MVB / MVB-FLC



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 Standards and Regulations
Low Voltage Directive 2006/95/EC; ATEX Directive 2014/34/UE; EN/IEC 60034-1, EN/IEC 60079-0, EN/IEC 60079-31, UL 1004-1, CSA C22.2 No.100, NEMA MG-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 by varying weights position.

Mechanical protection
IP 66 according to IEC/EN 60529.

Protection against mechanical impacts
IK 08 according to IEC/EN 62262.

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 from size 80, on request for smaller sizes. Also on request thermistors with different temperatures and anti-condensation heaters.

Fixing of the vibrator
Typically for vertical mounting, anyway possible to install in all positions and therefore without restriction.

Lubrication
All vibrators are lubricated in the factory and do not require further lubrication at start-up.

Terminal box
Large terminal box to facilitate electrical connection.
Special shaped terminals allow for the power supply cable to be secured, whilst 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
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 Italvibras, suitable to support both high radial and axial loads.

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

Eccentric weights
The weights are not provided in the delivery and must be ordered separately (ask Italvibras sales office). Lamellar for clamped centric weight have an ample possibility of

The MVB series is made up of vertical vibrators, featuring a lateral flange and the shaft projecting from both sides.

The MVB-FLC series is made up of vertical vibrators, featuring a central flange and the shaft projecting from 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 according to the type of eccentric weights supplied with the vibrator and which must be mounted by the user.

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

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

Category: II 2 D

Level of protection:

Ex tD A21 T...°C IP66 (Ex tb IIIC T...°C Db)

Temperature class:

T150°C

Zones of use:

21, 22

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.

For further details please contact sales offices at Italvibras.
The technical data and models listed in this catalogue are not binding. Italvibras reserves the right to modify them without prior notice.

Certifications

Compliance with the applicable European Union directives.

Standard CAN/CSA – C22.2, N°.100-95,
Certificate n° LR 100948
Class 4211 01 - Motors and generators
UL 1004-1 – Rotating Electrical Machines – General Requirements

II2D (2014/34/UE)
Ex tD A21 T...°C IP66 (Ex tb IIIC T...°C Db)
EN 60079-0
EN 60079-31

Ex tD A21 T...°C IP66 (Ex tb IIIC T...°C Db)
IEC 60079-0
IEC 60079-31

Version MVB-C and MVB-C-FLC available on request
Class I Div.2, Groups ABCD
Standard CAN/CSA – C22.2

Certification for Eurasian Customs Union
N° TC N RU Д-IT.АЛ33.B.02527
N° TC RU C-IT.ГБ08.B.02190

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

MVB / MVB-FLC

MVB 4 poles - 1.500/1.800 rpm

Three-phase

DESCRIPTION						MECHANICAL SPECIFICATIONS					ELECTRICAL SPECIFICATIONS					
						Centrifugal force kg		Centrifugal force kN		Weight	Max input power W		Max current A		Ia/In	
Code	Type	SIZE	CSA	II2D Temp. class	Available versions	50Hz	60Hz	50Hz	60Hz	kg	50Hz	60Hz	400V 50Hz	460V 60Hz	50Hz	60Hz
601226	**MVB 1510/15***	50	•	150°C	B, C, D	**1500**	**1500**	**14,7**	**14,7**	41,5	1100	1200	2,10	2,00	3,76	4,50
601628	**MVB 2510/15***	60	•	/	B, C, D	**2700**	**2700**	**26,4**	**26,4**	63,0	2150	2700	3,90	4,10	5,60	5,81
601130	**MVB 4500/15**	80	•	/	A, B, C, D	**4500**	**4500**	**44,1**	**44,1**	106	4000	4200	6,70	5,80	4,48	4,18
601131	**MVB 7000/15**	90	•	/	A, B, C, D	**7000**	**7000**	**68,7**	**68,7**	160	7000	7000	11,8	10,2	6,19	6,73

