

Technical features

Power supply

Three-phase voltage from 220V to 690V, 50Hz or 60Hz; suitable for use with an inverter from 20Hz to the base frequency with constant torque load profile.

Polarity

4 poles.

Conformity with European Directives

Low Voltage 2006/95/EC,
ATEX 94/9/EC (only size 50).

Reference Regulations

EN 60034-1, IEC/EN 61241-0, IEC/EN 61241-1

Functioning

Continual service (S1) at maximum declared centrifugal force and electric power. Intermittent services are also possible depending on the type of vibrator and the operating conditions. For detailed information, contact our technical assistance office.

Centrifugal force

Range extended up to 7000 Kgf. (68.7 KN), with centrifugal force adjustable from 0 to 100%.

Mechanical protection

IP 66 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 "drop by drop" trickle system.

Ambient temperature

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

Vibrator thermal protection

Standard PTC rated thermistor heat detectors 130°C (DIN 44081-44082) from size 80, on request for smaller sizes. Also on request thermistors with different temperatures and anti-condensation heaters.

Fixing of the vibrator

In all positions and therefore without restriction.

Lubrication

All vibrators are 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 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 requirements of vibrating machines. Insulated windings using "drop by drop" trickle system with class H resin. The rotor is die cast aluminium.

Casing

In spheroidal cast iron to have high strength and optimal elasticity.

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.

Eccentric weights

Lamellar for clamped centric weight have an ample possibility of adjustment: the particular adjustment system adopted allows to obtain phase shift from 0 to 180° of the group of upper weights with respect to the group of lower weights and to have ample adjustment of the centrifugal force within the same group of weights.

Weight covers

Not envisioned in the MVB and MVB-FLC series.

Painting

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

Stainless steel protection

On request, corrosion high grade protection (stainless steel micro suspensions in a polyurethane paint) is available.

MVB/MVB-FLC



CESI KCI



MVB 4 poles - 1500/1800 rpm

| | Description | | | | | Mechanical specifications | | | | Electrical specifications | | | | | | |
|-------------|-------------|-------------|------|----|------------------|---------------------------|-------|-------|-------|---------------------------|-------------------|-------|----------------|-------------|--------------------------------|-------|
| | Code | Type | SIZE | SF | II2D Temp. class | Centrifugal force | | | | Weight kg | Max input power W | | Max. current A | | I _A /I _N | |
| | | | | | | 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 | 601226 | MVB 1510/15 | 50 | • | 150°C | 1500 | 1500 | 14.7 | 14.7 | 41.5 | 1100 | 1200 | 2.10 | 2.00 | 3.76 | 4.50 |
| | 601129 | MVB 2500/15 | 60 | • | / | 2500 | 2500 | 24.5 | 24.5 | 67.0 | 2150 | 2700 | 3.90 | 4.10 | 5.60 | 5.81 |
| | 601130 | MVB 4500/15 | 80 | • | / | 4500 | 4500 | 44.1 | 44.1 | 106 | 4000 | 4200 | 6.70 | 5.80 | 4.48 | 4.18 |
| | 601131 | MVB 7000/15 | 90 | • | / | 7000 | 7000 | 68.7 | 68.7 | 160 | 7000 | 7000 | 11.8 | 10.2 | 6.19 | 6.73 |

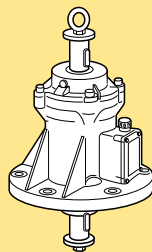
MVB-FLC 4 poles - 1500/1800 rpm

| | Description | | | | | Mechanical specifications | | | | Electrical specifications | | | | | | |
|-------------|-------------|-----------------|------|----|------------------|---------------------------|-------|-------|-------|---------------------------|-------------------|-------|----------------|-------------|--------------------------------|-------|
| | Code | Type | SIZE | SF | II2D Temp. class | Centrifugal force | | | | Weight kg | Max input power W | | Max. current A | | I _A /I _N | |
| | | | | | | 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 | 601225 | MVB 1510/15-FLC | 50 | • | 150°C | 1500 | 1500 | 14.7 | 14.7 | 54.5 | 1100 | 1200 | 2.10 | 2.00 | 3.76 | 4.50 |
| | 601134 | MVB 2500/15-FLC | 60 | • | / | 2500 | 2500 | 24.5 | 24.5 | 67.0 | 2150 | 2700 | 3.90 | 4.10 | 5.60 | 5.81 |
| | 601135 | MVB 4500/15-FLC | 80 | • | / | 4500 | 4500 | 44.1 | 44.1 | 106 | 4000 | 4200 | 6.70 | 5.80 | 4.48 | 4.18 |
| | 601136 | MVB 7000/15-FLC | 90 | • | / | 7000 | 7000 | 68.7 | 68.7 | 160 | 7000 | 7000 | 11.8 | 10.2 | 6.19 | 6.73 |

I_A/I_N = ratio between start-up current and maximum current.

