

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: 2.4 m/s, Max. velocity of Shock force 4.6 m/s, Max. displacement: 100 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.





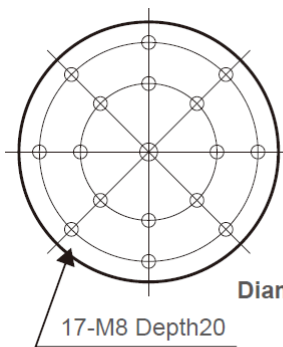
System Specifications		
System Model	i220/SA1AM	i220/EM1AM
Frequency Range (Hz)	0-3300	
Rated Force	Sine (kN)	8
	Random (kN rms) ^{*1}	8
	Shock (kN)	16
Maximum Acc.	Sine (m/s ²)	1250
	Random (m/s ² rms)	875
	Shock (m/s ²)	2000
Maximum Vel.	Sine (m/s)	2.2
	Shock (m/s peak)	2.2 (3.5) ^{*3}
Maximum Disp.	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)	990

*1) Random 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.
 Please contact IMV or your local distributor with specific test requirements.
 * 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 Blower		
Model	VAPE/N 560/2R	
Mass (kg)	85	
Environmental Data		
Power Requirement (kVA) ^{*2}	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	

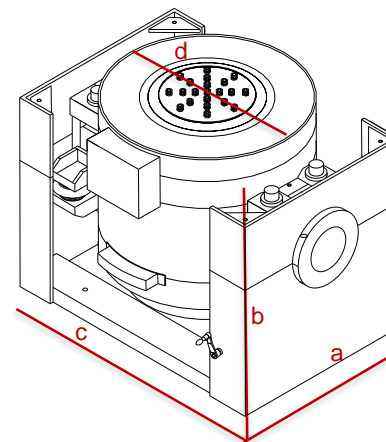


Diameter φ190

Unit : mm

(P.C.D.100,160)

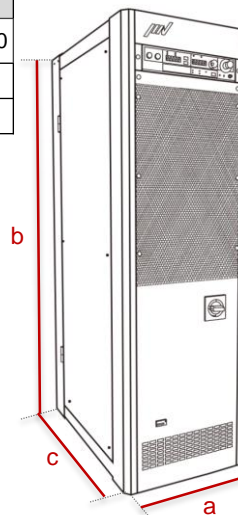
i220



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