

## User friendly and Secure

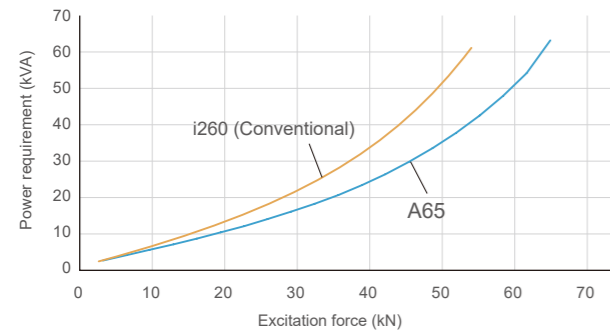
### A-series changes

Advanced automatic energy saving, high level of functionality and a protected test environment.  
A-series improves the working environment of vibration testing.

#### Lower power consumption

In comparison with the same class of conventional systems (i,J-series), the A-series achieves lower power consumption. With an automatic energy-saving function, increased energy saving is achieved across all force ranges.

Comparison of consumed power per excitation force A65 vs i260



#### International safety standards

A-series complies with international safety standards.

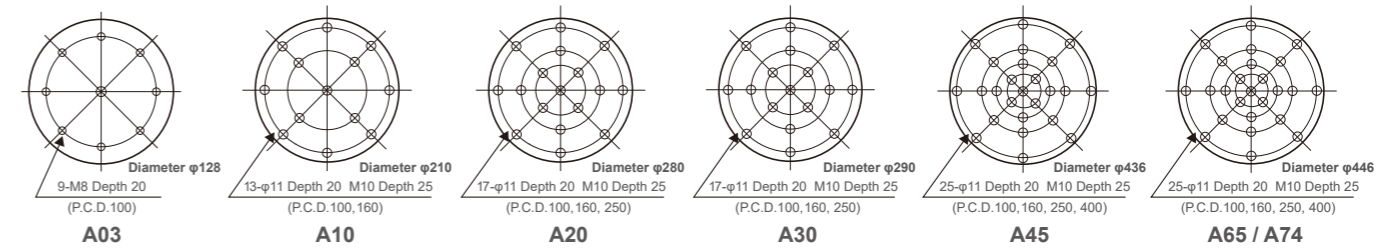


#### Combined option with high thermal insulation

Combined option of direct coupling of A-series uses a newly designed high thermal insulation structure. Improved temperature uniformity inside the chamber reduces the effect of dew condensation.

