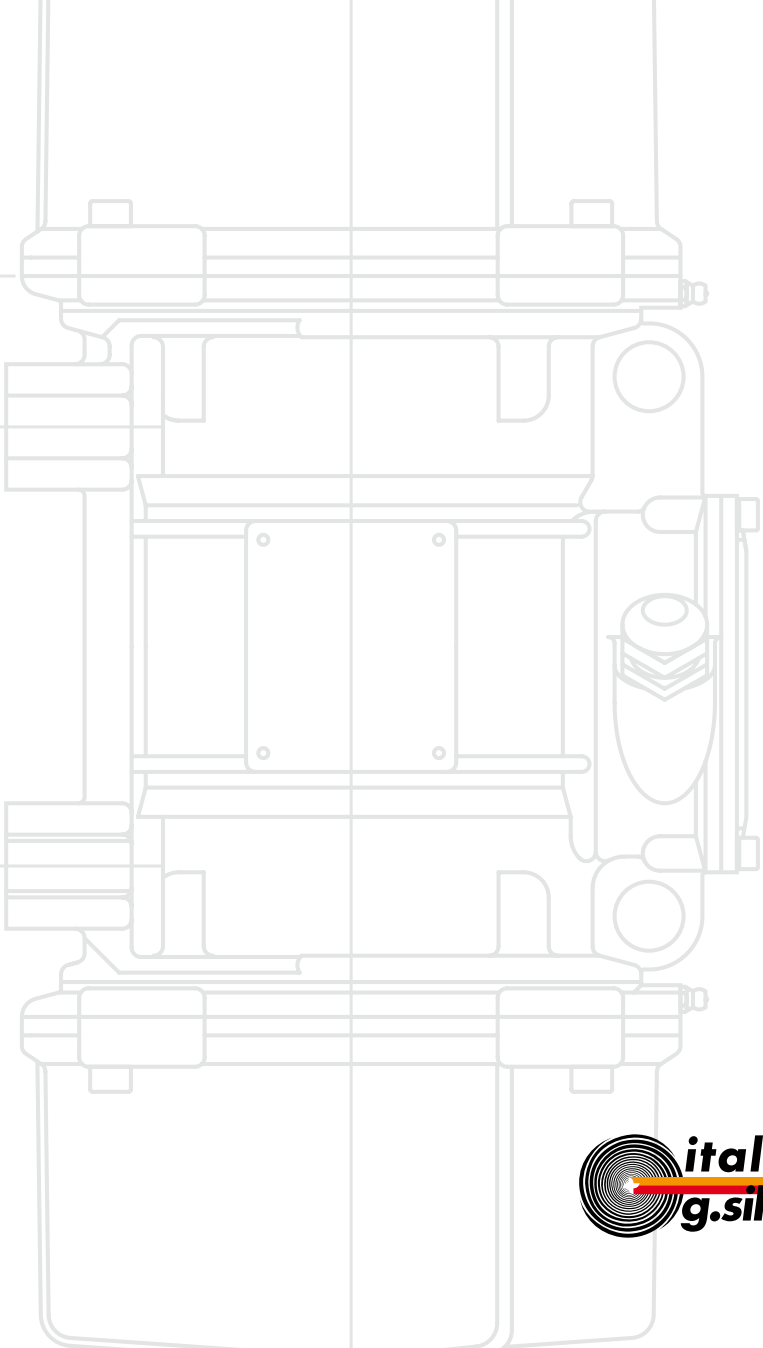


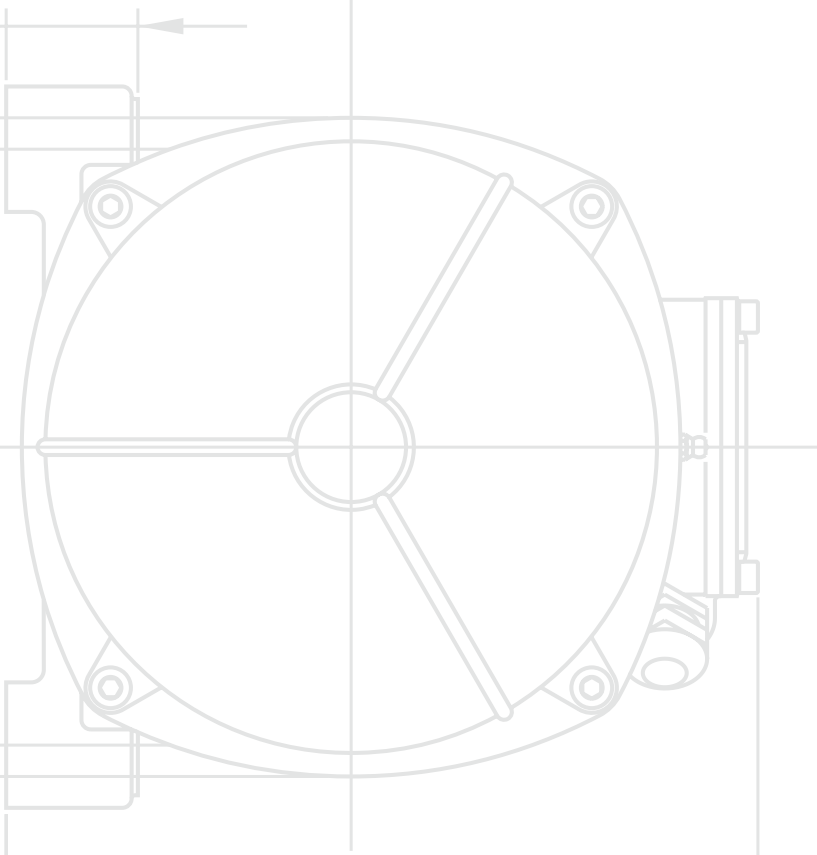
GENERAL CATALOGUE

EN010

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ATEX safety is standard

From 2006, the entire electric vibrators series MVSI, MVSI-TS, M3, MTF, MVB, MVB-FLC and VB are ATEX standard according to new international norms IEC EN 61241-0 and 61241-1. This means that every standard motor is certified for safe operation in environments with potentially explosive dust atmospheres (ATEX II 2 D Certification).

Product's features					Areas of use						
Type	Category	Type of protection	Classe de temperature		CE type examination certificate	G-GAS			D-DUST		
			Gas	Dust		0	1	2	20	21	22
MVSI-E M3-E** MTF-E VB-E MVB-E MVB-E-FLC	II 2 G II 2 D	Ex e II IP66	T3 (200° C) T4 (135° C)	da 120° a 200° C*	LCIE 06 ATEX 6092 X						
MVSI M3	II 2 D	IP66	-	da 120° a 200° C*	LCIE 05 ATEX 6163 X						
MVSI-TS	II 2 D	IP66	-	da 120° a 170° C*	LCIE 05 ATEX 6163 X						
MTF	II 2 D	IP66	-	120° C	LCIE 05 ATEX 6163 X						
VB MVB*** MVB-FLC***	II 2 D	IP66	-	150° C	LCIE 05 ATEX 6163 X						
MVSS-P	II 2 D	IP66	-	120° C	LCIE 03 ATEX 6005 X						
CDX	II 2 G II 2 D	Ex d IIB IP66	T4 (135° C)	120° C	DEMKO 07 ATEX 0612032X						
CDX gr.110	II 2 G	Ex d IIB	T4 (135° C)	-	SIRA 00 ATEX 1026						
CDX-G	II 2 G	Ex d IIB	160° C	-	DEMKO 07 ATEX 0612032X						

** Only T4
*** Only model gr. 50

* According to model (See the specific tables in the catalog).

Compatible
 Incompatible

How to choose the right Italtibras electric vibrator

To establish which type of electric vibrator is best for the specific use required, the environment in which the electric vibrator is to work must be classified by defining the area, the maximum temperature and, if necessary, the required type of protection. The EN specifications (e.g. EN 60079-10) can be used to conduct these analyses. Once the area has been classified, the tables alongside will allow you to identify the most suitable Italtibras electric vibrator. The technical staff at Italtibras is always at the customers' complete disposal for any further explanations that may be required.

The choice of the electric vibrator on the basis of area	
Type of area	Products suitable for the area
1, 2, 21, 22 - Ex e	MVSI-E, M3-E, MTF-E, VB-E, MVB-E, MVB-E-FLC
21, 22	MVSI, M3, MVSI-TS, MTF, VB, MVB, MVB-FLC, MVSS-P
1, 2, 21, 22 - Ex d	CDX
1, 2 - Ex d	CDX-G, CDX gr.110

CERTIFICATIONS



Standard U.L. 674. C.S.A. C22.2 N.145 - File n° E129825 Class I, Groups C and D; Class II, Groups E, Groups F and G – Explosion-proof vibrators for use in explosive atmospheres (North America).



Standard C22.2 n°100-95, file n° LR100948-4 part A – Class 4228 01; Class I, Division 2, Groups A, B, C and D - Explosion-proof vibrators for use in explosive atmospheres (North America).



Standard C22.2 n°100-95, file n° LR100948 part B. Class 4211 01 – Motors and generators (North America).



Standard C22.2, U.L. 674 - File n° LR100948-1, class 4228 01; Class I, Groups C and D; Class II, Groups E, F and G. Class III. Temperature class: T4. Explosion-proof vibrators for use in explosive atmospheres (North America and Canada).



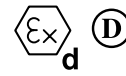
CER-97/033411 and CER-96/038019 Mechanical protection IP66 IK08 in compliance with standards IEC 529, CEI EN 60529.



II 2 G, D – Class Ex e II T4 and T3 (G) – tD A21 IP 66. CENELEC IEC/EN 60079-0, IEC/EN 60079-7, IEC/EN 61241-0, IEC/EN 61241-1, Cert. n° LCIE 06 ATEX 6092 X. European Directive 94/9/EC- Increased safety vibrators for potentially explosive gas atmosphere and combustible dust atmosphere.



II 2 D – CENELEC IEC/EN 61241-0, IEC/EN 61241-1 Certificate n° LCIE 05 ATEX 6163 X – European Directive 94/9/EC - Vibrators for potentially explosive dust atmosphere.



II 2 G, D - Class Ex d IIB 120°C, tD A21 IP66 T120°C - IEC/EN 60079-0, IEC/EN 60079-1, IEC/EN 61241-0, IEC/EN 61241-1. Certificate n° DEMKO 07 ATEX 0612032 X. European Directive 94/9/EC Explosion-proof vibrators for potentially explosive gas atmosphere and combustible dust atmosphere.



II 2 G – Class Ex d IIB T4 CENELEC IEC/EN 60079-0, IEC/EN 60079-1. Certificate n° SIRA 00ATEX 1026 Explosion-proof vibrators for potentially explosive gas atmosphere.



Gost-R certificate for all models of vibrators following standard: GOST R 50615, GOST 17770, GOST 12.2.030, GOST R 51318.14.1, GOST R 51318.14.2, GOST R 51317.3.2, GOST R 51317.3.3.



GGTN Permit and Gost-R certificate for explosion-proof Ex d models following standards: GOST R 51330.0-99, GOST R 51330.1-99, GOST R IEC 61241-1-1-99.



GGTN Permit and Gost-R certificate for increased safety Ex e models following standards: GOST R 51330.0-99, GOST R 51330.8-99, GOST R IEC 61241-1-1-99.



Certification: CMRI and DGMS for India. Category: Ex d II B 120°C, IP 66 Regulations: IS2148-2004, IS 13346-2004, IS4691-1985. Areas of use: 1, 2



All Italvibras electric vibrators comply with the applicable European Union Directives (2006/95/EC - 2004/108/EC, 94/9/EC) and thus bear CE marking.



Production quality assurance notification. Directive 94/9/CE n° CESI 00 ATEX 061 Q.



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



Certificate of Conformity n° IECEX LCI 10.0003X following standards IEC 61241-0, IEC 61241-1, IEC 60079-0, IEC 60079-7.



Certificate of Conformity n° IECEX UL 09.0034X following standards IEC 61241-0, IEC 61241-1, IEC 60079-0, IEC 60079-1





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.

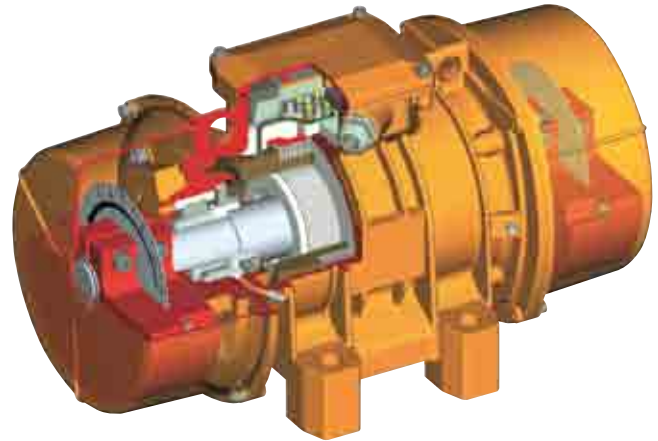
.....
Category: II 2 D
.....

.....
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 Italtibras, 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 Italtibras.

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



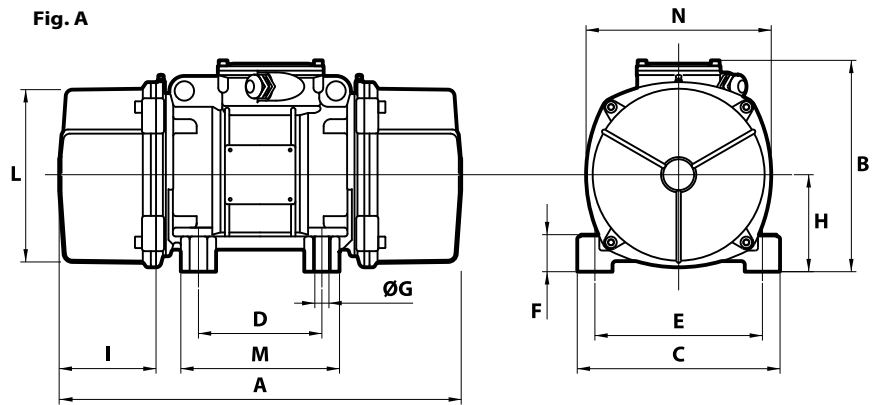


2 poles - 3000/3600 rpm

	Description				Mechanical specifications								Electrical specifications			
	Code	Type	SIZE	 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	-	0.8	-
	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

* Working moment = 2 x static moment.

Fig. A



I _A /I _N 50 Hz 60 Hz		Type	Dimensional specifications (mm)													Capacitor (µF)		Cable entry thread	
			Fig.	A	B	C	D	E	øG	N°	F	H	I	L	M	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	135	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 Italvibras.



4 poles - 1500/1800 rpm

	Description				Mechanical specifications								Electrical specifications			
	Code	Type	SIZE	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	601340	MVSI 15/35-S02	00	• 120°C	12.0	12.0	30.2	43.5	0.30	0.43	5.60	5.60	85	95	0.21	0.20
	601341	MVSI 15/80-S02	01	• 120°C	31.0	21.0	77.9	76.1	0.76	0.75	6.70	6.40	85	95	0.21	0.20
	601366	MVSI 15/100-S02	01	• 120°C	38.9	31.0	97.9	112	0.96	1.10	7.10	6.70	85	95	0.21	0.20
	601367	MVSI 15/200-S02	10	• 120°C	84.2	58.8	213	214	2.09	2.10	12.5	11.7	170	170	0.41	0.40
	601372	MVSI 15/400-S02	20	• 120°C	163	113	412	411	4.04	4.03	19.0	18.2	300	350	0.60	0.60
	601373	MVSI 15/550-S02	20	• 120°C	219	163	552	592	5.42	5.81	20.4	19.0	300	350	0.60	0.60
	601408	MVSI 15/700-S02	30	• 120°C	286	209	720	760	7.06	7.46	27.5	26.2	525	665	0.92	0.98
	601513	MVSI 15/900-S02	30	• 120°C	357	286	900	1037	8.83	10.2	30.0	27.5	525	665	0.92	0.98
	601524	MVSI 15/1100-S02	35	• 120°C	415	271	1045	982	10.3	9.63	35.0	30.5	550	680	0.95	0.95
	601217	MVSI 15/1410-S02	40	• 120°C	561	400	1413	1449	13.9	14.2	44.0	41.0	900	1050	1.45	1.50
	601219	MVSI 15/1710-S02	50	• 150°C	715	485	1798	1757	17.6	17.2	51.0	48.5	1100	1200	2.00	1.90
	601267	MVSI 15/2000-S02	50	• 170°C	817	561	2054	2033	20.1	19.9	55.5	51.5	1350	1450	2.50	2.30
	601220	MVSI 15/2410-S08	60	• 150°C	962	674	2420	2444	23.7	24.0	71.0	66.0	1600	1700	3.20	3.00
	601268	MVSI 15/3000-S08	60	• 135°C	1235	858	3106	3107	30.5	30.5	80.0	73.5	1900	2000	3.80	3.50
	601221	MVSI 15/3810-S02	70	• 135°C	1526	1034	3840	3744	37.7	36.7	119	110	2200	2500	3.90	3.90
	601269	MVSI 15/4300-S02	70	• 135°C	1720	1173	4326	4250	42.4	41.7	123	117	2500	2800	4.80	4.65
	601211	MVSI 15/5010-S02	80	• 135°C	1990	1364	5007	4941	49.1	48.5	161	153	3600	3400	6.00	5.00
	601447	MVSI 15/6000-S02	80	• 135°C	2248	1677	5654	6075	55.5	59.6	163.5	155	3600	3400	6.00	5.00
	601165	MVSI 15/7000-S02	90	• 135°C	2598	1822	6536	6600	64.1	64.7	208	195	6000	6000	10.5	9.00
	601166	MVSI 15/9000-S90	95	□ 135°C	3260	2260	8199	8183	80.4	80.3	225	210	7000	8000	11.6	11.5
601204	MVSI 15/9500-S02	97	□ 135°C	3346	2462	8416	8916	82.6	87.5	317	303	7500	8500	12.2	12.0	
601205	MVSI 15/11500-S90	100	□ 135°C	4544	3166	11430	11467	112	112	433	411	10000	10500	17.5	15.5	
601271	MVSI 15/14500-S90	100	□ 135°C	5614	4126	14120	14940	138	147	458	424	11000	12000	20.0	20.0	
single-phase	601340	MVSI 15/35-S02	00	• 120°C	12.0	12.0	30.2	43.5	0.30	0.43	5.60	5.60	90	100	0.43	1.00
	601341	MVSI 15/80-S02	01	• 120°C	31.0	21.0	77.9	76.1	0.76	0.75	6.70	6.40	90	100	0.43	1.00
	601366	MVSI 15/100-S02	01	• 120°C	38.9	31.0	97.9	112	0.96	1.10	7.10	6.70	90	100	0.43	1.00
	601367	MVSI 15/200-S02	10	• 120°C	84.2	58.8	213	214	2.09	2.10	12.5	11.7	210	230	1.00	2.00
	601372	MVSI 15/400-S02	20	• 120°C	163	113	412	411	4.04	4.03	19.0	18.2	240	320	1.20	2.80
	601373	MVSI 15/550-S02	20	• 120°C	219	163	552	592	5.42	5.81	20.4	19.0	240	320	1.20	2.80
	601408	MVSI 15/700-S02	30	• 120°C	286	209	720	760	7.06	7.46	27.5	26.2	450	550	2.15	5.15

220 V
50 Hz 115 V
60 Hz

** Working moment = 2 x static moment.

□ CSA certification on request, with feeding line included.

Fig. A

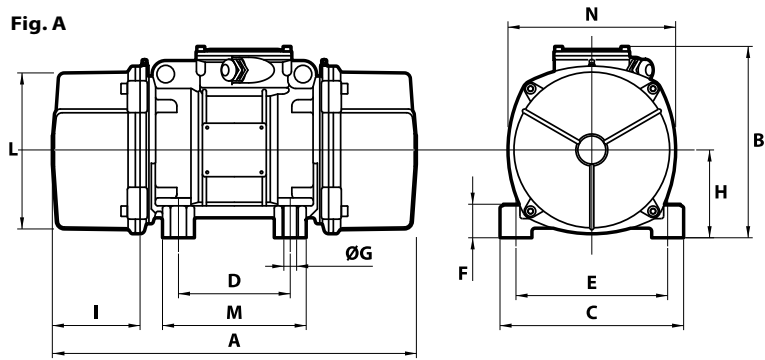
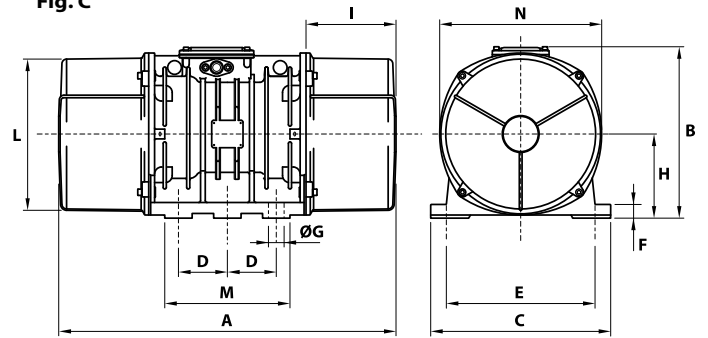


Fig. C



I _A /I _N		Type	Dimensional specifications (mm)														Capacitor (µF)		Cable entry thread
			Fig.	A	B	C	D	E	Holes		F	H	I	L	M	N	220 V 50 Hz	115 V 60 Hz	
50 Hz	60 Hz								øG	N°									
1.78	1.95	MVSI 15/35-S02	A	211	153	125	62-74**	106	9	4	24	61	46	103	100	117	-	-	M20x1,5
1.78	1.95	MVSI 15/80-S02	A	235	153	125	62-74**	106	9	4	24	61	58	103	100	117	-	-	M20x1,5
1.78	1.95	MVSI 15/100-S02	A	249 (50Hz) 235 (60Hz)	153	125	62-74**	106	9	4	24	61	65 (50Hz) 58 (60Hz)	103	100	117	-	-	M20x1,5
2.34	2.75	MVSI 15/200-S02	A	301	179	152	90	125	13	4	28	73	77	127	128	141	-	-	M20x1,5
3.33	3.50	MVSI 15/400-S02	A	344	203	167	105	140	13	4	30	82.5	93	145	140	160	-	-	M25x1,5
3.33	3.50	MVSI 15/550-S02	A	386	203	167	105	140	13	4	30	82.5	114	145	140	160	-	-	M25x1,5
3.48	3.43	MVSI 15/700-S02	A	394	216	205	120	170	17	4	45	93.5	106	170	160	182	-	-	M25x1,5
3.48	3.43	MVSI 15/900-S02	A	394	216	205	120	170	17	4	45	93.5	106	170	160	182	-	-	M25x1,5
4.45	4.89	MVSI 15/1100-S02	A	435	225	205	120	170	17	4	54	104.5	117.5	187	162	203	-	-	M25x1,5
4.10	4.20	MVSI 15/1410-S02	A	448	246	230	140	190	17	4	54	116	108	207	190	225	-	-	M25x1,5
4.29	4.89	MVSI 15/1710-S02	A	500	246	230	140	190	17	4	54	116	134	207	190	225	-	-	M25x1,5
4.30	4.90	MVSI 15/2000-S02	A	574	246	230	140	190	17	4	54	116	171	207	180	225	-	-	M25x1,5
6.09	7.23	MVSI 15/2410-S08	A	537	272	275	155	225	22	4	70	130	137	238	210	253	-	-	M25x1,5
6.50	7.50	MVSI 15/3000-S08	A	617	272	275	155	225	22	4	70	130	177	238	210	253	-	-	M25x1,5
7.11	6.92	MVSI 15/3810-S02	A	584	321	310	155	255	23.5	4	77	157	137	277	215	295	-	-	M25x1,5
5.90	7.10	MVSI 15/4300-S02	A	666 (50Hz) 584 (60Hz)	321	310	155	255	23.5	4	77	157	178 (50Hz) 137 (60Hz)	277	215	295	-	-	M25x1,5
7.02	8.00	MVSI 15/5010-S02	A	630	347	340	180	280	26	4	80	165	150	303	240	320	-	-	M32x1,5
7.02	8.00	MVSI 15/6000-S02	A	630	347	340	180	280	26	4	80	165	150	303	240	320	-	-	M32x1,5
6.48	7.67	MVSI 15/7000-S02	A	680	370	390	200	320	28	4	90	180	160	330	270	350	-	-	M32x1,5
5.43	5.57	MVSI 15/9000-S90	A	629	395	392	200	320	28	4	100	192	134,5	355	270	375	-	-	M32x1,5
6.56	6.67	MVSI 15/9500-S02	C	862	437	460	125	380	39	6	35	215	230	387	320	414	-	-	M32x1,5
7.03	8.00	MVSI 15/11500-S90	C	990	454	530	140	440	45	6	38	230	240	423	370	448	-	-	M32x1,5
8.00	8.00	MVSI 15/14500-S90	C	990	454	530	140	440	45	6	38	230	240	423	370	448	-	-	M32x1,5
1.20	1.30	MVSI 15/35-S02	A	211	153	125	62-74**	106	9	4	24	61	46	103	100	117	3.15	25	M20x1,5
1.20	1.30	MVSI 15/80-S02	A	235	153	125	62-74**	106	9	4	24	61	58	103	100	117	3.15	25	M20x1,5
1.20	1.30	MVSI 15/100-S02	A	249 (50Hz) 235 (60Hz)	153	125	62-74**	106	9	4	24	61	65 (50Hz) 58 (60Hz)	103	100	117	3.15	25	M20x1,5
1.50	1.85	MVSI 15/200-S02	A	301	179	152	90	125	13	4	28	73	77	127	128	141	5	25	M20x1,5
2.50	2.21	MVSI 15/400-S02	A	344	203	167	105	140	13	4	30	82.5	93	145	140	160	32/12◐	35	M25x1,5
2.50	2.21	MVSI 15/550-S02	A	386	203	167	105	140	13	4	30	82.5	114	145	140	160	32/12◐	40/35◐	M25x1,5
5.44	3.63	MVSI 15/700-S02	A	381	210	205	120	170	17	4	45	91.5	88	168	160	178	96/16◐	160/40◐	M25x1,5

I_A/I_N = ratio between start-up current and maximum current. ** Slot ◐ Start-up capacitor / Running capacitor. Several sizes are available with different mounting bolt patterns. Please contact sales office at Italvibras.



6 poles - 1000/1200 rpm

	Description				Mechanical specifications								Electrical specifications			
	Code	Type	SIZE	II2D Temp. class	Static moment* kgmm		Centrifugal force kN				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	602296	MVSI 10/40-S02	10	• 120°C	30.1	30.1	35.0	49.0	0.331	0.476	9.70	9.70	120	135	0.30	0.30
	602297	MVSI 10/100-S02	10	• 120°C	84.2	84.2	94.3	136	0.925	1.33	12.5	12.5	120	135	0.30	0.30
	602298	MVSI 10/200-S02	20	• 120°C	163	163	183	264	1.80	2.59	19.0	19.0	185	205	0.50	0.50
	602314	MVSI 10/310-S02	30	• 120°C	286	209	321	338	3.15	3.32	27.5	26.2	350	380	0.72	0.68
	602402	MVSI 10/550-S02	35	• 120°C	457	457	512	737	5.02	7.23	36.5	36.5	350	380	0.75	0.68
	602403	MVSI 10/650-S02	35	• 120°C	580	457	650	737	6.37	7.23	41.0	36.5	350	380	0.75	0.68
	602380	MVSI 10/810-S08	40	• 135°C	723	561	809	905	7.94	8.88	48.0	44.0	680	760	1.40	1.35
	602381	MVSI 10/1110-S08	50	• 135°C	1012	715	1132	1151	11.1	11.3	58.0	51.0	750	750	1.65	1.50
	602382	MVSI 10/1400-S08	50	• 170°C	1274	921	1424	1483	14.0	14.5	66.0	59.5	950	1000	1.80	1.70
	602406	MVSI 10/1610-S08	60	• 135°C	1464	962	1638	1549	16.1	15.2	83.0	71.0	1100	1300	2.20	2.20
	602407	MVSI 10/2100-S08	60	• 200°C	1927	1318	2154	2102	21.1	20.6	93.0	82.0	1500	1770	3.00	2.75
	602167	MVSI 10/2610-S02	70	• 135°C	2326	1720	2601	2747	25.5	26.9	130	116	1960	2100	4.10	3.75
	602230	MVSI 10/3000-S02	70	• 135°C	2690	1940	3007	3124	29.5	30.6	145	130	2200	2400	4.50	4.30
	602154	MVSI 10/3810-S02	80	• 135°C	3422	2380	3826	3831	37.5	37.6	188	170	2500	3000	5.10	5.00
	602204	MVSI 10/4700-S02	80	• 135°C	4206	2887	4701	4648	46.1	46.0	204	183	3200	3600	6.50	6.00
	602350	MVSI 10/5150-S02	80	• 135°C	4678	3230	5230	5200	51.3	51.0	225	200	3200	3600	6.50	6.00
	602138	MVSI 10/5200-S02	90	• 135°C	4658	3288	5208	5293	51.1	51.9	238	215	3800	4000	7.00	6.50
	602351	MVSI 10/5700-S02	90	• 135°C	5044	3478	5650	5600	55.4	54.9	240	220	3800	4000	7.00	6.50
	602091	MVSI 10/6500-S02	90	• 135°C	5838	4055	6527	6529	64.0	64.0	268	258	4300	5000	8.20	8.10
	602136	MVSI 10/6600-S02 [▲]	97	• 135°C	6083	3979	6799	6405	66.7	62.8	285	257	5000	5900	10.0	9.80
	602352	MVSI 10/7000-S02	90	• 135°C	6272	4348	7013	7000	68.8	68.7	275	263	4300	5000	8.20	8.10
	602092	MVSI 10/8000-S90	95	□ 135°C	7197	4967	8046	7996	78.9	78.4	315	277	7000	7500	12.6	11.3
	602093	MVSI 10/9000-S90	95	□ 135°C	7752	5385	8666	8669	85.0	85.0	326	289	7500	8200	14.0	12.9
	602137	MVSI 10/10000-S02	97	□ 135°C	8673	5664	9695	9117	95.1	89.4	381	340	7600	8000	13.5	12.4
	602349	MVSI 10/11200-S02	97	□ 135°C	9983	6896	11160	11100	109	109	405	370	7600	8000	13.5	12.4
	602134	MVSI 10/12000-S90 [▲]	100	□ 135°C	10996	7543	12294	12141	119	119	500	445	9000	9500	16.3	15.0
	602227	MVSI 10/13000-S02	97	□ 135°C	11510	8158	12867	13130	126	129	460	382	9600	10000	17.0	16.0
	602142	MVSI 10/15000-S02	105	□ 135°C	12662	8700	14155	14004	139	137	643	605	10600	11270	19.0	18.0
	602143	MVSI 10/17500-S02	105	□ 135°C	15500	10439	17327	16804	170	165	705	656	13000	13700	24.5	23.0
	602244	MVSI 10/19500-S02	105	□ 135°C	17947	11430	20062	18400	197	181	711	661	14000	14800	25.5	24.0
	602144	MVSI 10/22000-S90	110	□ 135°C	20025	12533	22386	20208	220	198	926	896	19000	19000	33.0	25.5
	602273	MVSI 10/25000-S90	110	□ 135°C	22364	14785	25000	23800	245	233	960	928	19000	19000	33.0	25.5
	602336	MVSI 10/30000-S02	120	-	-	27285	18760	30560	30200	300	296	1200	1050	24000	25800	40.0

* Working moment = 2 x static moment.

[▲] For special application.

□ CSA certification on request, with feeding line included.

Fig. A

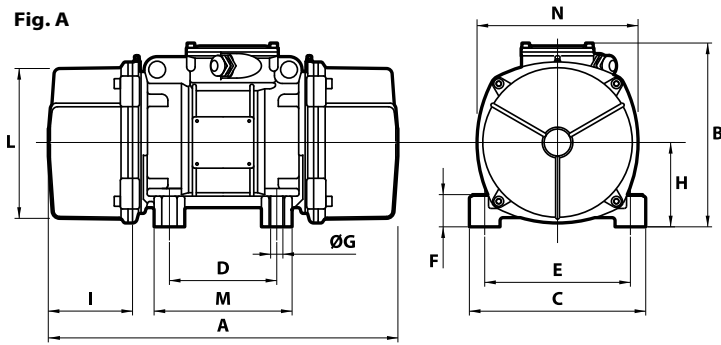
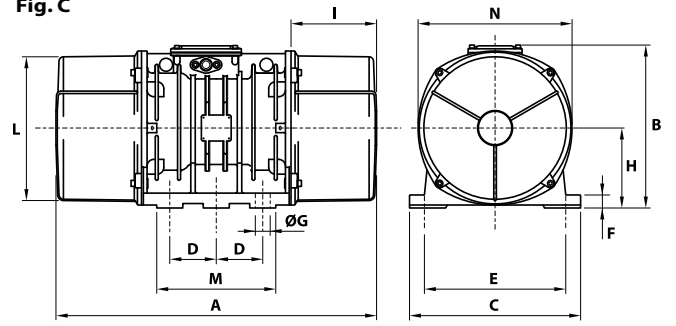


Fig. C



I _a /I _n		Type	Fig.	Dimensional specifications (mm)													Cable entry thread
50 Hz	60 Hz			A	B	C	D	E	Holes		F	H	I	L	M	N	
									øG	N°							
1.90	2.07	MVSI 10/40-S02	A	255	179	152	90	125	13	4	28	73	54	127	128	141	M20x1,5
1.90	2.07	MVSI 10/100-S02	A	301	179	152	90	125	13	4	28	73	77	127	128	141	M20x1,5
2.72	3.10	MVSI 10/200-S02	A	344	203	167	105	140	13	4	30	82.5	93	145	140	160	M25x1,5
2.63	2.79	MVSI 10/310-S02	A	394	216	205	120	170	17	4	45	93.5	106	170	160	182	M25x1,5
2.53	3.68	MVSI 10/550-S02	A	435	225	205	120	170	17	4	54	104.5	117.5	187	162	203	M25x1,5
2.53	3.68	MVSI 10/650-S02	A	480 (50Hz) 435 (60Hz)	225	205	120	170	17	4	54	104.5	140 (50Hz) 117.5 (60Hz)	187	162	203	M25x1,5
2.79	3.33	MVSI 10/810-S08	A	500 (50Hz) 448 (60Hz)	246	230	140	190	17	4	54	116	134 (50Hz) 108 (60Hz)	207	190	225	M25x1,5
3.33	4.13	MVSI 10/1110-S08	A	574	246	230	140	190	17	4	54	116	171	207	190	225	M25x1,5
3.05	3.65	MVSI 10/1400-S08	A	574	246	230	140	190	17	4	54	116	171	207	190	225	M25x1,5
4.21	4.05	MVSI 10/1610-S08	A	617 (50Hz) 537 (60Hz)	272	275	155	225	22	4	70	130	177 (50Hz) 137 (60Hz)	238	210	253	M25x1,5
3.42	4.00	MVSI 10/2100-S08	A	617	272	275	155	225	22	4	70	130	177	238	210	253	M25x1,5
5.35	5.60	MVSI 10/2610-S02	A	666	321	310	155	255	23.5	4	77	157	178	277	215	295	M25x1,5
4.35	4.81	MVSI 10/3000-S02	A	712	321	310	155	255	23.5	4	77	157	201	277	215	295	M25x1,5
5.91	6.00	MVSI 10/3810-S02	A	734	347	340	180	280	26	4	80	165	202	303	240	320	M32x1,5
5.24	5.50	MVSI 10/4700-S02	A	796	347	340	180	280	26	4	80	165	233	303	240	320	M32x1,5
5.24	5.50	MVSI 10/5150-S02	A	826	347	340	180	280	26	4	80	165	248	303	240	320	M32x1,5
4.71	5.08	MVSI 10/5200-S02	A	744	370	390	200	320	28	4	90	180	192	330	270	350	M32x1,5
4.71	5.08	MVSI 10/5700-S02	A	840	370	390	200	320	28	4	90	180	240	330	270	350	M32x1,5
4.51	5.83	MVSI 10/6500-S02	A	840	370	390	200	320	28	4	90	180	240	330	270	350	M32x1,5
5.61	5.82	MVSI 10/6600-S02 ^Δ	C	750	437	460	125	380	39	6	35	215	174	387	320	414	M32x1,5
4.51	5.83	MVSI 10/7000-S02	A	840	370	390	200	320	28	4	90	180	240	330	270	350	M32x1,5
4.59	5.58	MVSI 10/8000-S90	A	870	395	392	200	320	28	4	100	192	255	355	270	375	M32x1,5
4.13	4.88	MVSI 10/9000-S90	A	870	395	392	200	320	28	4	100	192	255	355	270	375	M32x1,5
4.72	4.92	MVSI 10/10000-S02	C	862	437	460	125	380	39	6	35	215	230	387	320	414	M32x1,5
4.72	4.92	MVSI 10/11200-S02	C	912	437	460	125	380	39	6	35	215	255	387	320	414	M32x1,5
5.21	5.73	MVSI 10/12000-S90 ^Δ	C	990	454	530	140	440	45	6	38	230	240	423	370	448	M32x1,5
4.98	5.00	MVSI 10/13000-S02	C	1002	437	460	125	380	39	6	35	215	300	387	320	414	M32x1,5
5.88	5.78	MVSI 10/15000-S02	F	960	526	570	140	480	45	8	41	268	200	486	510	516	M32x1,5
5.71	5.96	MVSI 10/17500-S02	F	1040	526	570	140	480	45	8	41	268	240	486	510	516	M32x1,5
5.49	-	MVSI 10/19500-S02	F	1120	526	570	140	480	45	8	41	268	280	486	510	516	M32x1,5
4.67	5.88	MVSI 10/22000-S90	F	1150	607	610	140	520	45	8	38	297	297.5	542	510	582	M32x1,5
4.67	-	MVSI 10/25000-S90	F	1150	607	610	140	520	45	8	38	297	297.5	542	510	582	M32x1,5
4.89	5.39	MVSI 10/30000-S02	Q	1205	648	700	140	600	45	8	45	320	310	600	510	660	M32x1,5

I_a/I_n = ratio between start-up current and maximum current.

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

Fig. F

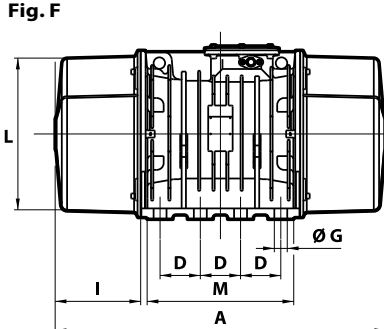
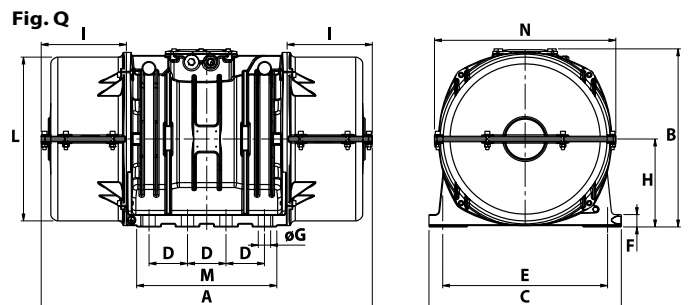


Fig. Q





8 poles - 750/900 rpm

	Description				Mechanical specifications								Electrical specifications			
	Code	Type	SIZE	 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	602568	MVSI 075/150-S02	20	• 130°C	163	163	104	149	1.02	1.46	19.0	19.0	230	250	0.85	0.76
	602575	MVSI 075/250-S02	30	• 130°C	286	286	181	260	1.76	2.55	27.5	27.5	350	380	1.10	1.05
	602615	MVSI 075/400-S02	35	• 120°C	457	457	288	415	2.83	4.07	36.5	36.5	280	300	0.60	0.68
	602616	MVSI 075/530-S02	35	• 120°C	580	580	365	528	3.60	5.20	41.0	41.0	280	300	0.60	0.68
	602609	MVSI 075/660-S08	40	• 120°C	723	723	456	656	4.47	6.44	48.0	48.0	400	450	1.20	1.20
	602610	MVSI 075/910-S08	50	• 120°C	1012	1012	637	917	6.25	9.00	58.0	58.0	400	500	1.40	1.30
	602618	MVSI 075/1310-S08	60	• 150°C	1464	1464	922	1327	9.04	13.0	83.0	83.0	950	1100	2.20	2.20
	602619	MVSI 075/1750-S08	60	• 150°C	1927	1927	1214	1747	11.9	17.1	93.0	93.0	1100	1300	2.60	2.60
	602891	MVSI 075/2110-S02	70	• 135°C	2326	2326	1463	2107	14.4	20.7	130	130	1500	1790	4.10	4.20
	602884	MVSI 075/3110-S02	80	• 135°C	3422	3422	2152	3099	21.1	30.4	188	188	2000	2300	5.40	5.20
	602515	MVSI 075/3800-S02	80	• 135°C	4206	4206	2645	3808	25.9	37.4	204	204	2500	3000	6.00	6.00
	602862	MVSI 075/4200-S02	90	• 135°C	4658	4658	2930	4218	28.7	41.4	238	238	2800	3350	6.50	6.50
	602826	MVSI 075/5300-S02	90	• 135°C	5838	5838	3672	5287	36.0	51.9	268	268	4000	4300	8.20	7.85
	602827	MVSI 075/6500-S90	95	□ 135°C	7197	7197	4526	6517	44.4	63.9	315	315	4900	5800	9.90	9.50
	602551	MVSI 075/6800-S02 ▲	97	□ 135°C	7340	7340	4616	6647	45.3	65.2	330	330	5600	6000	10.5	10.0
	602870	MVSI 075/10000-S02	97	□ 135°C	12390	10973	7792	9937	76.4	97.5	438	419	6800	7450	13.2	12.0
	602863	MVSI 075/12000-S90	100	□ 135°C	13816	12407	8689	11235	85.2	110	540	520	7600	8300	14.0	13.5
	602871	MVSI 075/14000-S02	105	□ 135°C	17946	15500	11285	14036	111	138	702	680	9200	9600	21.0	19.5
602872	MVSI 075/17000-S02	105	□ 135°C	21337	19064	13418	17263	132	169	755	711	10400	11140	22.0	20.0	
602873	MVSI 075/22000-S90	110	□ 135°C	28633	24508	18005	22192	177	218	1015	981	12500	16200	26.5	28.0	
602535	MVSI 075/26000-S90	110	□ 135°C	-	28633	-	25927	-	254	-	1015	-	16200	-	28.0	
602589	MVSI 075/30000-S02	120	-	-	33440	33440	21070	30430	207	299	1125	1160	-	-	-	-

* Working moment = 2 x static moment. ▲ For special application. □ CSA certification on request, with feeding line included.

