

## 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 and 6 poles.

### Conformity with European Directives

Low voltage 2006/95/EC,  
ATEX 94/9/EC.

### 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

Proportioned for a centrifugal force equal to 5000 Kgf. (49 KN), with eccentric weights not included, to be made by the user.

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

### Vibrator thermal protection

On PTC rated request with thermistor heat detectors 130°C (DIN 44081-44082). 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.

### Electrical connection box

The size guarantees passage of tools used for fixing the vibrator to the vibrating machine. The electrical connection must be carried out using the relative connectors inserted inside the connection box. 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 Italvibras, suitable to support both high radial and axial loads.

### Motor shaft

In treated steel alloy (Isothermic hardening) resistant to stress.

### Eccentric weights

Not envisioned, to be made and mounted by the user.

### Weight covers

Not envisioned.

### 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.

## 4 poles - 1500/1800 rpm / 6 poles - 1000/1200 rpm

|             | Description |                      |      |   |                            | Mechanical specifications |       |             |             |                   |             | Electrical specifications |                         |      |                   |       |                |                |
|-------------|-------------|----------------------|------|---|----------------------------|---------------------------|-------|-------------|-------------|-------------------|-------------|---------------------------|-------------------------|------|-------------------|-------|----------------|----------------|
|             | Code        | Type                 | SIZE |   | <br>II2D<br>Temp.<br>class | Giri/min.                 |       |             |             | Centrifugal force |             | Weight<br>kg              | Max input<br>power<br>W |      | Max. current<br>A |       |                |                |
|             |             |                      |      |   |                            | 50 Hz                     | 60 Hz | 50 Hz       | 60 Hz       | 50 Hz             | 60 Hz       |                           | kg                      | kN   | 50 Hz             | 60 Hz | 400 V<br>50 Hz | 460 V<br>60 Hz |
| three-phase | 601223      | <b>VB 15/2510-D</b>  | 4    | • | 150°C                      | 1500                      | 1800  | <b>2500</b> | <b>2500</b> | <b>24.5</b>       | <b>24.5</b> | 68                        | 2016                    | 2600 | 3.60              | 4.10  | 3.50           | 3.58           |
|             | 602171      | <b>VB 10/2510-D</b>  | 6    | • | 150°C                      | -                         | 1200  | -           | <b>2500</b> | -                 | <b>24.5</b> | 68                        | -                       | 2100 | -                 | 3.22  | -              | 3.27           |
|             | 601378      | <b>VB 15/5000-LM</b> | 4    | • | 135°C                      | 1500                      | 1800  | <b>5000</b> | <b>5000</b> | <b>49.0</b>       | <b>49.0</b> | 101                       | 3600                    | 3400 | 6.00              | 5.00  | 7.02           | 8.00           |

I<sub>a</sub>/I<sub>N</sub> = ratio between start-up current and maximum current.

### 4 poles - 1500/1800 rpm / 6 poles - 1000/1200 rpm

| three-phase | Type          | Dimensional specifications (mm) |       |     |       |    |    |    |       |       |      |     |                    |
|-------------|---------------|---------------------------------|-------|-----|-------|----|----|----|-------|-------|------|-----|--------------------|
|             |               | Fig.                            | A     | øB  | C     | D  | E  | F° | G     | H     | I    | L   | Cable entry thread |
|             | VB 15/2510-D  | H                               | 517.5 | 281 | 152.5 | 30 | 26 | 14 | 85.3  | 136.6 | 35   | 108 | M32x1.5            |
|             | VB 10/2510-D  | H                               | 517.5 | 281 | 152.5 | 30 | 26 | 14 | 85.3  | 136.6 | 35   | 108 | M32x1.5            |
|             | VB 15/5000-LM | H                               | 555   | 342 | 208   | 48 | 48 | 25 | 106.5 | 110   | 60.5 | 70  | M32x1,5            |