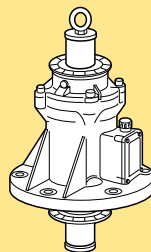
Versions

Version A



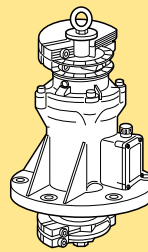
Basic model.

Version B



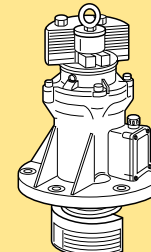
Basic model with angle disc.

Version C



Basic model with angle disc and weights type C (clamped).

Version D



Basic model with angle disc and weights type D (lamellar).

MVB 4 poles - 1500/1800 rpm

| | Type | Dimensional specifications (mm) | | | | | | | | | | | | | |
|-------------|-------------|---------------------------------|-----|-----|-----|-----|-------|---|-----|----|----|----|----|----|--------------------|
| | | Fig. | A | øB | øC | øD | Holes | | E | F | G | øI | L | M | Cable entry thread |
| | | | | | | øH | N° | | | | | | | | |
| three-phase | MVB 1510/15 | I | 476 | 290 | 171 | 250 | 17 | 6 | 278 | 46 | 20 | 35 | 71 | 71 | M25x1,5 |
| | MVB 2500/15 | I | 587 | 350 | 224 | 305 | 21 | 6 | 294 | 54 | 27 | 40 | 71 | 71 | M25x1,5 |
| | MVB 4500/15 | I | 664 | 400 | 240 | 355 | 23.5 | 6 | 340 | 70 | 30 | 52 | 75 | 75 | M25x1,5 |
| | MVB 7000/15 | I | 740 | 508 | 314 | 438 | 25 | 8 | 388 | 88 | 34 | 52 | 79 | 79 | M32x1,5 |

MVB-FLC 4 poles - 1500/1800 rpm

| | Type | Dimensional specifications (mm) | | | | | | | | | | | | | | |
|-------------|-----------------|---------------------------------|-----|-----|-----|-----|-------|---|-------|-------|------|----|----|----|----|--------------------|
| | | Fig. | A | øB | øC | øD | Holes | | E | F | G | I° | L | M | øN | Cable entry thread |
| | | | | | | øH | N° | | | | | | | | | |
| three-phase | MVB 1510/15-FLC | L | 476 | 350 | 260 | 305 | 21 | 6 | 174 | 150 | 27 | 30 | 71 | 71 | 35 | M25x1,5 |
| | MVB 2500/15-FLC | L | 587 | 350 | 260 | 305 | 21 | 6 | 189 | 162 | 27 | 30 | 71 | 71 | 40 | M25x1,5 |
| | MVB 4500/15-FLC | L | 664 | 400 | 310 | 355 | 23.5 | 6 | 220 | 190 | 30 | 15 | 75 | 75 | 52 | M25x1,5 |
| | MVB 7000/15-FLC | L | 740 | 508 | 348 | 438 | 25 | 8 | 255.5 | 224.5 | 32.5 | 30 | 79 | 79 | 52 | M32x1,5 |

Fig. I

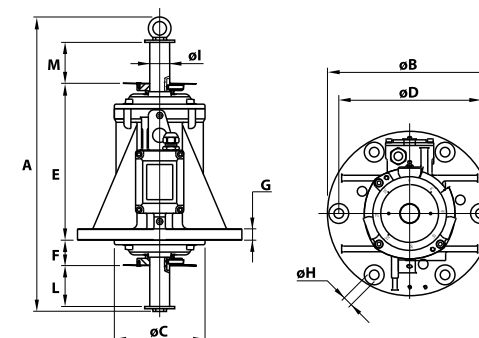
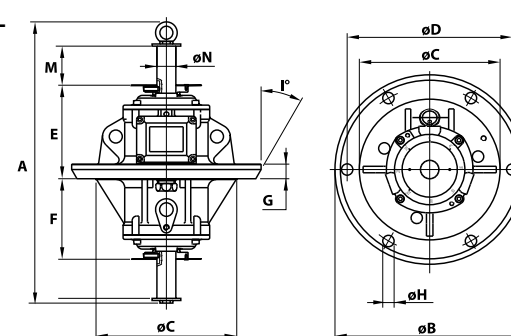


Fig. L

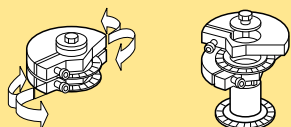


Versions

Each C type weight group (in twos) is adjustable by phase shifting one in respect to the other. Each D type weight group (lamellars) is adjustable by removing one or more lamellar elements.

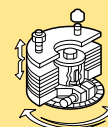
Weight adjustment: the weights at the two ends of the shaft can be staggered as required, with reference to the graduated discs on the shaft itself.

Type "C"



Infinitely adjustable centrifugal force

Type "D"



Centrifugal force adjustable from max. to min. by removing the lamellar weights.