Fig. A

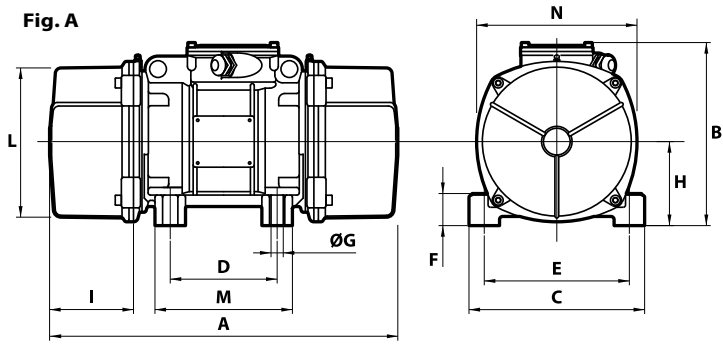
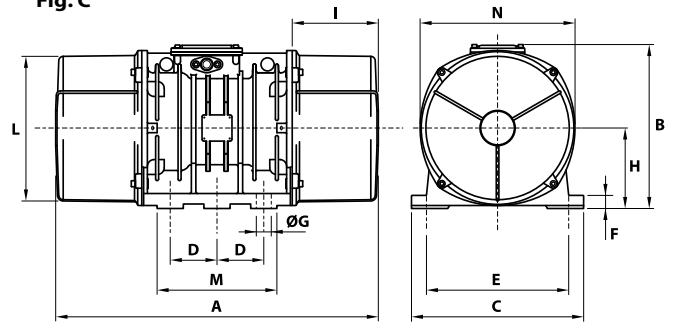


Fig. C



I _A /I _N		Type	Fig.	Dimensional specifications (mm)													Cable entry thread
50 Hz	60 Hz			A	B	C	D	E	ØG	Holes		F	H	I	L	M	
2.13	2.11	MVSI 075/150-S02	A	344	203	167	105	140	13	4	30	82.5	93	145	140	160	M25x1,5
2.03	2.29	MVSI 075/250-S02	A	394	216	205	120	170	17	4	45	93.5	106	170	160	182	M25x1,5
1.73	2.94	MVSI 075/400-S02	A	435	225	205	120	170	17	4	54	104.5	117.5	187	162	203	M25x1,5
1.73	2.94	MVSI 075/530-S02	A	480	225	205	120	170	17	4	54	104.5	140	187	162	203	M25x1,5
2.38	2.58	MVSI 075/660-S08	A	500	246	230	140	190	17	4	54	116	134	207	190	225	M25x1,5
2.38	2.85	MVSI 075/910-S08	A	574	246	230	140	190	17	4	54	116	171	207	190	225	M25x1,5
2.63	3.41	MVSI 075/1310-S08	A	617	272	275	155	225	22	4	70	130	177	238	210	253	M25x1,5
2.78	3.04	MVSI 075/1750-S08	A	617	272	275	155	225	22	4	70	130	177	238	210	253	M25x1,5
3.55	2.95	MVSI 075/2110-S02	A	666	321	310	155	255	23.5	4	77	157	178	277	215	295	M25x1,5
3.98	4.62	MVSI 075/3110-S02	A	734	347	340	180	280	26	4	80	165	202	303	240	320	M32x1,5
4.00	4.20	MVSI 075/3800-S02	A	796	347	340	180	280	26	4	80	165	233	303	240	320	M32x1,5
3.84	4.00	MVSI 075/4200-S02	A	744	370	390	200	320	28	4	90	180	192	330	270	350	M32x1,5
3.87	5.35	MVSI 075/5300-S02	A	840	370	390	200	320	28	4	90	180	240	330	270	350	M32x1,5
3.04	3.26	MVSI 075/6500-S90	A	870	395	392	200	320	28	4	100	192	255	355	270	375	M32x1,5
3.12	3.30	MVSI 075/6800-S02	C	862	437	460	125	380	39	6	35	215	230	387	320	414	M32x1,5
3.33	3.92	MVSI 075/10000-S02	C	1002	437	460	125	380	39	6	35	215	300	387	320	414	M32x1,5
3.72	3.78	MVSI 075/12000-S90	C	1070	454	530	140	440	45	6	38	230	280	423	370	448	M32x1,5
4.99	5.44	MVSI 075/14000-S90	F	1040	526	570	140	480	45	8	41	268	240	486	510	516	M32x1,5
5.50	5.90	MVSI 075/17000-S90	F	1120	526	570	140	480	45	8	41	268	280	486	510	516	M32x1,5
5.63	4.71	MVSI 075/22000-S90	F	1150	607	610	140	520	45	8	38	297	297.5	542	510	582	M32x1,5
-	4.71	MVSI 075/26000-S90	F	1150	607	610	140	520	45	8	38	297	297.5	542	510	582	M32x1,5
-	-	MVSI 075/30000-S02	Q	1205	648	700	140	600	45	8	45	320	310	600	510	660	M32x1,5

I_A/I_N = ratio between start-up current and maximum current.
 Several sizes are available with different mounting bolt patterns. Please contact sales office at Italtibras.

Fig. F

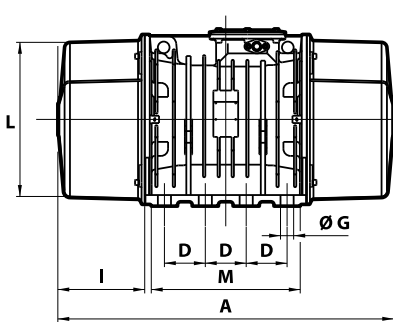
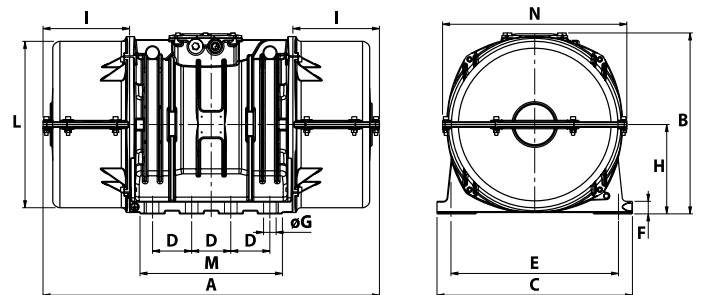


Fig. Q



MVSI-TS



Split covers

The MVSI-TS series, obtained directly from the MVSI series, is characterized by the split weight covers. The weight cover is divided into two halves that can be removed in a radial direction. According to requirements it is possible to mount one or two split weight covers.

The MVSI-TS series is indispensable in those applications where the position of the vibrator in the vibrating machine makes it difficult to axially remove the weight cover, while it has space to carry this out in a radial direction.

The MVSI-TS series complies with the most recent IEC and EN international standards for use in atmospheres with potentially explosive powders.

In particular, the MVSI-TS series can be used in areas 21 and 22.

Technical features

Power supply

Three-phase voltage from 48V to 690V, 50Hz or 60Hz; suitable for use with an inverter from 20Hz to the base frequency, with constant torque load profile.

Polarity

4, 6 and 8 poles.

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 25000 Kgf. (245 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 "drop by drop" trickle system.

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 correctly 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.

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 vibrating machines. Insulated windings using the "drop by drop" trickle system with class H resin.

The rotor is die cast aluminium.

Casing

In spheroidal cast iron to have high strength and optimal elasticity. Patented shape that improves heat dispersion and lowers normal working temperature at full load.

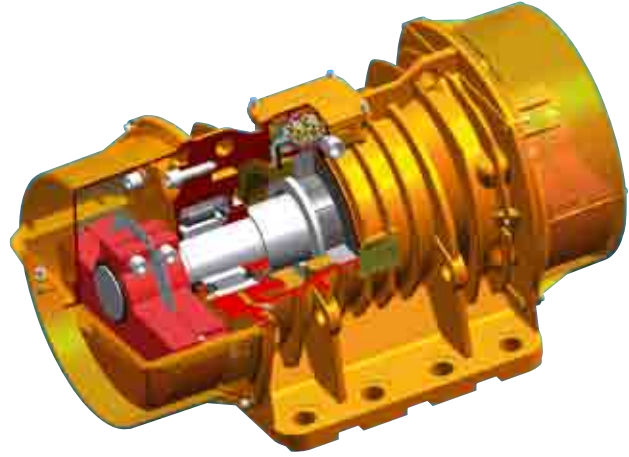
.....
Category: II 2 D
.....

Level of protection: tD A21 IP66
.....

Temperature class: see tab. page 16-19
.....

EC certificate: LCIE 05 ATEX 6163 X
.....

Areas of use: 21, 22
.....



Certifications

Bearing flange

Constructed in cast iron (spheroidal or grey). 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.

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, dismountable to allow disassembly in a radial direction. On request vibrators can be supplied with 1 or 2 dismountable caps.

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 Italtvibras.

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-TS



CESI LICIE



4 poles - 1500/1800 rpm

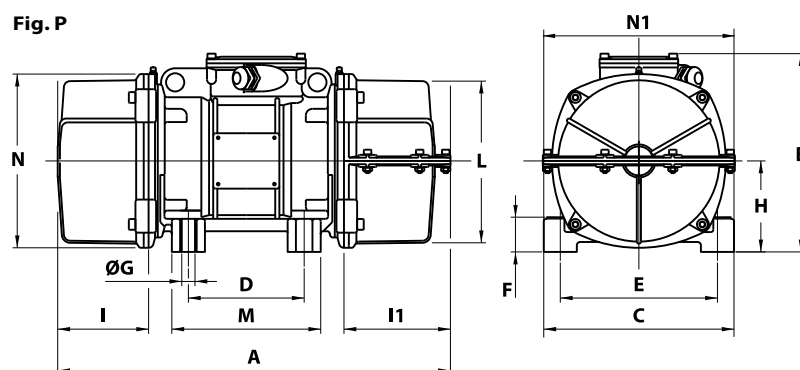
	Description					Mechanical specifications								Electrical specifications			
	Code	Type	SIZE	SF	II2D Temp. class	Static moment* kgmm		Centrifugal force				Weight kg		Max input power W		Max. current A	
						50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	400 V 50 Hz	460 V 60 Hz
three-phase	601219	MVSI 15/1710-S02-TS	50	•	150°C	715	485	1798	1757	17.6	17.2	57.0	54.5	1100	1200	2.00	1.90
	601267	MVSI 15/2000-S02-TS	50	•	170°C	817	561	2054	2033	20.1	19.9	62.0	58.0	1350	1450	2.50	2.30
	601221	MVSI 15/3810-S02-TS	70	•	135°C	1526	1034	3840	3744	37.7	36.7	119	110	2200	2500	3.90	3.90
	601269	MVSI 15/4300-S02-TS	70	•	135°C	1720	1173	4326	4250	42.4	41.7	123	117	2500	2800	4.80	4.65
	601211	MVSI 15/5010-S02-TS	80	•	135°C	1990	1364	5007	4941	49.1	48.5	161	153	3600	3400	6.00	5.00
	601447	MVSI 15/6000-S02-TS	80	•	135°C	2248	1677	5654	6075	55.5	59.6	163.5	155	3600	3400	6.00	5.00
	601204	MVSI 15/9500-S02-TS	97	□	135°C	3346	2462	8416	8916	82.6	87.5	317	303	7500	8500	12.2	12.0

6 poles - 1000/1200 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	602381	MVSI 10/1110-S08-TS	50	•	135°C	1012	715	1132	1151	11.1	11.3	64.5	57.5	750	750	1.65	1.50
	602382	MVSI 10/1400-S08-TS	50	•	170°C	1274	904	1424	1483	14.0	14.5	78.5	71.5	950	1000	1.80	1.70
	602167	MVSI 10/2610-S02-TS	70	•	135°C	2326	1720	2601	2747	25.5	26.9	130	116	1960	2100	4.10	3.75
	602230	MVSI 10/3000-S02-TS	70	•	135°C	2690	1940	3007	3124	29.5	30.6	145	130	2200	2400	4.50	4.30
	602154	MVSI 10/3810-S02-TS	80	•	135°C	3422	2380	3826	3831	37.5	37.6	188	170	2500	3000	5.10	5.00
	602204	MVSI 10/4700-S02-TS	80	•	135°C	4206	2887	4701	4648	46.1	46.0	204	183	3200	3600	6.50	6.00
	602138	MVSI 10/5200-S02-TS	90	•	135°C	4658	3288	5208	5293	51.1	51.9	238	215	3800	4000	7.00	6.50
	602351	MVSI 10/5700-S02-TS	90	•	135°C	5044	3478	5650	5600	55.4	54.9	240	220	3800	4000	7.00	6.50
	602091	MVSI 10/6500-S02-TS	90	•	135°C	5838	4055	6527	6529	64.0	64.0	268	258	4300	5000	8.20	8.10
	602092	MVSI 10/8000-S90-TS	95	□	135°C	7197	4967	8046	7996	78.9	78.4	315	277	7000	7500	12.6	11.3
	602093	MVSI 10/9000-S90-TS	95	□	135°C	7752	5385	8666	8669	85.0	85.0	326	289	7500	8200	14.0	12.9
	602137	MVSI 10/10000-S02-TS	97	□	135°C	8673	5664	9695	9117	95.1	89.4	381	340	7600	8000	13.5	12.4
	602227	MVSI 10/13000-S02-TS	97	□	135°C	11510	8158	12867	13130	126	129	460	382	9600	10000	17.0	16.0
	602142	MVSI 10/15000-S02-TS	105	□	135°C	12662	8700	14155	14004	139	137	643	605	10600	11270	19.0	18.0
	602143	MVSI 10/17500-S02-TS	105	□	135°C	15500	10439	17327	16804	170	165	705	656	13000	19700	24.5	23.0
	602144	MVSI 10/22000-S90-TS	110	□	135°C	20025	12553	22386	20208	220	198	926	896	19000	19000	33.0	25.5
	602273	MVSI 10/25000-S90-TS	110	□	135°C	22364	14785	25000	23800	245	233	960	928	19000	19000	33.0	25.5

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

Fig. P



I _a /I _n		Type	Fig.	Dimensional specifications (mm)																Cable entry thread
50 Hz	60 Hz			A n. split covers		B	C	D	E	Holes		F	H	I	L	M	N	I1	N1	
				1	2					øG	N°									
4.29	4.89	MVSI 15/1710-S02-TS	P	558	616	246	230	140	190	17	4	54	116	134	210	180	225	192	258	M25x1,5
4.30	4.90	MVSI 15/2000-S02-TS	P	595	616	246	230	140	190	17	4	54	116	171	210	180	225	192	258	M25x1,5
7.11	6.92	MVSI 15/3810-S02-TS	P	624	664	321	310	155	255	23.5	4	77	157	137	277	215	295	177	326	M25x1,5
5.90	7.10	MVSI 15/4300-S02-TS	P	665 (50Hz) 624 (60Hz)	664	321	310	155	255	23.5	4	77	157	178 (50Hz) 137 (60Hz)	277	215	295	177	326	M25x1,5
7.02	8.00	MVSI 15/5010-S02-TS	P	656	682	347	340	180	280	26	4	80	165	150	303	240	320	176	356	M32x1,5
7.02	8.00	MVSI 15/6000-S02-TS	P	656	682	347	340	180	280	26	4	80	165	150	303	240	320	176	356	M32x1,5
6.56	6.67	MVSI 15/9500-S02-TS	P	878	894	437	460	125	380	39	6	35	215	230	387	320	414	246	450	M32x1,5

I _a /I _n		Type	Fig.	Dimensional specifications (mm)																Cable entry thread
50 Hz	60 Hz			A n. split covers		B	C	D	E	Holes		F	H	I	L	M	N	I1	N1	
				1	2					øG	N°									
3.33	4.13	MVSI 10/1110-S08-TS	P	595 (50Hz) 558 (60Hz)	616	246	230	140	190	17	4	54	116	168 (50Hz) 134 (60Hz)	210	180	225	192	258	M25x1,5
3.05	3.65	MVSI 10/1400-S08-TS	P	592	616	246	230	140	190	17	4	54	116	168	210	180	225	192	258	M25x1,5
5.35	5.60	MVSI 10/2610-S02-TS	P	711	756	321	310	155	255	23.5	4	77	157	178	277	215	295	223	326	M25x1,5
4.35	4.81	MVSI 10/3000-S02-TS	P	731	756	321	310	155	255	23.5	4	77	157	198	277	215	295	223	326	M25x1,5
5.91	6.00	MVSI 10/3810-S02-TS	P	758	782	347	340	180	280	26	4	80	165	202	303	240	320	226	356	M32x1,5
5.24	5.50	MVSI 10/4700-S02-TS	P	822	848	347	340	180	280	26	4	80	165	233	303	240	320	259	356	M32x1,5
4.71	5.08	MVSI 10/5200-S02-TS	P	818	892	370	390	200	320	28	4	90	180	192	330	270	350	266	382	M32x1,5
4.71	5.08	MVSI 10/5700-S02-TS	P	866	892	370	390	200	320	28	4	90	180	240	330	270	350	266	382	M32x1,5
4.51	5.83	MVSI 10/6500-S02-TS	P	866	892	370	390	200	320	28	4	90	180	240	330	270	350	266	382	M32x1,5
4.59	5.58	MVSI 10/8000-S90-TS	P	896	922	395	392	200	320	28	4	100	192	255	355	270	375	281	410	M32x1,5
4.13	4.88	MVSI 10/9000-S90-TS	P	896	922	395	392	200	320	28	4	100	192	255	355	270	375	281	410	M32x1,5
4.72	4.92	MVSI 10/10000-S02-TS	P	878	894	437	460	125	380	39	6	35	215	230	387	320	414	266	450	M32x1,5
4.98	5.00	MVSI 10/13000-S02-TS	P	1017	1032	437	460	125	380	39	6	35	215	300	387	320	414	315	450	M32x1,5
5.88	5.78	MVSI 10/15000-S02-TS	P	1030	1100	526	570	140	480	45	8	41	268	200	495	510	516	270	566	M32x1,5
5.71	5.96	MVSI 10/17500-S02-TS	P	1070	1100	526	570	140	480	45	8	41	268	240	495	510	516	270	566	M32x1,5
4.67	5.88	MVSI 10/22000-S90-TS	P	1175	1200	607	610	140	520	45	8	38	297	298	542	510	582	323	616	M32x1,5
4.67	5.88	MVSI 10/25000-S90-TS	P	1175	1200	607	610	140	520	45	8	38	297	298	542	510	582	323	616	M32x1,5

I_a/I_n = ratio between start-up current and maximum current.
 Several sizes are available with different mounting bolt patterns. Please contact sales office at Italvibras.

MVSI-TS



CESI ICIÉ



ICIÉ

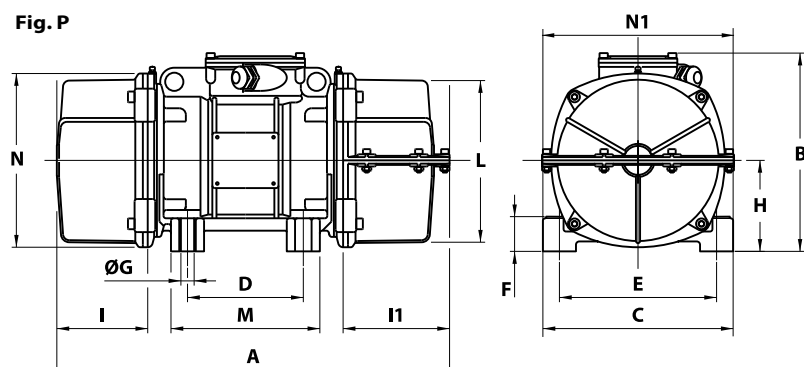


8 poles - 750/900 rpm

	Description					Mechanical specifications								Electrical specifications			
	Code	Type	SIZE	SF®	Ex IICD 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	602610	MVSI 075/910-S08-TS	50	•	120°C	1012	1012	637	917	6.25	9.00	67.0	67.0	400	500	1.40	1.30
	602891	MVSI 075/2110-S02-TS	70	•	135°C	2326	2326	1463	2107	14.4	20.7	130	130	1500	1790	4.10	4.20
	602884	MVSI 075/3110-S02-TS	80	•	135°C	3422	3422	2152	3099	21.1	30.4	188	188	2000	2300	5.40	5.20
	602515	MVSI 075/3800-S02-TS	80	•	135°C	4206	4206	2645	3808	25.9	37.4	204	204	2500	3000	6.00	6.00
	602862	MVSI 075/4200-S02-TS	90	•	135°C	4658	4658	2930	4218	28.7	41.4	238	238	2800	3350	6.50	6.50
	602826	MVSI 075/5300-S02-TS	90	•	135°C	5838	5838	3672	5287	36.0	51.9	268	268	4000	4300	8.20	7.85
	602827	MVSI 075/6500-S90-TS	95	□	135°C	7197	7197	4526	6517	44.4	63.9	315	315	4900	5800	9.90	9.50
	602551	MVSI 075/6800-S02-TS	97	□	135°C	7340	7340	4616	6647	45.3	65.2	330	330	5600	6000	10.5	10.0
	602870	MVSI 075/10000-S02-TS	97	□	135°C	12390	10973	7792	9937	76.4	97.5	438	419	6800	7450	13.2	12.0
	602871	MVSI 075/14000-S02-TS	105	□	135°C	17946	15500	11285	14036	111	138	702	680	9200	9600	21.0	19.5
	602872	MVSI 075/17000-S02-TS	105	□	135°C	21337	19064	13418	17263	132	169	755	711	10400	11140	22.0	20.0
	602873	MVSI 075/22000-S90-TS	110	□	135°C	28633	24508	18005	22192	177	218	1015	981	12500	16200	26.5	28.0

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

Fig. P



I _a /I _n 50 Hz 60 Hz		Type	Dimensional specifications (mm)																	
			Fig.	A n. split covers		B	C	D	E	ØG	N°	F	H	I	L	M	N	I1	N1	Cable entry thread
				1	2															
2.38	2.85	MVSI 075/910-S08-TS	P	592	616	246	230	140	190	17	4	54	116	168	210	180	225	192	258	M25x1,5
3.55	2.95	MVSI 075/2110-S02-TS	P	711	756	321	310	155	255	23.5	4	77	157	178	277	215	295	223	326	M25x1,5
3.98	4.62	MVSI 075/3110-S02-TS	P	758	782	347	340	180	280	26	4	80	165	202	303	240	320	226	356	M32x1,5
4.00	4.20	MVSI 075/3800-S02-TS	P	822	848	347	340	180	280	26	4	80	165	233	303	240	320	259	356	M32x1,5
3.84	4.00	MVSI 075/4200-S02-TS	P	818	892	370	390	200	320	28	4	90	180	192	330	270	350	266	382	M32x1,5
3.87	5.35	MVSI 075/5300-S02-TS	P	866	892	370	390	200	320	28	4	90	180	240	330	270	350	266	382	M32x1,5
3.04	3.26	MVSI 075/6500-S90-TS	P	896	922	395	392	200	320	28	4	100	192	255	355	270	375	281	410	M32x1,5
3.12	3.30	MVSI 075/6800-S02-TS	P	878	894	437	460	125	380	39	6	35	215	230	387	320	414	246	450	M32x1,5
3.33	3.92	MVSI 075/10000-S02-TS	P	1017	1032	437	460	125	380	39	6	35	215	300	387	320	414	315	450	M32x1,5
4.99	5.44	MVSI 075/14000-S02-TS	P	1070	1100	526	570	140	480	45	8	41	268	240	485	510	516	270	566	M32x1,5
5.50	5.90	MVSI 075/17000-S02-TS	P	1150	1180	526	570	140	480	45	8	41	268	280	485	510	516	310	566	M32x1,5
5.63	4.71	MVSI 075/22000-S90-TS	P	1175	1200	607	610	140	520	45	8	38	297	298	542	510	582	323	616	M32x1,5

I_a/I_n = ratio between start-up current and maximum current.
 Several sizes are available with different mounting bolt patterns. Please contact sales office at Italvibras.

MVSI-ACC



Technical features

Power supply

Three-phase voltage from 230V to 690V, 50Hz or 60Hz; suitable for use with an inverter from 20Hz to the base frequency, with constant torque load profile.

Polarity

6 standard poles, other polarities on request.

Conformity with European Directives

Low voltage 2006/95/EC.

Reference Regulations

EN 60034-1.

Functioning

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

Centrifugal force

Range extended up to 50000 Kgf. (490 KN) for the couple of vibrators, with centrifugal force adjustable from 0 to 100%.

Mechanical protection

IP 55 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.

Shaft extension type

The MVSI-ACC series, deriving directly from the MVSI series, is characterised by the motor shaft projecting from one side, allowing in-line coupling, using a coupling, between two equal vibrators. The MVSI-ACC series is very useful for manufacturers of large screens and vibrating machines, or for plants that require very high centrifugal force values. With two vibrators of the MVSI-ACC series coupled in line, it is possible to arrive at a centrifugal force of 50.000 Kgf (490kN). Italtibras technical staff can help the user in the choice of the coupling as well as in the application of the vibrators. Upon request, it is possible to supply the shaft extension on both sides of the vibrator, so to enable the connection of three or more vibrators.

The "ACC" design can be supplied on request on other motor sizes not listed in these pages.

Tropicalization

Standard on all vibrators, with vacuum encapsulation or with "drop by drop" trickle system.

Ambient temperature

From -20°C to +40°C. Versions for higher or lower temperatures are available on request.

Vibrator thermal protection

With PTC rated thermistor heat detectors 130°C (DIN 44081-44082).

On request, thermistors with different temperatures and anti-condensation heaters.

Fixing of the vibrator

In all positions and therefore without restriction. Linear coupling using dynamic joint between the two vibrators.

Lubrication

All vibrators are correctly 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 methods may be applied.

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 vibrating machines.

6 poles - 1000/1200 rpm

	Description				Mechanical specifications								Electrical specifications					
	Code	Type	SIZE	SP	Static moment* kgmm		Centrifugal force kg				Weight kg		Max input power W		Max. current A		I _s /I _n	
					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	50 Hz	60 Hz
three-phase	602301	MVSI 10/15000-S02-ACC	105	□	12662	8700	14155	14004	139	137	649	611	10600	11270	19.0	18.0	5.88	5.78
	602300	MVSI 10/17500-S02-ACC	105	□	15500	10439	17327	16804	170	165	711	662	13000	19700	24.5	23.0	5.71	5.96
	602319	MVSI 10/22000-S90-ACC	110	□	20025	12553	22386	20208	220	198	933	903	19000	19000	33.0	25.5	4.67	5.88
	602313	MVSI 10/25000-S90-ACC	110	□	22364	14785	25000	23800	245	233	970	938	19000	19000	33.0	25.5	4.67	5.88

* Working moment = 2 x static moment. □ CSA certification on request, with feeding line included. I_s/I_n = ratio between start-up current and maximum current.

Certifications

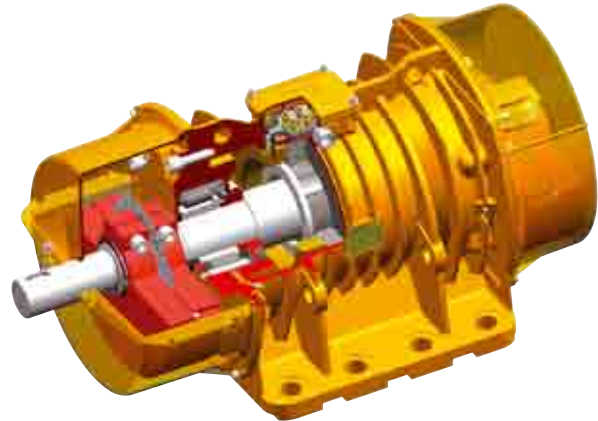
Regulation CAN/CSA - C22.2 N. 100-95,
file n° LR100948 Class 4211 01
– Motors and generators.



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



Comply with the applicable
European Union directives



Insulated windings using “drop by drop” trickle system with class H resin. The rotor is die cast aluminium.

Casing

In spheroidal cast iron to guarantee sturdiness and elasticity. Patented shape that improves heat dispersion and lowers normal working temperature at full load.

Bearing flange

Constructed in spheroidal cast iron.
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. Projecting from one side to allow linear coupling using a joint.

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, from the shaft extension side the weight cover is sectioned: it is made up from two halves, which guarantee opening even after coupling between the two vibrators.

Painting

Electrostatic surface treatment based on polymerised epoxy polyester powder in oven at 200°C. Tested in salt spray for 500 hours.

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

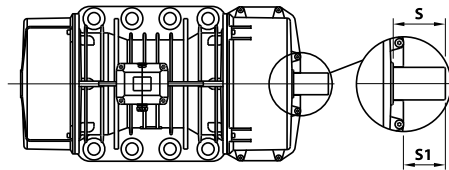
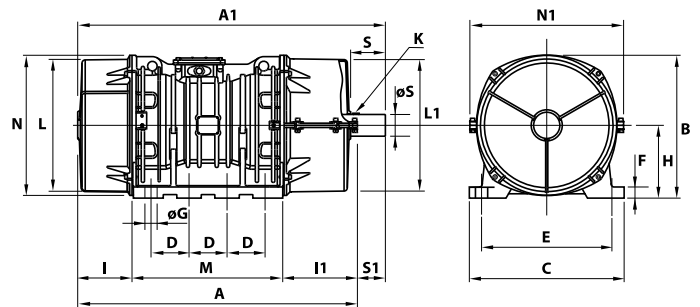


Fig. T



Dimensional specifications (mm)

Fig.	Holes										Shaft extension					Cable entry thread						
	A	B	C	D	E	øG	N°	F	H	I	L	M	N	A1	L1		I1	N1	øS	S	S1	k key
T	1030	526	570	140	480	45	8	41	268	200	486	510	516	1133	490	270	566	80	128	103	22x14x50	M32x1,5
T	1070	526	570	140	480	45	8	41	268	240	486	510	516	1179	490	270	566	80	134	109	22x14x70	M32x1,5
T	1175	607	610	140	520	45	8	38	297	297.5	542	510	582	1234	546	322.5	616	105	90.5	59	28x16x70	M32x1,5
T	1175	607	610	140	520	45	8	38	297	297.5	542	510	582	1270	546	322.5	616	105	126.5	95	28x16x70	M32x1,5

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

MVSI-E



The MVSI-E series has been designed for use in industrial processes in environments with a potentially explosive atmosphere, due to the presence of explosive gas and dust, in compliance with ATEX Directive (94/9/CE).

In particular, the MVSI-E series can be used in areas 1 and 2 (gas) and in areas 21 and 22 (dusts) according to the layout and following features:

Technical features

Power supply

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

Polarity

2, 4, 6 and 8 poles.

Conformity with European Directives

ATEX 94/9/EC; Low voltage 2006/95/EC.

Reference Regulations

IEC/EN 60079-0, IEC/EN 60079-7, IEC/EN 61241-0, IEC/EN 61241-1, EN 60034-1.

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 11160 Kgf. (109 KN), adjustable in a continuous linear mode with variation of the position of the eccentric weights.

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).

Tropicalization

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

Ambient temperature

From -10°C to +40°C, on request it is possible to have vibrators for max. ambient temperatures of +55°C. On request special greases for temperatures lower than -10°C.

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. An external earthing screw is located on the casing as prescribed by Regulation IEC/EN 60079-0.

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Category: II 2 G,D
.....

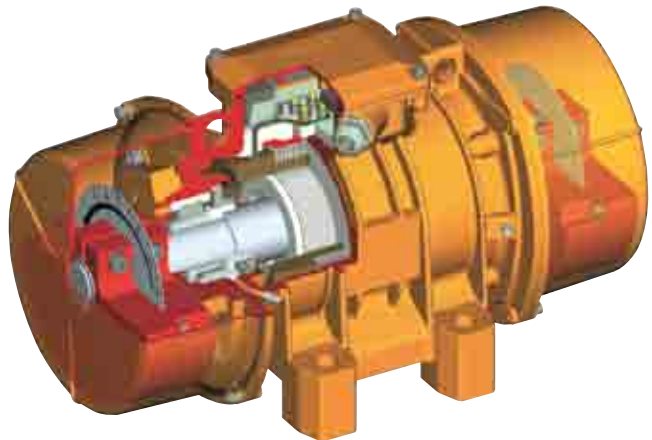
Level of protection: Ex e II, tD A21 IP66
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Temperature class: Gas: T3 (200°C) or T4 (135°C)
.....

Dust: see tab. page 24-31
.....

EC certificate: LCIE 06 ATEX 6092 X
.....

Areas of use: 1, 2, 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 Italtibras, 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.

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 Italtibras.

II 2 G, D – Class Ex e II T4/T3 tD A21 IP 66.
IEC/EN 60079-0, IEC/EN 60079-7,
IEC/EN 61241-0, IEC/EN 61241-1.
Certificate n° LCIE 06 ATEX 6092 X



GGTN Permit and Gost-R certificate for increased safety Ex e:
GOST R 51330.0-99,
GOST R 51330.8-99, GOST R IEC 61241-1-1-99.



Certificate of Conformity
n° IECEx LCI 10.0003X
following standards IEC 61241-0, IEC 61241-1,
IEC 60079-0, IEC 60079-7



Comply with the applicable
European Union directives



MVSI-E



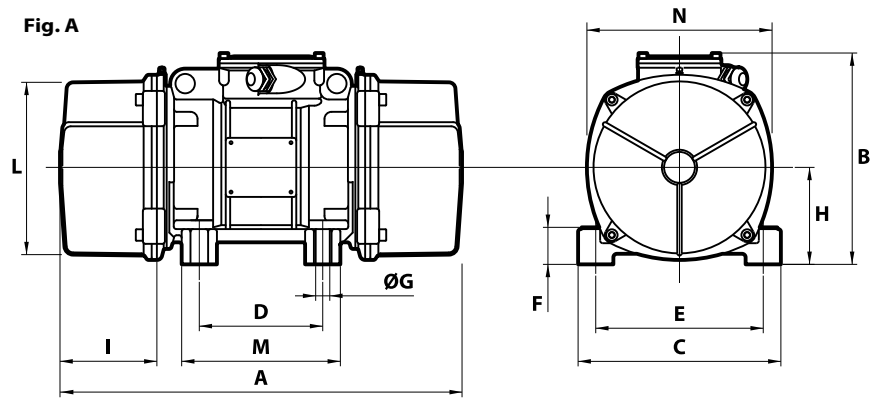
2 poles - 3000/3600 rpm

	Description			Mechanical specifications								Electrical specifications					
	Code	Type	SIZE	Static moment* kgmm		Centrifugal force				Weight kg		Temp. class (G)	Temp. class (D)	Max input power W		Power rating W	
				50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz			50 Hz	60 Hz	50 Hz	60 Hz
three-phase	6E0311	MVSI 3/100E-S02 ▲	00	12.0	12.0	121	174	1.19	1.71	5.60	5.60	T3 T4	120°C	180 105	180 105	120 80	120 80
	6E0312	MVSI 3/200E-S02 ▲	01	21.0	15.0	211	218	2.07	2.14	6.40	6.20	T3	120°C	180	180	120	120
	6E0313	MVSI 3/300E-S02	10	30.1	20.4	304	297	2.98	2.91	9.70	9.20	T3 T4	120°C	260 230	270 230	210 172	210 172
	6E0314	MVSI 3/500E-S02	20	49.9	32.4	503	471	4.93	4.62	14.8	13.8	T3 T4	120°C	500 350	500 360	300 210	300 210
	6E0381	MVSI 3/800E-S02	30	78.0	52.0	785	754	7.70	7.40	21.0	20.0	T3 T4	120°C	550 390	570 400	405 290	405 290
	6E0513	MVSI 3/1100E-S02	35	110	73.0	1105	1061	10.8	10.4	23.0	22.0	T3 T4	120°C	550 460	600 500	350 290	350 290
	6E0491	MVSI 3/1300E-S08	AF33	128	91.6	1290	1327	12.7	13.0	27.0	24.7	T4	200°C	700	750	500	500
	6E0504	MVSI 3/1500E-S08	AF33	146	110	1470	1595	14.4	15.6	25.3	24.0	T4	200°C	700	750	500	500
	6E0502	MVSI 3/1600E-S02	50	153	102	1545	1483	15.2	14.5	33.0	31.5	T3 T4	200°C	1010 830	1070 910	720 660	720 660
	6E0503	MVSI 3/1800E-S02	50	179	128	1802	1853	17.7	18.2	34.0	32.5	T3	200°C	1010	1070	720	720
	6E0256	MVSI 3/2010E-S90	AF50	205	128	2059	1853	20.2	18.2	48.7	46.3	T3	200°C	1110	1150	960	960
	6E0257	MVSI 3/2310E-S90	AF50	230	153	2316	2224	22.7	21.8	49.6	47.1	T3	200°C	1110	1150	960	960
	6E0472	MVSI 3/5000E-S02	AF70	515	344	5187	4979	50.9	48.8	109	105	T3	135°C	3000	3000	2600	2600

* Working moment = 2 x static moment.

▲ Available only in versions 127/220V 50Hz three-phase, 200/346V 50Hz three-phase and 210/363V 60Hz three-phase.

Fig. A



Max. current				Type	Dimensional specifications (mm)													Cable entry thread	
400 V 50 Hz	460 V 60 Hz	t _E (s)	I _A /I _N		Fig.	A	B	C	Holes				F	H	I	L	M		N
A								D	E	øG	N°								
0.33 0.26	0.30 0.23	30 20	2.68 3.48	MVSI 3/100E-S02 ▲	A	211	153	125	62-74**	106	9	4	24	61	46	103	100	117	M20x1,5
0.33	0.30	30	2.68	MVSI 3/200E-S02 ▲	A	235	153	125	62-74**	106	9	4	24	61	58	103	100	117	M20x1,5
0.57 0.48	0.50 0.41	18 12	3.50 4.20	MVSI 3/300E-S02	A	255	179	152	90	125	13	4	28	73	54	127	128	141	M20x1,5
0.76 0.57	0.67 0.50	12 8	4.20 5.60	MVSI 3/500E-S02	A	288	203	167	105	140	13	4	30	82.5	65	145	140	160	M25x1,5
0.95 0.72	0.83 0.64	12 8	4.20 5.52	MVSI 3/800E-S02	A	308	216	205	120	170	17	4	45	93.5	63	170	160	182	M25x1,5
0.86 0.76	0.75 0.67	15 11	3.88 4.37	MVSI 3/1100E-S02	A	435	225	205	120	170	17	4	54	104.5	117.5	187	162	203	M25x1,5
1.24	1.07	6	6.40	MVSI 3/1300E-S08	A	375	216.5	215	100	180	17	4	47	93.5	106	170	145	182	M25x1,5
1.24	1.07	6	6.40	MVSI 3/1500E-S08	A	375	216.5	215	100	180	17	4	47	93.5	106	170	145	182	M25x1,5
1.62 1.43	1.40 1.25	6 6	9.29 7.30	MVSI 3/1600E-S02	A	430	246	230	140	190	17	4	54	116	99	207	190	225	M25x1,5
1.62	1.40	6	9.29	MVSI 3/1800E-S02	A	430	246	230	140	190	17	4	54	116	99	207	190	225	M25x1,5
1.90	1.66	7	5.90	MVSI 3/2010E-S90	A	465	230	230	140	190	17	4	49	104	105	186	180	200	M25x1,5
1.90	1.66	7	5.90	MVSI 3/2310E-S90	A	465	230	230	140	190	17	4	49	104	105	186	180	200	M25x1,5
4.75	4.20	5	8.00	MVSI 3/5000E-S02	A	560	290	310	155	255	25	4	90	130	137	238	210	253	M25x1,5

t_E (s) = set time t_E from IEC/EN 60079-7. 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 Italvibras.

