

MVSI



The MVSI series represents the line of reference products for manufacturer's of vibrating machines and plants operating in many industrial sectors and is made up of the largest range on the market, with centrifugal force values up to 30500 Kgf (300kN).

The MVSI 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 MVSI series can be used in areas 21 and 22.

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, 4, 6 and 8 standard poles, 10 and 12 poles on request.

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

Range extended up to 30500 Kgf. (300 kN), with centrifugal force adjustable from 0 to 100%.

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 vacuum encapsulation up to gr. AF 33 and 35, 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

Standard PTC rated thermistor heat detectors 130°C (DIN 44081-44082) from size 70, on request for smaller sizes. 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 to size 35 and larger.

Terminal box

Large fixed electrical connections. 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 vacuum encapsulating up to size 35; using the "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 60, in spheroidal cast iron for larger sizes. Patented shape that improves heat dispersion and lowers normal working temperature at full load.

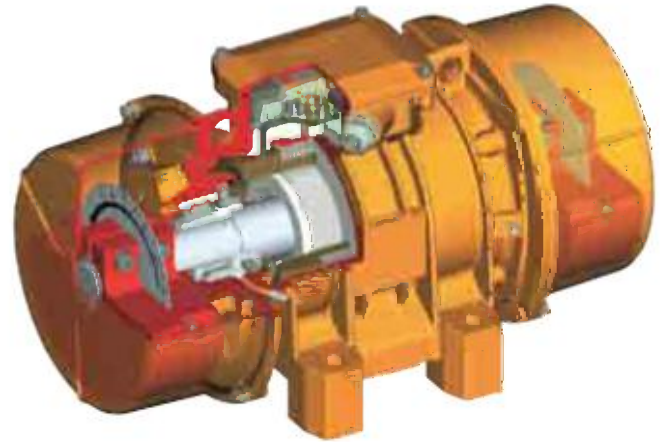
Category: II 2 D

Level of protection: tD A21 IP66

Temperature class: see tab. page 6-13

EC certificate: LCIE 05 ATEX 6163 X

Areas of use: 21, 22



Certifications

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

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

Allow continual adjustment of the centrifugal force. This adjustment is realized by a graduated scale, which expresses the centrifugal force as a percentage of the maximum centrifugal force.

A patented system (patent N°MO98A000194), called ARS, prevents adjustment errors.

Weight covers

In aluminium alloy. On several sizes split covers are available, please refer to section MVSI-TS on page 14. On request stainless steel AISI 304 weight covers can be supplied.

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 polyurethanic paint) is available.

Several sizes are available with different mounting bolt patterns. Please contact sales office at Italvibras.

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



Mechanical protection IP66 (EN 60529), protection against impacts IK 08 (EN 50102)



II 2 D, tD A21 IP66
IEC/EN 61241-0, IEC/EN 61241-1
Certificate n. LCIE 05 ATEX 6163X



Certificate GOST-R n° POCC IT.ГБ04.В01154, standards GOST R 51330.0-99, GOST R 51330.1-99, GOST R 51330.8-99, GOST R IEC 61241-1-1-99



Certificate of Conformity
n° IECEx CES 09.0001X
standards IEC 61241-0, IEC 61241-1



Comply with the applicable European Union directives



MVSI 36 ELECTRIC VIBRATOR SERIES

three-phase

2 poles		
Hz	50	60
RPM	3000	3600

DESCRIPTION					
Part Number	Model	Design	Frame Size	IP	Temp. Class
600311	MVSI 36-380	S02	00	*	120°C
600312	MVSI 36-480	S02	01	*	120°C
600313	MVSI 36-660	S02	10	*	120°C
600314	MVSI 36-1050	S02	20	*	120°C
600366	MVSI 36-1500	S02	20	*	120°C
600381	MVSI 36-1680	S02	30	*	120°C
600513	MVSI 36-2530	S02	35	*	120°C
600491	MVSI 36-2900	S08	AF33	*	200°C
600504	MVSI 36-3500	S08	AF33	*	200°C
600502	MVSI 36-3280	S02	50	*	200°C
600503	MVSI 36-4080	S02	50	*	200°C
600256	MVSI 36-4100	S90	AF50	*	200°C
600257	MVSI 36-4910	S90	AF50	*	200°C
600470	MVSI 36-6860	S02	AF70	*	135°C
600471	MVSI 36-8240	S02	AF70	*	135°C
600472	MVSI 36-11000	S02	AF70	*	135°C
600276	MVSI 36-14000	S02	90	*	135°C
600201	MVSI 36-20000	S90	95	*	135°C

MECHANICAL FEATURES					
Static Moment* kg-kg		Centrifugal Force kg		Weight kg	
50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz
1.0	1.0	266	383	12.3	12.3
1.8	1.3	464	480	14.1	13.6
2.6	1.8	669	653	21.3	20.2
4.3	2.8	1107	1036	32.6	30.4
6.3	-	1615	-	33.2	-
6.8	4.5	1727	1659	46.2	44.0
9.6	6.3	2431	2334	50.6	48.4
11.1	8.0	2838	2919	59.4	56.5
12.7	8.6	3234	3509	55.7	52.8
13.3	8.9	3399	3263	72.6	69.3
15.6	11.1	3964	4077	74.8	71.5
17.8	11.1	4530	4077	107	102
20.0	13.3	5095	4893	109	104
29.9	18.7	7605	6846	207	198
33.6	22.4	8558	8217	211	202
44.8	29.9	11411	10954	240	231
54.8	38.5	13985	14124	405	392
77.8	53.8	19815	19734	473	462

