



## Technical features

### Power supply

Three-phase voltage from 24V to 480V (except M3/4), 50Hz or 60Hz or single phase 100-130V, 200-240V, 50/60Hz (in the standard single-phase version, the capacitor is already included in a case along the power supply cable); suitable for use with an inverter from 20 to 60Hz to the base frequency with constant torque load profile.

### Polarity

2 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 to 65 Kgf. (638N), with centrifugal force adjustable by varying eccentric weight position.

### Mechanical protection

IP 65 according to IEC/EN 60529.

### Insulation class

Class F (155°C).

### Tropicalization

Standard on all vibrators.

### Ambient temperature

From -20°C to +40°C.

### Fixing of the vibrator

In all positions and therefore without restriction.

### Lubrication

Sealed ball bearings, lubricated "for life".

### Electric motor

Three-phase and single-phase asynchronous type. The M3/4 model can only be supplied in the single-phase version and does not require a capacitor. Models M3/20 and M3/45 can be supplied both in three-phase and single-phase versions. The capacitor is already included in a case along the power supply cable.

### Casing

In high-tensile light aluminium alloy with polished surface. Different fixing holes available.

### Eccentric weights

Thin plate-type, allow step-by-step adjustment through variation of the number of weights mounted or their rotation.

## Three-phase

DESCRIPTION				MECHANICAL SPECIFICATIONS								ELECTRICAL SPECIFICATIONS			
Code	Type	SE	Ex II3D Temp. class	Static moment*		Centrifugal force				Weight		Max input power		Max. current	
				kgmm		kg	N			kg		W		A	
				50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	380-480V 50-60Hz	
600449	M3/20-S02	□	100°C	2,0	2,0	20	29	196	284	1,97	1,97	35	35	0,15	
600450	M3/45-S02	□	100°C	4,5	4,5	45	65	441	638	2,20	2,20	45	45	0,16	

## Single-phase

Code	Type	SE	Ex II3D Temp. class	Static moment*		Centrifugal force				Weight		Max input power		Max. current	
				kgmm		kg	N			kg		W		A	
				50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	220-240V 50-60Hz	100-120V 60Hz
600448	M3/4-S02	-	100°C	0,4	0,4	4	6	39	59	0,92	0,92	24	24	0,13	0,30
600449	M3/20-S02	□	100°C	2,0	2,0	20	29	196	284	1,97	1,97	35	35	0,17	0,42
600450	M3/45-S02	□	100°C	4,5	4,5	45	65	441	638	2,20	2,20	45	45	0,20	0,46

\* Working moment = 2 x static moment. □ CSA certification on request, with feeding line included.

The MICRO series has been designed for continual industrial service in processes where a reduced centrifugal force and reduced overall vibrator size are required.

MICRO vibrators are used in many applications in feeding, transport, screening, sizing, separation processes, compaction in the automatic machines used in the chemical industry, food industry, pharmaceuticals, packaging and automation in general.

The MICRO series has been conceived to guarantee higher performance in all conditions and environments and complies with the most recent EN international standards for use in atmospheres with potentially explosive powders. In particular, the MICRO series can be used in area 22.

**Category:** II 3 D

**Level of protection:**

Ex tc IIIC T100°C Dc

**Temperature class:**

T100°C

**Zone of use:**

22

#### Weight covers

In stainless steel AISI 304.

#### Other features

All Micro series standard models are supplied with a power supply cable (2 metres for M3/20-S02 and M3/45-S02, 1 metre for M3/4-S02) and, in the models requiring it, a capacitor inserted into a special enclosure in-line with the cable.

CSA certification can be supplied on request and the supplied product is not equipped with a capacitor (neither along the cable nor in other positions), therefore the user must install one as per Standard.

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.



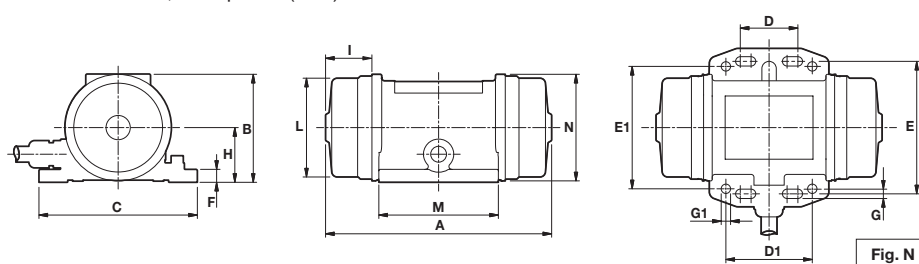
Standard CAN/CSA – C22.2, N°.100-95,  
Certificate n° LR 100948  
Class 4211 01 - Motors and generators  
UL 1004-1 – Rotating Electrical Machines –  
General Requirements  
Class II Div.2, Groups FG (T3B)



II3D (2014/34/UE)  
Ex tc IIIC T100°C Db  
EN 60079-0  
EN 60079-31



Certification for Eurasian Customs Union  
N° TC N RU Д-IT.АЛ33.В.02527  
N° TC RU C-IT.ГБ08.В.02190



#### DIMENSIONAL SPECIFICATIONS (mm)

Type	Fig.	A	B	C	D	D1	E	E1	F	G	ØG1	N°	H	I	L	M	N	Cable entry thread
M3/20-S02	N	157	75	110	25-40	60	92	85	9	6,5	6,5	8	38	33	69	83	74	M16x1,5
M3/45-S02	N	172	75	110	25-40	60	92	85	9	6,5	6,5	8	38	40,5	69	83	74	M16x1,5

Type	Fig.	A	B	C	D	D1	E	E1	F	G	ØG1	N°	H	I	L	M	N	Cable entry thread
M3/4-S02	N	113	66,5	90	25-40	-	75	-	9	5,5	-	4	34	25	60	59	65	M12x1,5
M3/20-S02	N	157	75	110	25-40	60	92	85	9	6,5	6,5	8	38	33	69	83	74	M16x1,5
M3/45-S02	N	172	75	110	25-40	60	92	85	9	6,5	6,5	8	38	40,5	69	83	74	M16x1,5