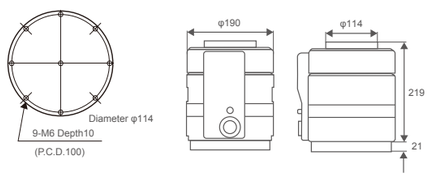
Specifications

System Model			m030 / MA1	m060/MA1	m120/MA1	m030H/MA1(High frequency type)
Image Picture						
System Specifications	Frequency Range (Hz) *1		0 to 3000	0 to 3000	0 to 2000	1000 to 10000
	Rated Force	Sine (N)	300	600	1200	380
		Random (N rms)	210	420	840	266
		Shock (N)	300	600	1200	380
	Maximum Acc.	No load (m/s^2)	500	500	500	200
		0.5kg Load (m/s^2)	272	352	413	158
		1.0kg Load (m/s^2)	187	272	352	131
	Maximum Velocity (m/s)		1.6	1.6	1.6	– *2
	Maximum Displacement (mmp-p)		26	30	30	– *2
	Maximum Load(kg)		15	15	120	15
	Power Requirements(kVA) *3		0.4	0.7	1.1	0.2
Vibration Generator	Model		m030	m060	m120	m030H
	Armature Support Method		Diaphragm spring	Diaphragm spring	Diaphragm spring	Rubber spring
	Armature Mass(kg)		0.6	1.2	2.4	1.9
	Armature Diameter(φmm)		114	114	174	65
	Dimensions(mm)		φ190 x H240	φ230 x H281	410 x 410 x H372	φ190 x H274
	Mass(kg)		22	40	110	22
Power Amplifier	Model		MA1	MA1	MA1	MA1
	Maximum Output(kVA)		1.0	1.0	1.0	1.0
	Dimensions(mm) W x H x D		430 x 149 x 430	430 x 149 x 430	430 x 149 x 430	430 x 149 x 430
	Mass(kg)		25	25	25	25
	Cooling Method		Air cooling	Air cooling	Air cooling	Air cooling
Cooling	Blower		Housed in vibration generator	Housed in vibration generator	Housed in vibration generator	Housed in vibration generator

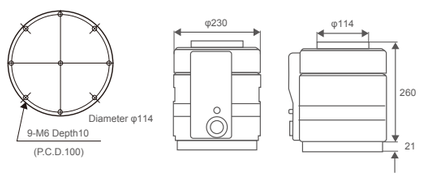
*1) Frequency range values vary according to sensor and vibration controller.
*2) The displacement at the lower limit of frequency (1000Hz) and maximum acceleration (200m/s2) is so small that there is no certified value.
*3) Power supply: single-phase 100V or 200-240V, 50/60Hz. A transformer is required for other supply voltages.
* Mass and dimensions may change for CE-marked systems.

Outward Dimension (Unit:mm)

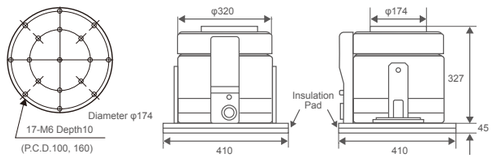
m030



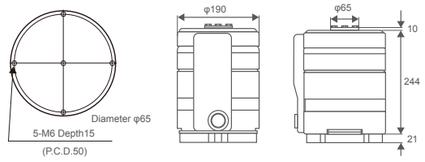
m060



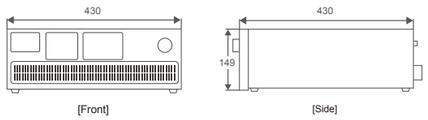
m120



m030H



MA1



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*The specifications and design are subject to change without notice.

JQA-1573 CI/14640E

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Cat No.1611①02m-E.SK

m-series supports your mechanical design and development

Low Acoustic Noise and Compact Range

m-series

Silent type **Small** **Multi-purpose**

Silent type appropriate for abnormal noise inspection

IMV CORPORATION

Compact and silent design, but also powerful for full-scale test

m-series system composition

Vibration generator

Power amplifier MA1

Accessories

A pair of carrying handle

Easily moved safely by one or tw operators.
*Removable m030 and m060 only

Air pump

The vibration table height is adjusted to compensate for payload weight using an air pump.

