



Technical features

Power supply

Three-phase voltage from 24V to 690V, 50Hz or 60Hz or single-phase 100-130V, 60Hz and 200-240V, 50Hz (single-phase types are supplied without capacitor); suitable for use with an inverter from 20Hz to the base frequency with constant torque load profile.

Polarity

2 or 4 poles, other polarities on request.

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 2615 kgf. (25.7 kN), with centrifugal force adjustable by varying weights position.

Mechanical protection

IP 66 according to IEC/EN 60529. Mechanical protection is ensured in the mounting phase of the vibrator onto the vibrating

machine, by introducing the special seal into the seat on the coupling flange.

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 vacuum encapsulation up to size 30, with "drop by drop" trickle system for larger sizes.

Ambient temperature

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

Vibrator thermal protection

On demand with PTC rated thermistor heat detectors 130°C. 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 at start-up.

Electrical connection box

The small 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 through vacuum encapsulating up to size 30; using "drop by drop" trickle system with class H resin for larger sizes. The rotor is die cast aluminium.

Casing

In high-tensile aluminium alloy up to size 50, in spheroidal cast iron for size 70.

Bearing flange

Constructed in cast iron (spheroidal or grey) or in aluminium with steel bearing seat. The geometry of the flange transmits the load to the casing uniformly.

Bearings

The lower and upper bearings have been studied to support the relative load and therefore they have a particular geometry, especially designed and made for Italtvibras.

Motor shaft

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

The new MTF (MTF-S02) series, made up of vertical vibrators with lateral flange and with weight protection covers fixed to the opposite part to the flange, adopts innovative technical solutions that increase performance and reliability.

Typically used in circular screens and in small and medium-size sieves, these vibrators are supplied with lamellar or clamped eccentric weights, which regulation is particularly easy.

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

Category: II2D

Level of protection:

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

Temperature class:

see tables

EC certificate:

LCIE 05 ATEX 6163 X

Zones of use:

21, 22

Eccentric weights

Allow greater adjustment of the centrifugal force, with phase shift of the lower weight assembly with respect to the upper group. This adjustment is eased by a graduated scale, which expresses the centrifugal force as a percentage of the maximum centrifugal force.

Weight covers

In aluminium alloy, on request stainless steel cover in AISI 304 is available.

Painting / Surface coating

Electrostatic surface treatment based on epoxy polyester powder polymerised in oven at 200°C. Tested in salt spray for 500 hours. On request also on MTF series other surface coatings may be available, see page 14.

For further details please contact sales offices at Italvibras.

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

Certifications



Compliance with the applicable European Union directives.



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



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
Class II Div.2, Groups FG (T3B)



Version MTF-C 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.АЛ33.В.02527
N° TC RU C-IT.ГБ08.В.02190



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