MVSI-E



4 poles - 1500/1800 rpm

	Description			Mechanical specifications								Electrical specifications					
	Code	Type	SIZE	Static moment* kgmm		Centrifugal force				Weight kg		Temp. class (G)	Temp. class (D)	Max input power W		Power rating W	
				50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz			50 Hz	60 Hz	50 Hz	60 Hz
three-phase	6E1367	MVSI 15/200E-S02	10	84.2	58.8	213	214	2.09	2.10	12.5	11.7	T3 T4	120°C	203 170	- 175	90 94	- 95
	6E1372	MVSI 15/400E-S02	20	163	113	412	411	4.04	4.03	19.0	18.2	T3 T4	120°C	300 285	320 270	200 180	230 200
	6E1373	MVSI 15/550E-S02	20	219	163	552	592	5.42	5.81	20.4	19.0	T3 T4	120°C	300 285	320 270	200 180	230 200
	6E1408	MVSI 15/700E-S02	30	286	209	720	760	7.06	7.46	27.5	26.2	T3 T4	120°C	460 360	500 420	310 240	380 310
	6E1524	MVSI 15/1100E-S02	35	415	271	1045	982	10.3	9.63	35.0	30.5	T4	120°C	370	450	285	340
	6E1217	MVSI 15/1410E-S02	40	561	400	1413	1449	13.9	14.2	44.0	41.0	T3 T4	120°C	900 630	950 700	660 460	730 505
	6E1219	MVSI 15/1710E-S02	50	715	485	1798	1757	17.6	17.2	51.0	48.5	T3 T4	150°C	1100 630	1150 700	730 480	800 530
	6E1267	MVSI 15/2000E-S02	50	817	561	2054	2033	20.1	19.9	55.5	51.5	T3 T4	150°C	1100 630	1150 700	730 480	800 530
	6E1220	MVSI 15/2410E-S08	60	962	674	2420	2444	23.7	24.0	71.0	66.0	T3 T4	150°C	1600 1150	1700 1250	1340 880	1470 970
	6E1268	MVSI 15/3000E-S08	60	1235	858	3106	3107	30.5	30.5	80.0	73.5	T3 T4	135°C	1280 1150	1550 1400	1000 900	1200 1080
	6E1221	MVSI 15/3810E-S02	70	1526	1034	3840	3744	37.7	36.7	119	110	T3 T4	135°C	2200 1850	2400 1950	1780 1500	1960 1650
	6E1269	MVSI 15/4300E-S02	70	1720	1173	4326	4250	42.4	41.7	123	117	T3 T4	135°C	2200 1850	2400 1950	1780 1500	1960 1650
	6E1211	MVSI 15/5010E-S02	80	1990	1364	5007	4911	49.1	48.5	161	153	T3	135°C	3200	3700	2560	2800
	6E1447	MVSI 15/6000E-S02	80	2261	1560	5690	5650	55.8	55.4	163.5	155	T3	135°C	3200	3700	2560	2800
	6E1204	MVSI 15/9500E-S02	97	3346	2462	8416	8916	82.6	87.5	317	303	T3	135°C	7300	7900	5925	6500

* Working moment = 2 x static moment.

Fig. A

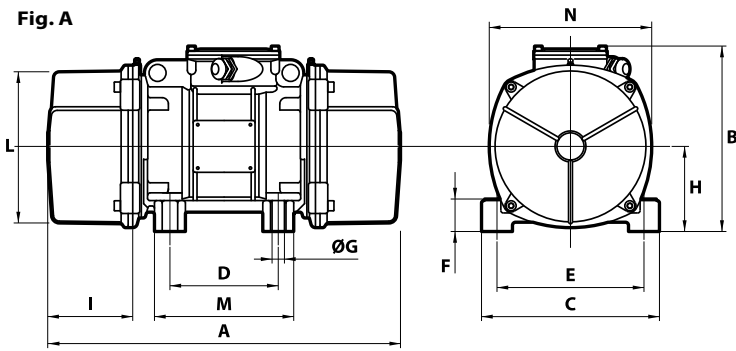
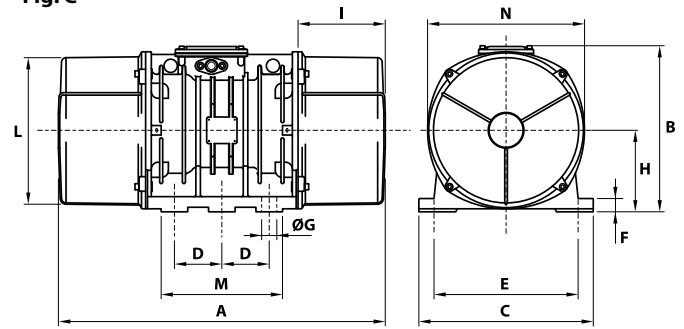


Fig. C



Max. current A		t _E (s)	I _A /I _N	Type	Dimensional specifications (mm)													Cable entry thread	
400 V 50 Hz	460 V 60 Hz				Fig.	A	B	C	D	E	ØG	N°	F	H	I	L	M		N
0.45 0.39	- 0.40	35 28	2.04 2.34	MVSI 15/200E-S02	A	301	179	152	90	125	13	4	28	73	77	127	128	141	M20x1,5
0.57 0.52	0.52 0.46	18 16	3.33 3.63	MVSI 15/400E-S02	A	344	203	167	105	140	13	4	30	82.5	93	145	140	160	M25x1,5
0.57 0.52	0.52 0.46	18 16	3.33 3.63	MVSI 15/550E-S02	A	386	203	167	105	140	13	4	30	82.5	114	145	140	160	M25x1,5
0.86 0.72	0.85 0.70	17 12	3.5 4.2	MVSI 15/700E-S02	A	394	216	205	120	170	17	4	45	93.5	106	170	160	182	M25x1,5
0.81	0.83	13	4	MVSI 15/1100E-S02	A	435	225	205	120	170	17	4	54	104.5	117.5	187	162	203	M25x1,5
1.38 1.05	1.32 1.00	13 8	4 5.36	MVSI 15/1410E-S02	A	448	246	230	140	190	17	4	54	116	108	207	190	225	M25x1,5
1.90 1.33	1.82 1.27	9 5.5	4.95 7	MVSI 15/1710E-S02	A	500	246	230	140	190	17	4	54	116	134	207	190	225	M25x1,5
1.90 1.33	1.82 1.27	9 5.5	4.95 7	MVSI 15/2000E-S02	A	574	246	230	140	190	17	4	54	116	171	207	180	225	M25x1,5
3.04 2.47	3.20 2.30	7 5.5	6 7.5	MVSI 15/2410E-S08	A	537	272	275	155	225	22	4	70	130	137	238	210	253	M25x1,5
3.14 2.85	3.10 2.85	5.5 5.5	7.42 8.16	MVSI 15/3000E-S08	A	617	272	275	155	225	22	4	70	130	177	238	210	253	M25x1,5
3.71 3.14	3.50 3.00	6 6	7.17 8.42	MVSI 15/3810E-S02	A	584	321	310	155	255	23.5	4	77	157	137	277	215	295	M25x1,5
3.71 3.14	3.50 3.00	6 6	7.17 8.42	MVSI 15/4300E-S02	A	666 (50Hz) 584 (60Hz)	321	310	155	255	23.5	4	77	157	178 (50Hz) 137 (60Hz)	277	215	295	M25x1,5
5.70	5.45	6	7	MVSI 15/5010E-S02	A	630	347	340	180	280	26	4	80	165	150	303	240	320	M32x1,5
5.70	4.45	6	7	MVSI 15/6000E-S02	A	680	370	390	200	320	28	4	90	180	160	330	270	350	M32x1,5
11.6	11.0	5.5	7	MVSI 15/9500E-S02	C	862	437	460	125	380	39	6	35	215	230	387	320	414	M32x1,5

t_E (s) = set time t_E from IEC/EN 60079-7. I_A/I_N = ratio between start-up current and maximum current.
Several sizes are available with different mounting bolt patterns. Please contact sales office at Italvibras.

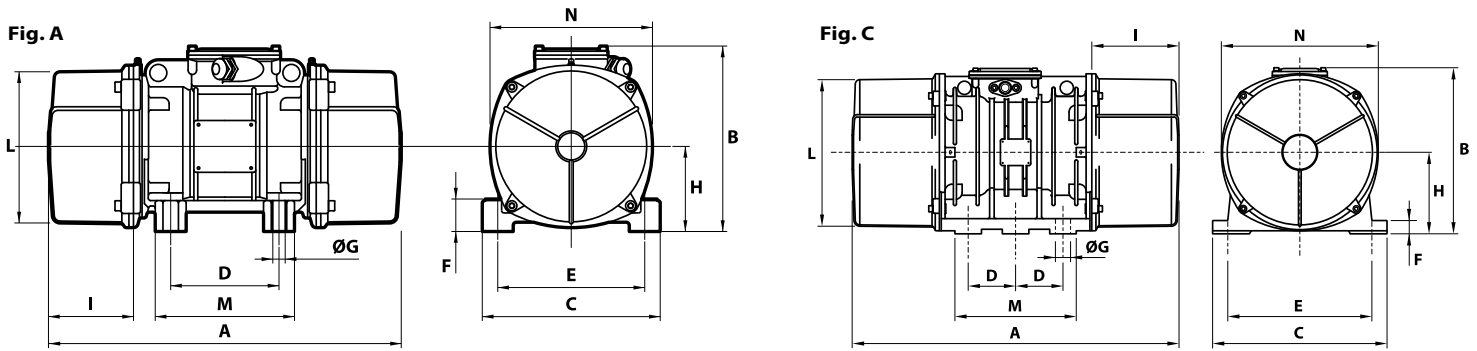
MVSI-E



6 poles - 1000/1200 rpm

	Description			Mechanical specifications								Electrical specifications					
	Code	Type	SIZE	Static moment* kgmm		Centrifugal force				Weight kg		Temp. class (G)	Temp. class (D)	Max input power W		Power rating W	
				50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz			50 Hz	60 Hz	50 Hz	60 Hz
three-phase	6E2298	MVSI 10/200E-S02	20	163	163	183	264	1.80	2.59	19.0	19.0	T4	120°C	185	200	100	110
	6E2314	MVSI 10/310E-S02	30	286	209	321	338	3.15	3.32	27.5	26.2	T4	120°C	320	350	201	221
	6E2402	MVSI 10/550E-S02	35	457	457	512	737	5.02	7.23	36.5	36.5	T4	120°C	350	380	240	264
	6E2380	MVSI 10/810E-S08	40	723	561	809	905	7.94	8.88	48.0	44.0	T3 T4	135°C	680 500	730 540	448 290	490 320
	6E2381	MVSI 10/1110E-S08	50	1012	715	1132	1151	11.1	11.3	58.0	51.0	T3 T4	135°C	750 480	690 500	550 300	550 300
	6E2382	MVSI 10/1400E-S08	50	1274	921	1424	1483	14.0	14.5	66.0	59.5	T3 T4	135°C	750 480	690 500	550 300	550 300
	6E2406	MVSI 10/1610E-S08	60	1464	962	1638	1549	16.1	15.2	83.0	71.0	T3 T4	135°C	1100 850	1200 950	825 615	900 675
	6E2407	MVSI 10/2100E-S08	60	1927	1318	2154	2102	21.1	20.6	93.0	82.0	T3 T4	135°C	1500 1050	1700 1200	940 750	1020 820
	6E2167	MVSI 10/2610E-S02	70	2326	1706	2601	2747	25.5	26.9	130	116	T3	135°C	1960	2100	1580	1700
	6E2230	MVSI 10/3000E-S02	70	2690	1940	3007	3124	29.5	30.6	145	130	T3 T4	135°C	2200 1770	2400 1900	1630 1350	1770 1470
	6E2154	MVSI 10/3810E-S02	80	3422	2380	3826	3831	37.5	37.6	188	170	T3 T4	135°C	2200 2000	2700 2200	1575 1500	1730 1650
	6E2204	MVSI 10/4700E-S02	80	4206	2887	4701	4648	46.1	46.0	204	183	T3 T4	135°C	3100 2550	3500 3000	2500 2100	2770 2290
	6E2350	MVSI 10/5150E-S02	80	4678	3230	5230	5200	51.3	51.0	225	200	T3 T4	135°C	3100 2550	3500 3000	2500 2100	2770 2290
	6E2138	MVSI 10/5200E-S02	90	4658	3288	5208	5293	51.1	51.9	238	215	T3	135°C	3500	3650	2590	2700
	6E2351	MVSI 10/5700E-S02	90	5044	3478	5650	5600	55.4	54.9	240	220	T3	135°C	3500	3650	2590	2700
	6E2136	MVSI 10/6600E-S02	97	6083	3979	6799	6405	66.7	62.8	285	257	T3	135°C	4200	4800	3360	3550
6E2137	MVSI 10/10000E-S02	97	8673	5664	9695	9117	95.1	89.4	381	340	T3	135°C	5400	5900	4500	4800	
6E2349	MVSI 10/11200E-S02	97	9983	6896	11160	11100	109	109	405	370	T3	135°C	5400	5900	4500	4800	

* Working moment = 2 x static moment.



Max. current				Type	Dimensional specifications (mm)														Cable entry thread
400 V 50 Hz	460 V 60 Hz	t _E (s)	I _A /I _N		Fig.	A	B	C	D	E	ØG	N°	F	H	I	L	M	N	
0.48	0.45	25	2.72	MVSI 10/200E-S02	A	344	203	167	105	140	13	4	30	82.5	93	145	140	160	M25x1,5
0.67	0.65	25	2.81	MVSI 10/310E-S02	A	394	216	205	120	170	17	4	45	93.5	106	170	160	182	M25x1,5
0.71	0.68	26	2.40	MVSI 10/550E-S02	A	435	225	205	120	170	17	4	54	104.5	117.5	187	162	203	M25x1,5
1.33 1.05	1.27 1.00	25 17	2.78 3.54	MVSI 10/810E-S08	A	500 (50Hz) 448 (60Hz)	246	230	140	190	17	4	54	116	134 (50Hz) 108 (60Hz)	207	190	225	M25x1,5
1.57 1.24	1.36 1.00	19 13	3.33 4.23	MVSI 10/1110E-S08	A	574	246	230	140	190	17	4	54	116	171	207	190	225	M25x1,5
1.57 1.24	1.36 1.00	19 13	3.33 4.23	MVSI 10/1400E-S08	A	574	246	230	140	190	17	4	54	116	171	207	190	225	M25x1,5
2.09 1.81	2.00 1.70	15 10	3.63 4.73	MVSI 10/1610E-S08	A	617 (50Hz) 537 (60Hz)	272	275	155	225	22	4	70	130	177 (50Hz) 137 (60Hz)	238	210	253	M25x1,5
2.85 2.19	2.75 2.10	9 8	4.50 4.89	MVSI 10/2100E-S08	A	617	272	275	155	225	22	4	70	130	177	238	210	253	M25x1,5
3.90	3.70	8	5.31	MVSI 10/2610E-S02	A	666	321	310	155	255	23.5	4	77	157	178	277	215	295	M25x1,5
4.28 3.71	4.30 3.60	8 5	4.82 5.56	MVSI 10/3000E-S02	A	712	321	310	155	255	23.5	4	77	157	201	277	215	295	M25x1,5
4.85 4.28	4.60 4.00	7 6	5.88 6.66	MVSI 10/3810E-S02	A	734	347	340	180	280	26	4	80	165	200	303	240	320	M32x1,5
6.18 5.42	6.00 5.20	10 6	5.23 5.96	MVSI 10/4700E-S02	A	796	347	340	180	280	26	4	80	165	233	303	240	320	M32x1,5
6.18 5.42	6.00 5.20	10 6	5.23 5.96	MVSI 10/5150E-S02	A	826	347	340	180	280	26	4	80	165	248	303	240	320	M32x1,5
6.65	6.10	10	4.64	MVSI 10/5200E-S02	A	744	370	390	200	320	28	4	90	180	192	330	270	350	M32x1,5
6.65	6.10	10	4.64	MVSI 10/5700E-S02	A	840	370	390	200	320	28	4	90	180	240	330	270	350	M32x1,5
7.60	7.00	5.3	6.67	MVSI 10/6600E-S02	C	750	437	460	125	380	39	6	35	215	174	387	320	414	M32x1,5
9.98	9.10	7	6.00	MVSI 10/10000E-S02	C	862	437	460	125	380	39	6	35	215	230	387	320	414	M32x1,5
9.98	9.10	7	6.00	MVSI 10/11200E-S02	C	912	437	460	125	380	39	6	35	215	255	387	320	414	M32x1,5

t_E (s) = set time t_E from IEC/EN 60079-7. I_A/I_N = ratio between start-up current and maximum current.
Several sizes are available with different mounting bolt patterns. Please contact sales office at Italvibras.

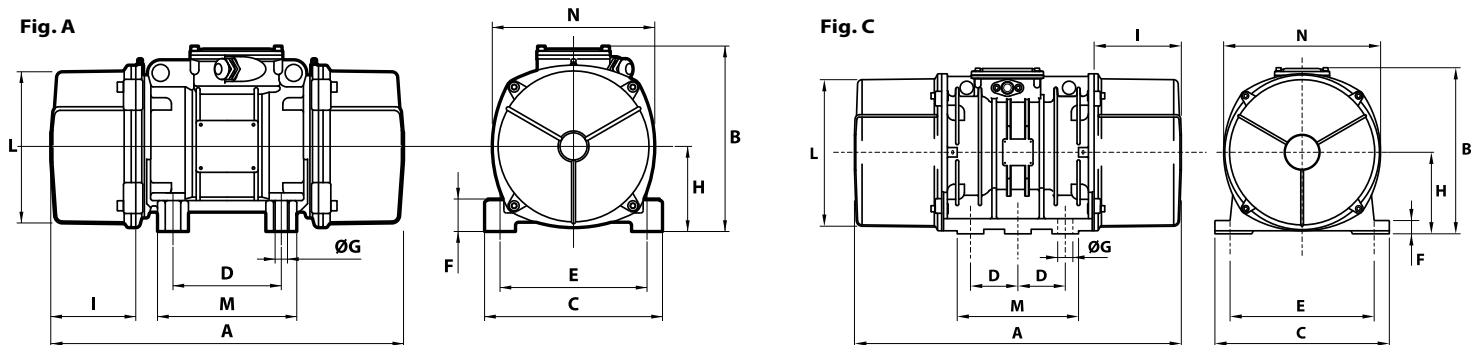
MVSI-E



8 poles - 750/900 rpm

	Description			Mechanical specifications								Electrical specifications					
	Code	Type	SIZE	Static moment* kgmm		Centrifugal force				Weight kg		Temp. class (G)	Temp. class (D)	Max input power W		Power rating W	
				50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz			50 Hz	60 Hz	50 Hz	60 Hz
three-phase	6E2568	MVSI 075/150E-S02	20	163	163	104	149	1.02	1.46	19.0	19.0	T3	130°C	230	250	100	110
	6E2575	MVSI 075/250E-S02	30	286	286	181	260	1.76	2.55	27.5	27.5	T3	130°C	350	350	190	205
	6E2615	MVSI 075/400E-S02	35	457	457	288	415	2.83	4.07	36.5	36.5	T4	120°C	280	300	135	150
	6E2609	MVSI 075/660E-S08	40	723	723	456	656	4.47	6.44	48.0	48.0	T3	120°C	500	525	275	302
	6E2610	MVSI 075/910E-S08	50	1012	1012	637	917	6.25	9.00	58.0	58.0	T3 T4	120°C	600 450	670 500	336 225	380 255
	6E2618	MVSI 075/1310E-S08	60	1464	1464	922	1327	9.04	13.0	83.0	83.0	T3	150°C	950	1100	646	740
	6E2891	MVSI 075/2110E-S02	70	2326	2326	1463	2107	14.4	20.7	130	130	T3	135°C	1500	1650	1065	1225
	6E2884	MVSI 075/3110E-S02	80	3421	3421	2152	3099	21.1	30.4	188	188	T3	135°C	2000	2200	1460	1600
	6E2515	MVSI 075/3800E-S02	80	4206	4206	2645	3808	25.9	37.4	204	204	T3	135°C	2500	3000	1800	2100
	6E2862	MVSI 075/4200E-S02	90	4658	4658	2930	4218	28.7	41.4	238	238	T3	135°C	2630	2990	1900	2180
	6E2826	MVSI 075/5300E-S02	90	5838	5838	3672	5287	36.0	51.9	268	268	T3	135°C	3520	3800	2570	2775
	6E2870	MVSI 075/10000E-S02	97	12390	10973	7792	9937	76.4	97.5	438	419	T3	135°C	5100	5800	4100	4500

* Working moment = 2 x static moment.



Max. current A		t _E (s)	I _A /I _N	Type	Dimensional specifications (mm)													Cable entry thread	
400 V 50 Hz	460 V 60 Hz				Fig.	A	B	C	D	E	ØG	N°	F	H	I	L	M		N
0.67	0.64	25	2.00	MVSI 075/150E-S02	A	344	203	167	105	140	13	4	30	82.5	93	145	140	160	M25x1,5
0.86	0.80	25	2.47	MVSI 075/250E-S02	A	394	216	205	120	170	17	4	45	93.5	106	170	160	182	M25x1,5
0.57	0.56	30	1.66	MVSI 075/400E-S02	A	435	225	205	120	170	17	4	54	104.5	117.5	187	162	203	M25x1,5
1.14	1.10	30	2.15	MVSI 075/660E-S02	A	500	246	230	140	190	17	4	54	116	134	207	190	225	M25x1,5
1.33	1.30	30	2.14	MVSI 075/910E-S02	A	574	246	230	140	190	17	4	54	116	171	207	190	225	M25x1,5
1.14	1.10	25	2.50																
2.09	2.10	30	2.63	MVSI 075/1310E-S02	A	617	272	275	155	225	22	4	70	130	177	238	210	253	M25x1,5
3.61	3.60	15	4.18	MVSI 075/2110E-S02	A	666	321	310	155	255	23.5	4	77	157	178	277	215	295	M25x1,5
5.13	5.00	13	3.96	MVSI 075/3110E-S02	A	734	347	340	180	280	26	4	80	165	202	303	240	320	M32x1,5
5.70	6.00	14	4.00	MVSI 075/3800E-S02	A	796	347	340	180	280	26	4	80	165	233	303	240	320	M32x1,5
6.18	6.20	14	3.84	MVSI 075/4200E-S02	A	744	370	390	200	320	28	4	90	180	192	330	270	350	M32x1,5
7.79	7.40	14	3.80	MVSI 075/5300E-S02	A	840	370	390	200	320	28	4	90	180	240	330	270	350	M32x1,5
11.4	11.0	17	3.50	MVSI 075/10000E-S02	C	1002	437	460	125	380	39	6	35	215	300	387	320	414	M32x1,5

t_E (s) = set time t_E from IEC/EN 60079-7. I_A/I_N = ratio between start-up current and maximum current.
Several sizes are available with different mounting bolt patterns. Please contact sales office at Italvibras.



The MVSS stainless steel series vibrators are characterized by their total protection from liquids, dusts, aggressive agents and contaminants, thanks to the AISI 316L stainless steel casing and external components.

Line MVSS-P is available for potentially explosive dust atmospheres in conformity with ATEX Directive 94/9/EC.

Technical features

Power supply

Three-phase voltage from 24V to 690V, 50Hz or 60Hz or single-phase 100-130V 60Hz and 200-240V, 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

Low Voltage 2006/95/EC.

Reference Regulations

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 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), class H (180°C) on request.

Tropicalization

Standard on all vibrators, with vacuum encapsulation up to size 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) on 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, 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 35; 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.

MVSS-P

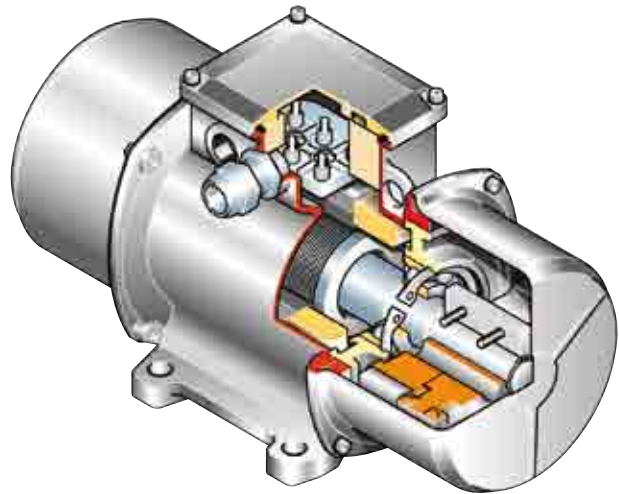
Category: II 2 D

Level of protection: IP66

Temperature class: 120°C

EC certificate: LCIE 03 ATEX 6005 X

Areas of use: 21, 22



Certifications MVSS

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

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 Italtibras.

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 304 with thickness measuring 1.2 to 1.5mm, 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

Identification plate in AISI 316L stainless steel.

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)



Certificate GOST-R n° POCC IT.AH50.B13978,
standards GOST R 50615, GOST 17770,
GOST 12.2.030, GOST R 51318.14.1,
GOST R 51318.14.2, GOST R 51317.3.2,
GOST R 51317.3.3.



Comply with the applicable
European Union directives



Certifications MVSS-P

II 2 D - Temperature class 120°C
- CENELEC EN 50014 - EN 50281-1-1
Certificate n. LCIE 03 ATEX 6005 X



Compliance with applicable
European Union directives: Low Voltage
2006/95/CE, ATEX (94/9/CE),



MVSS



CESI KIE

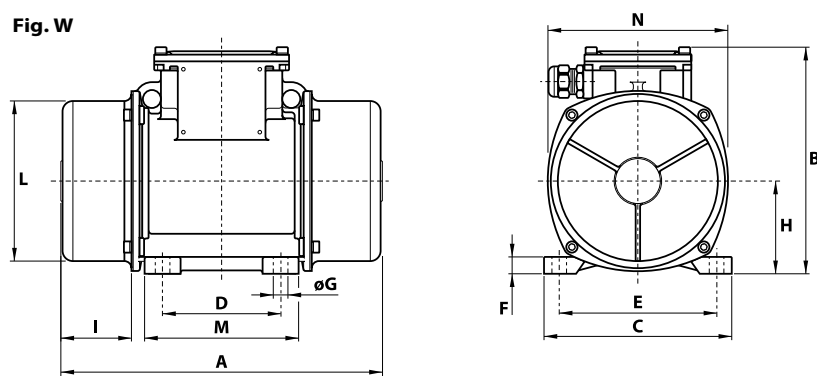


2 poles - 3000/3600 rpm

	Description				Mechanical specifications								Electrical specifications			
	Code	Type	SIZE	SA	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	600328	MVSS 3/100-S02	00	•	12.0	12.0	121	174	1.19	1.71	7.80	7.80	180	180	0.35	0.30
	600329	MVSS 3/200-S02	01	•	21.0	15.0	211	218	2.07	2.14	8.20	8.00	180	180	0.35	0.30
	600330	MVSS 3/300-S02	10	•	30.1	20.4	304	297	2.98	2.91	12.5	12.0	260	270	0.60	0.50
	600331	MVSS 3/500-S02	20	•	49.9	32.4	503	471	4.93	4.62	18.5	17.5	450	500	0.80	0.75
	600515	MVSS 3/800-S08	30	•	78.0	52.0	785	754	7.70	7.40	25.0	24.0	650	685	1.10	1.00
	600333	MVSS 3/1100-S02	35	•	110	73.0	1105	1061	10.8	10.4	30.0	29.0	1000	1200	1.75	1.75
	600334	MVSS 3/1510-S02	40	•	153	102	1545	1483	15.2	14.5	39.6	38.0	1400	1450	2.30	2.00
	600335	MVSS 3/2010-S02	50	•	205	128	2059	1853	20.2	18.2	48.7	46.3	2200	2200	3.50	3.00
single-phase	600328	MVSS 3/100-S02	00	•	12.0	12.0	121	174	1.19	1.71	7.80	7.80	165	165	0.75	1.52
	600329	MVSS 3/200-S02	01	•	21.0	15.0	211	218	2.07	2.14	8.20	8.00	165	165	0.75	1.52
	600330	MVSS 3/300-S02	10	•	30.1	20.4	304	297	2.98	2.91	12.5	12.0	280	280	1.25	2.40
	600331	MVSS 3/500-S02	20	•	49.9	32.4	503	471	4.93	4.62	18.5	17.5	500	500	2.30	4.50
	600515	MVSS 3/800-S08	30	•	78.0	52.0	785	754	7.70	7.40	25.0	24.0	700	750	3.25	7.00
															220 V 50 Hz	115 V 60 Hz

* Working moment = 2 x static moment.

Fig. W



I _A /I _N		Type	Dimensional specifications (mm)														Capacitor (µF)		Cable entry thread
			Fig.	A	B	C	D	E	Holes		F	H	I	L	M	N	220 V 50 Hz	115 V 60 Hz	
50 Hz	60 Hz								øG	N°									
2.68	3.00	MVSS 3/100-S02	W	209	151	125	62-74**	106	9	4	10	61	45	100	102	117	-	-	M20x1.5
2.68	3.00	MVSS 3/200-S02	W	225	151	125	62-74**	106	9	4	10	61	53	100	102	117	-	-	M20x1.5
3.47	4.20	MVSS 3/300-S02	W	255	176	152	90	125	13	4	12	73	54	124	122	141	-	-	M20x1.5
4.21	4.80	MVSS 3/500-S02	W	284	200	167	105	140	13	4	15	82.5	63	143	137	160	-	-	M25x1.5
3.83	6.00	MVSS 3/800-S08	W	308	205	205	120	170	17	4	17	93.5	63	168	160	182	-	-	M25x1.5
3.63	4.00	MVSS 3/1100-S02	W	354	232	205	120	170	17	4	20	104.5	77	181	162	203	-	-	M25x1.5
4.95	6.12	MVSS 3/1510-S02	W	438	245	230	140	190	17	4	25	116	103	201	180	225	-	-	M25x1.5
4.62	6.00	MVSS 3/2010-S02	W	438	245	230	140	190	17	4	25	116	103	201	180	225	-	-	M25x1.5
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1.67	2.24	MVSS 3/100-S02	W	209	151	125	62-74**	106	9	4	10	61	45	100	102	117	10	28	M20x1.5
1.67	2.24	MVSS 3/200-S02	W	255	151	125	62-74**	106	9	4	10	61	53	100	102	117	10	28	M20x1.5
2.48	3.52	MVSS 3/300-S02	W	255	176	152	90	125	13	4	12	73	54	124	122	141	16	25	M20x1.5
3.35	4.22	MVSS 3/500-S02	W	284	200	167	105	140	13	4	15	82.5	63	143	137	160	12.5	50	M25x1.5
4.00	4.14	MVSS 3/800-S08	W	308	205	205	120	170	17	4	17	93.5	63	168	160	182	25	90	M25x1.5

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

MVSS



CESI KIE

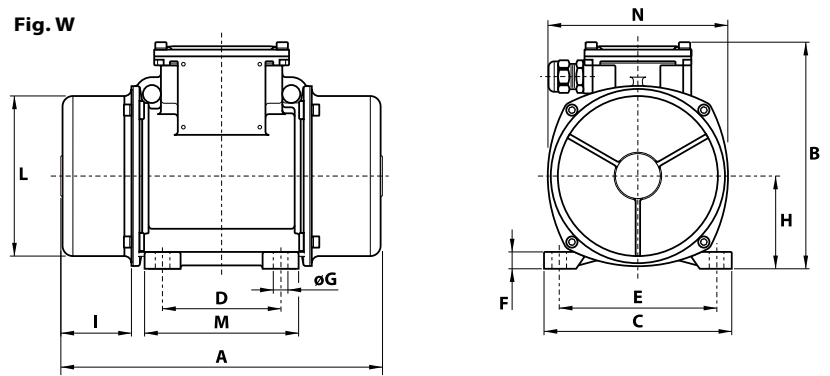


4 poles - 1500/1800 rpm

	Description				Mechanical specifications								Electrical specifications			
	Code	Type	SIZE	SA	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	601342	MVSS 15/35-S02	00	•	12.0	12.0	30.2	43.5	0.30	0.43	7.80	7.80	85	95	0.21	0.20
	601343	MVSS 15/80-S02	01	•	31.0	21.0	77.9	76.1	0.76	0.75	9.00	8.70	85	95	0.21	0.20
	601365	MVSS 15/100-S02	01	•	38.9	31.0	97.9	112	0.96	1.10	9.40	9.00	85	95	0.21	0.20
	601344	MVSS 15/200-S02	10	•	84.2	58.8	213	214	2.09	2.10	15.8	15.0	170	170	0.41	0.40
	601345	MVSS 15/400-S02	20	•	163	113	412	411	4.04	4.03	22.5	21.7	300	350	0.60	0.60
	601346	MVSS 15/550-S02	20	•	219	163	552	592	5.42	5.81	23.9	22.5	300	350	0.60	0.60
	601526	MVSS 15/700-S08	30	•	286	209	720	760	7.06	7.46	32.0	30.7	525	665	0.92	0.98
	601348	MVSS 15/1100-S02	35	•	415	271	1045	982	10.3	9.63	42.0	37.5	550	680	0.95	0.95
	601349	MVSS 15/1410-S02	40	•	561	400	1413	1449	13.9	14.2	53.0	50.0	900	1050	1.45	1.50
	601350	MVSS 15/1710-S02	50	•	715	485	1798	1757	17.6	17.2	58.5	54.5	1100	1200	2.00	1.90
	601351	MVSS 15/2000-S02	50	•	817	561	2054	2033	20.1	19.9	70.0	68.0	1350	1450	2.50	2.30
	601352	MVSS 15/2410-S02	60	•	962	674	2420	2444	23.7	24.0	82.0	76.0	1600	1700	3.20	3.00
	601353	MVSS 15/3000-S02	60	•	1235	858	3106	3107	30.5	30.5	92.0	89.0	1900	2000	3.80	3.50
	601354	MVSS 15/3810-S02	70	•	1526	1034	3840	3744	37.7	36.7	115	110	2200	2500	3.90	3.90
601363	MVSS 15/4300-S02	70	•	1720	1173	4326	4250	42.4	41.7	122	117	2500	2800	4.80	4.65	
single-phase	601342	MVSS 15/35-S02	00	•	12.0	12.0	30.2	43.5	0.30	0.43	7.80	7.80	90	100	0.43	1.00
	601343	MVSS 15/80-S02	01	•	31.0	21.0	77.9	76.1	0.76	0.75	9.00	8.70	90	100	0.43	1.00
	601365	MVSS 15/100-S02	01	•	38.9	31.0	97.9	112	0.96	1.10	9.40	9.00	90	100	0.43	1.00
	601344	MVSS 15/200-S02	10	•	84.2	58.8	213	214	2.09	2.10	15.8	15.0	210	230	1.00	2.00
	601345	MVSS 15/400-S02	20	•	163	113	412	411	4.04	4.03	22.5	21.7	240	320	1.20	2.80
	601346	MVSS 15/550-S02	20	•	219	163	552	592	5.42	5.81	23.9	22.5	240	320	1.20	2.80
	601526	MVSS 15/700-S08	30	•	286	209	720	760	7.06	7.46	25.0	23.0	450	550	2.15	5.15

* Working moment = 2 x static moment.

Fig. W



I _A /I _N		Type	Fig.	Dimensional specifications (mm)												Capacitor (µF)		Cable entry thread	
				A	B	C	D	E	Holes		F	H	I	L	M	N	220 V 50 Hz		115 V 60 Hz
50 Hz	60 Hz								øG	N°									
1.78	1.95	MVSS 15/35-S02	W	209	151	125	62-74**	106	9	4	10	61	45	100	102	117	-	-	M20x1.5
1.78	1.95	MVSS 15/80-S02	W	225	151	125	62-74**	106	9	4	10	61	53	100	102	117	-	-	M20x1.5
1.78	1.95	MVSS 15/100-S02	W	241 (50Hz) 225 (60Hz)	151	125	62-74**	106	9	4	10	61	61 (50Hz) 53 (60Hz)	100	102	117	-	-	M20x1.5
2.34	2.75	MVSS 15/200-S02	W	295	176	152	90	125	13	4	12	73	74	124	122	141	-	-	M20x1.5
3.33	3.50	MVSS 15/400-S02	W	340	200	167	105	140	13	4	15	82.5	91	143	137	160	-	-	M25x1.5
3.33	3.50	MVSS 15/550-S02	W	380	200	167	105	140	13	4	15	82.5	111	143	137	160	-	-	M25x1.5
3.48	3.43	MVSS 15/700-S08	W	378	205	205	120	170	17	4	17	93.5	98	168	160	182	-	-	M25x1.5
4.45	4.89	MVSS 15/1100-S02	W	434	232	205	120	170	17	4	20	104.5	117	181	162	203	-	-	M25x1.5
4.10	4.20	MVSS 15/1410-S02	W	442	245	230	140	190	17	4	25	116	105	201	180	225	-	-	M25x1.5
4.29	4.89	MVSS 15/1710-S02	W	490	245	230	140	190	17	4	25	116	129	201	180	225	-	-	M25x1.5
4.30	4.90	MVSS 15/2000-S02	W	560	245	230	140	190	17	4	25	116	164	201	180	225	-	-	M25x1.5
6.09	7.23	MVSS 15/2410-S02	W	525	285	275	155	225	22	4	30	135	131	231	205	253	-	-	M25x1.5
6.50	7.50	MVSS 15/3000-S02	W	601	285	275	155	225	22	4	30	135	169	231	205	253	-	-	M25x1.5
7.11	6.92	MVSS 15/3810-S02	W	589	323	310	155	255	23.5	4	35	155	139.5	269	215	295	-	-	M25x1.5
5.90	7.10	MVSS 15/4300-S02	W	589	323	310	155	255	23.5	4	35	155	178	269	215	295	-	-	M25x1.5
1.20	1.30	MVSS 15/35-S02	W	209	151	125	62-74**	106	9	4	10	61	45	100	102	117	3.15	25	M20x1.5
1.20	1.30	MVSS 15/80-S02	W	225	151	125	62-74**	106	9	4	10	61	53	100	102	117	3.15	25	M20x1.5
1.20	1.30	MVSS 15/100-S02	W	241 (50Hz) 225 (60Hz)	151	125	62-74**	106	9	4	10	61	61 (50Hz) 53 (60Hz)	100	102	117	3.15	25	M20x1.5
1.50	1.85	MVSS 15/200-S02	W	295	176	152	90	125	13	4	12	73	74	124	122	141	5	25	M20x1.5
2.50	2.21	MVSS 15/400-S02	W	340	200	167	105	140	13	4	15	82.5	91	143	137	160	32/12 ○	35	M25x1.5
2.50	2.21	MVSS 15/550-S02	W	380	200	167	105	140	13	4	15	82.5	111	143	137	160	32/12 ○	40/35 ○	M25x1.5
5.44	3.63	MVSS 15/700-S08	W	378	205	205	120	170	17	4	17	93.5	98	168	160	182	96/16 ○	160/40 ○	M25x1.5

I_A/I_N = ratio between start-up current and maximum current. ** Slot. ○ Start-up capacitor / Running capacitor.

