MVSS-P

The MVSS-P series has been designed for use in industrial processes which require stainless steel AISI 316L enclosures and take place in environments with a potentially explosive atmosphere, owing to dusts, in compliance with ATEX Directive (94/9/CE).
In particular, the MVSS-P series can be used in areas 21 and 22 (dusts) according to the layout and following features.

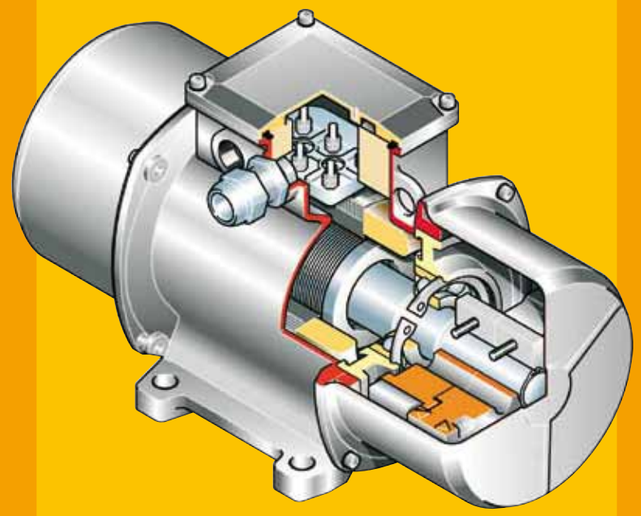
Category: II 2 D

Level of protection: IP66

Temperature class: 120°C

EC certificate: LCIE 03 ATEX 6005 X

Areas of use: 21, 22



Technical features

Power supply
Three-phase voltage from 220V to 690V, 50Hz or 60Hz or single-phase 115V 60Hz and 220V 50Hz; suitable for use with an inverter from 20Hz to the base frequency with constant torque load profile.

Polarity
2, 4, 6 and 8 poles.

Conformity with European Directives
ATEX 94/9/CE; Electromagnetic Compatibility 89/336/CE

Reference Regulations
EN 60034-1, EN 50014, EN 50281-1-1, EN 50081-1, EN 50081-2, EN 50082-1, EN 50082-2.

Controls
The components that affect protection are 100% accurately controlled and recorded

Functioning
Continual service (S1) at maximum declared centrifugal force and electric power.

Centrifugal force
Range extended up to 4300 Kgf. (42.4 KN), with centrifugal force adjustable from 0 to 100%.

Mechanical protection
IP 66 according to IEC 529, EN 60529.

Insulation class
Class F (155°C).

Tropicalization
Standard on all vibrators, with vacuum impregnation up to size AF 33 and 35, with "drop by drop" trickle system for larger sizes.

Environmental temperature
From -10°C to +40°C, on request it is possible to have vibrators for max. environmental temperatures of 55°C. On request special greases for temperatures less than –10°C.

Vibrator heat protection
Standard PTC rated thermistor heat detectors 130°C (DIN 44081-44082) from some models as shown in the following technical tables, where connection of the thermistor is obligatory. On request 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. In heavy duty operating conditions periodical re-lubrication may be applied to size 35 and larger.

Terminal box
Large fixed electrical connections, with terminal board cover in stainless steel AISI 316L. Special shaped terminals allow to fix the power supply cable, protecting it from loosening.

Electric motor
Three-phase and single-phase asynchronous type. Designed for maximum starting torques and torque curves specific to vibrating machines. Insulated windings using vacuum encapsulating up to size 30; using the "drop by drop" trickle system with class H resin for larger sizes. The rotor is die cast aluminium.

Casing
In stainless steel AISI 316L, with especially studied design to reduce deposits of dusts and liquids.
An external earthing screw is located on the casing as prescribed by Regulation EN 50014.

Bearing flange
Constructed in cast iron (ductile 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 Italvibras.

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 stainless steel AISI 316L with thickness measuring 1.2 to 1.5 mm, to unite mechanical resistance to the guaranteed protection of stainless steel.

Surface treatment
Electro polishing of the surface to obtain a smooth, bright, uniform surface.

External screws
In stainless steel AISI 304.

Other features
The MVSS-P series is characterized by two stainless steel plates AISI 316L.