ELECTRICAL FEATURES					
Power Output kW		Max Current A			
50 Hz	60 Hz	400 V 50 Hz	400 V 60 Hz		
0.18	0.18	0.35	0.30		
0.18	0.18	0.35	0.30		
0.24	0.26	0.60	0.50		
0.44	0.53	0.90	0.75		
0.44	-	0.80	-		
0.67	0.71	1.10	1.00		
1.1	1.2	1.75	1.75		
1.4	1.4	2.10	1.90		
1.4	1.4	2.10	1.90		
1.5	1.8	2.30	2.00		
2.0	2.1	3.30	2.90		
2.2	2.2	3.50	3.00		
2.2	2.2	3.50	3.00		
4.5	4.6	6.50	5.60		
4.5	4.0	6.50	5.60		
5.0	5.7	7.60	6.90		
6.2	6.1	9.20	8.00		
10.9	10.1	18.0	13.0		

OVERALL DIMENSIONS (mm/inch)															
Model	Design	Type	A	B	C	D	E	Forceholes øG	N*	F	H	I	L	M	N
MVSI 36-380	S02	A	8.31	6.02	4.92	2.44-2.91**	4.17	0.35	4	0.94	2.40	1.81	4.06	3.94	4.61
MVSI 36-480	S02	A	9.25	6.02	4.92	2.44-2.91**	4.17	0.35	4	0.94	2.40	2.28	4.06	3.94	4.61
MVSI 36-660	S02	A	10.04	7.05	5.98	3.54	4.92	0.51	4	1.10	2.87	2.13	5.00	5.04	5.55
MVSI 36-1050	S02	A	11.34	7.99	6.57	4.13	5.51	0.51	4	1.18	3.25	2.56	5.71	5.51	6.30
MVSI 36-1500	S02	A	11.34	7.99	6.57	4.13	5.51	0.51	4	1.18	3.25	2.56	5.71	5.51	6.30
MVSI 36-1680	S02	A	12.13	8.50	8.07	4.72	6.69	0.67	4	1.77	3.68	2.48	6.69	6.30	7.17
MVSI 36-2530	S02	A	17.13	8.86	8.07	4.72	6.69	0.67	4	2.13	4.11	4.63	7.36	6.38	7.99
MVSI 36-2900	S08	A	14.76	8.52	8.46	3.94	7.09	0.67	4	1.85	3.68	4.17	6.69	5.71	7.17
MVSI 36-3500	S08	A	14.76	8.52	8.46	3.94	7.09	0.67	4	1.85	3.68	4.17	6.69	5.71	7.17
MVSI 36-3280	S02	A	16.93	9.09	9.06	5.51	7.48	0.67	4	2.13	4.57	3.90	8.15	7.48	8.86
MVSI 36-4080	S02	A	16.93	9.69	9.06	5.51	7.48	0.67	4	2.13	4.57	3.90	8.15	7.48	8.86
MVSI 36-4100	S90	A	18.31	9.06	9.06	5.51	7.48	0.67	4	1.93	4.09	4.13	7.32	7.09	7.87
MVSI 36-4910	S90	A	18.31	9.06	9.06	5.51	7.48	0.67	4	1.93	4.09	4.13	7.32	7.09	7.87
MVSI 36-6860	S02	A	22.05	11.42	12.20	6.10	10.04	0.98	4	3.54	5.12	5.39	9.37	8.27	9.96
MVSI 36-8240	S02	A	22.05	11.42	12.20	6.10	10.04	0.98	4	3.54	5.12	5.39	9.37	8.27	9.96
MVSI 36-11000	S02	A	22.05	11.42	12.20	6.10	10.04	0.98	4	3.54	5.12	5.39	9.37	8.27	9.96
MVSI 36-14000	S02	A	26.77	14.57	15.35	7.87	12.60	1.10	4	3.54	7.09	6.30	12.99	10.63	13.78
MVSI 36-20000	S90	A	24.76	15.55	15.43	7.87	12.60	1.10	4	3.94	7.56	5.31	13.98	10.63	14.76

* Working Moment = 2x Static Moment. Static Moment = Unbalance.
For 230 V, 60 Hz ampereage, double the 400 V, 60 Hz ampereage.

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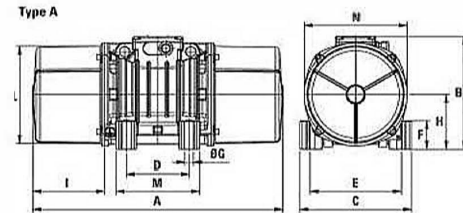
CSA Approval for Class I, Division 2, Groups A, B, C and D hazardous locations. Available upon request.

Product approved for European Directive 94/9/EC (EN 61241-0, EN 61241-1); ATEX II 2D, I.D. A21 IP66 (temperature class detailed in table)

All listed products are in compliance with GOST H 51330.0-99, GOST A 51330.1, GOST R 51330.0-09, GOST R IEC 61241-1-1-99.

Product approved for IECEx Scheme following IEC 61241-0, 61241-1; II 2D, I.D. A21 IP66 (Temperature class detailed in table)

In compliance with all applicable European Directives.



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