MVSS



CESI KIE



6 poles - 1000/1200 rpm

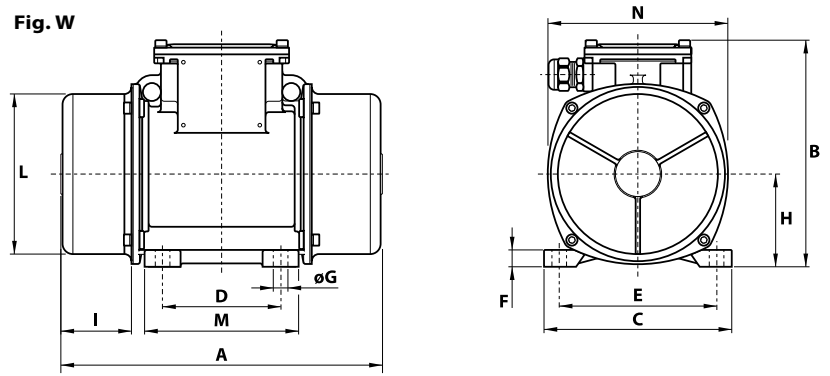
	Description				Mechanical specifications								Electrical specifications			
	Code	Type	SIZE	SA	Static moment* kgmm		Centrifugal force				Weight kg		Max input power W		Max. current A	
					50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	400 V 50 Hz	460 V 60 Hz
three-phase	602283	MVSS 10/40-S02	10	•	30.1	30.1	35	49	0.33	0.47	12.5	12.5	120	135	0.30	0.30
	602284	MVSS 10/100-S02	10	•	84.2	84.2	94.3	136	0.93	1.33	15.8	15.8	120	135	0.30	0.30
	602285	MVSS 10/200-S02	20	•	163	163	183	264	1.80	2.59	22.5	22.5	185	205	0.50	0.50
	602405	MVSS 10/310-S08	30	•	286	209	321	338	3.15	3.32	32.0	30.7	350	380	0.72	0.68
	602287	MVSS 10/550-S02	35	•	457	457	512	737	5.02	7.23	43.5	43.5	350	380	0.75	0.68
	602408	MVSS 10/810-S08	40	•	723	561	809	905	7.84	8.88	54.0	52.6	680	760	1.40	1.35
	602409	MVSS 10/1110-S08	50	•	1012	715	1132	1151	11.1	11.3	67.0	59.5	750	750	1.65	1.50
	602410	MVSS 10/1400-S08	50	•	1274	904	1424	1485	14.0	14.5	78.0	71.0	950	1000	1.80	1.70
	602411	MVSS 10/1610-S08	60	•	1464	962	1638	1549	16.1	15.2	94.0	83.0	1100	1300	2.20	2.20
	602412	MVSS 10/2100-S08	60	•	1927	1318	2154	2102	21.1	20.6	105	93.0	1500	1700	3.00	2.90
	602293	MVSS 10/2610-S02	70	•	2326	1706	2601	2747	25.5	26.9	130	116	1960	2100	4.10	3.75
	602294	MVSS 10/3000-S02	70	•	2690	1940	3007	3124	29.5	30.6	145	130	2200	2400	4.50	4.30

8 poles - 750/900 rpm

	Description				Mechanical specifications								Electrical specifications			
	Code	Type	SIZE	SA	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	602561	MVSS 075/150-S02	20	•	163	163	104	149	1.02	1.46	22.5	22.5	230	250	0.85	0.76
	602617	MVSS 075/250-S08	30	•	286	286	181	260	1.76	2.55	32.0	32.0	350	380	1.10	1.05
	602563	MVSS 075/400-S02	35	•	457	457	288	415	2.83	4.07	43.5	43.5	280	300	0.60	0.58
	602620	MVSS 075/660-S08	40	•	723	723	456	656	4.47	6.44	54.0	54.0	400	450	1.20	1.20
	602621	MVSS 075/910-S08	50	•	1012	1012	637	917	6.25	9.00	67.0	67.0	400	500	1.40	1.30
	602622	MVSS 075/1310-S08	60	•	1464	1464	922	1327	9.04	13.0	94.0	94.0	950	1100	2.20	2.20
	602567	MVSS 075/2110-S02	70	•	2326	2326	1463	2107	14.4	20.7	130	130	1500	1790	4.10	4.20

* Working moment = 2 x static moment.

Fig. W



I _a /I _N		Type	Fig.	Dimensional specifications (mm)													Cable entry thread
				A	B	C	D	E	Holes		F	H	I	L	M	N	
50 Hz	60 Hz								øG	N°							
1.90	2.07	MVSS 10/40-S02	W	255	176	152	90	125	13	4	12	73	54	124	122	141	M20x1.5
1.90	2.07	MVSS 10/100-S02	W	295	176	152	90	125	13	4	12	73	74	124	122	141	M20x1.5
2.72	3.10	MVSS 10/200-S02	W	340	200	167	105	140	13	4	15	82.5	91	143	137	160	M25x1.5
2.63	2.79	MVSS 10/310-S08	W	378	205	205	120	170	17	4	17	93.5	98	168	160	182	M25x1.5
2.53	3.68	MVSS 10/550-S02	W	434	232	205	120	170	17	4	20	104.5	117	181	162	203	M25x1.5
2.79	3.33	MVSS 10/810-S08	W	490 (50Hz) 442 (60Hz)	245	230	140	190	17	4	25	116	129 (50Hz) 105 (60Hz)	201	180	225	M25x1.5
3.33	4.13	MVSS 10/1110-S08	W	560	245	230	140	190	17	4	25	116	164	201	180	225	M25x1.5
3.05	3.65	MVSS 10/1400-S08	W	560	245	230	140	190	17	4	25	116	164	201	180	225	M25x1.5
4.21	4.05	MVSS 10/1610-S08	W	601 (50Hz) 525 (60Hz)	285	275	155	225	22	4	30	135	169 (50Hz) 131 (60Hz)	231	205	253	M25x1.5
4.50	4.20	MVSS 10/2100-S08	W	601	285	275	155	225	22	4	30	135	169	231	205	253	M25x1.5
5.35	5.60	MVSS 10/2610-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
4.35	4.81	MVSS 10/3000-S02	W	705	323	310	155	255	23.5	4	35	155	197.5	269	215	295	M25x1.5

I _a /I _N		Type	Fig.	Dimensional specifications (mm)													Cable entry thread
				A	B	C	D	E	Holes		F	H	I	L	M	N	
50 Hz	60 Hz								øG	N°							
2.13	2.11	MVSS 075/150-S02	W	340	200	167	105	140	13	4	15	82.5	91	143	137	160	M25x1.5
2.03	2.29	MVSS 075/250-S08	W	378	205	205	120	170	17	4	17	93.5	98	168	160	182	M25x1.5
1.73	2.50	MVSS 075/400-S02	W	434	232	205	120	170	17	4	20	104.5	117	181	162	203	M25x1.5
2.38	2.58	MVSS 075/660-S08	W	490	245	230	140	190	17	4	25	116	129	201	180	225	M25x1.5
2.38	2.85	MVSS 075/910-S08	W	560	245	230	140	190	17	4	25	116	164	201	180	225	M25x1.5
2.63	3.41	MVSS 075/1310-S08	W	601	285	275	155	225	22	4	30	135	169	231	205	253	M25x1.5
3.55	2.95	MVSS 075/2110-S02	W	657	323	310	155	255	23.5	4	35	155	173.5	269	215	295	M25x1.5

I_a/I_N = ratio between start-up current and maximum current.



The CDX explosion-proof vibrators have been designed for use in industrial processes in a potentially explosive atmosphere.

The enclosure of the CDX vibrators is equipped with increased thickness and joints to prevent the transmission of an internal explosion to the surrounding area.

The CDX series is characterized and enhanced by many different certifications, depending on the vibrator model.

Technical features

Power supply

Three-phase voltage from 24V to 690V (limit at 600V for UL and CSA certifications), 50Hz or 60Hz, or single-phase 100-130V 60Hz and 200-240V 50Hz; suitable for use with a PWM inverter from 20Hz to the base frequency with constant torque load profile.

Polarity

2, 4, 6 and 8 poles.

Reference Regulations and Directives

See table below.

Controls

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

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 22400 Kgf. (220 KN), with centrifugal force adjustable from 0 to 100%.

Mechanical protection

Mechanical protection IP66 according to IEC 529, EN 60529.

Protection against mechanical impacts

IK 08 according to IEC 68, EN 50102.

Insulation class

Class F (155°C).

Tropicalization

Standard on all vibrators, with vacuum encapsulation up to size 35, with "drop by drop" trickle system for larger sizes.

Ambient temperature

From -10°C to +40°C.

Vibrator thermal protection

With thermal protector at 130°C for the entire CDX range, or on request with PTC thermistors rated heat detectors 130°C (DIN 44081-44082).

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 40 and larger.

Terminal box

Large fixed electrical connections. The terminal cover, with increased thickness, is constructed to contain internal explosions. Special shaped terminals allow to fix the power supply cable, protecting it from loosening.

Electric motor

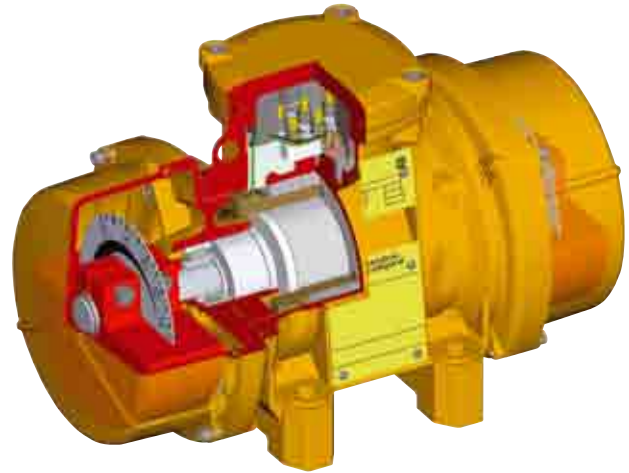
Three-phase and single-phase asynchronous type. Designed for maximum starting torques and torque curves specific to requirements of the vibrating machines. Insulated windings using vacuum encapsulating up to size 35; using the "drop by drop" trickle system with Class H resin for the larger sizes. The rotor is die cast aluminium.

Casing

In high-tensile aluminium alloy up to size 30, in spheroidal cast iron for larger sizes.

Patented shape that improves heat dispersion and lowers normal running temperature with full load.

An external earthing screw is located on the casing as prescribed by Regulation IEC/EN 60079-0.



Certifications

Bearing flange

Constructed in spheroidal or grey cast iron.
The geometry of the flange transmits the load to the casing uniformly.

Bearings

Custom made with particular geometry, especially designed for Italtibras, 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.

Painting

Electrostatic surface treatment based on polymerised epoxy polyester powder in oven at 200°C. Tested in salt spray for 500 hours.

Other features

The CDX series is supplied without cable gland and with NPT threaded conduit opening.

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

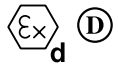
Certificate: LR 100948. Category: Class I, Groups C,D; Class II, Groups E, F, G.
Temperature Class: T4 (135°C).
Standards: CAN/CSA C22.2. Zones of use: 1,2*



Certificate: E129825. Category: Class I, Groups C and D; Class II, Groups E, F and G.
Temperature class: T4 (135°C).
Regulations: UL N° 674-886. Areas of use: 1,2*



Certificate: DEMKO 07 ATEX 0612032 X
Category: II 2 G, D, Ex d IIB.
Temperature class: 120°C, IP 66
Directives: ATEX 94/9/EC
CENELEC EN 60079-0, EN 60079-1, EN 61241-0, EN 61241-1.
Areas of use: 1,2,21, 22



GGTN Permit and Gost-R certificate for explosion-proof Ex d: GOST R 51330.0-99, GOST R 51330.1-99, GOST R IEC 61241-1-1-99.



Certificate: SIRA 00 ATEX 1026
Category: II 2 G, Ex d IIB.
Temperature class: T4 (135°)
Directives: ATEX 94/9/EC, CENELEC EN 60079-0, EN 60079-1.
Areas of use: 1,2



Certification: CMRI and DGMS for Indian.
Category: Ex d II B 120°C, IP 66
Regulations: IS2148-2004, IS 13346-2004, IS4691-1985. Areas of use: 1, 2



Certificate of Conformity n° IECEx UL 09.0034X following standards IEC 61241-0, IEC 61241-1, IEC 60079-0, IEC 60079-1



Comply with the applicable European Union directives



* Areas 1, 2 indicated with this symbol are areas according to classification in force in USA and Canada. They cannot be referred to the ATEX Directive.



2 poles - 3000/3600 rpm

	Description				Mechanical specifications								Electric specifications			
	Code	Type	SIZE	Certifications	Static moment* kgmm		Centrifugal force				Weight kg		Max input power W		Power rating W	
					50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz
three-phase	600384	CDX 3/300-G/D	10	•	30.1	20.4	304	297	2.98	2.91	11.5	11.0	260	270	180	190
	600385	CDX 3/500-G/D	20	•	49.9	32.4	503	471	4.93	4.62	17.0	16.0	450	500	330	390
	600387	CDX 3/800-G/D	30	•	78.0	52.0	785	754	7.70	7.40	23.3	22.4	650	685	500	520
	600389	CDX 3/1100-G/D	35	• • • •	110	73.0	1105	1061	10.8	10.4	34.0	33.0	600	710	480	550
	600437	CDX 3/1500-G/D	40	• • •	161	111	1625	1602	15.9	17.7	56.1	53.6	1000	1200	850	925
	600317	CDX 3/2100-G/D	50	• • •	209	144	2114	2080	20.7	20.4	62.0	60.7	1000	1260	900	1095
	600320	CDX 3/2300-G/D	60	• • • •	222	159	2236	2300	21.9	22.5	82.5	79.5	2000	2200	1500	1606
	600323	CDX 3/3200-G/D	70	• • • •	344	215	3457	3112	33.9	30.5	108	104	3100	3250	2570	2570
	600486	CDX 3/4700-G/D	80	• • •	469	329	4710	4760	46.2	46.7	144	139	4500	4500	3680	3680

single-phase	600384	CDX 3/300-G/D	10	•	30.1	20.4	304	297	2.98	2.91	11.5	11.0	280	280	180	200
	600385	CDX 3/500-G/D	20	•	49.9	32.4	503	471	4.93	4.62	17.0	16.0	500	500	340	350
	600387	CDX 3/800-G/D	30	•	78.0	52.0	785	754	7.70	7.40	23.3	22.4	700	750	450	500

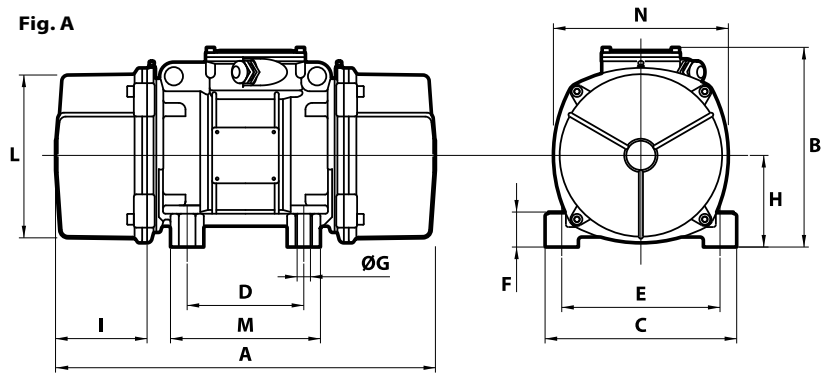
4 poles - 1500/1800 rpm

	Description				Mechanical specifications								Electric specifications			
	Code	Type	SIZE	Certifications	Static moment* kgmm		Centrifugal force				Weight kg		Max input power W		Power rating W	
					50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz
three-phase	601409	CDX 15/200-G/D	10	•	84.2	58.8	213	214	2.09	2.10	14.0	13.0	170	170	95	95
	601410	CDX 15/400-G/D	20	•	163	113	412	411	4.04	4.03	21.4	20.0	300	350	215	275
	601411	CDX 15/550-G/D	20	•	219	163	552	592	5.42	5.81	22.8	21.4	300	350	215	275
	601412	CDX 15/700-G/D	30	•	286	209	720	760	7.06	7.46	30.3	29.0	525	665	380	490
	601413	CDX 15/1100-G/D	35	• • • •	415	271	1045	982	10.3	9.63	46.0	41.5	520	660	369	442
	601424	CDX 15/1410-G/D	40	• • •	561	400	1413	1449	13.9	14.2	65.6	61.0	750	1000	548	740
	601328	CDX 15/1710-G/D	50	• • •	715	485	1798	1757	17.6	17.2	70.0	67.5	1050	1300	882	1105
	601358	CDX 15/2000-G/D	50	• • • •	817	561	2054	2033	20.1	19.9	75.0	69.0	1050	1300	882	1105
	601329	CDX 15/2410-G/D	60	• • • •	962	674	2420	2444	23.7	24.0	98.0	92.0	1500	1650	1305	1485
	601330	CDX 15/3810-G/D	70	• • • •	1526	1034	3840	3744	37.7	36.7	133	128	2270	2250	1839	1845
	601487	CDX 15/5010-G/D	80	• • •	1990	1364	5007	4941	49.1	48.5	167	160	2800	2800	2100	2100

single-phase	601409	CDX 15/200-G/D	10	•	84.2	58.8	213	214	2.09	2.10	14.0	13.0	210	230	110	120
	601410	CDX 15/400-G/D	20	•	163	113	412	411	4.04	4.03	21.4	20.0	240	320	120	180
	601411	CDX 15/550-G/D	20	•	219	163	552	592	5.42	5.81	23.5	22.0	240	320	120	180
	601412	CDX 15/700-G/D	30	•	286	209	720	760	7.06	7.46	30.3	29.0	450	550	240	300

* Working moment = 2 x static moment.

Fig. A



Max. current A				Type	Dimensional specifications (mm)											Capacitor (µF)		Pipe thread not supplied			
400 V 50 Hz	460 V 60 Hz	I _s /I _n			Fig.	A	B	C	D	E	Holes		F	H	I	L	M		N	220 V 50 Hz	115 V 60 Hz
0.60	0.50	3.47	4.20	CDX 3/300-G/D	A	255	191	152	90	125	13	4	28	77.5	54	130	128	150	-	-	NPT 1/2"
0.80	0.75	4.21	4.80	CDX 3/500-G/D	A	288	218	167	105	140	13	4	30	90	65	150	140	175	-	-	NPT 1/2"
1.10	1.00	3.83	6.00	CDX 3/800-G/D	A	314	230.5	205	120	170	17	4	45	102	66	177	162	200	-	-	NPT 1/2"
0.90	0.93	4.78	4.96	CDX 3/1100-G/D	A	362	248.5	210	120	170	17	4	52	112	76	192	160	218	-	-	NPT 3/4"
1.62	1.72	6.00	6.32	CDX 3/1500-G/D	A	468	278.5	235	140	190	17	4	65	116	108	210	185	225	-	-	NPT 3/4"
1.71	1.85	6.95	7.19	CDX 3/2100-G/D	A	520	278.5	235	140	190	22	4	65	116	134	210	185	225	-	-	NPT 3/4"
3.23	3.20	7.47	8.60	CDX 3/2300-G/D	A	572	312	270	155	225	22	4	52	135	146	238.5	200	253	-	-	NPT 3/4"
5.23	5.00	6.37	8.00	CDX 3/3200-G/D	A	594	342.5	310	155	255	23.5	4	65	155	137	279	210	295	-	-	NPT 3/4"
7.13	6.60	6.53	7.00	CDX 3/4700-G/D	A	630	367	335	180	280	26	4	70	175	150	303	235	320	-	-	NPT 3/4"

220 V 50 Hz	115 V 60 Hz	I _s /I _n		Type	Fig.	A	B	C	D	E	Holes		F	H	I	L	M	N	220 V 50 Hz	115 V 60 Hz	Pipe thread not supplied
1.25	2.40	2.48	3.52	CDX 3/300-G/D	A	255	191	152	90	125	13	4	28	77.5	54	130	128	150	16	25	NPT 1/2"
2.30	4.50	3.35	4.22	CDX 3/500-G/D	A	288	218	167	105	140	13	4	30	90	65	150	140	175	12.5	50	NPT 1/2"
3.25	7.00	4.00	4.14	CDX 3/800-G/D	A	314	230.5	205	120	170	17	4	45	102	66	177	162	200	25	90	NPT 1/2"

Max. current A				Type	Dimensional specifications (mm)											Capacitor (µF)		Pipe thread not supplied			
400 V 50 Hz	460 V 60 Hz	I _s /I _n			Fig.	A	B	C	D	E	Holes		F	H	I	L	M		N	220 V 50 Hz	115 V 60 Hz
0.41	0.40	2.34	2.75	CDX 15/200-G/D	A	301	191	152	90	125	13	4	28	77.5	77	130	128	150	-	-	NPT 1/2"
0.60	0.60	3.33	3.50	CDX 15/400-G/D	A	350	218	167	105	140	13	4	30	90	96	150	140	175	-	-	NPT 1/2"
0.60	0.60	3.33	3.50	CDX 15/550-G/D	A	392	218	167	105	140	13	4	30	90	117	150	140	175	-	-	NPT 1/2"
0.92	0.98	3.48	3.43	CDX 15/700-G/D	A	394	230.5	205	120	170	17	4	45	102	106	177	162	200	-	-	NPT 1/2"
0.81	0.88	4.65	4.84	CDX 15/1100-G/D	A	446	248.5	210	120	170	17	4	52	112	118	192	160	218	-	-	NPT 3/4"
1.35	1.50	5.59	5.60	CDX 15/1410-G/D	A	468	278.5	235	140	190	17	4	65	116	108	210	185	225	-	-	NPT 3/4"
1.81	1.90	5.09	5.46	CDX 15/1710-G/D	A	520	278.5	235	140	190	22	4	65	116	134	210	185	225	-	-	NPT 3/4"
1.81	1.90	5.09	5.46	CDX 15/2000-G/D	A	594 (50Hz) 520 (60Hz)	278.5	235	140	190	22	4	65	116	171 (50Hz) 134 (60Hz)	210	185	225	-	-	NPT 3/4"
2.95	2.90	7.80	7.76	CDX 15/2410-G/D	A	572	312	270	155	225	22	4	52	135	146	238.5	200	253	-	-	NPT 3/4"
3.80	3.50	6.84	8.09	CDX 15/3810-G/D	A	594	342.5	310	155	255	23.5	4	65	155	137	279	210	295	-	-	NPT 3/4"
4.75	4.40	6.74	7.20	CDX 15/5010-G/D	A	630	367	335	180	280	26	4	70	175	150	303	235	320	-	-	NPT 3/4"

220 V 50 Hz	115 V 60 Hz	I _s /I _n		Type	Fig.	A	B	C	D	E	Holes		F	H	I	L	M	N	220 V 50 Hz	115 V 60 Hz	Pipe thread not supplied
1.00	2.00	1.50	1.85	CDX 15/200-G/D	A	301	191	152	90	125	13	4	28	77.5	77	130	128	150	5	25	NPT 1/2"
1.20	2.80	2.50	2.50	CDX 15/400-G/D	A	350	218	167	105	140	13	4	30	90	96	150	140	175	32/12	35	NPT 1/2"
1.20	2.80	2.50	2.50	CDX 15/550-G/D	A	392	218	167	105	140	13	4	30	90	117	150	140	175	32/12	40/35	NPT 1/2"
2.15	5.15	5.44	3.63	CDX 15/700-G/D	A	394	230.5	205	120	170	17	4	45	102	106	177	162	200	96/16	160/40	NPT 1/2"

I_s/I_n = ratio between start-up current and maximum current. • Start-up capacitor / Running capacitor.
 Several sizes are available with different mounting bolt patterns. Please contact sales office at Italvibras.



6 poles - 1000/1200 rpm

	Description				Mechanical specifications								Electrical specifications			
	Code	Type	SIZE	Certifications	Static moment* kgmm		Centrifugal force				Weight kg		Max input power W		Power rating W	
					50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz
three-phase	602315	CDX 10/40-G/D	10	•	30.1	30.1	35.0	49.0	0.331	0.476	11.5	11.5	120	135	50	90
	602316	CDX 10/100-G/D	10	•	84.2	84.2	94.3	136	0.925	1.33	14.0	14.0	120	135	50	90
	602317	CDX 10/200-G/D	20	•	163	163	183	264	1.80	2.59	21.4	21.4	185	205	100	120
	602318	CDX 10/310-G/D	30	•	286	209	321	338	3.15	3.32	30.3	29.0	350	380	220	270
	602320	CDX 10/550-G/D	35	• • • •	457	457	512	737	5.02	7.23	47.5	47.5	300	310	220	230
	602325	CDX 10/810-G/D	40	• • •	723	561	809	905	7.94	8.88	70.7	65.4	570	680	370	442
	602274	CDX 10/1110-G/D	50	• • •	1012	715	1132	1151	11.1	11.3	79.0	72.0	700	870	483	548
	602277	CDX 10/1610-G/D	60	• • • •	1464	962	1638	1549	16.1	15.2	109	98.0	1040	1250	738	913
	602280	CDX 10/2610-G/D	70	• • • •	2326	1706	2601	2747	25.5	26.9	144	130	1725	1800	1470	1470
	602365	CDX 10/3810-G/D	80	• • •	3422	2380	3826	3831	37.5	37.6	200	182	2100	2300	1700	1850
602201	CDX 10/22000-G	110	• •	20025	12553	22386	20208	220	198	928	898	15600	19000	11800	14700	

8 poles - 750/900 rpm

	Description				Mechanical specifications								Electrical specifications			
	Code	Type	SIZE	Certifications	Static moment* kgmm		Centrifugal force				Weight kg		Max input power W		Power rating W	
					50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz
three-phase	602576	CDX 075/150-G/D	20	•	163	163	104	149	1.02	1.46	21.4	21.4	230	250	110	120
	602577	CDX 075/250-G/D	30	•	286	286	181	260	1.76	2.55	30.3	30.3	350	380	190	210
	602578	CDX 075/400-G/D	35	• • • •	457	457	288	415	2.83	4.07	47.5	47.5	300	300	150	150
	602581	CDX 075/660-G/D	40	• • •	723	723	456	656	4.47	6.44	70.7	70.7	340	340	184	184
	602552	CDX 075/910-G/D	50	• • •	1012	1012	637	917	6.25	9.00	77.0	77.0	420	500	231	260
	602555	CDX 075/1310-G/D	60	• • • •	1464	1464	922	1327	9.04	13.0	109	109	750	850	480	560
	602558	CDX 075/2110-G/D	70	• • • •	2326	2326	1463	2107	14.4	20.7	144	144	1480	1500	1036	1100
	602602	CDX 075/3110-G/D	80	• • •	3421	3421	2152	3099	21.1	30.4	196	196	1850	2100	1320	1400
	602513	CDX 075/22000-G	110	• •	28633	24508	18005	22192	177	218	1015	981	10000	13000	8100	10300

* Working moment = 2 x static moment.

Fig. A

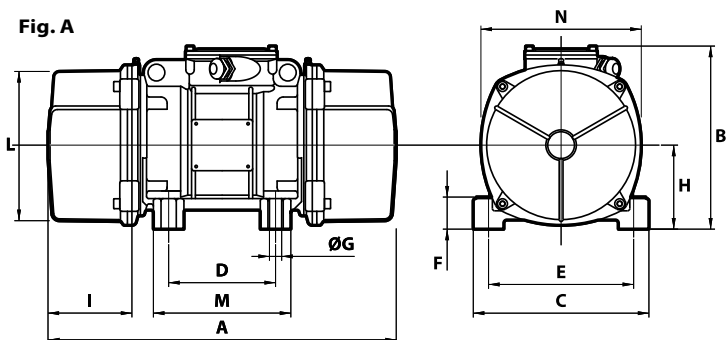
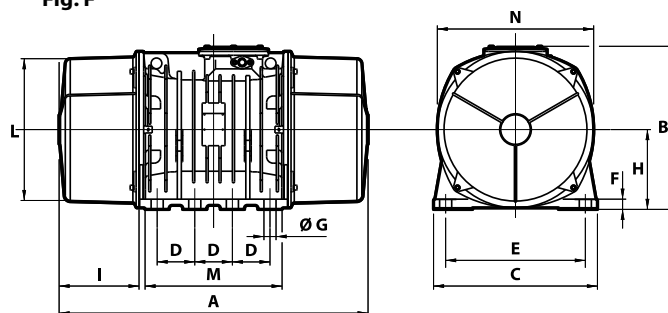


Fig. F



Max. current A				Type	Dimensional specifications (mm)														Pipe thread not supplied
400 V 50 Hz	460 V 60 Hz	I _A /I _N			Fig.	A	B	C	D	E	Holes			F	H	I	L	M	
		50 Hz	60 Hz								øG	N°							
0.30	0.30	1.90	2.07	CDX 10/40-G/D	A	255	191	152	90	125	13	4	28	77.5	54	130	128	150	NPT 1/2"
0.30	0.30	1.90	2.07	CDX 10/100-G/D	A	301	191	152	90	125	13	4	28	77.5	77	130	128	150	NPT 1/2"
0.50	0.50	2.72	3.10	CDX 10/200-G/D	A	350	218	167	105	140	13	4	30	90	96	150	140	175	NPT 1/2"
0.72	0.68	2.63	2.79	CDX 10/310-G/D	A	394	230.5	205	120	170	17	4	45	102	106	177	162	200	NPT 1/2"
0.57	0.61	3.89	3.77	CDX 10/550-G/D	A	446	248.5	210	120	170	17	4	52	112	118	192	160	218	NPT 3/4"
1.24	1.30	4.00	3.69	CDX 10/810-G/D	A	520 (50Hz) 468 (60Hz)	278.5	235	140	190	17	4	65	116	134 (50Hz) 108 (60Hz)	210	185	225	NPT 3/4"
1.52	1.65	4.15	4.24	CDX 10/1110-G/D	A	594 (50Hz) 520 (60Hz)	278.5	235	140	190	22	4	65	116	171 (50Hz) 134 (60Hz)	210	185	225	NPT 3/4"
2.09	2.10	4.93	5.24	CDX 10/1610-G/D	A	634 (50Hz) 572 (60Hz)	312	270	155	225	22	4	52	135	177 (50Hz) 146 (60Hz)	238.5	200	253	NPT 3/4"
3.80	3.70	5.40	6.03	CDX 10/2610-G/D	A	676	342.5	310	155	255	23.5	4	65	155	178	279	210	295	NPT 3/4"
4.75	4.75	4.19	4.67	CDX 10/3810-G/D	A	734	367	335	180	280	25	4	70	175	202	303	235	320	NPT 3/4"
25.2	25.5	5.70	5.88	CDX 10/22000-G	F	1150	607	610	140	520	45	8	38	297	297.5	542	510	582	NPT 1"

Max. current A				Type	Dimensional specifications (mm)														Pipe thread not supplied
400 V 50 Hz	460 V 60 Hz	I _A /I _N			Fig.	A	B	C	D	E	Holes			F	H	I	L	M	
		50 Hz	60 Hz								øG	N°							
0.85	0.76	2.13	2.11	CDX 075/150-G/D	A	350	218	167	105	140	13	4	30	90	96	150	140	175	NPT 1/2"
1.10	1.05	2.03	2.29	CDX 075/250-G/D	A	394	230.5	205	120	170	17	4	45	102	106	177	162	200	NPT 1/2"
0.57	0.58	2.47	2.50	CDX 075/400-G/D	A	446	248.5	210	120	170	17	4	52	112	118	192	160	218	NPT 3/4"
0.87	0.90	2.87	3.11	CDX 075/660-G/D	A	520	278.5	235	140	190	17	4	65	116	134	210	185	225	NPT 3/4"
1.00	1.10	2.91	2.91	CDX 075/910-G/D	A	594	278.5	235	140	190	22	4	65	116	171	210	185	225	NPT 3/4"
1.52	1.90	3.68	3.05	CDX 075/1310-G/D	A	634	312	270	155	225	22	4	52	135	177	238.5	200	253	NPT 3/4"
3.52	3.45	3.58	3.91	CDX 075/2110-G/D	A	676	342.5	310	155	255	23.5	4	65	155	178	279	210	295	NPT 3/4"
4.85	5.00	4.21	4.70	CDX 075/3110-G/D	A	734	367	335	180	280	25	4	70	175	202	303	235	320	NPT 3/4"
21.4	22.0	6.97	5.50	CDX 075/22000-G	F	1150	607	610	140	520	45	8	38	297	297.5	542	510	582	NPT 1"

I_A/I_N = ratio between start-up current and maximum current.
 Several sizes are available with different mounting bolt patterns. Please contact sales office at Italvibras.

MICRO



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 W	Max. current A		
					50 Hz	60 Hz	kg	60 Hz	N	50 Hz	60 Hz	kg		60 Hz	50 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

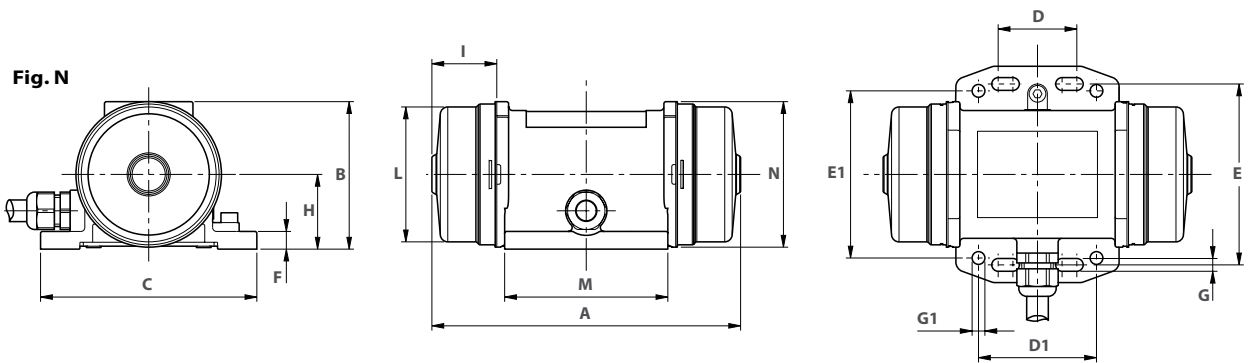
Thin plate-type, allow step-by-step adjustment through variation of the number of weights mounted or their rotation.

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



Designed for industrial continuous duty, the M3 series features a compact shape, reduced overall dimensions, terminal box underneath which means also a high electric protection in dusty environments. Multi-holes mounting feet enable M3 series to match several existing mounting plates. M3 series motors comply with the most recent international standards for use in explosive dust atmospheres. Particularly M3 series can be used in zones 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; suitable for use with an inverter from 20Hz to the base frequency with constant torque load profile.

Polarity

2 and 4 poles.

Conformity with European Directives

ATEX 94/9/EC.
Low Voltage 2006/95/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 up to 311 kgf (3.05 kN). Centrifugal force can be changed by adjusting the eccentric weights

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).

Tropicalization

Standard with vacuum encapsulation.

Ambient temperature

From -20°C to +40°C. Versions for higher or lower temperatures are available on request.

Vibrator thermal protection

On request with PTC thermistor rated heat detectors 130°C (DIN 44081-44082).

Fixing of the vibrator

In all positions and therefore without restriction. The terminal box is positioned underneath the vibrator, on the same side as the fixing base.

Lubrication

Sealed ball bearings, lubricated "for life".

.....
Category: II 2 D
.....

.....
Level of protection: tD A21 IP66
.....

.....
Temperature class: 120°C
.....

.....
EC certificate: LCIE 05 ATEX 6163 X
.....

.....
Areas of use: 21, 22
.....

Certifications

Terminal box

The terminal box is positioned underneath the vibrator, on the same side as the fixing base. Special shaped terminals allow to fix the power supply cable, protecting it from loosening.

Electric motor

Three-phase or single-phase asynchronous type. Insulated windings using vacuum encapsulating.
The rotor is die cast aluminium.

Casing

In high-tensile aluminium alloy, with sand blasted surface.

Bearing flange

In ductile cast iron.
The geometry of the flange transmits the load to the casing uniformly.

Motor shaft

In treated steel alloy (Isothermic hardening) resistant to stress.

Eccentric weights

Easily adjustable from 100% down to 0.

Weight covers

Made in die cast, high strength alluminium alloy with accurate surface sand blasting.

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





2 poles - 3000/3600 rpm

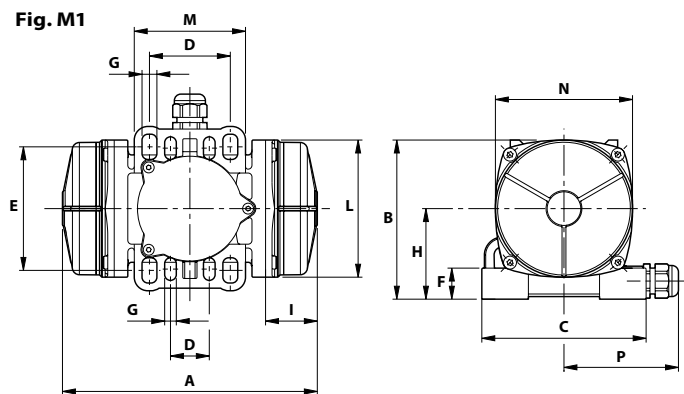
	Description				Mechanical specifications								Electrical specifications						
	Code	Type	SIZE	II2D Temp. class	Static moment* kgmm		Centrifugal force				Weight kg		Max input power W		Max. current A		I _a /I _N		
					50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	400 V 50 Hz	460 V 60 Hz	50 Hz
three-phase	600467	M3/65-S02	00	• 120°C	6.43	6.43	64.7	93.1	0.635	0.913	4.3	4.3	120	120	0.27	0.23	3.43	3.90	
	600465	M3/105-S02	00	• 120°C	9.64	9.64	97.0	140	0.950	1.37	5.2	5.2	180	180	0.35	0.30	2.68	3.00	
	600462	M3/205-S02	00	• 120°C	21.0	21.0	211	304	2.07	2.98	6.0	6.0	180	180	0.35	0.30	2.68	3.00	
	600461	M3/305-S02	00	• 120°C	31.0	21.0	311	304	3.05	2.98	6.3	6.0	180	180	0.35	0.30	2.68	3.00	
														220 V 50 Hz	115 V 60 Hz				
single-phase	600467	M3/65-S02	00	• 120°C	6.43	6.43	64.7	93.1	0.635	0.913	4.3	4.3	110	110	0.56	1.52	2.24	2.24	
	600465	M3/105-S02	00	• 120°C	9.64	9.64	97.0	140	0.950	1.37	5.2	5.2	165	165	0.75	1.52	1.67	2.24	
	600462	M3/205-S02	00	• 120°C	21.0	21.0	211	304	2.07	2.98	6.0	6.0	165	165	0.75	1.52	1.67	2.24	
	600461	M3/305-S02	00	• 120°C	31.0	21.0	311	304	3.05	2.98	6.3	6.0	165	165	0.75	1.52	1.67	2.24	

4 poles - 1500/1800 rpm

	Description				Mechanical specifications								Electrical specifications						
	Code	Type	SIZE	II2D Temp. class	Static moment* kgmm		Centrifugal force				Weight kg		Max input power W		Max. current A		I _a /I _N		
					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	50 Hz
three-phase	601514	M15/36-S02	00	• 120°C	12.0	12.0	30.2	43.5	0.30	0.43	5.4	5.4	85	95	0.21	0.20	1.78	1.95	
	601515	M15/81-S02	00	• 120°C	31.0	21.0	77.9	76.1	0.76	0.75	6.3	6.0	85	95	0.21	0.20	1.78	1.95	
														220 V 50 Hz	115 V 60 Hz				
single-phase	601514	M15/36-S02	00	• 120°C	12.0	12.0	30.2	43.5	0.30	0.43	5.4	5.4	90	100	0.43	1.00	1.20	1.30	
	601515	M15/81-S02	00	• 120°C	31.0	21.0	77.9	76.1	0.76	0.75	6.3	6.0	90	100	0.43	1.00	1.20	1.30	

* Working moment = 2 x static moment. I_a/I_N = ratio between start-up current and maximum current.