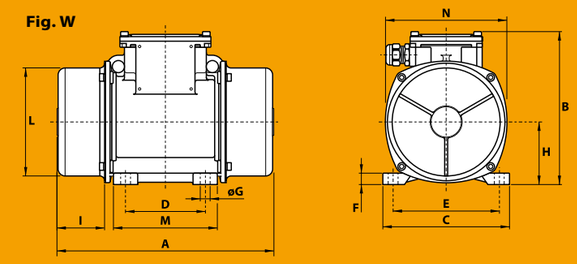
Certifications

Ex LCIE	II 2 D, tD A21 IP66 IEC/EN 61241-0, IEC/EN 61241-1 Certificate n. LCIE 05 ATEX 6163X
CE	Comply with the applicable European Union directives

italvibras g.silingardi

MVSS-P

Fig. W



2 poles - 3000/3600 rpm

	Description			Mechanical specifications								Electrical specifications										Type	Dimensional specifications (mm)																	
	Code	Type	SIZE	Static moment* kgmm		Centrifugal force kg		Centrifugal force kN		Weight kg		Temp. class	Max input power W		Power rating W		Max. current A		Thermi-store	t_{max} (s)	Ia/In		Fig.	A	B	C	D	E	Holes øG	Holes N°	F	H	I	L	M	N	Capacitor (µF)		Cable entry thread
				50 Hz	60 Hz	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																			220 V 50 Hz	115 V 60 Hz	
three-phase	6P0328	**MVSS 3/100P-S02**	00	12.0	12.0	121	174	1.19	1.71	7.80	7.80	120°C	105	105	80	80	0.26	0.23	-	20	3.48	**MVSS 3/100P-S02**	W	209	151	125	62-74**	106	9	4	10	61	45	100	102	117	-	-	M20x1,5
	6P0329	**MVSS 3/200P-S02**	01	21.0	15.0	211	218	2.07	2.14	8.20	8.00	120°C	105	105	80	80	0.26	0.23	-	20	3.48	**MVSS 3/200P-S02**	W	225	151	125	62-74**	106	9	4	10	61	53	100	102	117	-	-	M20x1,5
	6P0330	**MVSS 3/300P-S02**	10	30.1	20.4	304	297	2.98	2.91	12.5	12.0	120°C	230	230	172	172	0.48	0.41	-	12	4.20	**MVSS 3/300P-S02**	W	255	176	152	90	125	13	4	12	73	54	124	122	141	-	-	M20x1,5
	6P0331	**MVSS 3/500P-S02**	20	49.9	32.4	503	471	4.93	4.62	18.5	17.5	120°C	350	360	210	210	0.57	0.50	-	8	5.60	**MVSS 3/500P-S02**	W	284	200	167	105	140	13	4	15	82.5	63	142	137	160	-	-	M25x1,5
	6P0332	**MVSS 3/800P-S02**	30	78.0	52.0	785	754	7.70	7.40	25.0	24.0	120°C	390	400	290	290	0.72	0.64	-	8	5.52	**MVSS 3/800P-S02**	W	308	211	205	120	170	17	4	17	93.5	63	168	160	182	-	-	M25x1,5
	6P0333	**MVSS 3/1100P-S02**	35	110	73.0	1105	1061	10.8	10.4	30.0	29.0	120°C	460	500	290	290	0.76	0.67	-	11	4.37	**MVSS 3/1100P-S02**	W	354	232	205	120	170	17	4	20	104.5	77	181	162	203	-	-	M25x1,5
	6P0334	**MVSS 3/1510P-S02**	40	153	102	1545	1483	15.2	14.5	39.6	38.0	120°C	830	910	660	660	1.43	1.25	-	6	7.30	**MVSS 3/1510P-S02**	W	438	245	230	140	190	17	4	25	116	103	201	180	225	-	-	M25x1,5
	6P0335	**MVSS 3/2010P-S02**	50	205	128	2059	1853	20.2	18.2	48.7	46.3	120°C	1110	1150	960	960	1.90	1.66	•	7	5.90	**MVSS 3/2010P-S02**	W	438	245	230	140	190	17	4	25	116	103	201	180	225	-	-	M25x1,5
single-phase	6P0328	**MVSS 3/100P-S02**	00	12.0	12.0	121	174	1.19	1.71	7.80	7.80	120°C	100	100	60	60	0.45	1.10	-	20	3.48	**MVSS 3/100P-S02**	W	209	151	125	62-74**	106	9	4	10	61	45	100	102	117	-	-	M20x1,5
	6P0329	**MVSS 3/200P-S02**	01	21.0	15.0	211	218	2.07	2.14	8.20	8.00	120°C	100	100	60	60	0.45	1.10	-	20	3.48	**MVSS 3/200P-S02**	W	225	151	125	62-74**	106	9	4	10	61	53	100	102	117	-	-	M20x1,5