Handle

Air pump

Option

Head expander

Model	Dimensions (mm)	Mass (kg)	Upper frequency (Hz)	m030	m060	m120
TBV-125-□-A	125×125×t20	0.9	~2000	○	○	
TBV-200-□-A	200×200×t20	2.5	~1500	○*	○	○
TBV-315-□-A	315×315×t30	8.5	~1000		○*	○
*)TBV-400-□-A	400×400×t35	14.4	~600			○*

"-A" at the end of model number shows that material is aluminum alloy.
Add the vibration generator type where "□" is shown.
* The supplementary guidance system using linear bearings is used with the vibration generator when combined with the head expander.

Supplementary guidance system (GDP)

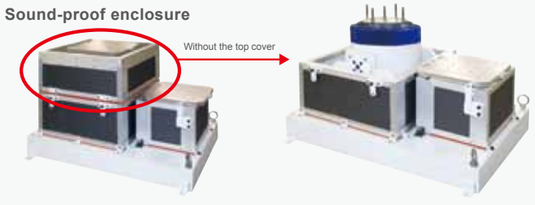
Slip table

Model	Dimensions (mm)	Upper frequency (Hz)	m030	m060	m120
TBH-2	200×200	~500	4	4	5.5
TBH-3	315×315	~500	7.5	7.5	9

Vibration controller

The K2 controller provides the precision and repeatability required to test with confedence during both product development and series production.

Sound-proof enclosure



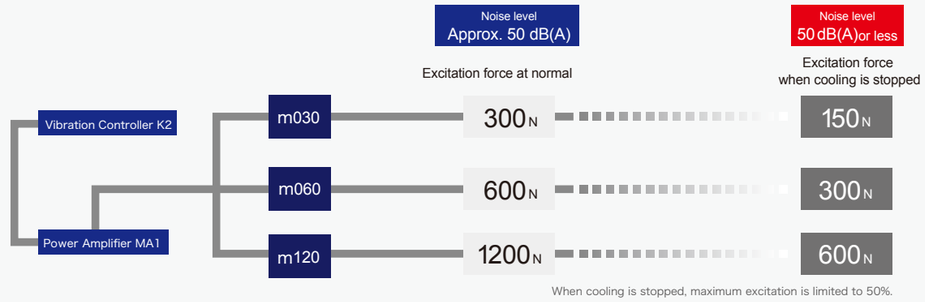
Acoustic noise testing is possible with shaker stay in the soundproof box.

Function Generator

System which generate AC voltage signal which obtains frequency and waveform. Normally it is used for the case without feedback control.

Silent design employing a built-in cooling fan

With changing over switch on power amplifier MA1, DC powered cooling fan build in shaker can be stopped. By stopping a cooling fan, it can be used for abnormal noise inspection of car interiors.



When cooling is stopped, maximum excitation is limited to 50%.

Case study with m-series

Automotive parts test

Vibration testing for automotive parts is possibile.

Squeak & Rattle test
When combining the shaker with a half anechoic room, 3D squeak rattle testing in an environment with a background noise level of less than 30dB is possible.

Seat test
Evaluation test for squeak and rattle noise from instrument panels or seats.

Rattle test for instrument panels
6-DOF vibration test system with 8 compact, silent type. Shakers for squeak and rattle acoustic noise evaluation of instrument panels.

Drive shaft
Acoustic noise testing at the same frequency range as real field by reproducing transmitted vibration through gear.

Body
Vibration analysis by applying vibration with an excitation rod

High frequency test
High frequency vibration testing for EV･HV related products

Electric parts test

Vibration testing for small electronic product such as connecter, condenser, sensor, resistance, LED

Fatigue test of copper plate

Especially developed for the fatigue testing of copper plate by customising a compact shaker from IMV's m-series. Simultaneous testing of 12 sheets of copper plate is possible with this compact system.

Earthquake resistance test

Vibration testing with specimen for earthquake resistance testing mounted on a 400mm×400mm slip table.

Transport test

Transportation testing for small and packaged product (Standard: JIS, IEC, MIL, ASTM etc)