



The MVSI series represents the line of reference products for manufacturers 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); sui-table 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 condition ("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.

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 Italtvibras, suitable to support both high radial and axial loads

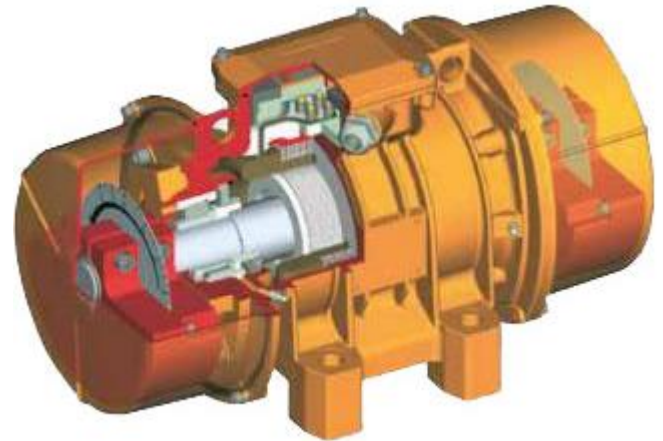
Category: II 2 D

Level of protection: tD A21 IP66

Temperature class: see tab. page 8-15

EC certificate: LCIE 05 ATEX 6163 X

Zones of use: 21, 22



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 16. 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 AISI 316L micro suspensions in a polyurethanic paint) is available.

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

Certifications



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.AB.72.B03026, standards GOST R 51330.0-99, 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



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



Upon request available version MVSI-C Class I, Div. 2, Groups ABCD standards CAN/CSA-C22.2



Upon request available version MVSI-F Class II, Div. 1, Groups EFG standards CAN C22.2, UL 1004-01

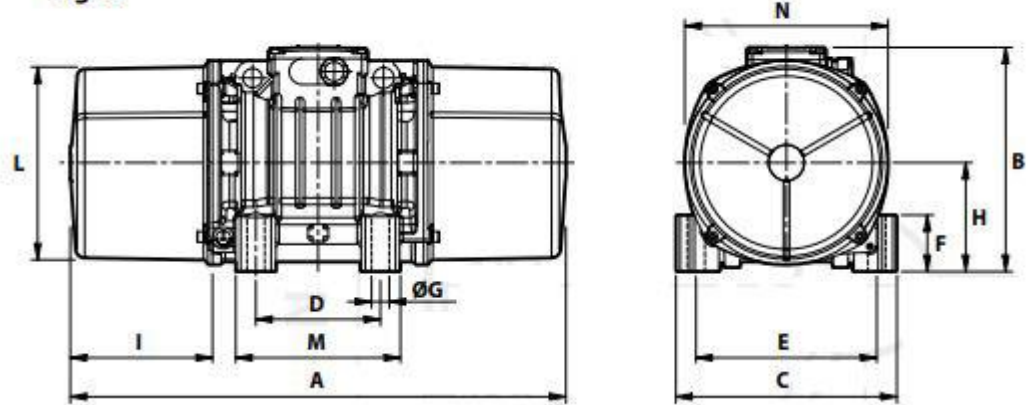


2 poles – 3000/3600 rpm

Description		Mechanical specifications										Electrical specifications					
Code	Type	SIZE	SF	II2D Temp. class	Static moment* kgmm		Centrifugal force				Weight kg		Max input power W		Max. current A		
					50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	400 V 50 Hz	460 V 60 Hz	
three-phase	600311	MVSI 3/100-S02	00	•	120°C	12.0	12.0	121	174	1.19	1.71	5.60	5.60	180	180	0.35	0.30
	600312	MVSI 3/200-S02	01	•	120°C	21.0	15.0	211	218	2.07	2.14	6.40	6.20	180	180	0.35	0.30
	600313	MVSI 3/300-S02	10	•	120°C	30.1	20.4	304	297	2.98	2.91	9.70	9.20	260	270	0.60	0.50
	600314	MVSI 3/500-S02	20	•	120°C	49.9	32.4	503	471	4.93	4.62	14.8	13.8	450	500	0.80	0.75
	600366	MVSI 3/700-S02	20	•	120°C	72.8	-	734	-	7.19	-	15.1	-	450	-	0.80	-
	600381	MVSI 3/800-S02	30	•	120°C	78.0	52.0	785	754	7.70	7.40	21.0	20.0	650	685	1.10	1.00
	600513	MVSI 3/1100-S02	35	•	120°C	110	73.0	1105	1061	10.8	10.4	23.0	22.0	1000	1200	1.75	1.75
	600491	MVSI 3/1300-S08	AF33	•	200°C	128	91.6	1290	1327	12.7	13.0	27.0	25.7	1300	1350	2.10	1.90
	600504	MVSI 3/1500-S08	AF33	•	200°C	146	110	1470	1595	14.4	15.6	25.3	24.0	1300	1350	2.10	1.90
	600502	MVSI 3/1600-S02	50	•	200°C	153	102	1545	1483	15.2	14.5	33.0	31.5	1400	1450	2.30	2.00
	600503	MVSI 3/1800-S02	50	•	200°C	179	128	1802	1853	17.7	18.2	34.0	32.5	2000	2000	3.30	2.90
	600256	MVSI 3/2010-S90	AF50	•	200°C	205	128	2059	1853	20.2	18.2	48.7	46.3	2200	2200	3.50	3.00
	600257	MVSI 3/2310-S90	AF50	•	200°C	230	153	2316	2224	22.7	21.8	49.6	47.1	2200	2200	3.50	3.00
	600470	MVSI 3/3200-S02	AF70	•	135°C	344	215	3457	3112	33.9	30.5	94.0	90.0	4000	4000	6.50	5.60
	600471	MVSI 3/4000-S02	AF70	•	135°C	387	258	3890	3735	38.2	36.6	96.0	92.0	4000	4000	6.50	5.60
	600472	MVSI 3/5000-S02	AF70	•	135°C	515	344	5187	4979	50.9	48.8	109	105	5000	5000	7.60	6.90
	600276	MVSI 3/6510-S02	90	•	135°C	630	443	6357	6420	62.4	63.0	184	178	5500	5500	9.20	8.00
600201	MVSI 3/9000-S90	95	-	135°C	895	619	9007	8970	88.4	88.0	215	210	10000	9300	18.0	13.0	
Single-phase	600311	MVSI 3/100-S02	00	•	120°C	12.0	12.0	121	174	1.19	1.71	5.60	5.60	165	165	0.75	1.52
	600312	MVSI 3/200-S02	01	•	120°C	21.0	15.0	211	218	2.07	2.14	6.40	6.20	165	165	0.75	1.52
	600313	MVSI 3/300-S02	10	•	120°C	30.1	20.4	304	297	2.98	2.91	9.70	9.20	280	280	1.25	2.40
	600314	MVSI 3/500-S02	20	•	120°C	49.9	32.4	503	471	4.93	4.62	14.8	13.8	500	500	2.30	4.50
	600366	MVSI 3/700-S02	20	•	120°C	72.8	-	734	-	7.19	-	15.1	-	500	-	2.30	-
	600381	MVSI 3/800-S02	30	•	120°C	78.0	52.0	785	754	7.70	7.40	16.8	15.9	700	750	3.25	7.00
															220 V 50 Hz	115 V 60 Hz	