4 poles - 1500/1800 rpm

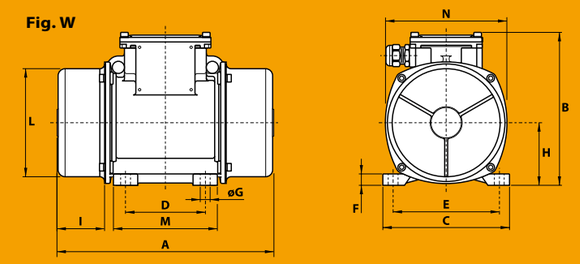
	Description			Mechanical specifications								Electrical specifications										Type	Dimensional specifications (mm)																	
	Code	Type	SIZE	Static moment* kgmm		Centrifugal force kg		Centrifugal force kN		Weight kg		Temp. class	Max input power W		Power rating W		Max. current A		Thermi-store	t_{max} (s)	Ia/In		Fig.	A	B	C	D	E	Holes øG	Holes N°	F	H	I	L	M	N	Capacitor (µF)		Cable entry thread
				50 Hz	60 Hz	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																			220 V 50 Hz	115 V 60 Hz	
three-phase	6P1342	**MVSS 15/35P-S02**	00	12.0	12.0	30.2	43.5	0.30	0.43	7.80	7.80	120°C	95	95	39	43	0.20	0.20	-	30	1.76	**MVSS 15/35P-S02**	W	209	151	125	62-74**	106	9	4	10	61	45	100	102	117	-	-	M20x1,5
	6P1343	**MVSS 15/80P-S02**	01	31.0	21.0	77.9	76.1	0.76	0.75	9.00	8.70	120°C	95	95	39	43	0.20	0.20	-	30	1.76	**MVSS 15/80P-S02**	W	225	151	125	62-74**	106	9	4	10	61	53	100	102	117	-	-	M20x1,5
	6P1365	**MVSS 15/100P-S02**	01	38.9	31.0	97.9	112	0.96	1.10	9.40	9.00	120°C	95	95	39	43	0.20	0.20	-	30	1.76	**MVSS 15/100P-S02**	W	241 (50Hz) 225 (60Hz)	151	125	62-74**	106	9	4	10	61	61 (50Hz) 53 (60Hz)	100	102	117	-	-	M20x1,5
	6P1344	**MVSS 15/200P-S02**	10	84.2	58.8	213	214	2.09	2.10	15.8	15.0	120°C	170	175	94	95	0.39	0.40	-	28	2.34	**MVSS 15/200P-S02**	W	295	176	152	90	125	13	4	12	73	74	124	122	141	-	-	M20x1,5
	6P1345	**MVSS 15/400P-S02**	20	163	113	412	411	4.04	4.03	22.5	21.7	120°C	300	320	200	230	0.57	0.52	-	18	3.33	**MVSS 15/400P-S02**	W	340	200	167	105	140	13	4	15	82.5	91	143	137	160	-	-	M25x1,5
	6P1346	**MVSS 15/550P-S02**	20	219	163	552	592	5.42	5.81	23.9	22.5	120°C	300	320	200	230	0.57	0.52	-	18	3.33	**MVSS 15/550P-S02**	W	380	200	167	105	140	13	4	15	82.5	111	143	137	160	-	-	M25x1,5
	6P1347	**MVSS 15/700P-S02**	30	286	209	720	760	7.06	7.46	32.0	30.7	120°C	360	420	240	310	0.72	0.70	-	12	4.20	**MVSS 15/700P-S02**	W	378	211	205	120	170	17	4	17	93.5	98	168	160	182	-	-	M25x1,5
	6P1348	**MVSS 15/1100P-S02**	35	415	271	1045	982	10.3	9.63	42.0	37.5	120°C	370	450	285	340	0.81	0.83	-	13	4.00	**MVSS 15/1100P-S02**	W	434	232	205	120	170	17	4	20	104.5	117	181	162	203	-	-	M25x1,5
	6P1349	**MVSS 15/1410P-S02**	40	561	400	1413	1449	13.9	14.2	53.0	50.0	120°C	630	700	460	505	1.05	1.00	-	8	5.36	**MVSS 15/1410P-S02**	W	442	245	230	140	190	17	4	25	116	105	201	180	225	-	-	M25x1,5
	6P1350	**MVSS 15/1710P-S02**	50	715	485	1798	1757	17.6	17.2	58.5	54.5	120°C	1100	1150	730	800	1.90	1.82	•	9	4.95	**MVSS 15/1710P-S02**	W	490	245	230	140	190	17	4	25	116	129	201	180	225	-	-	M25x1,5
	6P1351	**MVSS 15/2000P-S02**	50	817	561	2054	2033	20.1	19.9	70.0	68.0	120°C	1100	1150	730	800	1.90	1.82	•	9	4.95	**MVSS 15/2000P-S02**	W	560	245	230	140	190	17	4	25	116	164	201	180	225	-	-	M25x1,5
	6P1352	**MVSS 15/2410P-S02**	60	962	674	2420	2444	23.7	24.0	82.0	76.0	120°C	1600	1700	1340	1470	3.04	3.20	•	7	6.00	**MVSS 15/2410P-S02**	W	525	285	275	155	225	22	4	30	135	131	231	205	253	-	-	M25x1,5
	6P1353	**MVSS 15/3000P-S02**	60	1235	858	3106	3107	30.5	30.5	92.0	89.0	120°C	1280	1550	1000	1200	3.14	3.10	•	5.5	7.42	**MVSS 15/3000P-S02**	W	601	285	275	155	225	22	4	30	135	169	231	205	253	-	-	M25x1,5
	6P1354	**MVSS 15/3810P-S02**	70	1526	1034	3840	3744	37.7	36.7	115	110	120°C	2200	2400	1780	1960	3.71	3.50	•	6	7.17	**MVSS 15/3810P-S02**	W	589	323	310	155	255	23.5	4	35	155	139.5	269	215	295	-	-	M25x1,5
	6P1363	**MVSS 15/4300P-S02**	70	1720	1173	4326	4250	42.4	41.7	122	117	120°C	2200	2400	1780	1960	3.71	3.50	•	6	7.17	**MVSS 15/4300P-S02**	W	589	323	310	155	255	23.5	4	35	155	178	269	215	295	-	-	M25x1,5