Fig. M1



Type	Fig.	Dimensional specifications (mm)													Condenser (μF)		Cable entry thread										
		A	B	C	Multi-hole		Holes		F	H	I	ØL	M	N	P	220 V 50 Hz		115 V 60 Hz									
M3/65-S02	M1	197																									
M3/105-S02	M1	211	123	127	30 - 60	85 - 100	9	4	24	70	47	106	86	106	88,5	-	-	M20x1,5									
M3/205-S02	M1	235			65 - 62	85 - 106					59																
M3/305-S02	M1	235									59																

M3/65-S02	M1	197																									
M3/105-S02	M1	211	123	127	30 - 60	85 - 100	9	4	24	70	47	106	86	106	88,5	10	28	M20x1,5									
M3/205-S02	M1	235			65 - 62	85 - 106					59																
M3/305-S02	M1	235									59																

Type	Fig.	Dimensional specifications (mm)													Condenser (μF)		Cable entry thread	
		A	B	C	Multi-hole		Holes		F	H	I	ØL	M	N	P	220 V 50 Hz		115 V 60 Hz
M15/36-S02	M1	235	123	127	30 - 60	85 - 100	9	4	24	70	59	106	86	106	88,5	-	-	M20x1,5
M15/81-S02	M1				65 - 62	85 - 106												
M15/36-S02	M1	235	123	127	30 - 60	85 - 100	9	4	24	70	59	106	86	106	88,5	3.15	25	M20x1,5
M15/81-S02	M1				65 - 62	85 - 106												

M3-E



The M3-E is designed for use in industrial processes in environments with a potentially explosive atmosphere, caused by gas and dust, in compliance with ATEX Directive (94/9/EC).

In particular, the M3-E can be used in areas 1 and 2 (gas) and in areas 21 and 22 (dusts) according to the layout and the following features:

Technical features

Power supply

Three-phase voltage 127/220V 50Hz, 200/346V 50Hz, or 210/363V 60 Hz; suitable for use with an inverter from 20Hz 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 60079-0, IEC/EN 60079-7, IEC/EN 61241-0, IEC/EN 61241-1, EN 60034-1.

Controls

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

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 up to 311 kgf (3.05 kN). Centrifugal force can be changed by adjusting the eccentric weights.

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).

Tropicalization

Standard with vacuum encapsulation.

Ambient temperature

From -10°C to +40°C, on request it is possible to have vibrators for max. ambient temperatures of +55°C.

Vibrator thermal protection

On request with PTC thermistor rated heat detectors 130°C (DIN 44081-44082).

Fixing of the vibrator

In all positions and therefore without restriction. The terminal box is positioned underneath the vibrator, on the same side as the fixing base.

Lubrication

Sealed ball bearing, lubricated "for life".

2 poles - 3000/3600 rpm

	Description			Mechanical specifications						Electrical specifications						t _E (s)				
	Code	Type	SIZE	Static moment* kgmm		Centrifugal force				Weight kg		Temp. class (G)	Temp. class (D)	Max input power W			Power rating W		Max. current A	
				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	600467	M3/65-E-S02	00	6.43	6.43	64.7	93.1	0.635	0.913	4.3	4.3	T4	120°C	105	105	80	80	0.30	0.29	20
	600465	M3/105-E-S02	00	9.64	9.64	97.0	140	0.950	1.37	5.2	5.2									
	600462	M3/205-E-S02	00	21.0	21.0	211	304	2.07	2.98	6.0	6.0									
	600461	M3/305-E-S02	00	31.0	21.0	311	304	3.05	2.98	6.3	6.0									

* Working moment = 2 x static moment. t_E (s) = set time t_E from IEC/EN 60079-7.

Category: II 2 G,D

Level of protection: Ex e II, tD A21 IP66

Temperature class: Gas: T4 (135°C) Dusts: 120°C

EC certificate: LCIE 06 ATEX 6092 X

Areas of use: 1, 2, 21, 22

Certifications

II 2 G, D – Class Ex e II T4/T3 tD A21 IP 66.
IEC/EN 60079-0, IEC/EN 60079-7,
IEC/EN 61241-0, IEC/EN 61241-1.
Certificate n° LCIE 06 ATEX 6092 X



GGTN Permit and Gost-R certificate
for increased safety Ex e:
GOST R 51330.0-99, GOST R 51330.8-99,
GOST R IEC 61241-1-1-99.



Certificate of Conformity
n° IECEx LCI 10.0003X
following standards IEC 61241-0, IEC 61241-1,
IEC 60079-0, IEC 60079-7



Comply with the applicable
European Union directives



Terminal box

The terminal box is positioned underneath the vibrator, on the same side as the fixing base. Special shaped terminals allow to fix the power supply cable, protecting it from loosening.

Electric motor

Three-phase asynchronous type. Insulated windings using vacuum encapsulating. The rotor is die cast aluminium.

Casing

In high-tensile aluminium alloy, with sand-blasted surface.

Bearing flange

In ductile cast iron. The geometry of the flange transmits the load to the casing uniformly.

Motor shaft

In treated steel alloy (Isothermic hardening) resistant to stress.

Eccentric weights

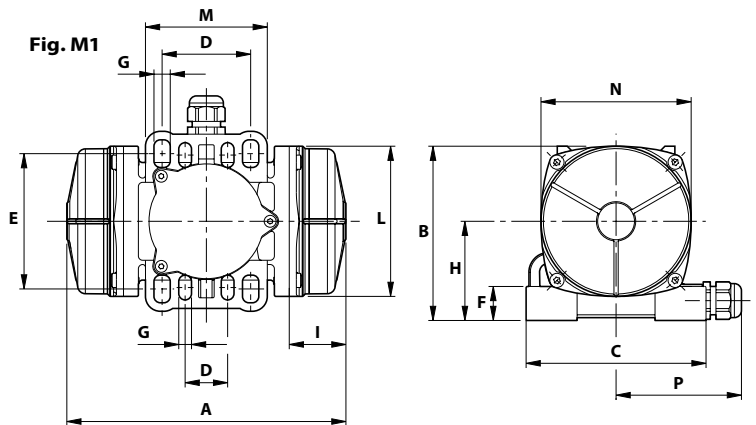
Easily adjustable from 100% down to 0.

Weight covers

Made in die cast, high strength aluminium alloy with accurate surface sand blasting.

Other features

For the M3-E series, the user must fill the terminal box with suitable silicone, after having performed the connection.



I _a /I _n	Type	Fig.	Dimensional specifications (mm)													Cable entry thread	
			A	B	C	Multi-hole		Holes		F	H	I	L	M	M		
						D	E	øG	N°								
3.48	M3/65-E-S02	M1	197											40			
3.68	M3/105-E-S02	M1	211	123	127	30 - 60	85 - 100	9	4	24	70	47	106	86	106	M20x1,5	
3.68	M3/205-E-S02	M1	235			65 - 62	85 - 106					59					
3.68	M3/305-E-S02	M1	235			59											

I_a/I_n = ratio between start-up current and maximum current.

MVCC



The MVCC series of vibrators in direct current has been designed for use in those situations where network electricity is not present. In particular for hoppers, silos and gate-controls and roll-on roll-off vehicles (concrete mixers, pumps for concrete, plasterers, salt distributors, gravel spreader, fertiliser spreader, hauled silos, industrial sweeper filters). The newly-conceived electric motor, with permanent magnet poles, and the increase in size of the electrical parts, allow constant, high yielding performance. The MF models have a multi-hole fixing base to adapt to different centre distances of drilling.

Technical features

Power supply

In direct current at 12 or 24V.

Conformity with European Directives

Electromagnetic compatibility 2004/108/EC,
Low Voltage 2006/95/EC.

Functioning

Continual service (S1) at maximum declared centrifugal force and electric power. Intermittent services are also possible depending on the type of vibrator and our operating conditions. For detailed information contact our technical assistance office.

Centrifugal force

Range extended up to 1520 Kgf. (14,9 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.

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".

Terminal box

On MF models it's positioned underneath the vibrator, on the same side as the fixing base.

Electric motor

Direct current with permanent magnet poles. The rotor is a wound brush-type with collector.

Casing

In high-tensile aluminium alloy.

Bearing flange

Constructed in aluminium with steel bearing seat. The geometry of the flange transmits the load to the casing uniformly.

	Description		Mechanical specifications				Electrical specifications			Fig.	
	Code	Type	rpm	Static moment* kgmm	Centrifugal force		Max input power W	Max. current A			
					kg	kN			12 V	24 V	
three-phase	600411	MVCC 3/100-MF	3000	12.0	120	11.9	5.0	100	8.0	4.0	MB
	600428	MVCC 3/200-MF	3000	21.0	211	2.07	6.0	190	16.0	8.0	MB
	600469	MVCC 3/500	3000	49.9	503	4.93	13.1	270	22.5	11.3	A
	600405	MVCC 3/1200	3600	78.0	1130	11.1	20.8	530	-	22.0	A
	600464	MVCC 3/1500	3600	105	1520	14.9	21.5	530	-	22.0	A

* Working moment = 2 x static moment.

Certifications

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



Certificate GOST-R n° POCC IT.AH50.B13978,
Regulation GOST R 50615, GOST 17770,
GOST 12.2.030, GOST R 51318.14.1,
GOST R 51318.14.2, GOST R 51317.3.2,
GOST R 51317.3.3.



Comply with the applicable
European Union directives



Motor shaft

In treated steel alloy (Isothermic hardening) resistant to stress.

Eccentric weights

Enable continuous adjustment of the centrifugal force. This adjustment is facilitated by a graduated scale that expresses the maximum centrifugal force. A patented system (patent N°MO98A000194) called ARS prevents adjustment errors.

Weight covers

In aluminum alloy for models 3/100-MF, 3/200-MF and 3/500;
in AISI 304 stainless steel for models 3/1200 and 3/1500.

Painting

Electrostatic surface treatment based on polymerised epoxy polyester powder in oven at 200°C. Tested in salt spray for 500 hours.

Other features

All MVCC electric vibrators have been tested in semi-anechoic chamber to verify conformity with the standards and directives on electromagnetic compatibility. The MVCC series is supplied with a special high-resistance synthetic rubber power supply cable measuring 2.5 m.

Fig. A

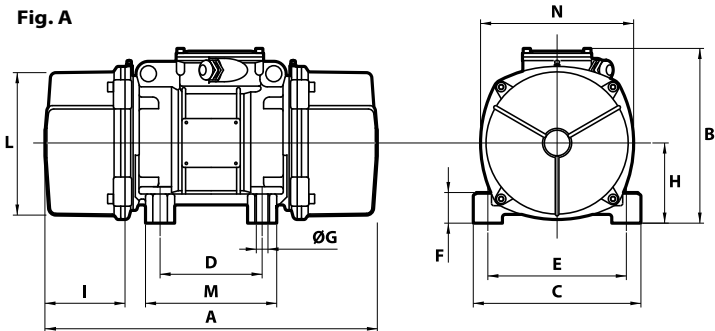
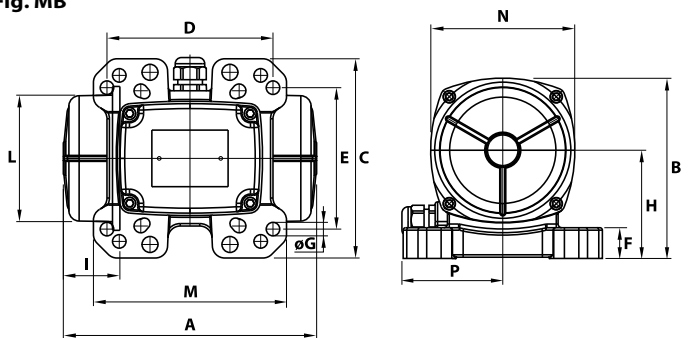


Fig. MB



Dimensional specifications (mm)

Dimensional specifications (mm)															
Holes															
A	B	C	D	E	ØG	N°	F	H	I	L	M	N	P	Cable entry thread	
206	146.5	162	65-74**-80-115-135	140-106**-110-135-115	13-9-11-11-11	4	25	88	46	103	157	117	82	M20x1.5	
263	146.5	162	65-74-80-115	140-106-110-135	13-9-11-13	4	25	88	46	103	140	117	82	M20x1.5	
288	203	167	105	140	13	4	30	82.5	65	145	140	160	-	M25x1.5	
308	214.5	205	120	170	17	4	45	93.5	63	168	160	182	-	M25x1.5	
308	214.5	205	120	170	17	4	45	93.5	63	168	160	182	-	M25x1.5	

** Slot.



The new MTF (MTF-S02) series, made up of vertical vibrators with lateral flange and with weight protection covers fixed to the opposite part to the flange, adopts innovative technical solutions that increase performance and reliability. Typically used in circular screens and in small and medium-size sieves, these vibrators are supplied with lamellar or clamped eccentric weights, which regulation is particularly easy.

The MTF series complies with the most recent IEC and EN international standards for use in atmospheres with potentially explosive powders. In particular, the MTF 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 or 4 poles.

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 2615 Kgf. (25.7 KN), with centrifugal force adjustable from 0 to 100%.

Mechanical protection

IP 66 according to IEC 529, EN 60529. Mechanical protection is ensured in the mounting phase of the vibrator onto the vibrating machine, by introducing the special seal into the seat on the coupling flange.

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 size 30, 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

On demand with PTC rated thermistor heat detectors 130°C (DIN 44081-44082). Also 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 periodic re-lubrication may be applied to frame sizes 40-50-70.

Electrical connection box

The size guarantees passage of tools used for fixing the vibrator to the vibrating machine. The electrical connection must be carried out using the relative connectors inserted inside the connection box. 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 through vacuum encapsulating up to size 30; using "drop by drop" trickle system with class H resin for sizes 40-50-70. The rotor is die cast aluminium.

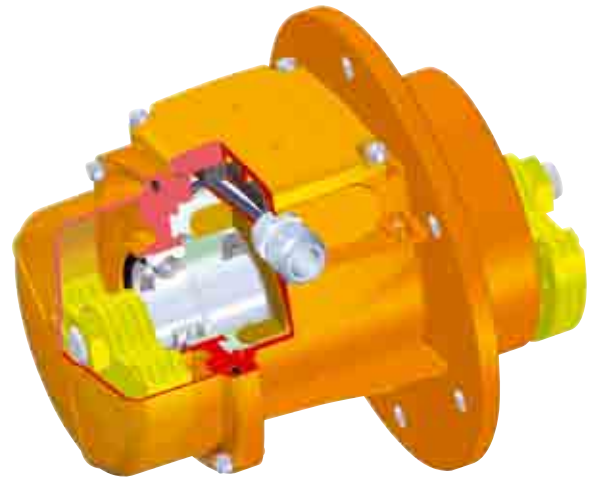
.....
Category: II 2 D
.....

.....
Level of protection: tD A21 IP66
.....

.....
Temperature class: 120°C
.....

.....
EC certificate: LCIE 05 ATEX 6163 X
.....

.....
Areas of use: 21, 22
.....



Certifications

Casing

In high-tensile aluminium alloy up to size 50, in spheroidal cast iron for size 70.

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

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 greater adjustment of the centrifugal force, with phase shift of the lower weight assembly with respect to the upper group. This adjustment is eased by a graduated scale, which expresses the centrifugal force as a percentage of the maximum centrifugal force.

Weight covers

In aluminium alloy, mounted only on the lower side. The flange side does not have weight cover. Size 40 is supplied without weights covers on both sides.

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.

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
following standards IEC 61241-0, IEC 61241-1.



.....
Comply with the applicable
European Union directives





2 poles - 3000/3600 rpm

	Description					Mechanical specifications					Electrical specifications						
	Code	Type	SIZE	SF [®]	I12D Temp. class	Centrifugal force (A/B)*				Weight		Max input power		Max. current		I _s /I _m	
						kg	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	400 V 50 Hz	460 V 60 Hz	50 Hz	60 Hz
three-phase	600375	MTF 3/65-S02	00	-	120°C	31/31	44/44	0.30/0.30	0.43/0.43	5.40	5.40	120	120	0.27	0.23	3.43	3.90
	600369	MTF 3/200-S02	01	•	120°C	106/75	109/109	1.04/0.74	1.07/1.07	7.50	7.30	180	180	0.35	0.30	2.68	3.00
	600370	MTF 3/300-S02	10	•	120°C	151/103	148/148	1.48/1.01	1.45/1.45	11.2	10.9	260	270	0.60	0.50	3.47	4.20
	600378	MTF 3/500-S02	20	•	120°C	251/163	235/235	2.46/1.60	2.30/2.30	15.0	14.1	450	500	0.80	0.75	4.21	4.80
	600456	MTF 3/650-S02	20	•	120°C	393/251	377/235	3.85/2.46	3.70/2.30	15.2	14.3	450	500	0.80	0.75	4.21	4.80
	600380	MTF 3/800-S02	30	•	120°C	393/262	377/377	3.85/2.57	3.70/3.70	17.0	16.5	650	685	1.10	1.00	3.83	6.00
	600285	MTF 3/1100-S90 Δ	40	-	120°C	590/590	566/566	5.79/5.79	5.55/5.55	26.0	25.0	940	1130	1.70	1.60	6.79	7.00
													220 V 50 Hz	115 V 60 Hz			
single-phase	600375	MTF 3/65-S02	00	-	120°C	31/31	44/44	0.30/0.30	0.43/0.43	5.40	5.40	110	110	0.56	1.52	2.24	2.24
	600369	MTF 3/200-S02	01	-	120°C	106/75	109/109	1.04/0.74	1.07/1.07	7.50	7.30	165	165	0.75	1.52	1.67	2.24
	600370	MTF 3/300-S02	10	-	120°C	151/103	148/148	1.48/1.01	1.45/1.45	11.2	10.9	280	280	1.25	2.40	2.48	3.52
	600378	MTF 3/500-S02	20	-	120°C	251/163	235/235	2.46/1.60	2.30/2.30	15.0	14.1	500	500	2.30	4.50	3.35	4.22
	600456	MTF 3/650-S02	20	-	120°C	393/251	377/235	3.85/2.46	3.70/2.30	15.2	14.3	500	500	2.30	4.50	3.35	4.22
	600380	MTF 3/800-S02	30	-	120°C	393/262	377/377	3.70/2.57	5.55/5.55	17.0	16.5	700	750	3.25	7.00	4.00	4.14

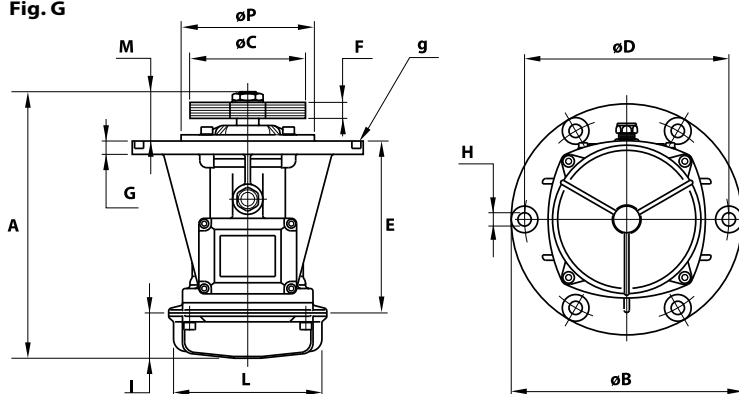
4 poles - 1500/1800 rpm

	Description					Mechanical specifications					Electrical specifications						
	Code	Type	SIZE	SF [®]	I12D Temp. class	Centrifugal force (A/B)*				Weight		Max input power		Max. current		I _s /I _m	
						kg	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	400 V 50 Hz	460 V 60 Hz	50 Hz	60 Hz
three-phase	601446	MTF 15/80-S02	01	•	120°C	39/39	38/38	0.38/0.38	0.37/0.37	6.8	6.5	85	95	0.21	0.20	1.78	1.95
	601403	MTF 15/200-S02	10	•	120°C	106/74	107/107	1.04/0.72	1.05/1.05	14.0	13.2	170	170	0.41	0.40	2.34	2.75
	601405	MTF 15/400-S02	20	•	120°C	205/142	205/205	2.01/1.39	2.01/2.01	20.6	19.8	300	350	0.60	0.60	3.33	3.50
	601406	MTF 15/550-S02	20	•	120°C	276/205	295/295	2.70/2.01	2.70/2.70	22.0	20.6	300	350	0.60	0.60	3.33	3.50
	601407	MTF 15/700-S02	30	•	120°C	360/263	380/380	3.53/2.58	3.73/3.73	26.0	24.5	525	665	0.92	0.98	3.48	3.43
	601280	MTF 15/1100-S90 Δ	40	-	120°C	522/522	491/491	5.12/5.12	4.82/4.82	36.0	31.4	900	1050	1.45	1.50	4.10	4.20
	601379	MTF 15/1710-S02-VRS	50	-	150°C	894/322	878/355	8.77/3.16	8.61/3.48	44.0	41.5	1100	1200	2.00	1.90	4.29	4.89
	601380	MTF 15/2000-S02-VRS	50	-	170°C	1021/357	1017/390	10.0/3.50	9.98/3.83	48.0	45.5	1350	1450	2.50	2.30	4.30	4.90
	601381	MTF 15/3810-S02-VRS	70	-	135°C	1908/707	1872/718	18.7/6.94	18.4/7.04	100	93	2200	2500	3.90	3.90	7.11	6.92
													220 V 50 Hz	115 V 60 Hz			
single-phase	601446	MTF 15/80-S02	01	-	120°C	39/39	38/38	0.38/0.38	0.37/0.37	6.8	6.5	90	100	0.43	1.00	1.20	1.30
	601403	MTF 15/200-S02	10	-	120°C	106/74	107/107	1.04/0.72	1.05/1.05	14.0	13.2	210	230	1.00	2.00	1.50	1.85
	601405	MTF 15/400-S02	20	-	120°C	205/142	205/205	2.01/1.39	2.01/2.01	20.6	19.8	240	320	1.20	2.80	2.50	2.50
	601406	MTF 15/550-S02	20	-	120°C	276/205	295/295	2.70/2.01	2.70/2.70	22.0	20.6	240	320	1.20	2.80	2.50	2.50
	601407	MTF 15/700-S02	30	-	120°C	360/263	380/380	3.53/2.58	3.73/3.73	26.0	24.5	450	550	2.15	5.15	5.44	3.63

* Listed as A/B: total centrifugal force is the sum of centrifugal force of top weights (A) and centrifugal force of bottom weights (B).
I_s/I_m = ratio between start-up current and maximum current.

Weight adjustment, see pages 62, 63

Fig. G



Type	Fig.	Dimensional specifications (mm)												Capacitor (µF)		Cable entry thread	Seal g	
		A	øB	øC	Holes			E	F	G	I	L	M	øP	220 V 50 Hz			115 V 60 Hz
MTF 3/65-S02	G	189	130	86	109	8.5	4	132	7.5	10	36	96	22	-	-	-	M20x1,5	OR 3350
MTF 3/200-S02	G	225.5	211.5	92	188	12	4	144	21 (50Hz) 15 (60Hz)	10	58	103	23.5	-	-	-	M20x1,5	OR 4650
MTF 3/300-S02	G	247	215	110	187	12	4	179.5	18 (50Hz) 12 (60Hz)	13	54	127	13.5	-	-	-	M20x1,5	OR 4625
MTF 3/500-S02	G	279.5	245	122	205	12	6	124	24 (50Hz) 15 (60Hz)	12	65	145	90.5	162	-	-	M25x1,5	OR 4700
MTF 3/650-S02	G	279.5	245	150 (50Hz) 132 (60Hz)	205	12	6	124	18	12	65	145	90.5	162	-	-	M25x1,5	OR 4700
MTF 3/800-S02	G	301	260	150 (50Hz) 132 (60Hz)	230	15	6	182	18	15	63	170	56	150	-	-	M25x1,5	OR 4800
MTF 3/1100-S90 Δ	G	383	279	145	254	14	4	-	31 (50Hz) 21 (60Hz)	17.5	57.5	-	63	229	-	-	M25x1,5	-

MTF 3/65-S02	G	189	130	86	109	8.5	4	132	7.5	10	36	96	22	-	10	28	M20x1,5	OR 3350
MTF 3/200-S02	G	225.5	211.5	92	188	12	4	144	21 (50Hz) 15 (60Hz)	10	58	103	23.5	-	10	28	M20x1,5	OR 4650
MTF 3/300-S02	G	247	215	110	187	12	4	179.5	18 (50Hz) 12 (60Hz)	13	54	127	13.5	-	16	25	M20x1,5	OR 4625
MTF 3/500-S02	G	279.5	245	122	205	12	6	124	24 (50Hz) 15 (60Hz)	12	65	145	90.5	162	12.5	50	M25x1,5	OR 4700
MTF 3/650-S02	G	279.5	245	150 (50Hz) 132 (60Hz)	205	12	6	124	18	12	65	145	90.5	162	12.5	50	M25x1,5	OR 4700
MTF 3/800-S02	G	301	260	150 (50Hz) 132 (60Hz)	230	15	6	182	18	15	63	170	56	150	25	90	M25x1,5	OR 4800

Type	Fig.	Dimensional specifications (mm)												Capacitor (µF)		Cable entry thread	Seal g	
		A	øB	øC	Holes			E	F	G	I	L	M	øP	220 V 50 Hz			115 V 60 Hz
MTF 15/80-S02	G	225.5	211.5	92	188	12	4	144	31 (50Hz) 21 (60Hz)	10	58	103	23.5	-	-	-	M20x1,5	OR 4650
MTF 15/200-S02	G	292.5	215	114 (50Hz) 108 (60Hz)	187	12	4	179.5	48 (50Hz) 40 (60Hz)	13	77	127	36	-	-	-	M20x1,5	OR 4625
MTF 15/400-S02	G	335.5	245	130	205	12	6	124	59 (50Hz) 42 (60Hz)	12	93	145	118.5	162	-	-	M25x1,5	OR 4700
MTF 15/550-S02	G	376.5	245	130	205	12	6	124	79 (50Hz) 59 (60Hz)	12	114	145	138.5	162	-	-	M25x1,5	OR 4700
MTF 15/700-S02	G	380.5	260	154	230	15	6	182	59 (50Hz) 46 (60Hz)	15	106	170	92.5	150	-	-	M25x1,5	OR 4800
MTF 15/1100-S90 Δ	G	426	279	190	254	14	4	-	49	17.5	57.5	-	84.5	229	-	-	M25x1,5	-
MTF 15/1710-S02-VRS	G	488	350	190	290	17	6	232	84 (50Hz) 58 (60Hz)	18	134	209	122	172	-	-	M25x1,5	-
MTF 15/2000-S02-VRS	G	561	350	190	290	17	6	232	96 (50Hz) 66 (60Hz)	18	171	209	158	172	-	-	M25x1,5	-
MTF 15/3810-S02-VRS	G	614	410	250 (50Hz) 244 (60Hz)	350	22	6	310	78 (50Hz) 58 (60Hz)	20	178	280	125.5	234	-	-	M25x1,5	-

MTF 15/80-S02	G	225.5	211.5	92	188	12	4	144	31 (50Hz) 21 (60Hz)	10	58	103	23.5	-	3.15	25	M20x1,5	OR 4650
MTF 15/200-S02	G	292.5	215	114 (50Hz) 108 (60Hz)	187	12	4	179.5	48 (50Hz) 40 (60Hz)	13	77	127	36	-	5	25	M20x1,5	OR 4625
MTF 15/400-S02	G	335.5	245	130	205	12	6	130	59 (50Hz) 42 (60Hz)	12	93	145	118.5	162	32/12 ○	35	M20x1,5	OR 4700
MTF 15/550-S02	G	376.5	245	130	205	12	6	130	79 (50Hz) 59 (60Hz)	12	114	145	138.5	162	32/12 ○	40/35 ○	M20x1,5	OR 4700
MTF 15/700-S02	G	380.5	260	154	230	15	6	182	59 (50Hz) 46 (60Hz)	15	106	170	92.5	150	96/16 ○	160/40 ○	M25x1,5	OR 4800

Δ Supplied without weight covers on both sides ○ Start-up capacitor / Running capacitor.

MTF-E



The MTF-E series has been designed for use in industrial processes in environments with a potentially explosive atmosphere, caused by gas and dusts, in compliance with ATEX Directive (94/9/EC).

In particular, the MTF-E series can be used in areas 1 and 2 (gas) and areas 21 and 22 (dusts) according to the layout and following features:

Technical features

Power supply

Three-phase voltage from 220V to 690V, 50Hz or 60Hz; suitable for use with a PWM inverter from 20Hz to the base frequency with constant torque load profile.

Polarity

2 and 4 poles.

Conformity with European Directives

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

Reference Regulations

IEC/EN 60079-0, IEC/EN 60079-7, IEC/EN 61241-0, IEC/EN 61241-1, EN 60034-1,

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 2615 Kgf. (25.7 KN), with centrifugal force adjustable from 0 to 100%.

Mechanical protection

IP 66 according to IEC 529, EN 60529; mechanical protection is ensured in the mounting phase of the vibrator onto the vibrating machine, by introducing the special seal into the seat on the coupling flange.

Protection against thermal protection

IK 08 according to IEC 68, EN 50102.

Insulation class

Class F (155°C).

Tropicalization

Standard on all vibrators, with vacuum encapsulation up to size 30, with "drop by drop" trickle system for larger sizes.

Ambient temperature

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

Vibrator thermal protection

On demand with PTC rated thermistor heat detectors 130°C (DIN 44081-44082). Also 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. In heavy duty operating conditions periodical re-lubrication may be applied to frame sizes 40-50-70.

Electrical connection box

The size guarantees passage of tools used for fixing the vibrator to the vibrating machine. The electrical connection must be carried out using the relative connectors inserted inside the connection box.

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 adapt for the specific requirements of vibrating machines. Insulated windings using vacuum encapsulating up to size 30; using the "drop by drop" trickle system with class H resin for sizes 40-50-70. The rotor is die cast aluminium.

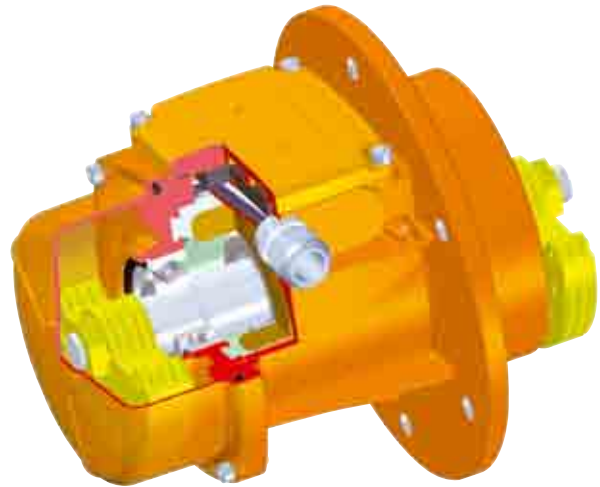
.....
Category: II 2 G,D
.....

Level of protection: Ex e II, tD A21 IP66
.....

Temperature class:
Gas: T3 (200°C) or T4 (135°C) Dusts: 120°C
.....

EC certificate: LCIE 06 ATEX 6092 X
.....

Areas of use: 1, 2, 21, 22
.....



Certifications

Casing

In high-tensile aluminium alloy up to size 50, in spheroidal cast iron for size 70.

An external earthing screw is located on the casing as prescribed by Regulation IEC/EN 60079-0

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 Italtibras.

Motor shaft

In treated steel alloy (Isothermic hardening) resistant to stress.

Eccentric weights

Allow greater adjustment of the centrifugal force, with phase shift of the lower weight assembly with respect to the upper group. This adjustment is eased by a graduated scale, which expresses the centrifugal force as a percentage of the maximum centrifugal force.

Weight covers

In aluminium alloy, mounted only on the lower side. The flange side does not have weight cover. Size 40 is supplied without weights covers on both sides.

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.

II 2 G, D – Class Ex e II T4/T3 tD A21 IP 66.
IEC/EN 60079-0, IEC/EN 60079-7,
IEC/EN 61241-0, IEC/EN 61241-1.
Certificate n° LCIE 06 ATEX 6092 X



GGTN Permit and Gost-R certificate
for increased safety Ex e:
GOST R 51330.0-99, GOST R 51330.8-99,
GOST R IEC 61241-1-1-99.



Certificate of Conformity
n° IECEx LCI 10.0003X
following standards IEC 61241-0, IEC 61241-1,
IEC 60079-0, IEC 60079-7



Comply with the applicable
European Union directives



MTF-E



2 poles - 3000/3600 rpm

	Description			Mechanical specifications						Electrical specifications							
	Code	Type	SIZE	Centrifugal force (A/B)*				Weight		Temp. class (G)	Temp. class (D)	Max input power		Power rating		Max. current	
				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	6E0369	MTF 3/200E-S02 ○	01	106/75	109/109	1.04/0.74	1.07/1.07	7.50	7.30	T3	120°C	180	180	120	120	0.33	0.33
	6E0370	MTF 3/300E-S02	10	151/153	148/148	1.48/1.01	1.45/1.45	11.2	10.9	T3 T4	120°C	260 230	270 230	210 172	210 172	0.57 0.48	0.50 0.41
	6E0378	MTF 3/500E-S02	20	251/163	235/235	2.46/1.60	2.30/2.30	15.0	14.1	T3 T4	120°C	500 350	500 360	300 210	300 210	0.76 0.57	0.67 0.50
	6E0456	MTF 3/650E-S02	20	393/251	377/235	3.85/2.46	3.70/2.30	15.2	14.3	T3 T4	120°C	500 350	300 360	300 210	300 210	0.76 0.57	0.67 0.50
	6E0380	MTF 3/800E-S02	30	393/262	377/377	3.85/2.57	3.70/3.70	17.0	16.5	T3 T4	120°C	550 390	570 400	405 290	405 290	0.95 0.72	0.83 0.64
	6E0285	MTF 3/1100E-S90 Δ	40	590/590	566/566	5.79/5.79	5.55/5.55	26.0	25.0	T4	120°C	830	910	660	660	1.43	1.25

4 poles - 1500/1800 rpm

	Description			Mechanical specifications						Electrical specifications							
	Code	Type	SIZE	Centrifugal force (A/B)*				Weight		Temp. class (G)	Temp. class (D)	Max input power		Power rating		Max. current	
				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	6E1403	MTF 15/200E-S02	10	106/74	107/107	1.04/0.72	1.05/1.05	14.0	13.2	T3 T4	120°C	203 170	- 175	90 94	- 95	0.45 0.39	- 0.40
	6E1405	MTF 15/400E-S02	20	205/142	205/205	2.01/1.39	2.01/2.01	20.6	19.8	T3 T4	120°C	300 285	320 270	200 180	230 200	0.57 0.52	0.52 0.46
	6E1406	MTF 15/550E-S02	20	276/205	295/295	2.70/2.01	2.70/2.70	22.0	20.6	T3 T4	120°C	300 285	320 270	200 180	230 200	0.57 0.52	0.52 0.46
	6E1407	MTF 15/700E-S02	30	360/263	380/380	3.53/2.58	3.73/3.73	26.0	24.5	T3 T4	120°C	460 360	500 420	310 240	380 210	0.86 0.72	0.85 0.70
	6E1280	MTF 15/1100E-S90 Δ	40	522/522	491/491	5.12/5.12	4.82/4.82	36.0	31.4	T3 T4	120°C	900 630	950 700	660 460	730 505	1.38 1.05	1.32 1.00
	6E1379	MTF 15/1710E-S02-VRS	50	894/322	878/355	8.77/3.16	8.61/3.48	44.0	41.5	T3 T4	150°C	1100 630	1150 700	730 480	800 530	1.90 1.33	1.82 1.27
	6E1380	MTF 15/2000E-S02-VRS	50	1021/357	1017/390	10.0/3.50	9.98/3.83	48.0	45.5	T3 T4	150°C	1100 630	1150 700	730 480	800 530	1.90 1.33	1.82 1.27
	6E1381	MTF 15/3810E-S02-VRS	70	1908/707	1872/718	18.7/6.94	18.4/7.04	100	93	T3 T4	135°C	2200 1850	2400 1950	1780 1500	1960 1650	3.71 3.14	3.50 3.00

* Listed as A/B: total centrifugal force is the sum of centrifugal force of top weights (A) and centrifugal force of bottom weights (B).
 ○ Available only in versions 127/220V 50Hz three-phase, 200/346V 50Hz three-phase and 210/363V 60Hz three-phase.

Weight adjustment

Frontal fixing weights

Clamp fixing weights



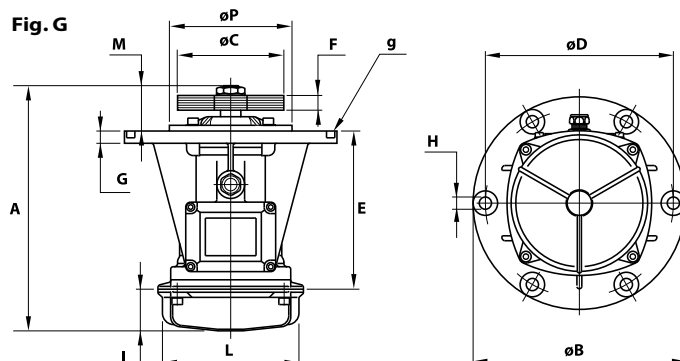
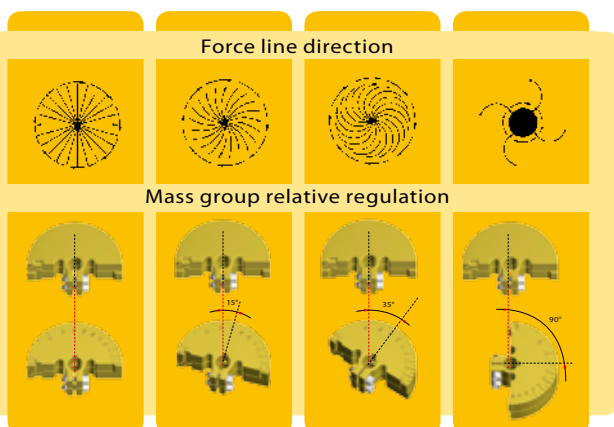
Graduated disks for upper and lower weight group phase shift

Regulation between upper and lower weight groups Single weight phase shift

t _E (s)	I _a /I _n	Type	Dimensional specifications (mm)															
			Fig.	A	øB	Holes				E	F	G	I	L	M	øP	Cable entry thread	Seal g
						øC	øD	øH	N°									
30	2.68	MTF 3/200E-S02 ○	G	225.5	211.5	92	188	12	4	144	21 (50Hz) 15 (60Hz)	10	58	103	23.5	-	M20x1,5	OR 4650
18 12	3.50 4.20	MTF 3/300E-S02	G	247	215	110	187	12	4	179.5	18 (50Hz) 12 (60Hz)	13	54	127	13.5	-	M20x1,5	OR 4625
12 8	4.20 5.60	MTF 3/500E-S02	G	279.5	245	150	205	12	6	124	24 (50Hz) 15 (60Hz)	12	65	145	90.5	162	M25x1,5	OR 4700
12 8	4.20 5.60	MTF 3/650E-S02	G	279.5	245	150 (50Hz) 132 (60Hz)	205	12	6	124	18	12	65	145	90.5	162	M25x1,5	OR 4700
12 8	4.20 5.52	MTF 3/800E-S02	G	301	260	150 (50Hz) 132 (60Hz)	230	15	6	182	18	15	63	170	56	150	M25x1,5	OR 4800
6	7.30	MTF 3/1100E-S90 Δ	G	383	279	145	254	14	4	-	31 (50Hz) 21 (60Hz)	17.5	57.5	-	63	229	M25x1,5	-

t _E (s)	I _a /I _n	Type	Dimensional specifications (mm)															
			Fig.	A	øB	Holes				E	F	G	I	L	M	øP	Cable entry thread	Seal g
						øC	øD	øH	N°									
35 28	2.04 2.34	MTF 15/200E-S02	G	292.5	215	114 (50Hz) 108 (60Hz)	187	12	4	179.5	48 (50Hz) 40 (60Hz)	13	77	127	36	-	M20x1,5	OR 4625
18 16	3.33 3.63	MTF 15/400E-S02	G	335.5	245	130	205	12	6	124	59 (50Hz) 42 (60Hz)	12	93	145	118.5	162	M25x1,5	OR 4700
18 16	3.33 3.63	MTF 15/550E-S02	G	376.5	245	130	205	12	6	124	79 (50Hz) 59 (60Hz)	12	114	145	138.5	162	M25x1,5	OR 4700
17 12	3.50 4.20	MTF 15/700E-S02	G	380.5	260	154	230	15	6	182	59 (50Hz) 46 (60Hz)	15	106	170	92.5	150	M25x1,5	OR 4800
13 8	4.00 5.36	MTF 15/1100E-S90 Δ	G	426	279	190	254	14	4	-	49	17.5	57.5	-	84.5	229	M25x1,5	-
9 5.5	4.95 7.00	MTF 15/1710E-S02-VRS	G	488	350	190	290	17	6	232	84 (50Hz) 58 (60Hz)	18	134	209	122	172	M25x1,5	-
9 5.5	4.95 7.00	MTF 15/2000E-S02-VRS	G	561	350	190	290	17	6	232	96 (50Hz) 66 (60Hz)	18	171	209	158	172	M25x1,5	-
6 6	7.17 8.42	MTF 15/3810E-S02-VRS	G	614	410	250 (50Hz) 244 (60Hz)	350	22	6	310	78 (50Hz) 58 (60Hz)	20	178	280	125.5	234	M25x1,5	-

▲ Supplied without weight covers on both sides. t_E (s) = set time t_E from IEC/EN 60079-7. I_a/I_n = ratio between start-up current and maximum current.



