

IMV VIBRATION TEST SYSTEMS

i series

Air-cooled Vibration Test Systems

i250/SA4HAG

i250/EM4HAG

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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System Specification			
System Model		i250/SA4HAG	i250/EM4HAG
Frequency Range (Hz)		0-2,500	0-2,500
Rated Force	Sine (kN)	32	32
	Random (kN rms) *1	32	32
	Shock (kN)	64	64
	High Velocity Shock (kN) *4	-	49
Maximum Acc.	Sine (m/s ²)	914	914
	Random (m/s ² rms)	640	640
	Shock (m/s ²)	1,828	1,828
	High Velocity Shock (m/s ² peak) *4	-	1,400
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)		600	600
Power Requirements (kVA) *2		51	51
Breaker Capacity (A) *3		100	100

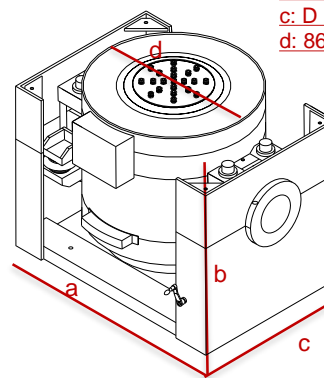
Vibration Generator (i250)	
Armature Mass (kg)	35
Armature Diameter (φ mm)	440
Armature Resonance (Hz)	1,900
Allowance Eccentric Moment (N·in)	1,550
Mass (kg)	3,000

Power Amplifier	SA4HAG-i50	EM4HAG-i50
Maximum Output (kVA)	40	
Mass (kg)	850	900

Cooling (VAPE 710/P2R)	
Mass (kg)	250

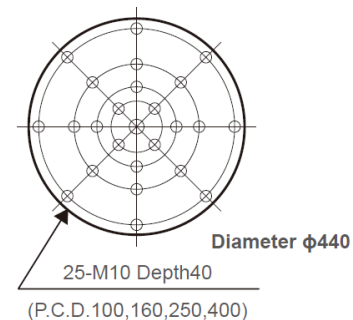
Environmental Data		
Input Voltage Supply (3 φ, V)	380/400/415/440	
Compressed Air Supply (Mpa)	0.6	
Working Ambient Temperature	Shaker (°C)	0-40
	Amplifier (°C)	0-85

Vibration Generator (i250)



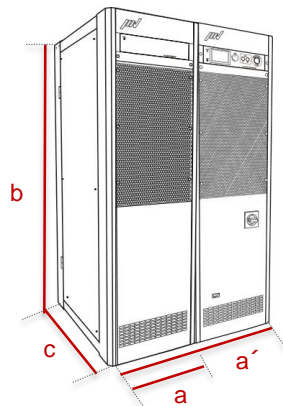
a: W 1,463 mm
b: H 1,187 mm
c: D 1,100 mm
d: 860 φmm

Table Insert Pattern (unit: mm)



i250

Amplifier



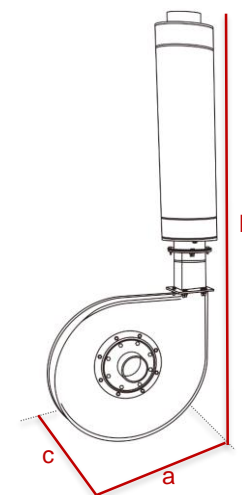
SA4HAG-i50

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

EM4HAG-i50

a': W 1,160 mm
b: H 1,950 mm
c: D 850 mm

Blower



a: W 1,160 mm
b: H 2,405 mm
c: D 787 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.