Down to 1/5

#### Table Insert Pattern (Unit:mm)



#### Specifications

| System Model                           | A03/SA1MM  | A10/SA1HM           | A10/EM1HM           | A20/SA2HM               | A20/EM2HM    | A30/SA3HM               | A30/EM3HM     | A45/SA5HM               | A45/EM5HM      | A65/SA6HM               | A65/EM7HM           | A74/EM8HM               | A74/EM10HM              |                         |
|--|--|---------------------|---------------------|-------------------------|--------------|-------------------------|---------------|-------------------------|----------------|-------------------------|---------------------|-------------------------|-------------------------|-------------------------|
| Frequency Range (Hz)                   | 0-4000   | 0-4500 <sup>3</sup> | 0-4500 <sup>3</sup> | 0-3300                  | 0-3300       | 0-2600                  | 0-2600        | 0-2600                  | 0-2600         | 0-2600 <sup>5</sup>     | 0-2600 <sup>5</sup> | 0-2600 <sup>5</sup>     | 0-2600 <sup>5</sup>     |                         |
| Rated Force                            | Sine (kN)  | 3                   | 10                  | 10                      | 20           | 20                      | 30            | 30                      | 45             | 45                      | 65                  | 65                      | 74                      |                         |
|  | Random (kN rms) <sup>*1</sup>  | 3                   | 10                  | 10                      | 20           | 20                      | 30            | 30                      | 45             | 45                      | 65                  | 65                      | 74                      |                         |
|  | Shock (kN)   | 9                   | 20                  | 20 (16) <sup>*4</sup>   | 40           | 40 (32) <sup>*4</sup>   | 60            | 60 (50) <sup>*4</sup>   | 90             | 90 (80) <sup>*4</sup>   | 130                 | 130 (120) <sup>*4</sup> | 148 (120) <sup>*4</sup> | 180 (160) <sup>*4</sup> |
| Maximum Acc.                           | Sine (m/s <sup>2</sup> )   | 1000                | 900                 | 900                     | 900          | 900                     | 900           | 900                     | 900            | 900                     | 900                 | 1000                    | 1000                    |                         |
|  | Random (m/s <sup>2</sup> rms)  | 700                 | 630                 | 630                     | 630          | 630                     | 630           | 630                     | 630            | 630                     | 630                 | 630                     | 630                     |                         |
|  | Shock (m/s <sup>2</sup> peak)  | 2000                | 1500                | 1500 <sup>*4</sup>      | 1500         | 1500 <sup>*4</sup>      | 1500          | 1500                    | 1500           | 1500                    | 1500                | 1500                    | 1500                    |                         |
| Maximum Vel.                           | Sine (m/s)   | 2.0                 | 2.0                 | 2.0                     | 2.0          | 2.0                     | 2.0           | 2.0                     | 2.0            | 2.0                     | 2.0                 | 2.0                     | 2.0                     |                         |
|  | Shock (m/s peak)   | 2.3                 | 2.5                 | 2.5 (3.5) <sup>*4</sup> | 2.5          | 2.5 (3.5) <sup>*4</sup> | 2.5           | 2.5 (3.5) <sup>*4</sup> | 2.5            | 2.5 (3.5) <sup>*4</sup> | 2.5                 | 2.5 (3.5) <sup>*4</sup> | 2.5 (3.5) <sup>*4</sup> |                         |
| Maximum Disp.                          | Sine (mmp-p)   | 30                  | 51                  | 51                      | 51           | 51                      | 76.2          | 76.2                    | 76.2           | 76.2                    | 76.2                | 76.2                    | 76.2                    |                         |
|  | Maximum Travel (mmp-p)   | 40                  | 64                  | 64                      | 66           | 66                      | 82            | 82                      | 82             | 82                      | 82                  | 82                      | 82                      |                         |
| Maximum Load (kg)                      | 120  | 200                 | 200                 | 300                     | 300          | 400                     | 400           | 600                     | 600            | 1000                    | 1000                | 1000                    | 1000                    |                         |
| Power Requirements (kVA) <sup>*2</sup> | 8.7  | 20.4                | 20.4                | 30                      | 30           | 36                      | 36            | 57                      | 57             | 83                      | 83                  | 130                     | 130                     |                         |
| Model                                  | A03  | A10                 | A10                 | A20                     | A20          | A30                     | A30           | A45                     | A45            | A65                     | A65                 | A74                     | A74                     |                         |
| Armature Mass (kg)                     | 3  | 11                  | 11                  | 22                      | 22           | 33                      | 33            | 50                      | 50             | 72                      | 72                  | 74                      | 74                      |                         |
| Armature Diameter (φmm)                | 128  | 210                 | 210                 | 280                     | 280          | 290                     | 290           | 436                     | 436            | 446                     | 446                 | 446                     | 446                     |                         |
| Allowable Eccentric Moment (N·m)       | 160  | 294                 | 294                 | 700                     | 700          | 850                     | 850           | 1550                    | 1550           | 1550                    | 1550                | 1550                    | 1550                    |                         |
| Dimensions (mm) W×H×D                  | 868×700×500  | 946×700×676         | 946×827×676         | 1038×920×775            | 1038×920×775 | 1100×1048×840           | 1100×1048×840 | 1232×1215×1040          | 1232×1215×1040 | 1310×1253×1040          | 1310×1253×1040      | 1310×1253×1040          | 1310×1253×1040          |                         |
| Shaker Body Diameter (φmm)             | 480  | 585                 | 585                 | 678                     | 678          | 725                     | 725           | 825                     | 825            | 925                     | 925                 | 925                     | 925                     |                         |
| Mass (kg)                              | 400  | 1080                | 1080                | 1600                    | 1600         | 2000                    | 2000          | 3000                    | 3000           | 3500                    | 3500                | 3500                    | 3500                    |                         |
| Power Amplifier                        | SA1MM-A03 SA1HM-A10 EM1HM-A10 SA2HM-A20 EM2HM-A20 SA3HM-A30 EM3HM-A30 SA5HM-A45 EM5HM-A45 SA6HM-A65 EM7HM-A65 EM8HM-A74 EM10HM-A74 |                     |                     |                         |              |                         |               |                         |                |                         |                     |                         |                         |                         |
| Maximum Output (kVA)                   | 5.4  | 11                  | 11                  | 21                      | 21           | 31                      | 31            | 44                      | 44             | 68                      | 68                  | 100                     | 100                     |                         |
| Dimensions (mm) W×H×D                  | 580×1950×850   | 580×1950×850        | 580×1950×850        | 580×1950×850            | 580×1950×850 | 580×1950×850            | 580×1950×850  | 580×1950×850            | 580×1950×850   | 1160×1950×850           | 1160×1950×850       | 1160×1950×850           | 1740×1950×850           |                         |
| Controller                             | Mass (kg) 240 280 330 350 410 420 500 900 1000 1000 1150 2400 2400   |                     |                     |                         |              |                         |               |                         |                |                         |                     |                         |                         |                         |
| Vibration Controller                   | See Vibration Controller K2  |                     |                     |                         |              |                         |               |                         |                |                         |                     |                         |                         |                         |
| Cooling                                | Air cooling  |                     |                     |                         |              |                         |               |                         |                |                         |                     |                         |                         |                         |
| Blower                                 | Dimensions (mm) W×H×D  | 600×1905×557        | 1044×2285×704       | 1044×2285×704           | 929×2175×534 | 929×2175×534            | 929×2175×534  | 929×2175×534            | 1160×2405×787  | 1160×2405×787           | 1294×2540×861       | 1294×2540×861           | 1400×2500×874           | 1400×2500×874           |
|  | Mass (kg)  | 45                  | 150                 | 150                     | 150          | 150                     | 150           | 150                     | 250            | 250                     | 268                 | 268                     | 460                     | 460                     |

<sup>\*1</sup> Force ratings are specified in accordance with ISO5344 conditions. Please contact IMV or your local distributor with specific test requirements.  
<sup>\*2</sup> Power supply: 3-phase 200/220/240/380/400/415/440 V, 50/60 Hz. A transformer is required for other supply voltages.  
<sup>\*3</sup> Above 4000 Hz, the force rolls-off at a rate of -6 dB/oct.  
<sup>\*4</sup> Maximum velocity 4.6 m/s. High velocity restricts maximum Shock force. Please contact IMV or your local distributor with specific test requirements.  
<sup>\*5</sup> Above 2000 Hz, the force rolls-off at a rate of -12 dB/oct.  
 \* 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.

#### Special table insert pattern

The A-series has the option to freely select the table insert pattern on the shaker armature.

- \*1) Selecting this option, the armature mass will increase.
- \*2) Due to combining with other options; the horizontal slip table insert pattern may have restrictions.

