



وتور ویبره  
میکرو M



**ماهان موتور آریا**

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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 IEC and EN international standards for use in atmospheres with potentially explosive powders. In particular, the MICRO series can be used in area 22.

## Technical features

### Power supply

Three-phase voltage from 24V to 480V (except M3/4), 50Hz or 60Hz or single phase 110-130V, 220-240V and 24V, 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 European Directives

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

### Reference Regulations

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

### 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 from 0 to 100%.

### Mechanical protection

IP 65 according to IEC 529, 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".

	Description				Mechanical specifications								Electrical specifications			Type	
	Code	Type	II3D Temp. class	Ex	rpm		Centrifugal force				Weight		Max input power	Max. current			
					50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	W	A	
							kg	N	kg				50 Hz		380/480 V	50/60 Hz	
three phase	600449	M3/20-S02	□	100°C	2.0	2.0	20	29	196	284	1.97	1.97	35		0.15		M3/20-S02
	600450	M3/45-S02	□	100°C	4.5	4.5	45	65	441	638	2.20	2.20	45		0.16		M3/45-S02
single-phase	600448	M3/4-S02	□	100°C	0.4	0.4	4	6	39	59	0.92	0.92	24		0.13	0.30	M3/4-S02
	600449	M3/20-S02	□	100°C	2.0	2.0	20	29	196	284	1.97	1.97	35		0.17	0.42	M3/20-S02
	600450	M3/45-S02	□	100°C	4.5	4.5	45	65	441	638	2.20	2.20	45		0.20	0.46	M3/45-S02

220/240 V 50/60 Hz    110/115 V 50/60 Hz

□ The CSA version can be supplied on request and does not envision supply of the capacitor.



Category: II 3 D

Level of protection: tD A22 IP65

Temperature class: T 100°C

Areas of use: 22

**Certifications**

Regulation CAN/CSA - C22.2 N. 100-95,  
file n° LR100948 Class 4211 01  
– Motors and generators.



II 3D, tD A22 IP65, IEC/EN 61241-0,  
IEC/EN61241-1



Gost-R certificate for all models  
of vibrators: GOST 16264.1,  
GOST 16264.0, GOST R 51689.



Comply with the applicable  
European Union directives



**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.

**Eccentric weights**

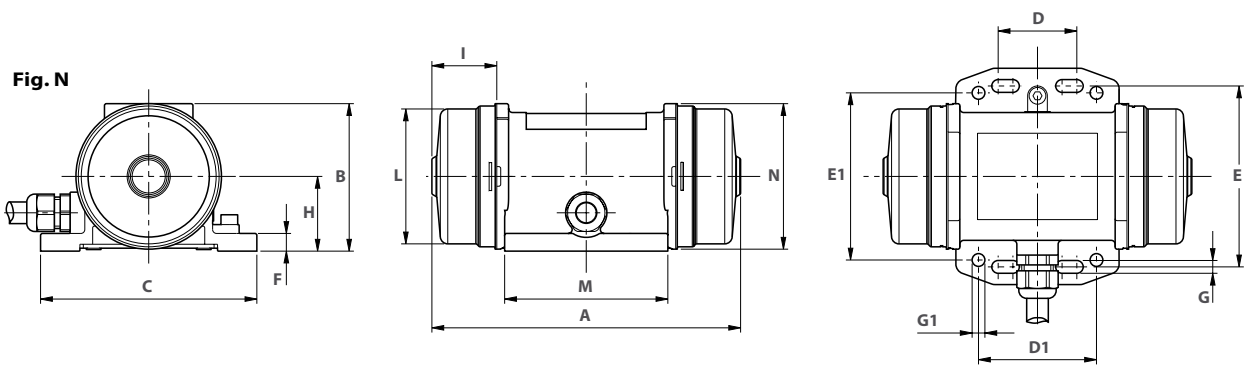
Thin plate-type, allow step-by-step adjustment through variation of the number of weights mounted or their rotation.

**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.



Dimensional specifications (mm)

Fori

Fig.	A	B	C	D	D1	E	E1	F	G	øG1	N°	H	I	L	M	N	Cable entry thread
N	157	75	110	25-40	60	92	85	9	6.5	6.5	8	38	33	69	83	74	M16x1.5
N	172	75	110	25-40	60	92	85	9	6.5	6.5	8	38	40.5	69	83	74	M16x1.5
N	113	66.5	90	25-40	-	75	-	9	5.5	-	4	34	25	60	59	65	M12x1.5
N	157	75	110	25-40	60	92	85	9	6.5	6.5	8	38	33	69	83	74	M16x1.5
N	172	75	110	25-40	60	92	85	9	6.5	6.5	8	38	40.5	69	83	74	M16x1.5