MVB/MVB-FLC



The MVB series is made up of vertical vibrators with lateral flange and shaft projecting on both sides.

The MVB-FLC series is made up of vertical vibrators with central flange and shaft projecting on both sides.

These vibrators are typically used in circular screens and medium-size and large sieves, and can be supplied in 4 different versions: A, B, C, D (see page 66) according to the type of eccentric weights supplied with the vibrator and which must be mounted by the user. Size 50 is only available in B, C and D versions.

The size 50 complies with the most recent IEC and EN international standards for use in atmospheres with potentially explosive powders. In particular, the size 50 series can be used in areas 21 and 22.

Technical features

Power supply

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

Polarity

4 poles.

Conformity with European Directives

Low Voltage 2006/95/EC,
ATEX 94/9/EC (only size 50).

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 7000 Kgf. (68.7 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 "drop by drop" trickle system.

Ambient temperature

From -20°C a +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 80, on request for smaller sizes. Also 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.

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 "drop by drop" trickle system with class H resin. The rotor is die cast aluminium.

.....
Type: MVB SIZE.50, MVB-FLC SIZE.50
.....

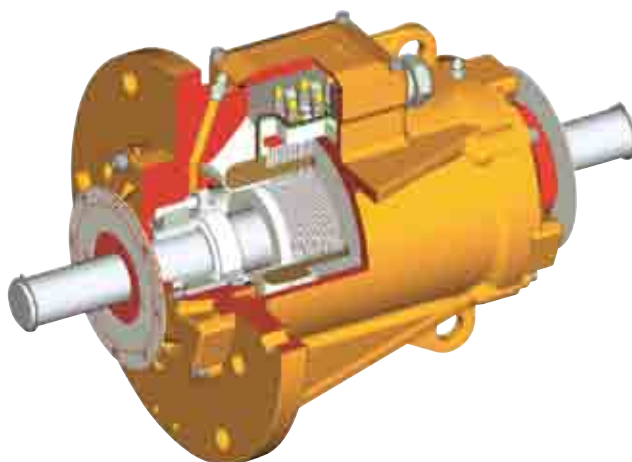
.....
Category: II 2 D
.....

.....
Level of protection: tD A21 IP66
.....

.....
Temperature class: 150°C
.....

.....
EC certificate: LCIE 05 ATEX 6163 X
.....

.....
Areas of use: 21, 22
.....



Certifications

Casing

In spheroidal cast iron to have high strength and optimal elasticity.

Bearing flange

Constructed in spheroidal cast iron. 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

Lamellar for clamped centric weight have an ample possibility of adjustment: the particular adjustment system adopted allows to obtain phase shift from 0 to 180° of the group of upper weights with respect to the group of lower weights and to have ample adjustment of the centrifugal force within the same group of weights.

Weight covers

Not envisioned in the MVB and MVB-FLC series.

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.

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
following standards IEC 61241-0, IEC 61241-1.



Comply with the applicable
European Union directives



MVB/MVB-FLC



CESI KCE



MVB 4 poles - 1500/1800 rpm

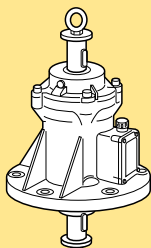
	Description					Mechanical specifications				Electrical specifications				
	Code	Type	SIZE	SB	II2D Temp. class	Centrifugal force				Weight kg	Max input power W		Max. current A	
						50 Hz	60 Hz	50 Hz	60 Hz		50 Hz	60 Hz	400 V 50 Hz	460 V 60 Hz
three-phase	601226	MVB 1510/15	50	•	150°C	1500	1500	14.7	14.7	41.5	1100	1200	2.10	2.00
	601129	MVB 2500/15	60	•	/	2500	2500	24.5	24.5	67.0	2150	2700	3.90	4.10
	601130	MVB 4500/15	80	•	/	4500	4500	44.1	44.1	106	4000	4200	6.70	5.80
	601131	MVB 7000/15	90	•	/	7000	7000	68.7	68.7	160	7000	7000	11.8	10.2

MVB-FLC 4 poles - 1500/1800 rpm

	Description					Mechanical specifications				Electrical specifications				
	Code	Type	SIZE	SB	II2D Temp. class	Centrifugal force				Weight kg	Max input power W		Max. current A	
						50 Hz	60 Hz	50 Hz	60 Hz		50 Hz	60 Hz	400 V 50 Hz	460 V 60 Hz
three-phase	601225	MVB 1510/15-FLC	50	•	150°C	1500	1500	14.7	14.7	54.5	1100	1200	2.10	2.00
	601134	MVB 2500/15-FLC	60	•	/	2500	2500	24.5	24.5	67.0	2150	2700	3.90	4.10
	601135	MVB 4500/15-FLC	80	•	/	4500	4500	44.1	44.1	106	4000	4200	6.70	5.80
	601136	MVB 7000/15-FLC	90	•	/	7000	7000	68.7	68.7	160	7000	7000	11.8	10.2

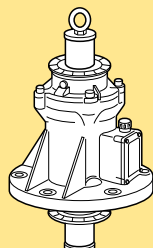
Versions

Version A



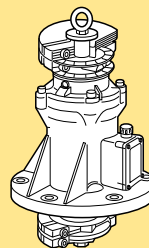
Basic model.

Version B



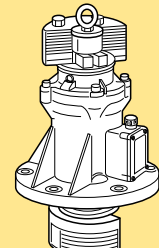
Basic model with angle disc.

Version C



Basic model with angle disc and weights type C (clamped).

Version D



Basic model with angle disc and weights type D (lamellar).

Fig. I

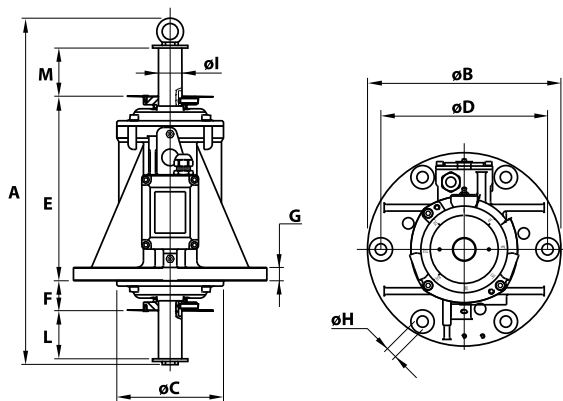
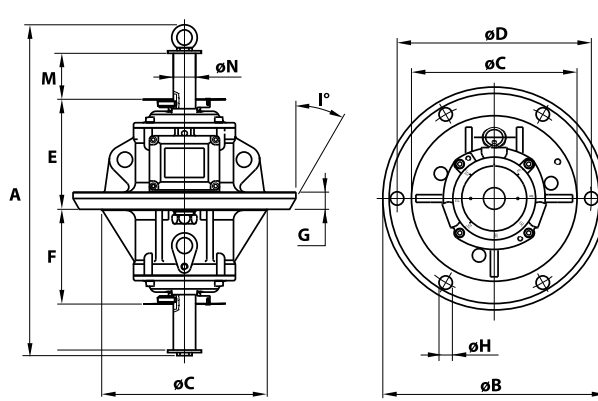


Fig. L



I _a /I _n		Type	Fig.	Dimensional specifications (mm)												
50 Hz	60 Hz			A	øB	øC	øD	Holes		E	F	G	øI	L	M	Cable entry thread
3.76	4.50	MVB 1510/15	I	476	290	171	250	17	6	278	46	20	35	71	71	M25x1,5
5.60	5.81	MVB 2500/15	I	587	350	224	305	21	6	294	54	27	40	71	71	M25x1,5
4.48	4.18	MVB 4500/15	I	664	400	240	355	23.5	6	340	70	30	52	75	75	M25x1,5
6.19	6.73	MVB 7000/15	I	740	508	314	438	25	8	388	88	34	52	79	79	M32x1,5

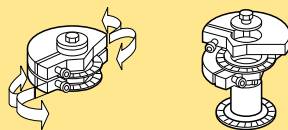
I _a /I _n		Type	Fig.	Dimensional specifications (mm)													
50 Hz	60 Hz			A	øB	øC	øD	Holes		E	F	G	I°	L	M	øN	Cable entry thread
3.76	4.50	MVB 1510/15-FLC	L	476	350	260	305	21	6	174	150	27	30	71	71	35	M25x1,5
5.60	5.81	MVB 2500/15-FLC	L	587	350	260	305	21	6	189	162	27	30	71	71	40	M25x1,5
4.48	4.18	MVB 4500/15-FLC	L	664	400	310	355	23.5	6	220	190	30	15	75	75	52	M25x1,5
6.19	6.73	MVB 7000/15-FLC	L	740	508	348	438	25	8	255.5	224.5	32.5	30	79	79	52	M32x1,5

I_a/I_n = ratio between start-up current and maximum current.

Each C type weight group (in twos) is adjustable by phase shifting one in respect to the other. Each D type weight group (lamellars) is adjustable by removing one or more lamellar elements.

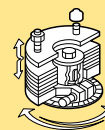
Weight adjustment: the weights at the two ends of the shaft can be staggered as required, with reference to the graduated discs on the shaft itself.

Type "C"



Infinitely adjustable centrifugal force

Type "D"



Centrifugal force adjustable from max. to min. by removing the lamellar weights.

MVB-E/MVB-E-FLC



The MVB-E and MVB-E-FLC flanged vibrator series have been designed for use in industrial processes with screens and sieves in environments with a potentially explosive atmosphere, caused by gas and dusts, in compliance with ATEX Directive (94/9/EC).

These vibrators can be supplied in B, C, D versions (see page 70) according to the eccentric weights supplied with the vibrator and to be mounted by the user.

In particular, these vibrators can be used in areas 1 and 2 (gas) and in areas 21 and 22 (dusts) according to the layout and the following features:

Technical features

Power supply

Three-phase voltage from 220V to 690V, 50Hz or 60Hz; suitable for use with a PWM inverter from 20Hz to the base frequency with constant torque load profile.

Polarity

4 poles.

Conformity with European Directives

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

Reference Regulations

IEC/EN 60079-0, IEC/EN 60079-7, IEC/EN 61241-0, IEC/EN 61241-1,
EN 60034-1.

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

1500 Kgf. (14.7 KN), adjustable with variation of the eccentric weights.

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).

Tropicalization

Standard with "drop by drop" trickle system.

Ambient temperature

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

Vibrator thermal protection

On demand with PTC rated thermistor heat detectors 130°C (DIN 44081-44082). Also 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.

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. Insulated windings using "drop by drop" trickle system with class H resin. The rotor is die cast aluminium.

Casing

In spheroidal cast iron to have high strength and optimal elasticity.

An external earthing screw is located on the casing as prescribed by Regulation IEC/EN 60079-0.

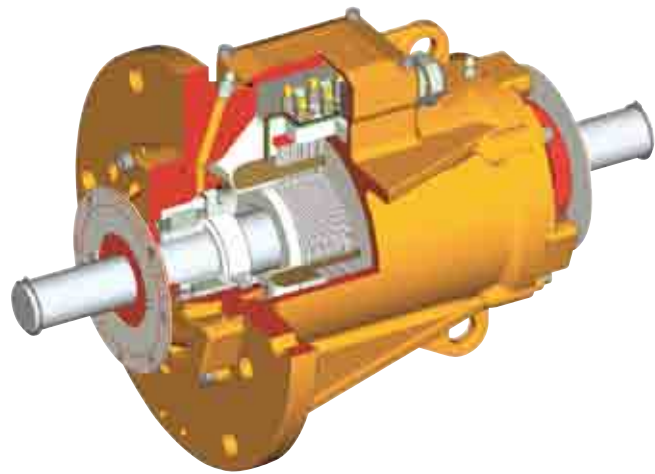
.....
Category: II 2 G,D
.....

Level of protection: Ex e II, tD A21 IP66
.....

Temperature class:
Gas: T3 (200°C) or T4 (135°C) Dusts: 150°C
.....

EC certificate: LCIE 06 ATEX 6092 X
.....

Areas of use: 1, 2, 21, 22
.....



Certifications

Bearing flange

Constructed in spheroidal cast iron. 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.

Motor shaft

In treated steel alloy (Isothermic hardening) resistant to stress.

Eccentric weights

Lamellar for clamped centric weigh have an ample possibility of adjustment: the particular adjustment system adopted allows to obtain phase shift from 0 to 180° of the group of upper weights with respect to the group of lower weights and to have ample adjustment of the centrifugal force within the same group of weights.

Weight covers

Not envisioned in the MVB-E and MVB-E-FLC series.

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.

II 2 G, D – Class Ex e II T4/T3 tD A21 IP 66.
IEC/EN 60079-0, IEC/EN 60079-7,
IEC/EN 61241-0, IEC/EN 61241-1.
Certificate n° LCIE 06 ATEX 6092 X



GGTN Permit and Gost-R certificate
for increased safety Ex e:
GOST R 51330.0-99, GOST R 51330.8-99,
GOST R IEC 61241-1-1-99.



Certificate of Conformity
n° IECEx LCI 10.0003X
following standards IEC 61241-0, IEC 61241-1,
IEC 60079-0, IEC 60079-7



Comply with the applicable
European Union directives



MVB-E/MVB-E-FLC



MVB-E 4 poles - 1500/1800 rpm

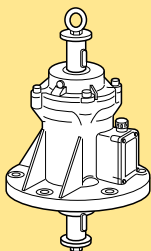
	Description			Mechanical specifications				Electrical specifications								
	Code	Type	SIZE	Centrifugal force				Weight kg	Temp. class (G)	Temp. class (D)	Max input power W		Power rating W		Max. current A	
				50 Hz	60 Hz	50 Hz	60 Hz				50 Hz	60 Hz	50 Hz	60 Hz	400 V 50 Hz	460 V 60 Hz
three-phase	6E1226	MVB 1510/15-E	50	1500	1500	14.7	14.7	41.5	T3 T4	150°C	1100 630	1150 700	730 480	800 530	1.90 1.33	1.82 1.27

MVB-E-FLC 4 poles - 1500/1800 rpm

	Description			Mechanical specifications				Electrical specifications								
	Code	Type	SIZE	Centrifugal force				Weight kg	Temp. class (G)	Temp. class (D)	Max input power W		Power rating W		Max. current A	
				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	6E1225	MVB 1510/15-E-FLC	50	1500	1500	14.7	14.7	54.5	T3 T4	150°C	1100 630	1150 700	730 480	800 530	1.90 1.33	1.82 1.27

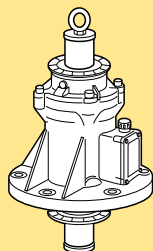
Versions

Version A



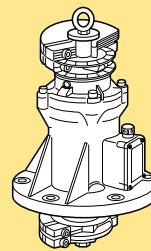
Basic model.

Version B



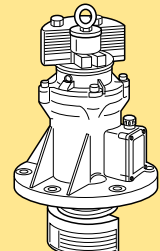
Basic model with angle disc.

Version C



Basic model with angle disc and weights type C (clamped).

Version D



Basic model with angle disc and weights type D (lamellar).

Fig. I

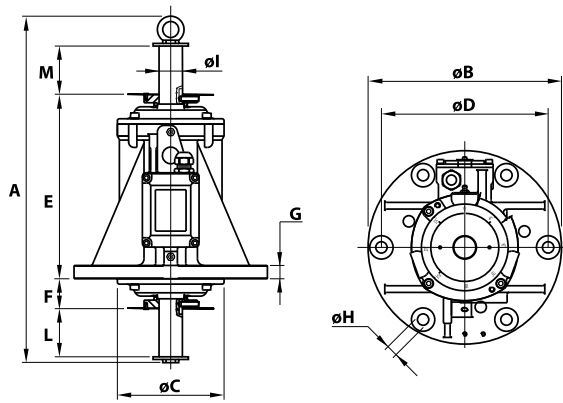
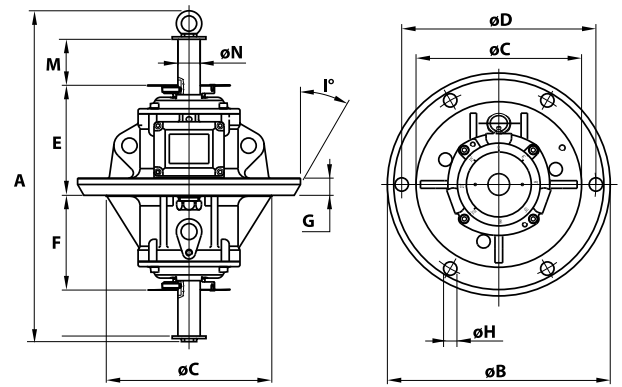


Fig. L



t_E (s)	I_A/I_N	Type	Dimensional specifications (mm)													
			Fig.	A	ϕB	ϕC	ϕD	Holes		E	F	G	ϕI	L	M	Cable entry thread
9 5.5	4.95 7.00	MVB 1510/15-E	I	476	290	171	250	17	6	278	46	20	35	71	71	M25x1,5

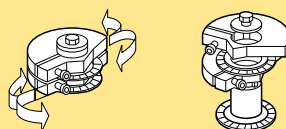
t_E (s)	I_A/I_N	Type	Dimensional specifications (mm)														
			Fig.	A	ϕB	ϕC	ϕD	Holes		E	F	G	ϕI	L	M	ϕN	Cable entry thread
9 5.5	4.95 7.00	MVB 1510/15-E-FLC	I	476	350	260	305	21	6	174	150	27	30	71	71	35	M25x1,5

t_E (s) = set time t_E from IEC/EN 60079-7. I_A/I_N = ratio between start-up current and maximum current.

Each C type weight group (in twos) is adjustable by phase shifting one in respect to the other. Each D type weight group (lamellar) is adjustable by removing one or more lamellar elements.

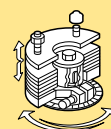
Weight adjustment: the weights at the two ends of the shaft can be staggered as required, with reference to the graduated discs on the shaft itself.

Type "C"



Infinitely adjustable centrifugal force

Type "D"



Centrifugal force adjustable from max. to min. by removing the lamellar weights.



The VB series is made up of vertical vibrators with double conical flange. These vibrators are typically used in circular screens and in medium-size and large sieves. They are supplied without eccentric weights, which must be realised and mounted by the manufacturer of the vibrating machine.

The VB series complies with the most recent IEC and EN international standards for use in atmospheres with potentially explosive powders. In particular, the VB series can be used in areas 21 and 22.

Category: II 2 D

Level of protection: tD A21 IP66

Temperature class: 150°C

EC certificate: LCIE 05 ATEX 6163 X

Areas of use: 21, 22

Technical features

Power supply

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

Polarity

4 and 6 poles.

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

Proportioned for a centrifugal force equal to 5000 Kgf. (49 KN), with eccentric weights not included, to be made by the user.

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 "drop by drop" trickle system.

Ambient temperature

From -20°C to +40°C. Versions for higher or lower temperatures are available on request.

Vibrator thermal protection

On PTC rated request with thermistor heat detectors 130°C (DIN 44081-44082). Also on request thermistors with different temperatures and anti-condensation heaters.

Fixing of the vibrator

In all positions and therefore without restriction.

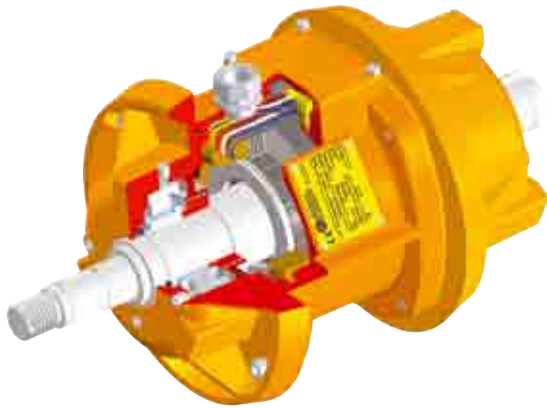
Lubrication

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.

4 poles - 1500/1800 rpm / 6 poles - 1000/1200 rpm

	Description					Mechanical specifications						Electrical specifications						
	Code	Type	SIZE	II2D Temp. class	II2D Temp. class	Giri/min.		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	400 V 50 Hz	460 V 60 Hz	50 Hz	60 Hz
three-phase	601223	VB 15/2510-D	4	•	150°C	1500	1800	2500	2500	24.5	24.5	68	2016	2600	3.60	4.10	3.50	3.58
	602171	VB 10/2510-D	6	•	150°C	-	1200	-	2500	-	24.5	68	-	2100	-	3.22	-	3.27
	601378	VB 15/5000-LM	4	•	135°C	1500	1800	5000	5000	49.0	49.0	101	3600	3400	6.00	5.00	7.02	8.00

I_a/I_N = ratio between start-up current and maximum current.



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.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
following standards IEC 61241-0, IEC 61241-1.



Comply with the applicable
European Union directives



Electrical connection box

The size guarantees passage of tools used for fixing the vibrator to the vibrating machine. The electrical connection must be carried out using the relative connectors inserted inside the connection box. 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 "drop by drop" trickle system with class H resin. The rotor is die cast aluminium.

Casing

In spheroidal cast iron to have high strength and optimal elasticity.

Bearing flange

Constructed in spheroidal cast iron. 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

Not envisioned, to be made and mounted by the user.

Weight covers

Not envisioned.

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.

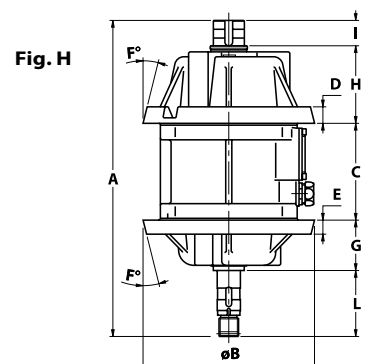


Fig. H

Dimensional specifications (mm)

Type	Fig.	A	øB	C	D	E	F°	G	H	I	L	Cable entry thread
VB 15/2510-D	H	517.5	281	152.5	30	26	14	85.3	136.6	35	108	M32x1.5
VB 10/2510-D	H	517.5	281	152.5	30	26	14	85.3	136.6	35	108	M32x1.5
VB 15/5000-LM	H	555	342	208	48	48	25	106.5	110	60.5	70	M32x1.5

VB-E



The double-conical flange VB-E vibrators have been designed for use in industrial processes in environments with a potentially explosive atmosphere, caused by gas and dusts, in compliance with ATEX Directive (94/9/EC).

They are supplied without eccentric weights, which must be realised and mounted by the Manufacturer of the vibrating machine. In particular, these vibrators can be used in areas 1 and 2 (gas) and in areas 21 and 22 (dusts) according to the layout and following features:

.....
Category: II 2 G,D

.....
Level of protection: Ex e II, tD A21 IP66

.....
Temperature class: See table

.....
EC certificate: LCIE 06 ATEX 6092 X

.....
Areas of use: 1, 2, 21, 22

Technical features

Power supply

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

Polarity

4 poles.

Conformity with European Directives

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

Reference Regulations

IEC/EN 60079-0, IEC/EN 60079-7, IEC/EN 61241-0, IEC/EN 61241-1, EN 60034-1.

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

Proportioned for a centrifugal force equal to 5000 Kgf. (49 KN), with eccentric weights not included, to be made by the user.

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).

Tropicalization

Standard with "drop by drop" trickle system.

Ambient temperature

From -10°C to +40°C, on request it is possible to have vibrators for maximum ambient temperatures of +55°C in temperature class T3.

Vibrator thermal protection

On request with PTC rated thermistor heat detectors 130°C (DIN 44081-44082). Also 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.

4 poles - 1500/1800 rpm

	Description			Mechanical specifications						Electrical specifications						
	Code	Type	Poles	rpm		Centrifugal force		Weight	Temp. class (G)	Temp. class (D)	Max input power		Power rating			
				50 Hz	60 Hz	kg	kN				W	W	50 Hz	60 Hz		
three-phase	6E1223	VB 15/2510-D-E	4	1500	1800	2500	2500	24.5	24.5	68	T3	150°C	1700	1800	1390	1480
	6E1378	VB 15/5000E-LM	4	1500	1800	5000	5000	49.0	49.0	101	T3	135°C	3200	3700	2560	2800



Certifications

II 2 G, D – Class Ex e II T4/ T3 tD A21 IP 66.
IEC/EN 60079-0, IEC/EN 60079-7, I
EC/EN 61241-0, IEC/EN 61241-1.
Certificate n° LCIE 06 ATEX 6092 X



GGTN Permit and Gost-R certificate
for increased safety Ex e:
GOST R 51330.0-99, GOST R 51330.8-99,
GOST R IEC 61241-1-1-99.



Certificate of Conformity
n° IECEx LCI 10.0003X
following standards IEC 61241-0, IEC 61241-1,
IEC 60079-0, IEC 60079-7



Comply with the applicable
European Union directives



Electrical connection box

The size guarantees passage of tools used for fixing the vibrator to the vibrating machine. The electrical connection must be carried out using the relative connectors inserted inside the connection box. 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 “drop by drop” system with class H resin. The rotor is die cast aluminium.

Casing

In spheroidal cast iron to have high strength and optimal elasticity. An external earthing screw is located on the casing as prescribed by Regulation IEC/EN 60079-0.

Bearing flange

Constructed in spheroidal cast iron. The geometry of the flange transmits the load to the casing uniformly.

Bearings

Custom made with particular geometry, especially designed for Italtibras, suitable to support both high radial and axial loads.

Motor shaft

In treated steel alloy (Isothermic hardening) resistant to stress.

Eccentric weights

Not envisioned, to be made and mounted by the user.

Weight covers

Not envisioned.

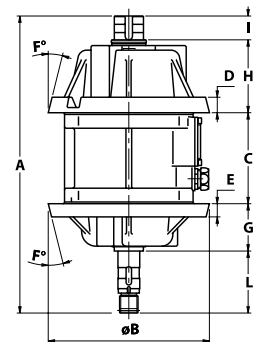
Painting

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.

Fig. H



Max. current				Dimensional specifications (mm)												
400 V 50 Hz	460 V 60 Hz	t_E (s)	I_s/I_n	Type	Fig.	A	$\varnothing B$	C	D	E	F°	G	H	I	L	Cable entry thread
2.85	2.80	7	6.70	VB 15/2510-D-E	H	517.5	281	152.5	30	26	14	85.3	136.6	35	108	M32x1.5
2.38	2.30	6	7.76						48	48	25					
5.70	5.45	6	7.00	VB 15/5000E-LM	H	555	342	208	48	48	25	106.5	110	60.5	70	M32x1,5

t_E (s) = set time t_E from IEC/EN 60079-7. I_s/I_n = ratio between start-up current and maximum current.

ITV-VR/ITVAF



Technical features

Power supply

Three-phase voltage from 24V to 690V at the various frequencies, depending on the type and series. It is advisable to use the Vibravar, Multivar or the CFV variable high frequency power suppliers to power the electric vibrators.

Conformity to the European Directives

Low Voltage 2006/95/EC.

Reference standards

EN 60034-1.

Operation

Continuous service (S1) at the maximum declared centrifugal force and electric power values.

Centrifugal force

Range extended up to 5300 kgf (52kN) with force output adjustable from 0 to 100%.

Mechanical protection

IP66 according to IEC 529, EN 60529; IK08 protection against impact.

Insulation class

Class F (155°C).

Tropicalization

Standard on all vibrators, with vacuum encapsulation up to size AF33 and for frame size AF70, with "drop by drop" trickle system for sizes AF50 and AF68.

Ambient temperature

To operate correctly, from -20°C to +40°C.

Vibrator thermal protection

With PTC rated thermistor heat detectors 130°C installed as part of the standard assembly size AF70 onwards.

Also on request thermistors with different temperatures and anti-condensation heaters can be assembled on the lower sizes.

Fixing of the vibrator

In all positions and therefore without restriction. Two different types of connection are available for the ITV-VR and ITVAF series: fixed connection, where the electric vibrators are connected to the structure by bolts through fixing holes and the RS cradle connection, where the electric vibrators are connected to the structure with the standardized cradle type RS2 except for frame size AF10, for this the cradle fixing is type RS1.

Lubrication

All the electric vibrators are correctly lubricated in our factory and need no further lubrication when used. Special grease for high-speed operation is used for frame sizes AF50, AF68 and AF70 a periodic re-lubrication is recommended by means of special grease nipples. The excess grease is discharged into the weight compartment by means of the differentiated labyrinth system.

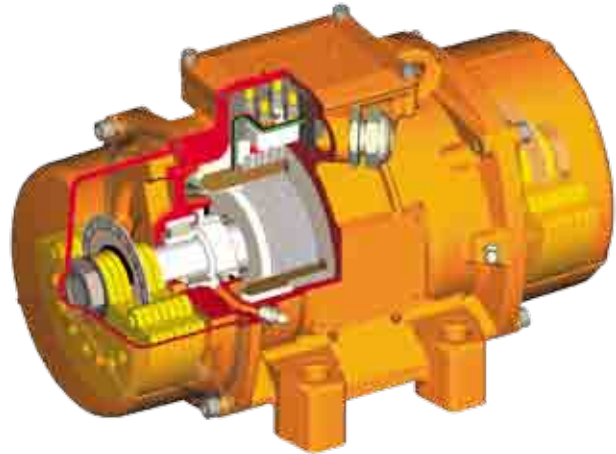
Terminal box

Generously sized to make the electrical connections easier. Special shaped terminals allow to fix the power supply cable.

Italvibras produces 2 series of electric vibrators with frequency variation which can be applied to systems and machines in the precasting industry:

ITV-VR Series, with variable frequency;
ITVAF Series, with fixed frequency.

The ITV-VR series electric vibrators are able to provide a centrifugal force of up to 5300 Kgf (52 kN) at a frequency varying from 0 to 6.000 rpm. The ITVAF series electric vibrators with fixed vibration (6000 or 9000 rpm) provide a vibrating energy of up to 1480 Kgf (14,6 kN). Both are available with either the fixed or cradle connection.



Certifications

Electric motor

Three-phase asynchronous type.

Casing

Specifically designed for high speed duty. In high tensile strength aluminium alloy for frame sizes AF10, AF30 and AF33. In spheroidal cast iron for sizes AF50, AF68 and AF70.

Bearings

A special shape, exclusively designed and made for Italvibras and able to bear strong loads at high speeds.

Motor shaft

in treated steel alloy (isothermic hardening) able to withstand high stress.

Eccentric weights

Specially shaped lamellar type that can be easily adjusted.

Weight covers

In aluminium alloy treated with rust inhibitor. They are perfectly dustproof, watertight and offer optimum shock resistance in all conditions of use and work environments.

Painting

Electrostatic surface treatment based on polymerised epoxy polyester powder in oven at 200°C. Tested in salt spray for 500 hours.

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)



Certificate GOST-R n° POCC IT.AH50.B13978,
standards GOST R 50615, GOST 17770,
GOST 12.2.030, GOST R 51318.14.1,
GOST R 51318.14.2, GOST R 51317.3.2,
GOST R 51317.3.3.



Comply with the applicable
European Union directives



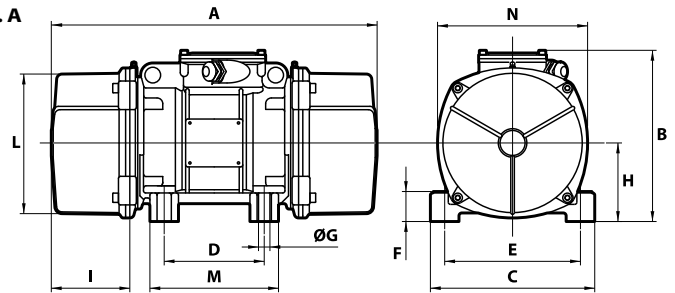
ITV-VR/ITVAF



CESI KIE



Fig. A



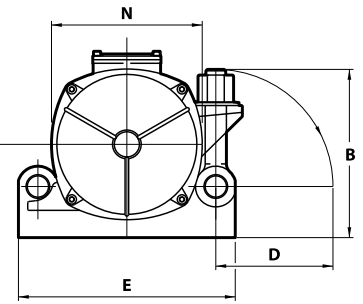
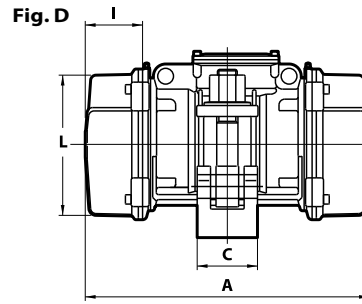
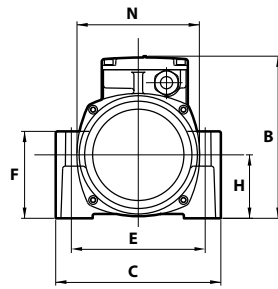
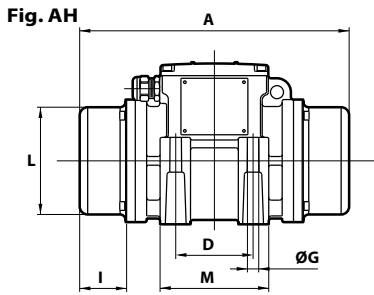
	Description				Mechanical specifications			Electrical specifications				
	Code	Type	SIZE	SF*	Plage vibrat. (vibr./mn.)	Centrifugal force kg	kN	Weight kg	Max input power W	Max. current A 100 Hz	42V	400V
ITV-VR fixed connection	600500	ITV-VR/1210-S08	AF33	•	0÷6000	1569	15.4	24	1200	21	2.3	4.48
	600507	ITV-VR/2010-S08	AF33	•	0÷6000	2000	19.6	27	1700	27	2.9	5.00
	600248	ITV-VR/2510	AF50	-	0÷6000	2500	24.5	41	2200	35	3.9	6.15
	600249	ITV-VR/2510-V *	AF50	-	4500÷6000	2500	24.5	41	2200	35	3.9	6.15
	600208	ITV-VR/3300 *	AF68	-	4500÷6000	3300	32.3	74	4000	-	7.2	5.10
	600514	ITV-VR/5000-S02	AF70	-	0÷4300	5300	52.0	105	5000	-	8.0	5.30
ITV-VR RS cradle connection	600508	ITV-VR/1210-RS-S08	AF33	•	0÷6000	1569	15.4	21	1200	21	2.3	4.48
	600509	ITV-VR/2010-RS-S08	AF33	•	0÷6000	2000	19.6	24	1700	27	2.9	5.00

* Special ventilated type for heavy service.

	Description				Mechanical specifications			Electrical specifications							
	Code	Type	SIZE	SF*	Plage vibrat. (vibr./mn.)	Centrifugal force kg	kN	Weight kg	Max input power W	Max. current A 200 Hz		150 Hz		100 Hz	I _a /I _N
										42 V	250 V	42 V	250 V	250 V	
ITVAF fixed connection	603050	ITVAF 6/600-S02	AF10	-	6000	610	5.98	8.0	500	9.5	1.6	-	-	1.6	4.50
	603044	ITVAF 6/1000-S02-BSH	AF30	-	6000	1022	9.70	18	1000	20	3.3	-	-	3.7	6.06
	603043	ITVAF 6/1200-S02-BSH	AF30	-	6000	1200	11.3	18	1000	20	3.3	-	-	3.7	6.06
	603053	ITVAF 6/1220-S08	AF33	-	6000	1095	10.7	23	1200	23	3.85	-	-	3.9	6.04
	603054	ITVAF 6/1510-S08	AF33	-	6000	1484	14.6	25	1700	29	4.9	-	-	4.8	7.10
	603037	ITVAF 6/2010-S90 ◦	AF50	-	6000	1978	19.4	40	2000	35	5.9	-	-	5.9	8.00
	603010	ITVAF 6/3300 ◦	AF68	-	6000	2800	27.5	74	4000	-	-	-	-	11	5.10
	604041	ITVAF 9/1110-S08	AF33	-	9000	1230	12	22	1150	-	-	18	-	-	8.52
	604042	ITVAF 9/1510-S08	AF33	-	9000	1484	14.6	24	1600	-	-	24	4.0	-	10.4
ITVAF RS cradle connection	603049	ITVAF 6/600-RS1-S02	AF10	-	6000	610	5.98	8.0	500	9.5	1.6	-	-	1.6	4.50
	603047	ITVAF 6/1000-RS-S02-BSH	AF30	-	6000	1022	9.70	18	1000	20	3.3	-	-	3.7	6.06
	603048	ITVAF 6/1200-RS-S02-BSH	AF30	-	6000	1200	11.3	18	1000	20	3.3	-	-	3.7	6.06
	603055	ITVAF 6/1220-RS-S08	AF33	-	6000	1095	10.7	21	1200	23	3.85	-	-	3.9	6.04
	603056	ITVAF 6/1510-RS-S08	AF33	-	6000	1484	14.6	23	1700	29	4.9	-	-	4.8	7.10
	604043	ITVAF 9/1110-RS-S08	AF33	-	9000	1230	12	20	1150	-	-	18	-	-	8.52
	604044	ITVAF 9/1510-RS-S08	AF33	-	9000	1484	14.6	22	1600	-	-	24	4.0	-	10.4

◦ Only supplied at 250V-100Hz, ventilated type, IP44 protection.

I_a/I_N = ratio between start-up current and maximum current.



Type	Dimensional specifications (mm)													
	Fig.	A	B	C	D	E	Holes		F	H	I	L	M	N
							øG	N°						
ITV-VR/1210-S08	A	289	216.5	215	100	180	17	4	47	93.5	63	170	145	182
ITV-VR/2010-S08	A	375	216.5	215	100	180	17	4	47	93.5	106	170	145	182
ITV-VR/2510	A	430	230	230	140	190	17	4	49	104	87.5	186	180	200
ITV-VR/2510-V *	A	465	230	230	140	190	17	4	49	104	105	240	180	248
ITV-VR/3300 *	A	528	267	310	155	255	23.5	4	122	115	147	265	215	275
ITV-VR/5000-S02	A	560	290	310	155	255	25	4	90	130	137	238	210	250
ITV-VR/1210-RS-S08	D	289	189	83	140	240	-	-	-	-	63	170	-	182
ITV-VR/2010-RS-S08	D	375	189	83	140	240	-	-	-	-	106	170	-	182

Type	Dimensional specifications (mm)													
	Fig.	A	B	C	D	E	Holes		F	H	I	L	M	N
							øG	N°						
ITVAF 6/600-S02	A	255	179	152	90	125	13	4	28	73	54	124	128	141
ITVAF 6/1000-S02-BSH	AH	310	186	190	90	154	13	4	100	73	54	124	125	141
ITVAF 6/1200-S02-BSH	AH	310	186	190	90	154	13	4	100	73	54	124	125	141
ITVAF 6/1220-S08	A	289	216.5	215	100	180	17	4	47	93.5	63	170	145	182
ITVAF 6/1510-S08	A	375	216.5	215	100	180	17	4	47	93.5	106	170	145	182
ITVAF 6/2010-S90 °	A	430	230	230	140	190	17	4	49	104	87.5	186	180	200
ITVAF 6/3300 °	A	528	267	310	155	255	23.5	4	122	115	147	265	215	275
ITVAF 9/1110-S08	A	289	216.5	215	100	180	17	4	47	93.5	63	170	145	182
ITVAF 9/1510-S08	A	375	216.5	215	100	180	17	4	47	93.5	106	170	145	182
ITVAF 6/600-RS1-S02	D	255	140	97	97	180	-	-	-	-	54	124	-	141
ITVAF 6/1000-RS-S02-BSH	D	310	189	83	140	240	-	-	-	-	54	124	-	141
ITVAF 6/1200-RS-S02-BSH	D	310	189	83	140	240	-	-	-	-	54	124	-	141
ITVAF 6/1220-RS-S08	D	289	189	83	140	240	-	-	-	-	63	170	-	182
ITVAF 6/1510-RS-S08	D	375	189	83	140	240	-	-	-	-	106	170	-	182
ITVAF 9/1110-RS-S08	D	289	189	83	140	240	-	-	-	-	63	170	-	182
ITVAF 9/1510-RS-S08	D	375	189	83	140	240	-	-	-	-	106	170	-	182

VIBRAVAR



The electronic vibration frequency regulators

VIBRAVAR fully resolves the primary problem of vibration frequency variation in production processes where vibrating machines or systems are used. VIBRAVAR can continuously vary the powering frequency of the electric vibrators from 0 Hz to the maximum value tolerated by the actual vibrator itself.