* Working moment = 2 x static moment.

t_{max} (s) = Time limit for overloading protection intervention. Ia/In = ratio between start-up current and maximum current. ** Slot.

MVSS-P

Fig. W



6 poles - 1000/1200 rpm

	Description			Mechanical specifications								Electrical specifications										Type	Dimensional specifications (mm)																
	Code	Type	SIZE	Static moment* kgmm		Centrifugal force kg		Centrifugal force kN		Weight kg		Temp. class	Max input power W		Power rating W		Max. current A		Thermistore	t_{max} (s)	Ia/In		Fig.	A	B	C	D	E	Holes øG	Holes N°	F	H	I	L	M	N	Cable entry thread
				50 Hz	60 Hz	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	6P2283	**MVSS 10/40P-S02**	10	30.1	30.1	35.0	49.0	0.331	0.476	12.5	12.5	120°C	116	120	40	44	0.29	0.27	-	30	1.86	**MVSS 10/40P-S02**	W	255	176	152	90	125	13	4	12	73	54	124	122	141	M20x1.5
	6P2284	**MVSS 10/100P-S02**	10	84.2	84.2	94.3	136	0.925	1.33	15.8	15.8	120°C	116	120	40	44	0.29	0.27	-	30	1.86	**MVSS 10/100P-S02**	W	295	176	152	90	125	13	4	12	73	74	124	122	141	M20x1.5
	6P2285	**MVSS 10/200P-S02**	20	163	163	183	264	1.80	2.59	22.5	22.5	120°C	185	200	100	110	0.48	0.45	-	25	2.72	**MVSS 10/200P-S02**	W	340	200	167	105	140	13	4	15	82.5	91	143	137	160	M25x1.5
	6P2286	**MVSS 10/310P-S02**	30	286	209	321	338	3.15	3.32	32.0	30.7	120°C	320	350	201	221	0.67	0.65	-	25	2.81	**MVSS 10/310P-S02**	W	378	211	205	120	170	17	4	17	93.5	98	168	160	182	M25x1.5
	6P2287	**MVSS 10/550P-S02**	35	457	457	512	737	5.02	7.23	43.5	43.5	120°C	350	380	240	264	0.71	0.68	-	26	2.40	**MVSS 10/550P-S02**	W	434	232	205	120	170	17	4	20	104.5	117	181	162	203	M25x1.5
	6P2288	**MVSS 10/810P-S02**	40	723	561	809	905	7.94	8.88	54.0	52.6	120°C	500	540	290	320	1.05	1.00	-	17	3.54	**MVSS 10/810P-S02**	W	490 (50Hz) 442 (60Hz)	245	230	140	190	17	4	25	116	129 (50Hz) 105 (60Hz)	201	180	225	M25x1.5
	6P2289	**MVSS 10/1110P-S02**	50	1012	715	1132	1151	11.1	11.3	67.0	59.5	120°C	750	690	550	550	1.57	1.36	•	19	3.33	**MVSS 10/1110P-S02**	W	560 (50Hz) 490 (60Hz)	245	230	140	190	17	4	25	116	164 (50Hz) 129 (60Hz)	201	180	225	M25x1.5
	6P2290	**MVSS 10/1400P-S02**	50	1274	904	1424	1483	14.0	14.5	78.0	71.0	120°C	750	690	550	550	1.57	1.36	•	19	3.33	**MVSS 10/1400P-S02**	W	560	245	230	140	190	17	4	25	116	164	201	180	225	M25x1.5
	6P2291	**MVSS 10/1610P-S02**	60	1464	962	1638	1549	16.1	15.2	94.0	83.0	120°C	1100	1200	825	900	2.09	2.00	•	15	3.63	**MVSS 10/1610P-S02**	W	601 (50Hz) 525 (60Hz)	285	275	155	225	22	4	30	135	169 (50Hz) 131 (60Hz)	231	205	253	M25x1.5
	6P2293	**MVSS 10/2610P-S02**	70	2326	1706	2601	2747	25.5	26.9	130	116	120°C	1960	2100	1580	1700	3.90	3.70	•	8	5.31	**MVSS 10/2610P-S02**	W	657 (50Hz) 589 (60Hz)	323	310	155	255	23.5	4	35	155	173.5 (50Hz) 139.5 (60Hz)	269	215	295	M25x1.5

