

# ■ MVB / MVB-FLC



## 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 Standards and Regulations

Low Voltage Directive 2006/95/EC; ATEX Directive 2014/34/UE; EN/IEC 60034-1, EN/IEC 60079-0, EN/IEC 60079-31, UL 1004-1, CSA C22.2 No.100, NEMA MG-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 by varying weights position.

### Mechanical protection

IP 66 according to IEC/EN 60529.

### Protection against mechanical impacts

IK 08 according to IEC/EN 62262.

### 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 from size 80, on request for smaller sizes. Also on request thermistors with different temperatures and anti-condensation heaters.

### Fixing of the vibrator

Typically for vertical mounting, anyway possible to install in all positions and therefore without restriction.

### Lubrication

All vibrators are lubricated in the factory and do not require further lubrication at start-up.

### Terminal box

Large terminal box to facilitate electrical connection.

Special shaped terminals allow for the power supply cable to be secured, whilst 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

In spheroidal or grey cast iron. The geometry of the flange transmits the load to the casing uniformly.

### Bearings

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

### Motor shaft

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

### Eccentric weights

The weights are not provided in the delivery and must be ordered separately (ask Italtibras sales office). Lamellar for clamped centric weight have an ample possibility of

The MVB series is made up of vertical vibrators, featuring a lateral flange and the shaft projecting from both sides.

The MVB-FLC series is made up of vertical vibrators, featuring a central flange and the shaft projecting from both sides.

These vibrators are typically used in circular screens and medium-size and large sieves, and can be supplied in 4 different versions: A, B, C, D according to the type of eccentric weights supplied with the vibrator and which must be mounted by the user.

The size 50 complies with the most recent IEC and EN international standards for use in atmospheres with potentially explosive dust particles. In particular, the size 50 series can be used in areas 21 and 22.

**Type: MVB gr. 50, MVB-FLC gr. 50**

**Category: II 2 D**

**Level of protection:**

Ex tD A21 T...°C IP66 (Ex tb IIIC T...°C Db)

**Temperature class:**

T150°C

**Zones of use:**

21, 22

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.

**For further details please contact sales offices at Italtvibras.**

**The technical data and models listed in this catalogue are not binding. Italtvibras reserves the right to modify them without prior notice.**

#### Certifications



Compliance with the applicable European Union directives.



Standard CAN/CSA – C22.2, N°.100-95, Certificate n° LR 100948  
Class 4211 01 – Motors and generators  
UL 1004-1 – Rotating Electrical Machines – General Requirements



II2D (2014/34/UE)  
Ex tD A21 T...°C IP66 (Ex tb IIIC T...°C Db)  
EN 60079-0  
EN 60079-31



Ex tD A21 T...°C IP66 (Ex tb IIIC T...°C Db)  
IEC 60079-0  
IEC 60079-31



Version MVB-C and MVB-C-FLC available on request  
Class I Div.2, Groups ABCD  
Standard CAN/CSA – C22.2



Certification for Eurasian Customs Union  
N° TC N RU Д-IT.AJ33.B.02527  
N° TC RU C-IT.ГБ08.B.02190



KOSHA Korea  
Certificate n° 11-AVG BO-0359  
Ex td A21 IP66