* Working moment = 2 x static moment.

Fig. A



Dimensional specifications (mm)

I _A /I _N		Type	Fig.	A	B	C	D	E	Holes		F	H	I	L	M	N	Capacitor (µF)		Cable entry thread
50 Hz	60 Hz								øG	N°							220 V 50 Hz	115 V 60 Hz	
2.68	3.00	MVSI 3/100-S02	A	211	153	125	62-74**	106	9	4	24	61	46	103	100	117	-	-	M20x1,5
2.68	3.00	MVSI 3/200-S02	A	235	153	125	62-74**	106	9	4	24	61	58	103	100	117	-	-	M20x1,5
3.47	4.20	MVSI 3/300-S02	A	255	179	152	90	125	13	4	28	73	54	127	128	141	-	-	M20x1,5
4.21	4.80	MVSI 3/500-S02	A	288	203	167	105	140	13	4	30	82.5	65	145	140	160	-	-	M25x1,5
4.21	-	MVSI 3/700-S02	A	288	203	167	105	140	13	4	30	82.5	65	145	140	160	-	-	M25x1,5
3.83	6.00	MVSI 3/800-S02	A	308	216	205	120	170	17	4	45	93.5	63	170	160	182	-	-	M25x1,5
3.63	4.00	MVSI 3/1100-S02	A	435	225	205	120	170	17	4	54	104.5	117.5	187	162	203	-	-	M25x1,5
3.96	4.98	MVSI 3/1300-S08	A	375	216.5	215	100	180	17	4	47	93.5	106	170	145	182	-	-	M25x1,5
3.96	4.98	MVSI 3/1500-S08	A	375	216.5	215	100	180	17	4	47	93.5	106	170	145	182	-	-	M25x1,5
4.95	6.12	MVSI 3/1600-S02	A	430	246	230	140	190	17	4	54	116	99	207	190	225	-	-	M25x1,5
4.33	5.50	MVSI 3/1800-S02	A	430	246	230	140	190	17	4	54	116	99	207	190	225	-	-	M25x1,5
4.62	6.00	MVSI 3/2010-S90	A	465	230	230	140	190	17	4	49	104	105	186	180	200	-	-	M25x1,5
4.62	6.00	MVSI 3/2310-S90	A	465	230	230	140	190	17	4	49	104	105	186	180	200	-	-	M25x1,5
4.46	5.18	MVSI 3/3200-S02	A	560	290	310	155	255	25	4	90	130	137	238	210	253	-	-	M25x1,5
4.46	5.18	MVSI 3/4000-S02	A	560	290	310	155	255	25	4	90	130	137	238	210	253	-	-	M25x1,5
5.54	7.10	MVSI 3/5000-S02	A	560	290	310	155	255	25	4	90	130	137	238	210	253	-	-	M25x1,5
6.45	7.20	MVSI 3/6510-S02	A	680	370	390	200	320	28	4	90	180	160	330	270	350	-	-	M32x1,5
4.39	5.23	MVSI 3/9000-S90	A	629	395	392	200	320	28	4	100	192	134.5	355	270	375	-	-	M32x1,5
1.67	2.24	MVSI 3/100-S02	A	211	153	125	62-74**	106	9	4	24	61	46	103	100	117	10	28	M20x1,5
1.67	2.24	MVSI 3/200-S02	A	235	153	125	62-74**	106	9	4	24	61	58	103	100	117	10	28	M20x1,5
2.48	3.52	MVSI 3/300-S02	A	255	179	152	90	125	13	4	28	73	54	127	128	141	16	25	M20x1,5
3.35	4.22	MVSI 3/500-S02	A	288	203	167	105	140	13	4	30	82.5	65	145	140	160	12.5	50	M25x1,5
3.35	-	MVSI 3/700-S02	A	288	203	167	105	140	13	4	30	82.5	65	145	140	160	12.5	-	M25x1,5
4.00	4.14	MVSI 3/800-S02	A	307	210	205	120	170	17	4	45	91.5	51	168	160	178	25	90	M25x1,5

I_A/I_N = ratio between start-up current and maximum current. ** Slot.

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