

MVSI-ACC



Shaft extension type

The MVSI-ACC series, deriving directly from the MVSI series, is characterised by the motor shaft projecting from one side, allowing in-line coupling, using a coupling, between two equal vibrators. The MVSI-ACC series is very useful for manufacturers of large screens and vibrating machines, or for plants that require very high centrifugal force values. With two vibrators of the MVSI-ACC series coupled in line, it is possible to arrive at a centrifugal force of 50.000 Kgf (490kN). Italtibras technical staff can help the user in the choice of the coupling as well as in the application of the vibrators. Upon request, it is possible to supply the shaft extension on both sides of the vibrator, so to enable the connection of three or more vibrators.

The "ACC" design can be supplied on request on other motor sizes not listed in these pages.

Technical features

Power supply

Three-phase voltage from 230V to 690V, 50Hz or 60Hz; suitable for use with an inverter from 20Hz to the base frequency, with constant torque load profile.

Polarity

6 standard poles, other polarities on request.

Conformity with European Directives

Low voltage 2006/95/EC.

Reference Regulations

EN 60034-1.

Functioning

Continual service (S1) at maximum declared centrifugal force and electric power.

Centrifugal force

Range extended up to 50000 Kgf. (490 KN) for the couple of vibrators, with centrifugal force adjustable from 0 to 100%.

Mechanical protection

IP 55 according to IEC 529, EN 60529.

Protection against mechanical impacts

IK 08 according to IEC 68, EN 50102.

Insulation class

Class F (155°C), class H (180°C) on request.

Tropicalization

Standard on all vibrators, with vacuum encapsulation or with "drop by drop" trickle system.

Ambient temperature

From -20°C to +40°C. Versions for higher or lower temperatures are available on request.

Vibrator thermal protection

With PTC rated thermistor heat detectors 130°C (DIN 44081-44082).

On request, thermistors with different temperatures and anti-condensation heaters.

Fixing of the vibrator

In all positions and therefore without restriction. Linear coupling using dynamic joint between the two vibrators.

Lubrication

All vibrators are correctly lubricated in the factory and do not require further lubrication if used in normal operating conditions ("FOR LIFE, lubrication"). In heavy duty operating conditions periodical re-lubrication methods may be applied.

Terminal box

Large fixed electrical connections. Special shaped terminals allow to fix the power supply cable, protecting it from loosening.

Electric motor

Three-phase asynchronous type. Designed for maximum starting torques and torque curves specific to vibrating machines. Insulated windings using "drop by drop" trickle system with class H resin. The rotor is die cast aluminium.

6 poles - 1000/1200 rpm

| | Description | | Mechanical specifications | | | | | | | | Electrical specifications | | | | | | | |
|-------------|-------------|-----------------------|---------------------------|---|------------------------|-------|---------------------------------|-------|-------|-------|---------------------------|-------|----------------------|-------|-------------------|----------------|--------------------------------|-------|
| | Code | Type | SIZE | ☐ | Static moment* kgmm | | Centrifugal force kg kN | | | | Weight kg | | Max input power W | | Max. current A | | I _s /I _n | |
| | | | | | 50 Hz | 60 Hz | 50 Hz | 60 Hz | 50 Hz | 60 Hz | 50 Hz | 60 Hz | 50 Hz | 60 Hz | 400 V 50 Hz | 460 V 60 Hz | 50 Hz | 60 Hz |
| three-phase | 602301 | MVSI 10/15000-S02-ACC | 105 | ☐ | 12662 | 8700 | 14155 | 14004 | 139 | 137 | 649 | 611 | 10600 | 11270 | 19.0 | 18.0 | 5.88 | 5.78 |
| | 602300 | MVSI 10/17500-S02-ACC | 105 | ☐ | 15500 | 10439 | 17327 | 16804 | 170 | 165 | 711 | 662 | 13000 | 19700 | 24.5 | 23.0 | 5.71 | 5.96 |
| | 602319 | MVSI 10/22000-S90-ACC | 110 | ☐ | 20025 | 12553 | 22386 | 20208 | 220 | 198 | 933 | 903 | 19000 | 19000 | 33.0 | 25.5 | 4.67 | 5.88 |
| | 602313 | MVSI 10/25000-S90-ACC | 110 | ☐ | 22364 | 14785 | 25000 | 23800 | 245 | 233 | 970 | 938 | 19000 | 19000 | 33.0 | 25.5 | 4.67 | 5.88 |

* Working moment = 2 x static moment. ☐ CSA certification on request, with feeding line included. I_s/I_n = ratio between start-up current and maximum current.