In brief, VIBRAVAR can be used to:

- start and stop, reverse and continuously vary the operating frequency from zero to top rate within the envisaged range by means of the local control panel or a remote control;
- program starting and stopping times according to specific needs;

Technical features

Input:

Single-phase 200-240V ($\pm 10\%$), 50/60 Hz ($\pm 5\%$), three-phase 380-480V ($\pm 10\%$), 50-60 Hz ($\pm 5\%$).

Output:

0 to 480V voltage rating, frequency from 0 to 400 Hz, sinusoid PWM coded with programmable carrier frequency.

Mechanical protection:

IP20, IP30.

Environmental specifications:

Max 1000 m without derating; ambient temperature from 0° to 50°C; relative humidity from 5 to 95% without condensation.

Certifications:

UL, CSA, EC.

Conformity to the European Directives:

Low Voltage 2006/95/EC, Electromagnetic compatibility 2004/108/EC.

Choice of the VIBRAVAR

Proceed in the following way to choose the right VIBRAVAR:

- a) find the rated current I_n on the data plate of the electric vibrator you wish to use and multiply it by the number of electric vibrators;
- b) multiply the result by the safety factor = 1.88;
- c) choose the type of VIBRAVAR that has the output current (see table) immediately above the calculated current value.

	Code	Description Type	Input		
			Power rating kW	Voltage V	Frequency Hz
single-phase	542600M	VR M0020	0.25	200 - 240 \pm 10%	50/60 Hz \pm 5%
	542601M	VR M0040	0.37	200 - 240 \pm 10%	50/60 Hz \pm 5%
	542602M	VR M0075	0.75	200 - 240 \pm 10%	50/60 Hz \pm 5%
	542603M	VR M015	1.5	200 - 240 \pm 10%	50/60 Hz \pm 5%
	542604M	VR M022	2.2	200 - 240 \pm 10%	50/60 Hz \pm 5%
three-phase	542605A	VR 022	2.2	380 - 480 \pm 10%	50/60 Hz \pm 5%
	542606A	VR 037	4	380 - 480 \pm 10%	50/60 Hz \pm 5%
	542607A	VR 056	5.5	380 - 480 \pm 10%	50/60 Hz \pm 5%
	542608A	VR 075	7.5	380 - 480 \pm 10%	50/60 Hz \pm 5%
	542609A	VR 112	11	380 - 480 \pm 10%	50/60 Hz \pm 5%
	542610A	VR 150	15	380 - 480 \pm 10%	50/60 Hz \pm 5%
	542611A	VR 180	18.5	380 - 480 \pm 10%	50/60 Hz \pm 5%
	542612A	VR 225	22	380 - 480 \pm 10%	50/60 Hz \pm 5%
	542613A	VR 370	30	380 - 480 \pm 10%	50/60 Hz \pm 5%

- select pre-programmed frequencies with the remote control;
- establish frequency variation by means of a signal between 0 and 10 Vd.c., between 0 and 20 mA, or by means of a 5V TTL logic level pulse chain from an external source or by a serial port RS-485;
- reverse the spinning direction at maximum frequency even when the electric vibrators have a high moment of inertia;
- obtain a full check-control both by means of the display on the local panel and via remoted warning signals.

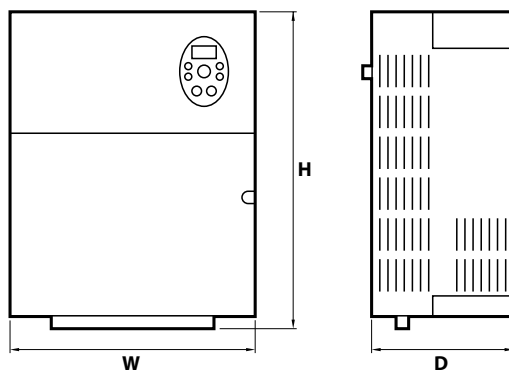
Each VIBRAVAR is equipped with:

- programming and control panel on board;
- protection against power supply voltage variations beyond the indicated tolerance limits for overloads, short-circuits on the output, leakage towards earth and overtemperatures. Faults are indicated on the display.
- no-break components to maintain the preset function even in the event of a power failure lasting no longer than 500 milliseconds.
- EMC filter for high attenuation following table specifications.
- dynamic breaking chopper integrated on the three-phase types over 5,5 kW.






Compliance with main international standards (EC Directive (EC marking), UL, CSA, C-tick)



Power kVA	Output Current A	Frequency max Hz	H mm	W mm	D mm	Weight kg	Mechanical protection	Filter EMC
0.6	1.6	200	174	72	136	1.4	IP20	Included
1.0	2.5	200	174	72	136	1.4	IP20	Included
1.6	4.2	200	174	72	136	1.4	IP20	Included
3.0	8.0	200	174	100	136	2.2	IP20	Included
4.0	11	200	174	100	136	2.2	IP20	Included
4.2	6.0	500	174	100	136	2.2	IP20	Included
7.2	8.7	500	174	100	136	2.2	IP20	Included
11	13.0	500	260	130	180	4.3	IP20	Included
13	18.0	500	260	130	180	4.3	IP20	Included
21	24.0	500	260	130	180	4.3	IP20	Included
25	30.0	500	260	130	180	7.5	IP20	Not included
31	38.0	500	384	250	205.4	14	IP30	Not included
37	45.5	500	384	250	205.4	14	IP30	Not included
50	60.0	500	384	250	205.4	15.6	IP30	Not included



The vibrating frequency regulating panels

CFV panels are fixed devices for regulating the vibration frequency by means of the VIBRAVAR inside.

Simple use, easy to control, compact and safe: these are the main features of the CFV panel.

CFV is the technological evolution of the conventional electromechanical frequency converter, the advantage being that it provides variable frequency in a linear way. On specific request, it can also be fitted with controls, protections and operating components.

Technical features

CFV can be used to power the following electric vibrator models:

Type of starting	Electric vibrators type	CFV-037P	CFV-056P	CFV-075P	CFV-112P
		P 3,7 kW	P 5,5 kW	P 7,5 kW	P 11 kW
ITV-UR one at time	ITV-VR/1210-S08 • ITV-VR/1210-RS-S08	2	5	7	10
	ITV-VR/2010-S08 • ITV-VR/2010-RS-S08	0	3	4	8
	ITV-VR/2510 • ITV-VR/2510-V	0	0	2	4
ITV-UR two at time	ITV-VR/1210-S08 • ITV-VR/1210-RS-S08	0	2	4	8
	ITV-VR/2010-S08 • ITV-VR/2010-RS-S08	0	0	0	4
ITVAF one at time	ITVAF 6/600-S02 • ITVAF 6/600-RS1-S02	8	13	16	24
	ITVAF 6/1000-S02-BSH • ITVAF 6/1000-RS-S02-BSH	1	4	6	11
	ITVAF 6/1200-S02-BSH • ITVAF 6/1200-RS-S02-BSH	1	4	6	11
	ITVAF 6/1220-S08 • ITVAF 6/1220-RS-S08	1	3	5	9
	ITVAF 6/1510-S08 • ITVAF 6/1510-RS-S08	0	1	2	5
	ITVAF 6/2010-S90	0	0	0	2
	ITVAF 6/3300	0	0	0	1
	ITVAF 9/1110-S08 • ITVAF 9/1110-RS-S08	0	3	5	11
	ITVAF 9/1510-S08 • ITVAF 9/1510-RS-S08	0	0	1	5
ITVAF two at time	ITVAF 6/600-S02 • ITVAF 6/600-RS1-S02	6	12	16	24
	ITVAF 6/1000-S02-BSH • ITVAF 6/1000-RS-S02-BSH	0	0	2	6
	ITVAF 6/1200-S02-BSH • ITVAF 6/1200-RS-S02-BSH	0	0	2	6
	ITVAF 6/1220-S08 • ITVAF 6/1220-RS-S08	0	0	0	4
	ITVAF 9/1110-S08 • ITVAF 9/1110-RS-S08	0	0	0	2

Conformity to the European Directives:

Low Voltage 2006/95/EC, Electromagnetic compatibility 2004/108/EC.

CFV comprises:

- electric panel with front door measuring 1350 (height) x 700 (width) x 350 (depth) mm;
- manual threepole main door-locking knife switch with fuses;
- VIBRAVAR inverter with EMC filter;
- keyboard on the panel front for controlling and programming purposes;
- 400V-42V transformer (only in the 42V models).

Optionals

- electromechanical operating and protecting components of a number equal to that of the vibrators (automatic switches and operation disconnectors);
- 3P+G output sockets for connecting the electric vibrators.

Code	Description Type	Input			Output			
		Power rating kW	Voltage V	Frequency Hz	Power kVA	Current max A	Voltage V	Frequency Hz
543049A	CFV 037P 42V	4.0	380-480 ± 10%	50/60 ± 5%	7.2	90	42	0-200
543049B	CFV 037P 400V	4.0	380-480 ± 10%	50/60 ± 5%	7.2	9.5	400	0-200
543050A	CFV 056P 42V	5.5	380-480 ± 10%	50/60 ± 5%	11.0	136	42	0-200
543050B	CFV 056P 400V	5.5	380-480 ± 10%	50/60 ± 5%	11.0	14.3	400	0-200
543051A	CFV 075P 42V	7.5	380-480 ± 10%	50/60 ± 5%	13.0	162	42	0-200
543051B	CFV 075P 400V	7.5	380-480 ± 10%	50/60 ± 5%	13.0	17.0	400	0-200
543052A	CFV 112P 42V	11.0	380-480 ± 10%	50/60 ± 5%	21.0	264	42	0-200
543052B	CFV 112P 400V	11.0	380-480 ± 10%	50/60 ± 5%	21.0	27.7	400	0-200

MULTIVAR



The mobile vibration frequency regulator

The MULTIVAR mobile high variable frequency actuators (Italvibras patent N° M098000021) meet the increasing demands from building sites where reinforced concrete is precast, for equipment able to facilitate the task.

MULTIVAR can power up to 8 electric vibrators at the same time with 42V or 400V ratings at variable frequencies. Simple to use, easy to manoeuvre, compact and safe: these are the main features of the MULTIVAR frequency regulator.

Technical features

Multivar can be used to power the following electric vibrator models:

Type of starting	Electric vibrators type	MV-4-056P	MV-4-075P	MV-6-112P	MV-6-075P	MV-8-112P
		P 5,5 kW	P 7,5 kW	P 7,5 kW	P 11 kW	P 11 kW
ITV-VR one at time	ITV-VR/1210-S08 • ITV-VR/1210-RS-S08	4	4	6	6	8
	ITV-VR/2010-S08 • ITV-VR/2010-RS-S08	3	4	4	6	8
	ITV-VR/2510 • ITV-VR/2510-V	0	2	2	4	4
ITV-VR two at time	ITV-VR/1210-S08 • ITV-VR/1210-RS-S08	2	4	4	6	8
	ITV-VR/2010-S08 • ITV-VR/2010-RS-S08	0	0	0	4	4
ITVAF one at time	ITVAF 6/600-S02 • ITVAF 6/600-RS1-S02	4	4	6	6	8
	ITVAF 6/1000-S02-BSH • ITVAF 6/1000-RS-S02-BSH	4	4	6	6	8
	ITVAF 6/1200-S02-BSH • ITVAF 6/1200-RS-S02-BSH	4	4	6	6	8
	ITVAF 6/1220-S08 • ITVAF 6/1220-RS-S90-S08	3	4	5	6	8
	ITVAF 6/1510-S08 • ITVAF 6/1510-RS-S08	1	2	2	5	5
	ITVAF 6/2010-S90	0	0	0	2	2
	ITVAF 6/3300	0	0	0	1	1
	ITVAF 9/1110-S08 • ITVAF 9/1110-RS-S08	3	4	5	6	8
	ITVAF 9/1510-S08 • ITVAF 9/1510-RS-S08	0	1	1	5	5
ITVAF two at time	ITVAF 6/600-S02 • ITVAF 6/600-RS1-S02	4	4	6	6	8
	ITVAF 6/1000-S02-BSH • ITVAF 6/1000-RS-S02-BSH	0	2	2	6	6
	ITVAF 6/1200-S02-BSH • ITVAF 6/1200-RS-S02-BSH	0	2	2	6	6
	ITVAF 6/1220-S08 • ITVAF 6/1220-RS-S08	0	0	0	4	4
	ITVAF 9/1110-S08 • ITVAF 9/1110-RS-S08	0	0	0	2	2

MULTIVAR is the ideal substitute for the conventional electro-mechanical frequency converter, the advantages being linear frequency variation with full controls, protection and operating components, ready to power electric vibrators.

Conformity to the European Directives

Low Voltage 2006/95/EC, Electromagnetic compatibility 2004/108/EC.

MULTIVAR comprises:

- a wheel-mounted structure;
- 3P+G power flex and plug for connecting to the 400V 50Hz electricity main;
- threepole main disconnecter;
- VIBRAVAR inverter with EMC filter;
- control console with programming and operating keyboard;
- 400V-42V transformer (only in 42V models);
- electromechanical operating and protecting components (remote control switches, thermal protections and fuses);
- 3P+G output sockets for connecting the electric vibrators.

Description		Input				Output		Dimensions			
Code	Type	Potenza nominale kW	Voltage V	Frequency Hz	N° output	Voltage V	Frequency	Height mm	Width mm	Length mm	Weight kg
543036A	MV-4-056P 24V	5.5	380-480 ± 10%	50/60 ± 5%	4	42	0-200	1000	650	1200	130
543036B	MV-4-056P 400V	5.5	380-480 ± 10%	50/60 ± 5%	4	400	0-200	1000	650	1200	195
543037A	MV-4-075P 42V	7.5	380-480 ± 10%	50/60 ± 5%	4	42	0-200	1000	650	1200	135
543037B	MV-4-075P 400V	7.5	380-480 ± 10%	50/60 ± 5%	4	400	0-200	1000	650	1200	205
543038A	MV-6-075P 42V	7.5	380-480 ± 10%	50/60 ± 5%	6	42	0-200	1000	650	1200	145
543038B	MV-6-075P 400V	7.5	380-480 ± 10%	50/60 ± 5%	6	400	0-200	1000	650	1200	215
543039A	MV-6-112P 42V	11.0	380-480 ± 10%	50/60 ± 5%	6	42	0-200	1000	650	1200	150
543039B	MV-6-112P 400V	11.0	380-480 ± 10%	50/60 ± 5%	6	400	0-200	1000	650	1200	250
543053A	MV-8-112P 42V	11.0	380-480 ± 10%	50/60 ± 5%	8	42	0-200	1000	650	1200	150
543053B	MV-8-112P 400V	11.0	380-480 ± 10%	50/60 ± 5%	8	400	0-200	1000	650	1200	250

SOLUTIONS FOR PREFABRICATION

Electronically controlled systems

These are highly technological systems able to handle 6 to 72 electric vibrators, depending on the installation. A further extension allows the system to handle up to 864 electric vibrators.

Housed in a special panel, the electronically controlled system is equipped with an interactive terminal for compiling, filing and displaying the vibration formulas.

The systems can also be remote controlled.

A characterizing feature of the system is VIBRAVAR, the electronic vibration frequency converter and VIBRALOGIC, the PLC for computerized management of the vibration function. It can also be equipped with the VIBRATEL remote control, the VIBRALASER reflecting laser system and the VIBRAGEST administration software.



CFV and electromechanically controlled systems

These feature a powering panel containing the VIBRAVAR electronic frequency converter and various sub-panels to control the vibrators and their vibrating frequency. The system's powering panel can handle up to 10 sub-panels, depending on the type. Each sub-panel, available with either a socket or core-hitch type of output for connecting to the vibrator, controls from 4 to 10 electric vibrators. Each sub-panel has 7 fixed vibration frequencies and 1 variable one.

The CFV board can directly power up to 11 electric vibrators (in this case the CFV can be accessorised with organs of protection and manoeuvre for the electric vibrators), or it can power up to 10 sub-boards.



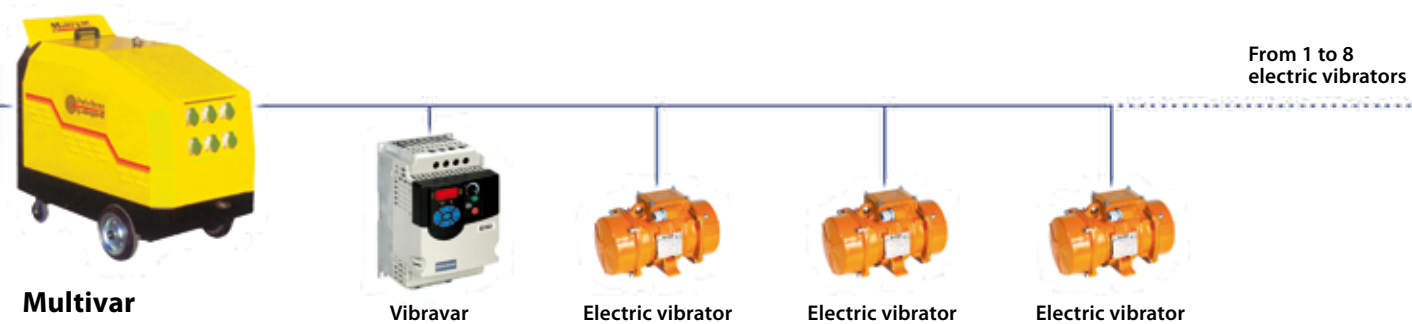
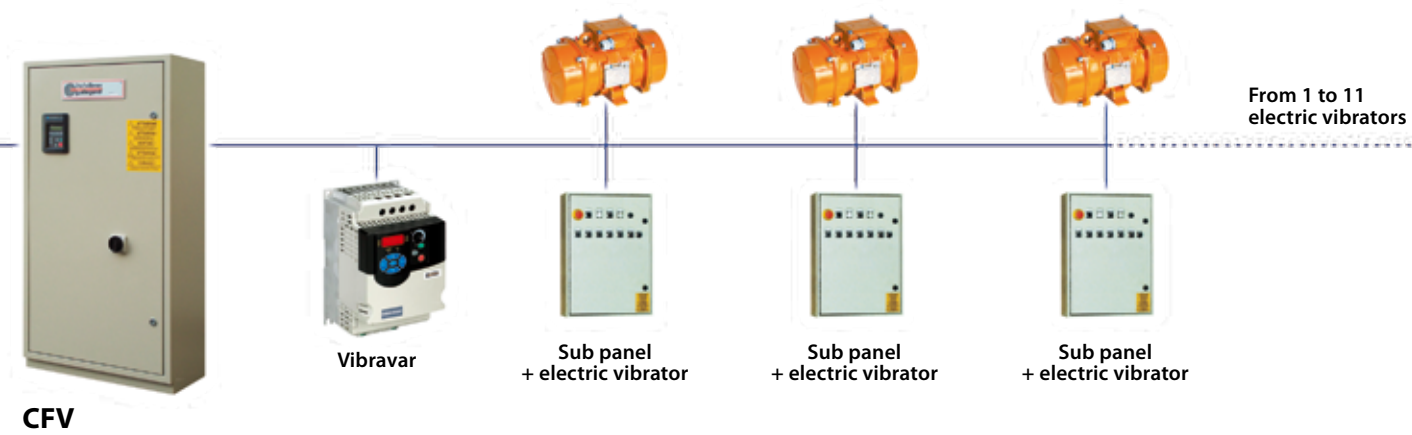
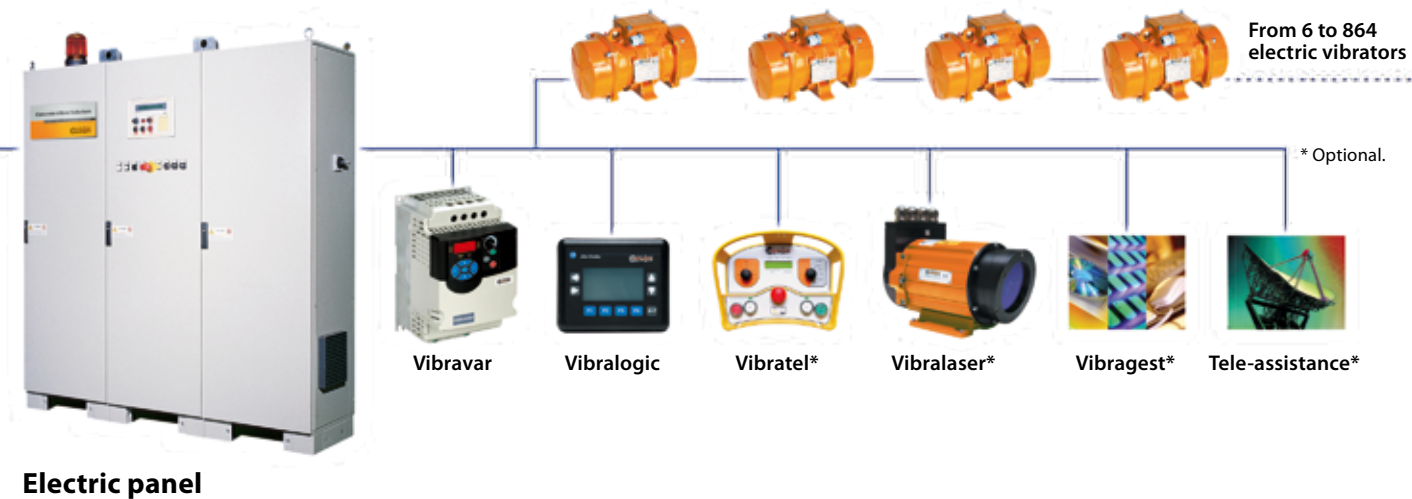
MULTIVAR electromechanically controlled systems

MULTIVAR is the ideal means for replacing conventional electromechanical converters with fixed frequencies, with a system that can vary the frequency / centrifugal force.

It's also an optimum choice for both manufacturers of small concrete items and precasting enterprises when they need to produce specific items that cannot be obtained with normal forms.

MULTIVAR comes complete with control and protection equipment, so it can therefore be connected straight to the electric vibrators.





SELECTING THE ELECTRIC VIBRATOR

Vibration systems and methods

The systems that use the vibration technique can be divided into the following categories:

- freely oscillating systems, which will be described in this guide
- oscillating systems bound to resonance, which require specific in-depth research. Please contact the Technical Sales Service of Italtibras if these systems are required.

The free oscillation system includes two different methods:

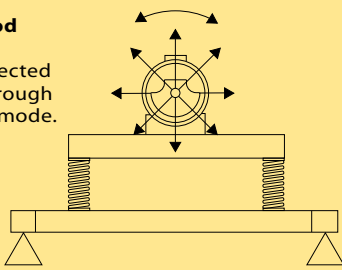
- rotational: the vibrating force is directed in all directions through 360° in a rotational way, either clockwise or anticlockwise.
- unidirectional: the vibrating force is directed in one single direction in fade-free sinoidal reciprocating mode.

The “rotational” method is obtained by using a single electric vibrator.

The “unidirectional” method is obtained by using two electric vibrators with the same electro-mechanical characteristics, each turning in the opposite direction to the other.

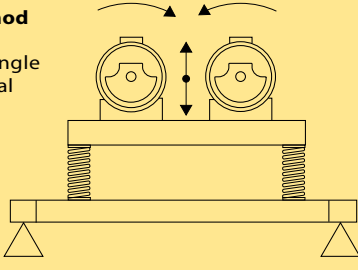
Rotational method

Vibrating force directed in all directions through 360°, in rotational mode.



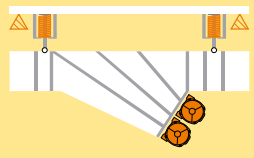
Unidirectional method

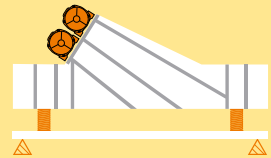
Vibrating force in a single direction, in sinusoidal reciprocating mode.

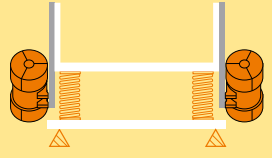


Examples of how electric vibrators are used in different processes

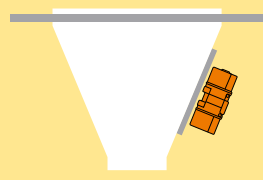
The following examples illustrate a few typical uses:



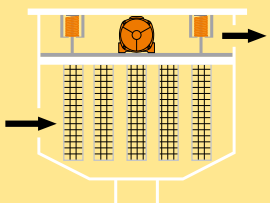




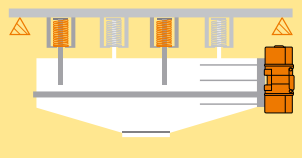
For conveyors, separators, sieves, sizing machines, unloaders, positioners, sorters, feeders and fluidized beds: unidirectional method.



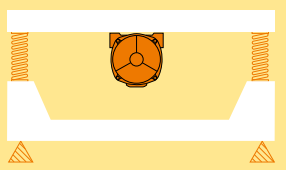
For silos and hoppers: rotational method.



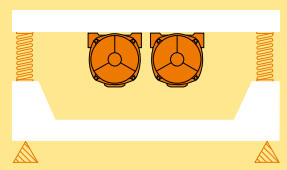
For filters: rotational method.



For vibrating beds: rotational method.



For compacting tables and tests (accelerated ageing, stress, ecc.): rotational method.



For compacting tables and tests (accelerated ageing, stress, ecc.): unidirectional or rotational method.

Choice of the vibration method and rotation speed (and, thus, the vibration frequency) of the electric vibrator applied to the elastically insulated machine, depending on the process

The choice of the vibration method and vibration frequency able to achieve the utmost efficiency for each type of process, depends on the specific weight and granulometry (or piece size) of the material used in the process itself (consult the Table on page 92).

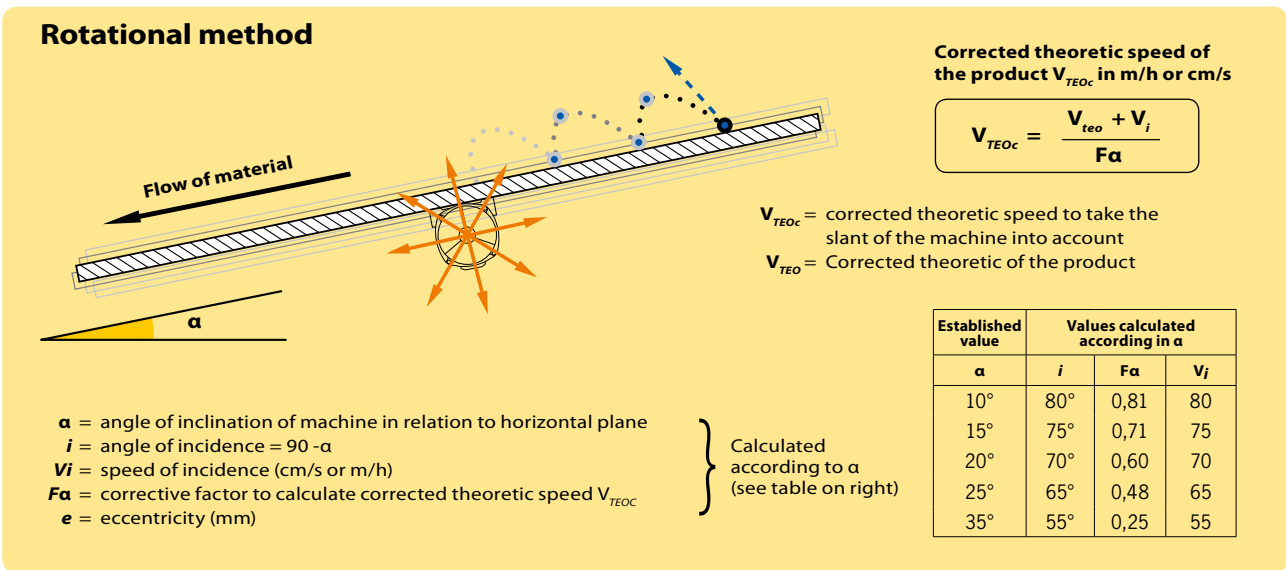
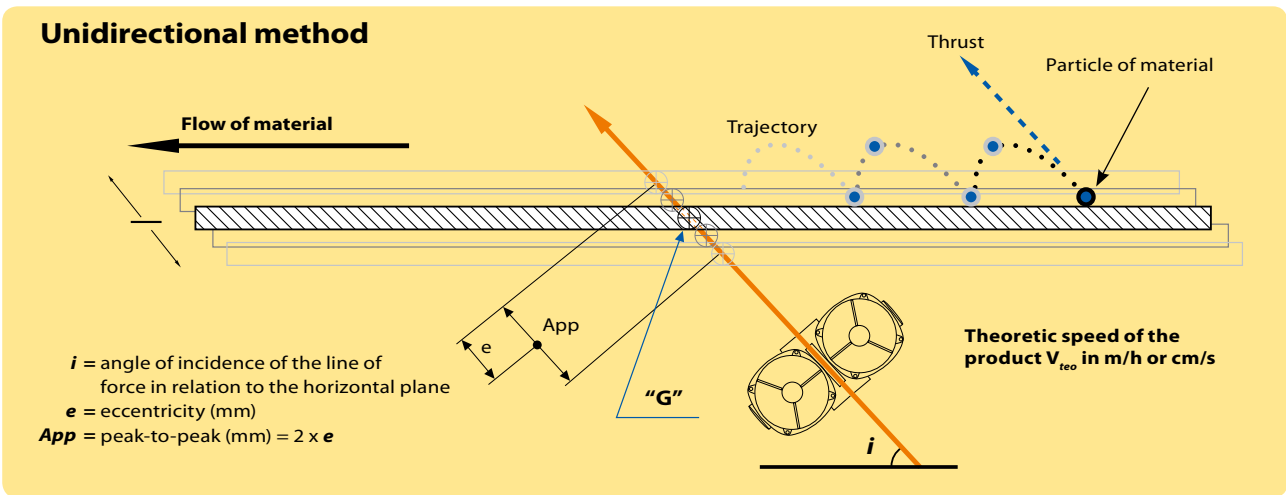
Regardless of the selected vibration method, the electric vibrators can be mounted on the machine, elastically insulated with its axis in a horizontal or vertical position or, if necessary, in an intermediate position between the two directrices.

The angle of incidence "i" (measured in degrees) of the line of force in relation to the horizontal plane should be taken into due consideration when electric vibrators are applied with the "unidirectional" method.

Important: the line of force for any angle of incidence must pass through center of gravity "G" of the elastically insulated machine (see figure below).

Determination of the angle of incidence of the line of force depends on the type of process and must be within the indicated range.

"i"	Processes / Uses
da 6° a 12°	for special separators (e.g.: the milling industry);
da 25° a 30°	for conveying, unloading, feeding, positioning and sorting;
da 31° a 45°	for sifting, grading and separating;
da 45° a 80°	for fluidized beds.



How to choose the right type of electric vibrator for use in typical processes (e.g.: conveying material)

Use the Table on page (92) to select the vibration method and the required number of vibrations per minute depending on the process and the granulometry of the material.

Now move to the diagram (amongst those on pages 93 - 102) corresponding to the obtained number of vibrations per minute.

Choose the corresponding curve on the diagram, for a previously calculated angle of incidence «i» of the line of force (consult the descriptions on page 89).

Using that diagram and that curve: eccentricity value «e» or peak-to-peak amplitude «App», measured in mm and required to obtain the previously mentioned theoretic product advancement speed value «V_{TEO}» or «V_{TEOC}» can be identified for a required theoretic product advancement speed «V_{TEO}» (m/h or cm/s) or «V_{TEOC}» (m/h or cm/s) for tilted machines.

«V_{TEO}» is determined by the flow of material, taking a reduction coefficient into account (see conveyor channel example below). Given eccentricity value «e», it is possible to determine the value of the total static moment «Mt» (Kg.mm) of the electric vibrator or vibrators. This value is calculated by means of the following formula:

$$Mt = e \times Pv$$

where: $Pv = Pc + Po$

with

Pv = total weight of the vibrating complex (Kg);

Pc = weight of the elastically isolated appliance (Kg);

Po = weight of the installed electric vibrator (or vibrators) (Kg); hypothetic weight to be subsequently compared to that of the determined vibrator.

Important: calculated moment Mt is the total moment of the electric vibrators. For example, if the vibrating machine has two electric vibrators, the calculated moment must be divided by two to obtain the static moment of each vibrator.

Once the static moment of the vibrator has been calculated, consult the catalogue to determine the type of electric vibrator required.

Checking the validity of the chosen electric vibrator

Having chosen the type of electric vibrator, centrifugal force value «Fc» (in Kg) of the vibrator itself can now be found in the catalogue.

Use formula $a = \frac{Fc}{Pv}$ (measured n times g)

to establish acceleration value «a» along the line of force. This value must be within the range indicated in the Table (on page 92) for the required type of process.

Attention: if the chosen vibration method is “unidirectional”, value «Fc» to use in the above mentioned formula will obviously be twice the value indicated in the catalogue as two electric vibrators are installed.

Conveyor channel

Flow rate and speed of product

$$Q = V_p \times L \times S$$

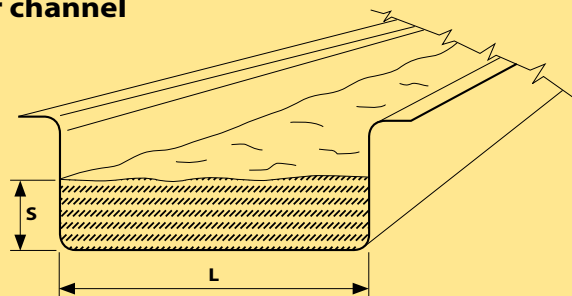
$$V_p = V_{teo} \times K_r$$

Q = flow rate (m³/h)

V_p = speed of product (m/h)

L = channel width (m)

S = layer of material (m)



V_{teo} = theoretic speed of the product (m/h) (if channel is slanting, indicated V_{TEOC})

K_r = reduction factor depending on the type of product conveyed.

A few values pertaining to this factor are indicated below.

Leaf vegetables	0,70	Wooden shaving or PVC granules	0,75÷0,85
Gravel	0,95	Sand	0,70
Small pieces of coal	0,80	Sugar	0,85
Large pieces of coal	0,85	Salt	0,95

Mechanical insulation of the vibrating equipment from the bearing structure sizing the elastic systems

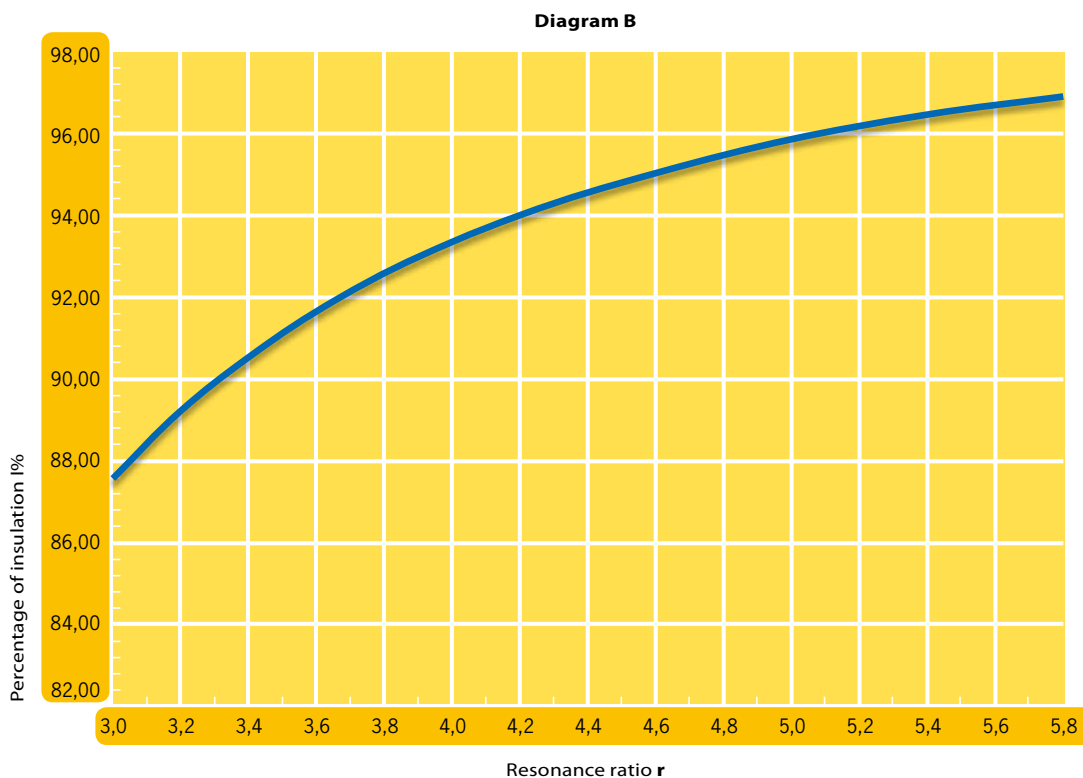
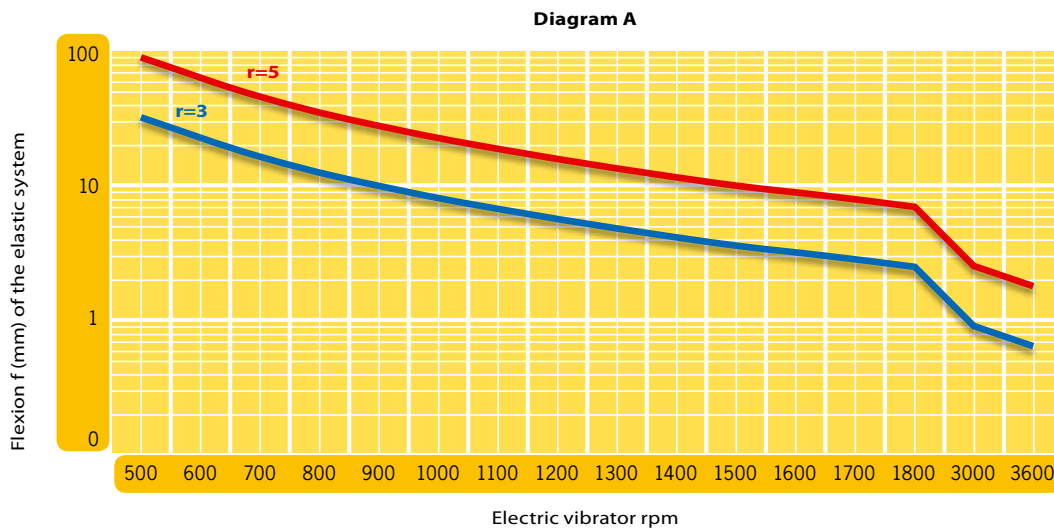
If free oscillation systems are used, it is advisable to fit anti-vibration mounts (such as helical steel springs, rubber supports or pneumatic actuators) to allow the vibrating machine to freely move in all directions.

Do not use connecting rods, leaf springs or flat springs, etc., for free oscillation systems.

The non-vibrating element must be of adequate capacity, able to bear a weight equal to total weight «Pt» (i.e. the sum of the weights of the elastically insulated machine, or the electric vibrator or vibrators «Pv» and the material bearing on the machine itself «Ps») multiplied by the factor of safety, the value of which is between 2 and 2.5. Capacity «Q» of the elastic element will therefore be:

$$Q_{kg} = \frac{P_v + P_s}{N} \times 2,5$$

Where P_v = total weight of the vibrating complex (Kg)
 P_s = static weight of material on machine (Kg)
 N = number of anti-vibration mounts



Now determine the camber «f.» of the elastic system by means of diagram A, depending on the vibration frequency (rpm of the electric vibrator) and considering a resonance ratio «r.» (between the vibration frequency of the vibrating complex and the frequency of the elastic system itself) between 3 and 5.

The elastic constant of the anti-vibrating mount thus equals:

$$K_{kg-mm} = \frac{Pv}{f \times N} \text{ where } f = \text{flexion of the elastic system (mm)}$$

The capacity « Q_{kg} » and the elastic constant « K_{kg-mm} » are the two entities required to choose the anti-vibration mounts on the market.

It is absolutely essential to distribute the load of the vibrating complex evenly over the elastic system.

Diagram B gives the percentage of elastic insulation (I%) between the vibrating structure and bearing structure, depending on ratio «r».

The anti-vibration mounts must be positioned so that the flexure is the same on all the elements, in order to balance the machine.

