

# IMV VIBRATION TEST SYSTEMS

## i series

Air-cooled Vibration Test Systems

**i240/SA3HAG**

**i240/EM3HAG**

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.



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### i240/EM3HAG



System Specification			
System Model		i240/SA3HAG	i240/EM3HAG
Frequency Range (Hz)		0-2,600	0-2,600
Rated Force	Sine (kN)	24	24
	Random (kN rms) *1	24	24
	Shock (kN)	48	48
	High Velocity Shock (kN) *4	-	36
Maximum Acc.	Sine (m/s <sup>2</sup> )	1,200	1,200
	Random (m/s <sup>2</sup> rms)	840	840
	Shock (m/s <sup>2</sup> )	2,000	2,000
	High Velocity Shock (m/s <sup>2</sup> peak) *4	-	1,800
Maximum Vel.	Sine (m/s)	2.2	2.2
	Shock (m/s peak)	2.2	2.2
	High Velocity Shock (m/s peak) *4	-	3.5
Maximum Disp.	Sine (mmp-p)	51	51
	High Velocity Shock (mmp-p)	-	51
Maximum Travel (mmp-p)		68	68
Maximum Load (kg)		400	400
Power Requirements (kVA) *2		36	36
Breaker Capacity (A) *3		75	75

Vibration Generator (i240)	
Armature Mass (kg)	20
Armature Diameter (φ mm)	290
Armature Resonance (Hz)	2,300
Allowance Eccentric Moment (N·in)	850
Mass (kg)	2,000

Power Amplifier	SA3HAG-i40	EM3HAG-i40
Maximum Output (kVA)	30	
Mass (kg)	410	410

Cooling (VAPE/N 560/2R)	
Mass (kg)	150

Environmental Data		
Input Voltage Supply (3 φ, V)	380/400/415/440	
Compressed Air Supply (Mpa)	0.6	
Working Ambient Temperature	Shaker (°C)	0-40
	Amplifier (°C)	0-85

Vibration Generator (i240)

a: W 1,234 mm  
b: H 997 mm  
c: D 890 mm  
d: 720 φmm

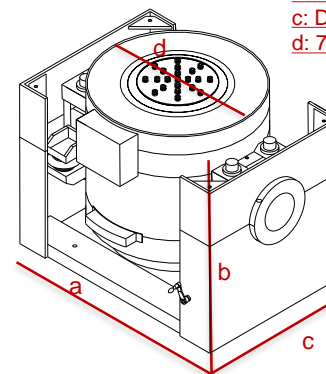
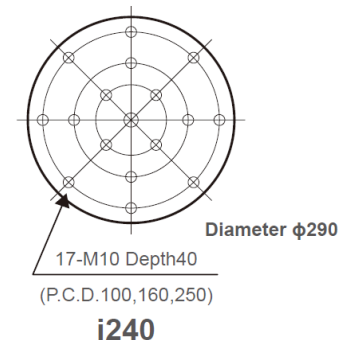
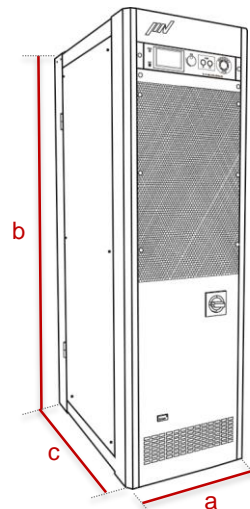


Table Insert Pattern (unit: mm)



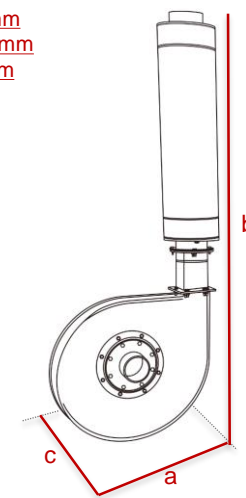
Amplifier (SA3HAG-i40/EM3HAG-i40)

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



Blower

a: W 929 mm  
b: H 2,175 mm  
c: D 534 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 For high velocity option

\*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.