8 poles - 750/900 rpm

	Description			Mechanical specifications								Electrical specifications										Type	Dimensional specifications (mm)																
	Code	Type	SIZE	Static moment* kgmm		Centrifugal force kg		Centrifugal force kN		Weight kg		Temp. class	Max input power W		Power rating W		Max. current A		Thermistore	t_{max} (s)	Ia/In		Fig.	A	B	C	D	E	Holes øG	Holes N°	F	H	I	L	M	N	Cable entry thread
				50 Hz	60 Hz	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	6P2561	**MVSS 075/150P-S02**	20	163	163	104	149	1.02	1.46	22.5	22.5	120°C	250	250	100	110	0.67	0.64	•	25	2.00	**MVSS 075/150P-S02**	W	340	200	167	105	140	13	4	15	82.5	91	143	137	160	M25x1.5
	6P2562	**MVSS 075/250P-S02**	30	286	286	181	260	1.76	2.55	32.0	32.0	120°C	350	350	190	205	0.86	0.80	•	25	2.47	**MVSS 075/250P-S02**	W	378	211	205	120	170	17	4	17	93.5	98	168	160	182	M25x1.5
	6P2563	**MVSS 075/400P-S02**	35	457	457	288	415	2.83	4.07	43.5	43.5	120°C	280	300	135	150	0.57	0.56	•	30	1.66	**MVSS 075/400P-S02**	W	434	232	205	120	170	17	4	20	104.5	117	181	162	203	M25x1.5
	6P2564	**MVSS 075/660P-S02**	40	723	723	456	656	4.47	6.44	54.0	54.0	120°C	500	525	275	302	1.14	1.10	•	30	2.15	**MVSS 075/660P-S02**	W	490	245	230	140	190	17	4	25	116	129	201	180	225	M25x1.5
	6P2565	**MVSS 075/910P-S02**	50	1012	1012	637	917	6.25	9.00	67.0	67.0	120°C	600	670	336	380	1.33	1.30	•	30	2.14	**MVSS 075/910P-S02**	W	560	245	230	140	190	17	4	25	116	164	201	180	225	M25x1.5
	6P2566	**MVSS 075/1310P-S02**	60	1464	1464	922	1327	9.04	13.0	94.0	94.0	120°C	950	1100	646	740	2.09	2.10	•	30	2.63	**MVSS 075/1310P-S02**	W	601	285	275	155	225	22	4	30	135	169	231	205	253	M25x1.5
	6P2567	**MVSS 075/2110P-S02**	70	2326	2326	1463	2107	14.4	20.7	130	130	120°C	1500	1650	1065	1225	3.61	3.60	•	15	4.18	**MVSS 075/2110P-S02**	W	657	323	310	155	255	23.5	4	35	155	173.5	269	215	295	M25x1.5

* Working moment = 2 x static moment.

t_{max} (s) = Time limit for overloading protection intervention. Ia/In = ratio between start-up current and maximum current. ** Slot.