710/P2R

- a: W 1160mm
- b: H 2405mm
- c: D 787mm

**IMV CORPORATION**