Certifications



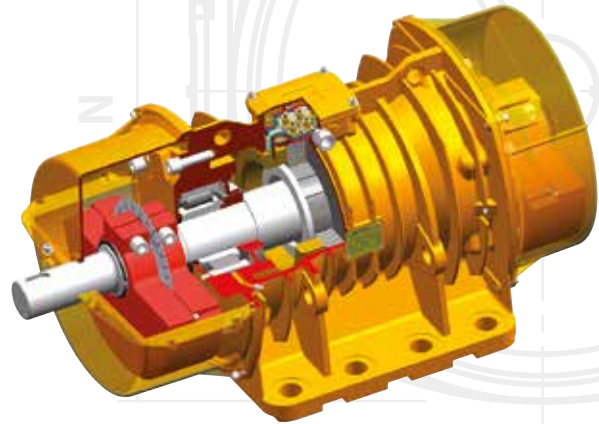
Regulation CAN/CSA - C22.2 N. 100-95,
file n° LR100948 Class 4211 01
– Motors and generators.



Mechanical protection IP66 (EN 60529),
protection against impacts IK 08
(EN 50102)



Comply with the applicable
European Union directives



Casing

In spheroidal cast iron to guarantee sturdiness and elasticity. Patented shape that improves heat dispersion and lowers normal working temperature at full load.

Bearing flange

Constructed in spheroidal cast iron. The geometry of the flange transmits the load to the casing uniformly.

Bearings

Custom made with particular geometry, especially designed for Italtvibras, suitable to support both high radial and axial loads.

Motor shaft

In treated steel alloy (Isothermic hardening) resistant to stress. Projecting from one side to allow linear coupling using a joint.

Eccentric weights

Allow continual adjustment of the centrifugal force. This adjustment is realized by a graduated scale, which expresses the centrifugal force as a percentage of the maximum centrifugal force. A patented system (patent N° MO98A000194), called ARS, prevents adjustment errors.

Weight covers

In aluminium alloy, from the shaft extension side the weight cover is sectioned: it is made up from two halves, which guarantee opening even after coupling between the two vibrators.

Painting

Electrostatic surface treatment based on polymerised epoxy polyester powder in oven at 200°C. Tested in salt spray for 500 hours.

Several sizes are available with different mounting bolt patterns. Please contact sales office at Italtvibras.

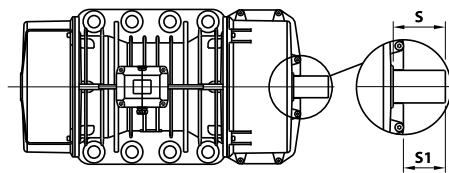
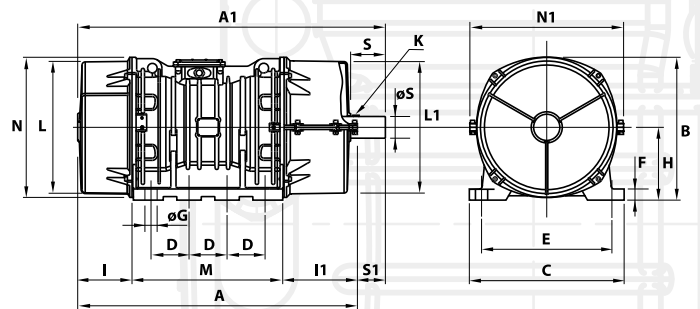


Fig. T



Dimensional specifications (mm)

| Fig. | A | B | C | Holes | | | | F | H | I | L | M | N | A1 | L1 | I1 | N1 | øS | Shaft extension | | | Cable entry thread |
|------|------|-----|-----|-------|-----|----|----|----|-----|-------|-----|-----|-----|------|-----|-------|-----|-----|-----------------|-----|----------|--------------------|
| | | | | D | E | øG | N° | | | | | | | | | | | | S | S1 | k key | |
| T | 1030 | 526 | 570 | 140 | 480 | 45 | 8 | 41 | 268 | 200 | 486 | 510 | 516 | 1133 | 490 | 270 | 566 | 80 | 128 | 103 | 22x14x50 | M32x1,5 |
| T | 1070 | 526 | 570 | 140 | 480 | 45 | 8 | 41 | 268 | 240 | 486 | 510 | 516 | 1179 | 490 | 270 | 566 | 80 | 134 | 109 | 22x14x70 | M32x1,5 |
| T | 1175 | 607 | 610 | 140 | 520 | 45 | 8 | 38 | 297 | 297.5 | 542 | 510 | 582 | 1234 | 546 | 322.5 | 616 | 105 | 90.5 | 59 | 28x16x70 | M32x1,5 |
| T | 1175 | 607 | 610 | 140 | 520 | 45 | 8 | 38 | 297 | 297.5 | 542 | 510 | 582 | 1270 | 546 | 322.5 | 616 | 105 | 126.5 | 95 | 28x16x70 | M32x1,5 |

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