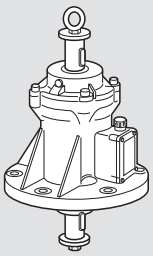
MVB-FLC 4 poles - 1.500/1.800 rpm

DESCRIPTION						MECHANICAL SPECIFICATIONS					ELECTRICAL SPECIFICATIONS					
						Centrifugal force kg		Centrifugal force kN		Weight	Max input power W		Max current A		Ia/In	
Code	Type	SIZE	CSA	II2D Temp. class	Available versions	50Hz	60Hz	50Hz	60Hz	kg	50Hz	60Hz	400V 50Hz	460V 60Hz	50Hz	60Hz
601225	**MVB 1510/15-FLC***	50	•	150°C	B, C, D	**1500**	**1500**	**14,7**	**14,7**	54,5	1100	1200	2,10	2,00	3,76	4,50
601629	**MVB 2510/15-FLC***	60	•	/	B, C, D	**2700**	**2700**	**26,4**	**26,4**	63,0	2150	2700	3,90	4,10	5,60	5,81
601135	**MVB 4500/15-FLC**	80	•	/	A, B, C, D	**4500**	**4500**	**44,1**	**44,1**	106	4000	4200	6,70	5,80	4,48	4,18
601136	**MVB 7000/15-FLC**	90	•	/	A, B, C, D	**7000**	**7000**	**68,7**	**68,7**	160	7000	7000	11,8	10,2	6,19	6,73

* The lifting rings are obtained in the casing, there are no eyebolts on the shaft.

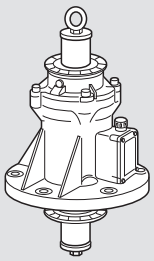
Versions

Version A



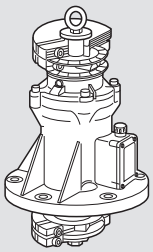
Basic model.

Version B



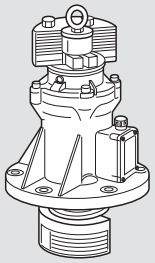
Basic model with angle disc.

Version C

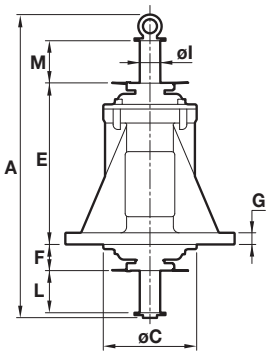


Basic model with angle disc and weights type C (clamped).

Version D



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



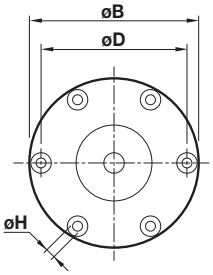
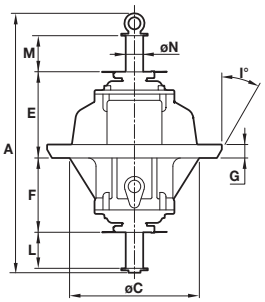


Fig. I



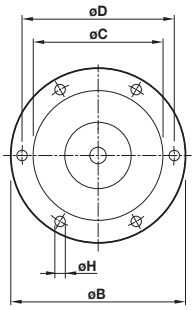


Fig. L

DIMENSIONAL SPECIFICATIONS (mm)

Type	Fig.	A	ØB	ØC	Holes ØD	Holes ØH	Holes N°	E	F	G	ØI	L	M	Cable entry thread
MVB 1510/15	**I**	476	290	171	**250**	**17**	**6**	278	46	20	35	71	71	M25x1,5
MVB 2510/15	**I**	587	350	198	**305**	**21**	**6**	314	51	25	40	106	106	M25x1,5
MVB 4500/15	**I**	664	400	240	**355**	**23,5**	**6**	340	70	30	52	75	75	M25x1,5
MVB 7000/15	**I**	737	508	314	**438**	**25**	**8**	387	87	34	52	79	79	M25x1,5

DIMENSIONAL SPECIFICATIONS (mm)

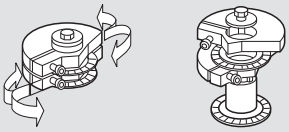
Type	Fig.	A	ØB	ØC	Holes ØD	Holes ØH	Holes N°	E	F	G	I°	L	M	ØN	Cable entry thread
MVB 1510/15-FLC	**L**	476	350	260	**305**	**21**	**6**	174	150	27	30	71	71	35	M25x1,5
MVB 2510/15-FLC	**L**	587	350	260	**305**	**21**	**6**	198	168	22	30	106	106	40	M25x1,5
MVB 4500/15-FLC	**L**	664	400	310	**355**	**23,5**	**6**	220	190	30	15	75	75	52	M25x1,5
MVB 7000/15-FLC	**L**	737	508	348	**438**	**25**	**8**	253	222	32,5	30	79	79	52	M25x1,5

Ia/In = 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.

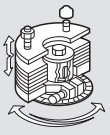
Weight adjustment: the weights at the two ends of the shaft can be staggered as required, with reference to the graduated discs on the shaft itself.

Type "C"



Infinitely adjustable centrifugal force

Type "D"



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