MVB-E/MVB-E-FLC

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.

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 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.

MVB-E/MVB-E-FLC

MVB-E 4 poles - 1500/1800 rpm

	Description			Mechanical specifications					Electrical specifications									
				Centrifugal force							Max input power W		Power rating W		Max. current A			
	Code	Type	SIZE	kg 50 Hz	kg 60 Hz	kN 50 Hz	kN 60 Hz	Weight kg	Temp. class (G)	Temp. class (D)	50 Hz	60 Hz	50 Hz	60 Hz	400 V 50 Hz	460 V 60 Hz	t_E (s)	I_A/I_N
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	9 5.5	4.95 7.00

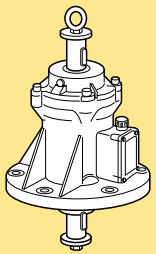
MVB-E-FLC 4 poles - 1500/1800 rpm

	Description			Mechanical specifications					Electrical specifications									
				Centrifugal force							Max input power W		Power rating W		Max. current A			
	Code	Type	SIZE	kg 50 Hz	kg 60 Hz	kN 50 Hz	kN 60 Hz	Weight kg	Temp. class (G)	Temp. class (D)	50 Hz	60 Hz	50 Hz	60 Hz	400 V 50 Hz	460 V 60 Hz	t_E (s)	I_A/I_N
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	9 5.5	4.95 7.00

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

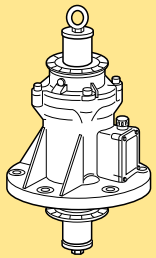
Versions

Version A



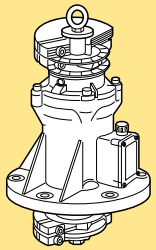
Basic model.

Version B



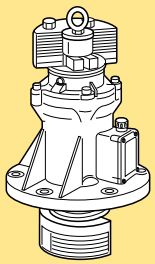
Basic model with angle disc.

Version C



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

Version D



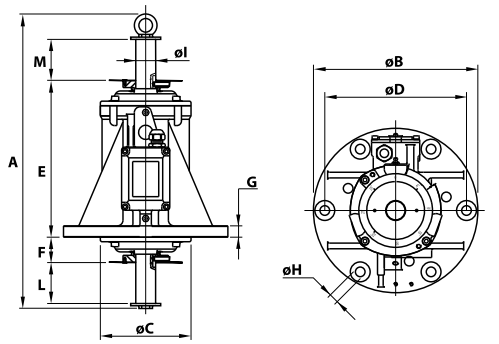
Basic model with angle disc and weights type D (lamellar).

MVB-E/MVB-E-FLC

MVB-E 4 poles - 1500/1800 rpm

	Type	Dimensional specifications (mm)													
		Fig.	A	øB	øC	øD	Holes øH	Holes N°	E	F	G	øI	L	M	Cable entry thread
three-phase	MVB 1510/15-E	I	476	290	171	250	17	6	278	46	20	35	71	71	M25x1,5

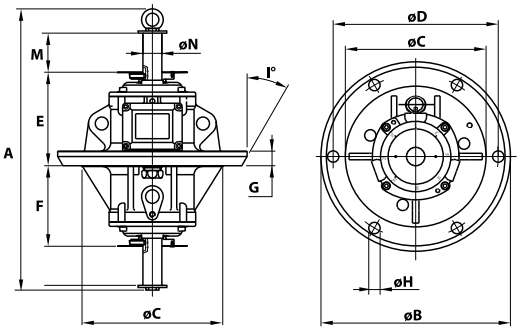
Fig. I



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

	Type	Dimensional specifications (mm)														
		Fig.	A	øB	øC	øD	Holes øH	Holes N°	E	F	G	øI	L	M	øN	Cable entry thread
three-phase	MVB 1510/15-E-FLC	I	476	350	260	305	21	6	174	150	27	30	71	71	35	M25x1,5

Fig. L

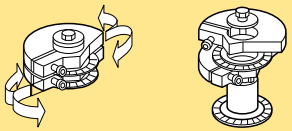


Versions

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.

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