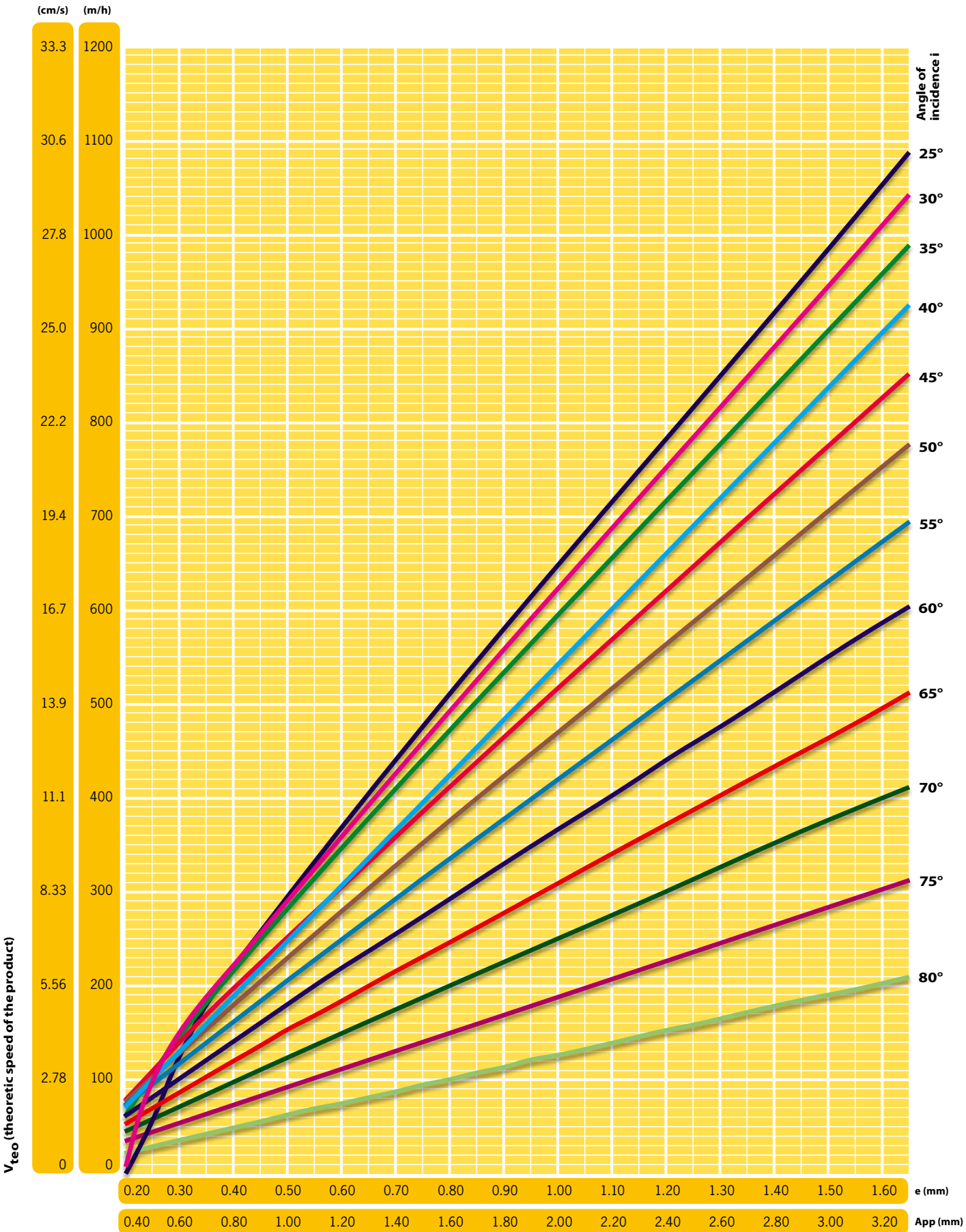
Important: the bearing structure to which the anti-vibration mounts of the vibrating complex are fastened must be rigidly anchored to the ground or to some other type of bearing structure and always without any further anti-vibration elements.

Type of process	Specific weight	Size	Vibrating force		Vibrations per minute								Accelerat. on the line of force a
			Rotat.	Gericht.	600	750	1000	1500	3000	6000	9000		
					(50Hz)	(50Hz)	(50Hz)	(50Hz)	(50Hz)	(50Hz)	(50Hz)		
					720	900	1200	1800	3600	-	-	nrg	
Conveying	A	F		●				●	●			4÷9	
Separating		M		●			●	●				4÷6	
Sieving		G		●		●	●					3.5÷4.5	
Positioning	B	F		●				●				5÷7	
Grading		M		●			●					4÷5.5	
Sizing		G		●		●	●					3.5÷5.5	
Extracting													
Feeding													
Filter cleaning	A/B	F	●					●	●			2÷3	
Slackening and emptying material in silos, hoppers, etc.	A/B	F	●						●			Note (1)	
	A/B	M	●						●				
	A/B	G	●					●	●				
Fluidized beds				●		●	●					2÷4	
Separators (eg. for mills),				●	●	●						2÷4	
Vibrating beds	A	F	●						●			0.7÷2	
		M	●					●	●				
		G	●										
	B	F	●						●				
		M	●						●				
		G	●						●				
Compacting	-	F	●	●				●	●	●		2÷6	
		M	●	●				●	●	●			
		G	●	●				●	●	●			
Compacting concrete	-	-	●	●					●	●	●	1÷2	
Test benches (accelerated ageing)	-	-	●	●	●	●	●	●	●	●	●	0.5÷24	

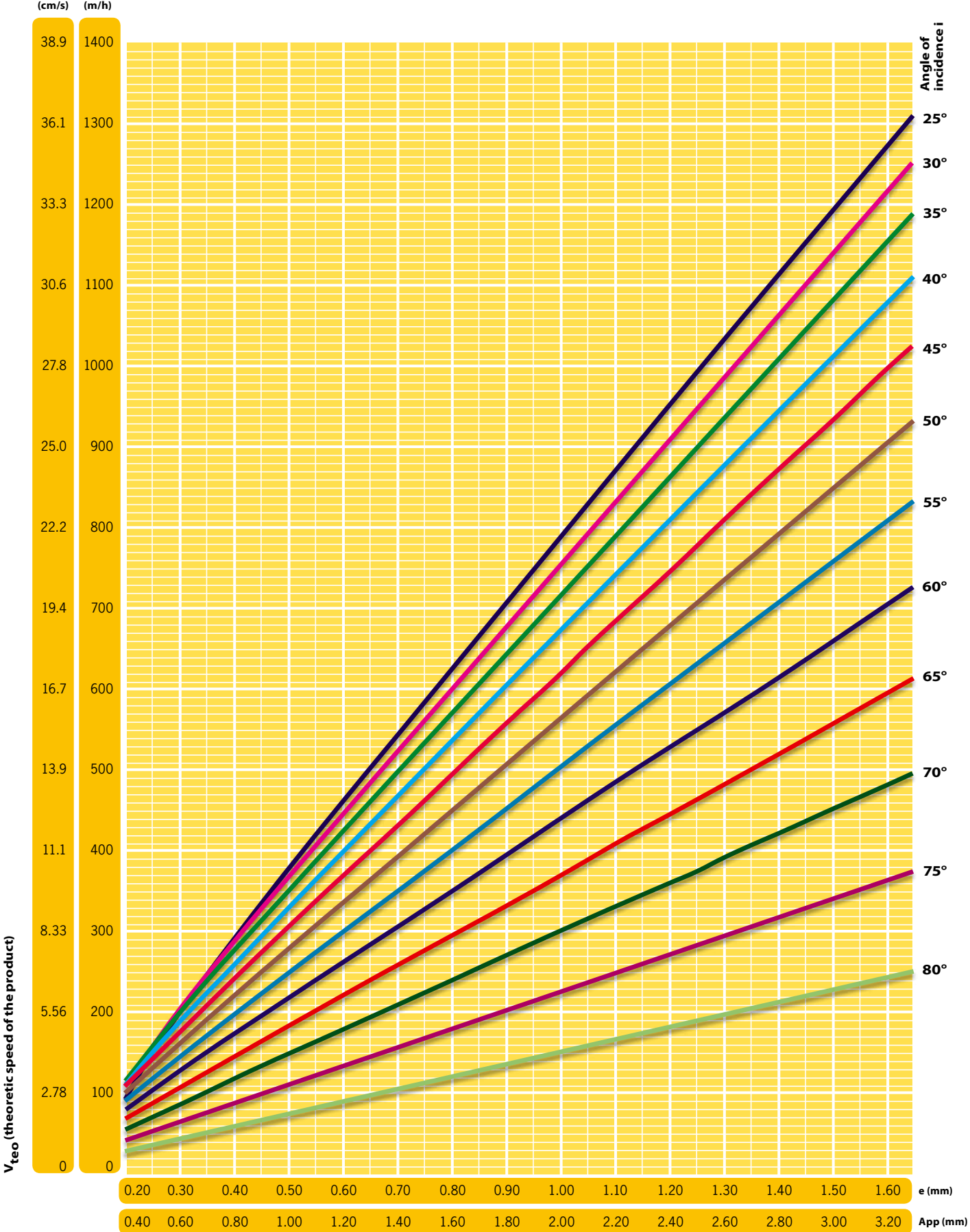
Key: Specific weight A = high B = low
Size F = fine G = coarse M = medium

Note (1): Centrifugal force of the electric vibrator = 0.1 ÷ 0.25 for weight of material contained in the vibrating apparatus conic part.

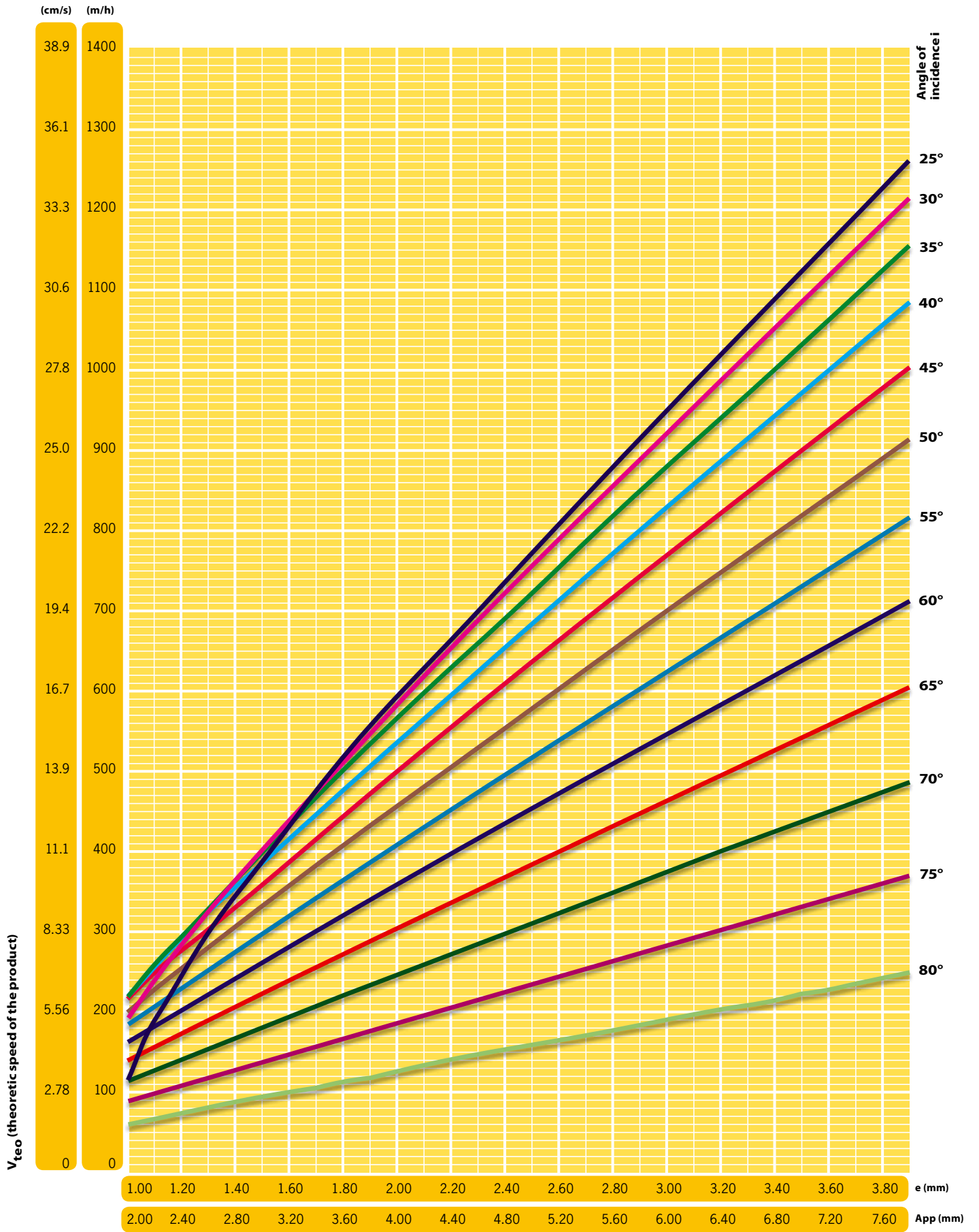
3000 rpm - 50 Hz



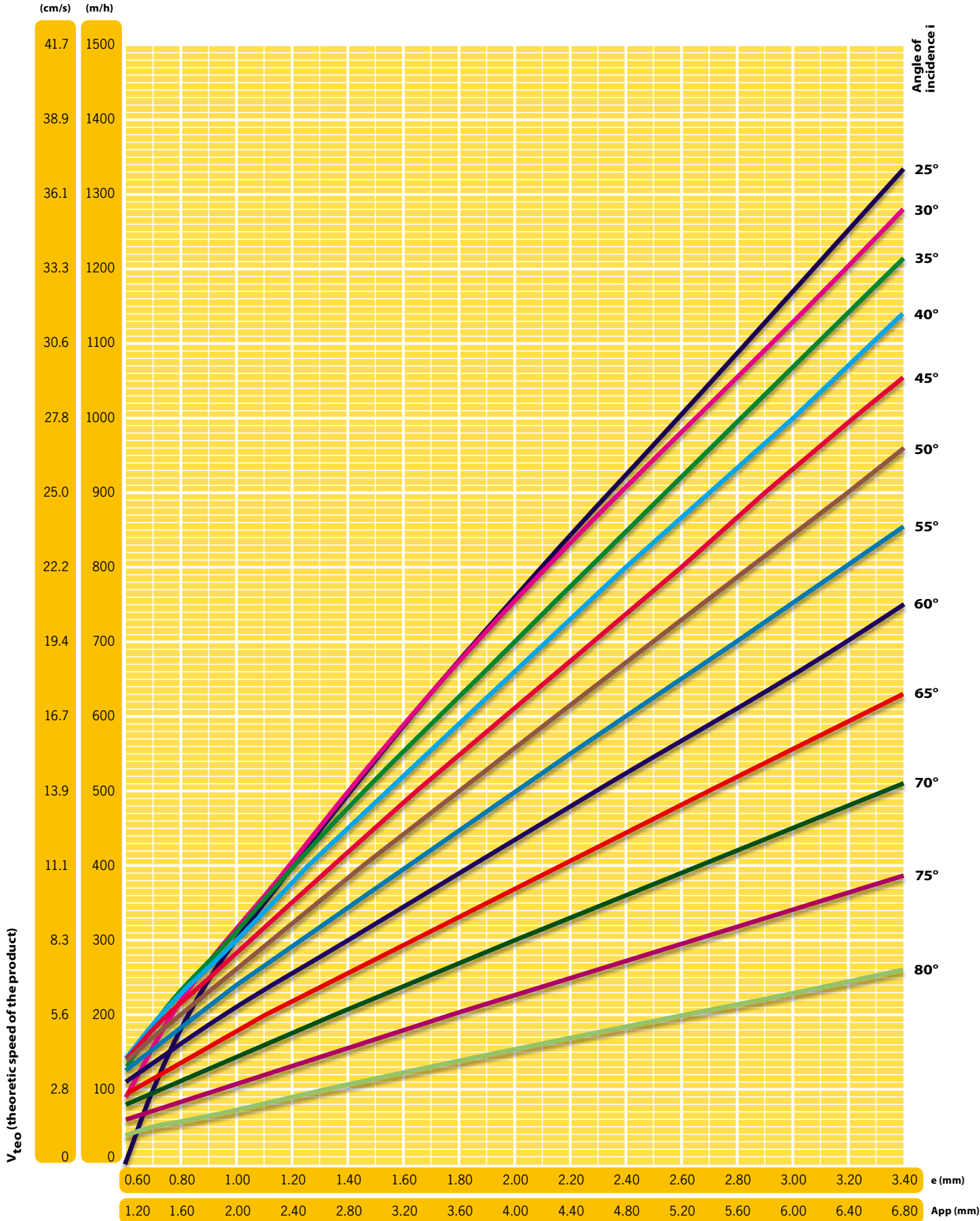
3600 rpm - 60 Hz



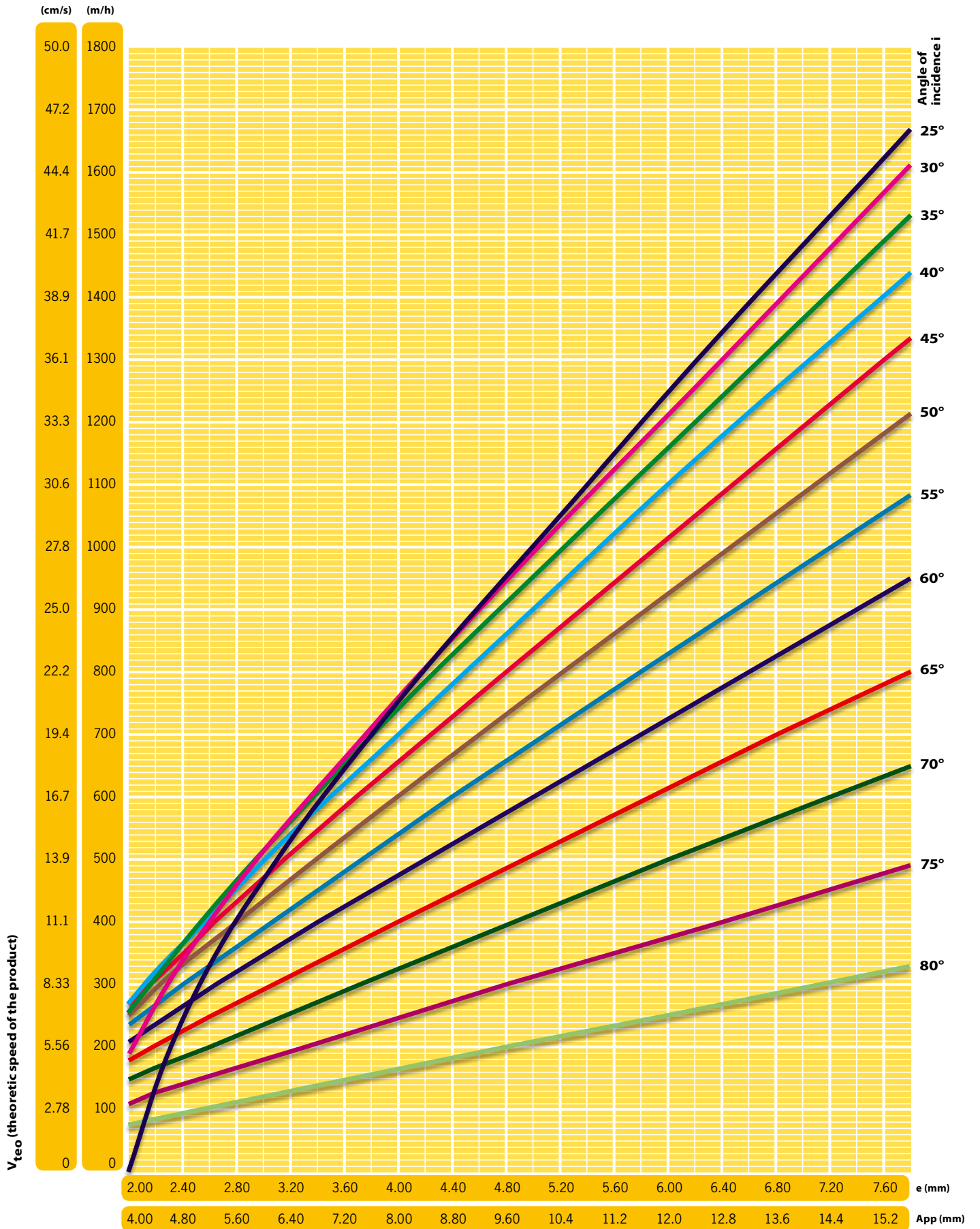
1500 rpm - 50 Hz



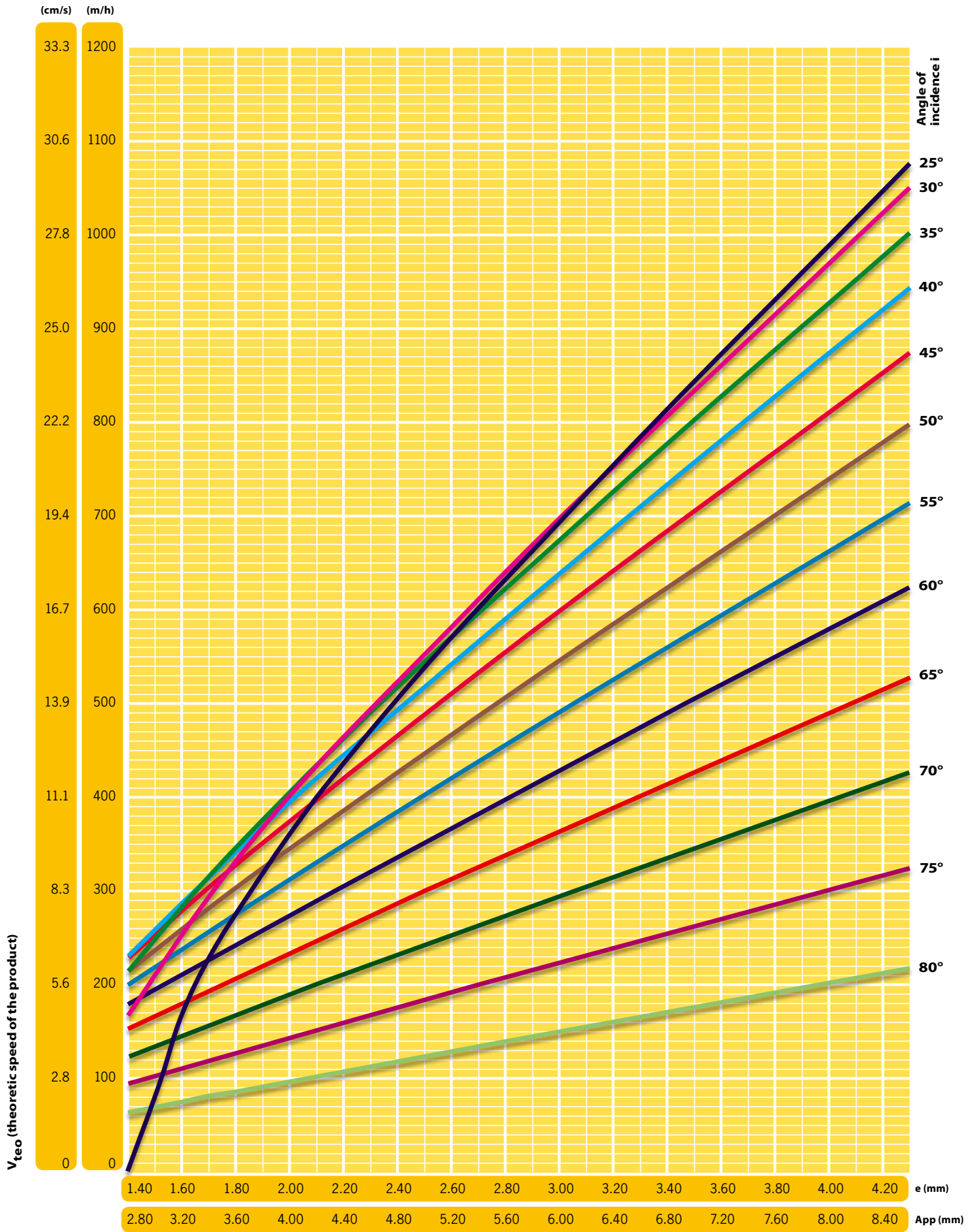
1800 rpm - 60 Hz



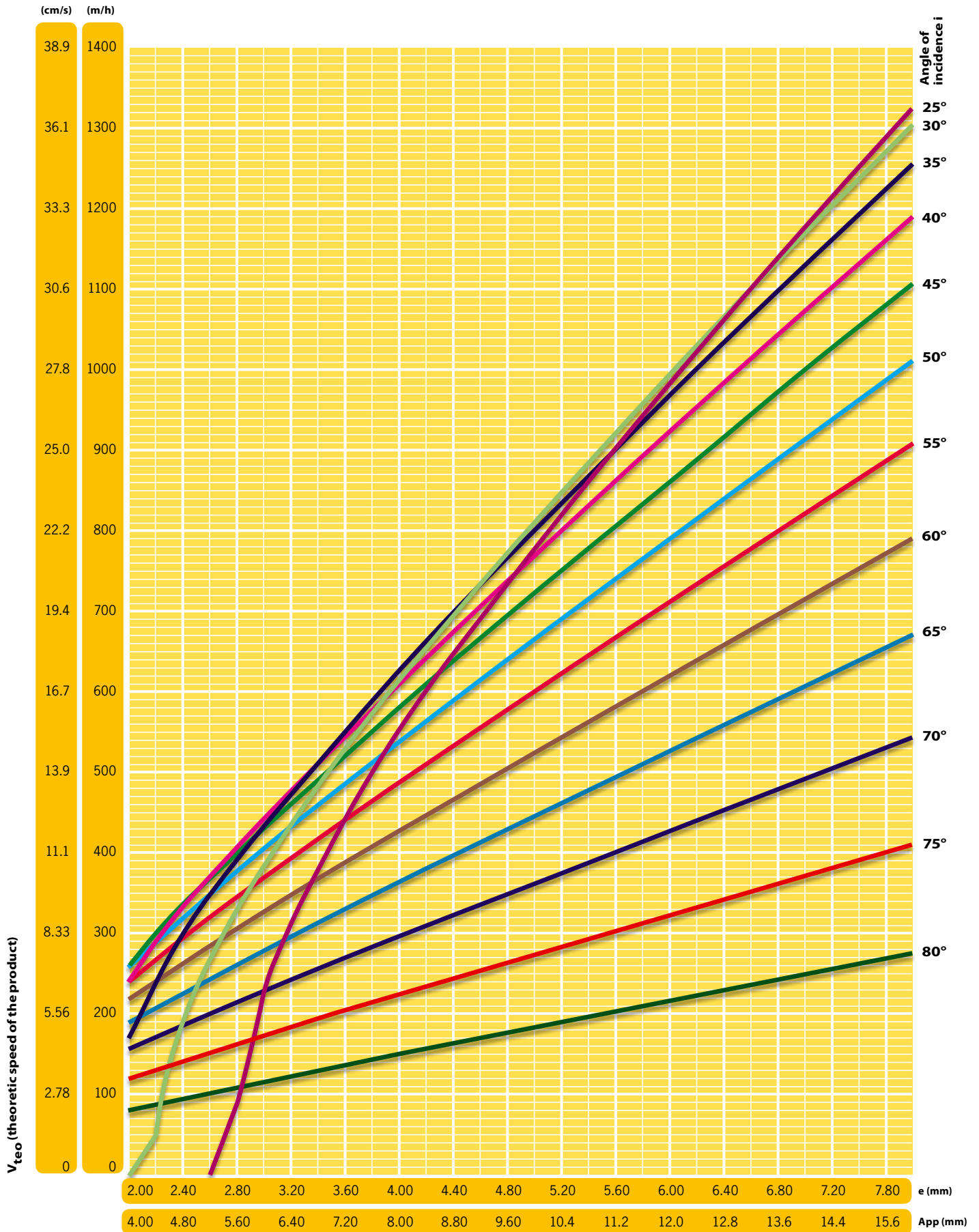
1000 rpm - 50 Hz



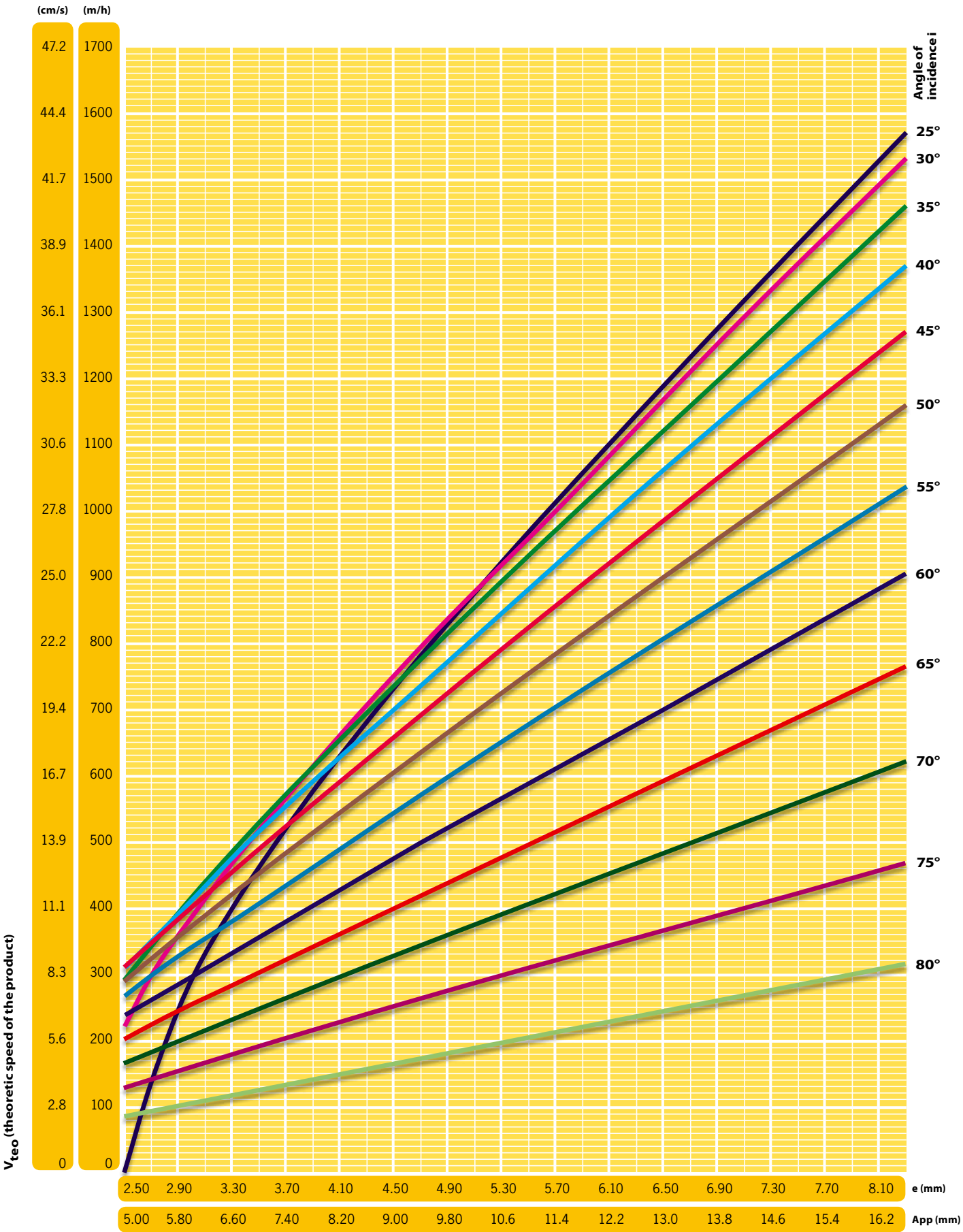
1200 rpm - 60 Hz



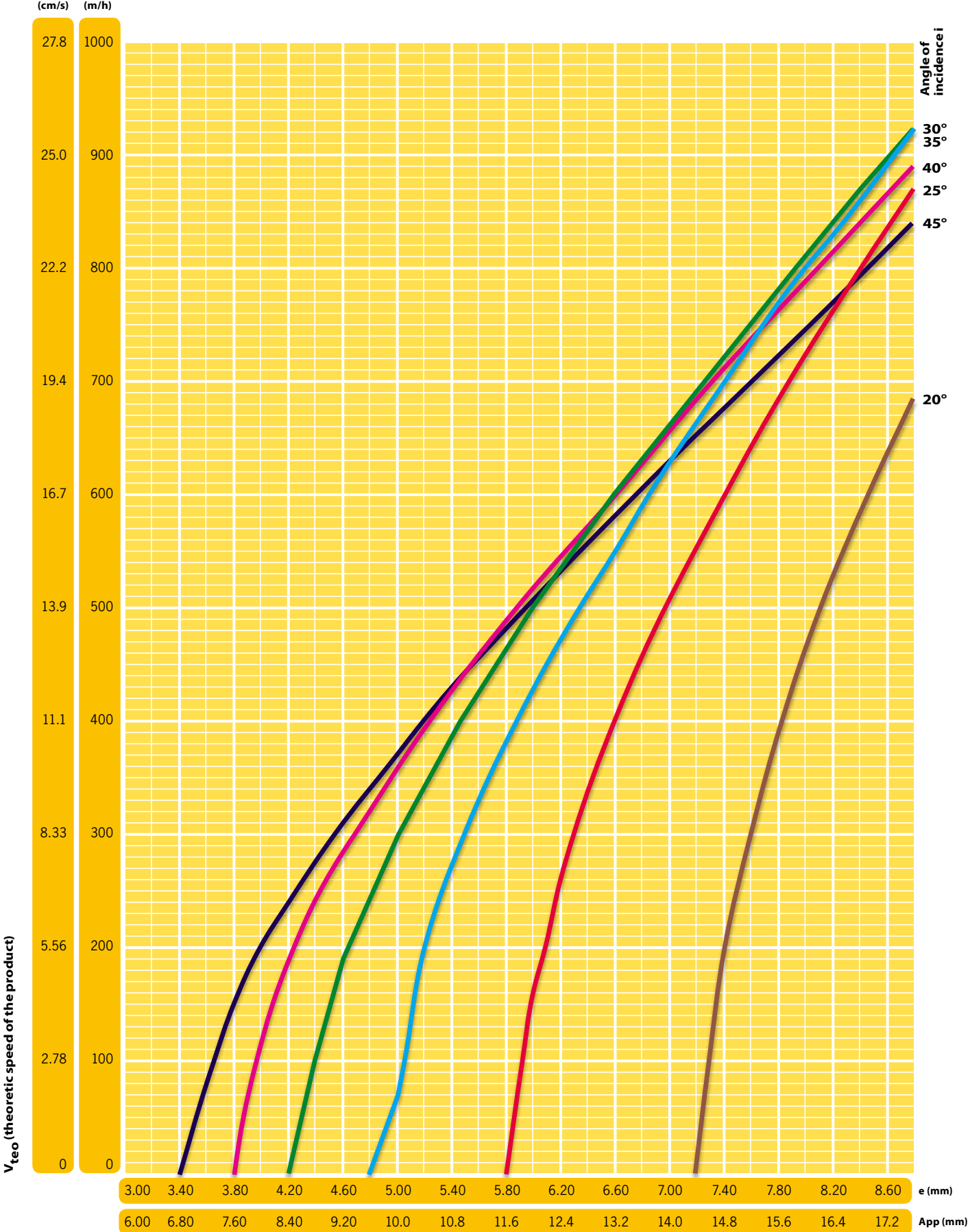
750 rpm - 50 Hz



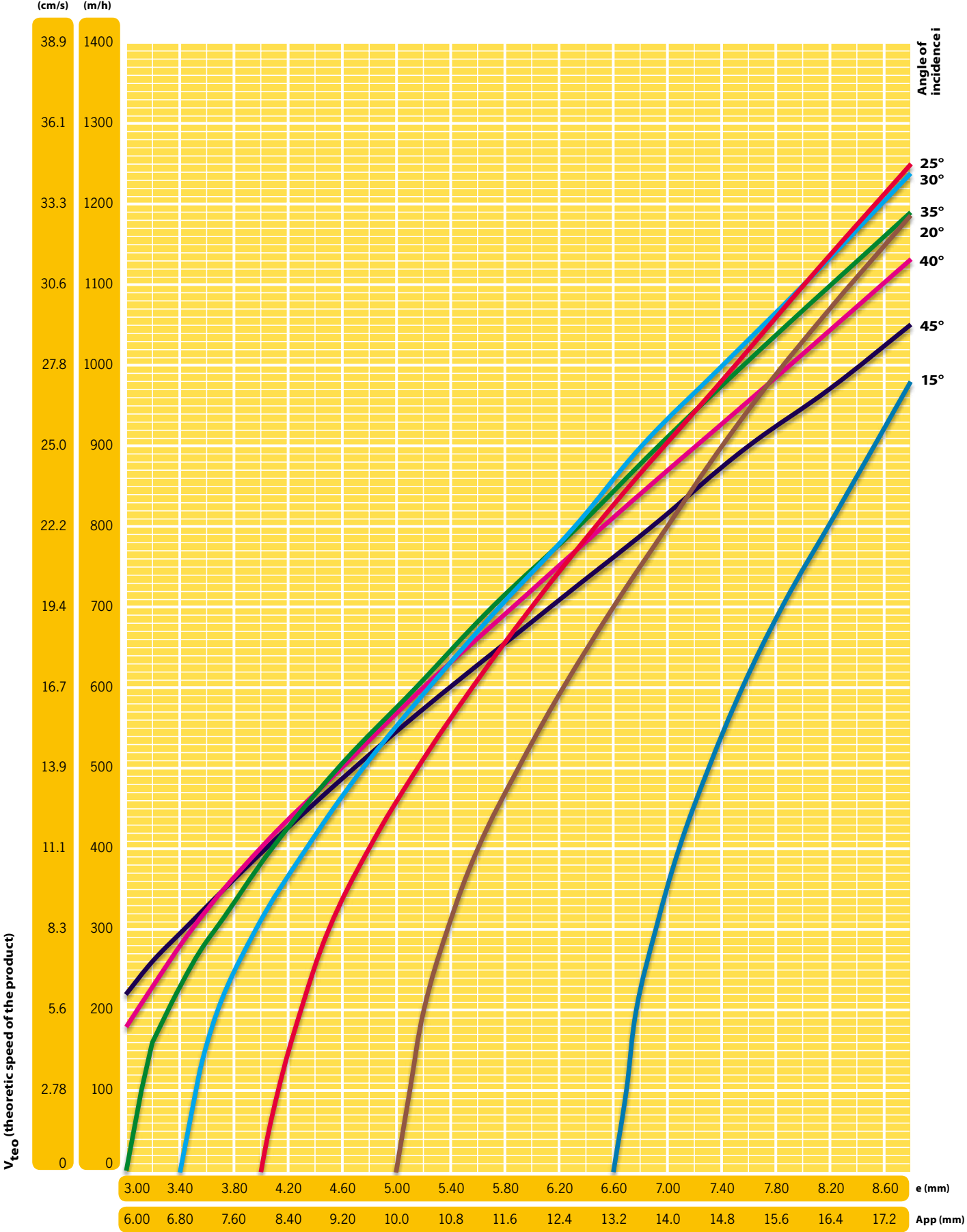
900 rpm - 60 Hz



600 rpm - 50 Hz



720 rpm - 60 Hz

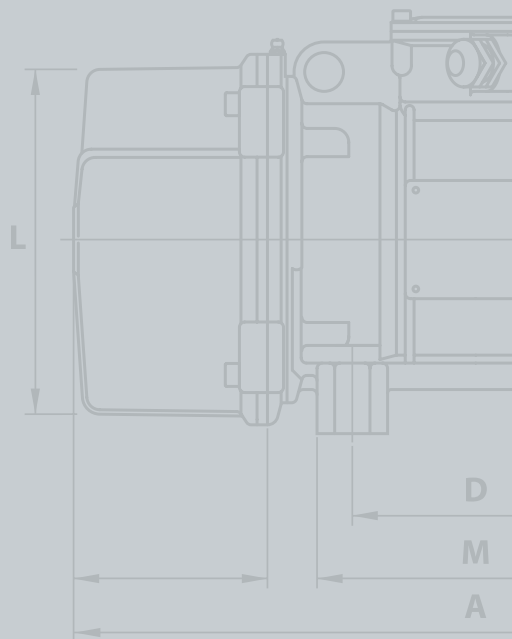




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