



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

They are used for industrial processes on screens.

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

Explosion-proof screen vibrators bear the UL, cUL, ATEX and IECEx markings.

Technical features

Power supply

Three-phase voltage up to 690V (maximum 600V for UL and CSA), 50Hz or 60Hz (fixed) or 20 to 70Hz (variable). Suitable for use with a variable frequency drive from 20Hz to the base frequency with constant torque load profile.

Polarity

4 poles typical. 2, 6, 8 poles are also available.

Reference Regulations and Directives

See tables.

Controls

The components that affect protection mode are 100% accurately controlled and report is recorded for complete traceability.

Functioning

Continuous service (S1) at maximum declared centrifugal force and electric power. Intermittent services are also possible, for detailed information contact our technical assistance office.

Centrifugal force

Range extended to 7930 Kgf. (77.8 KN), with centrifugal force adjustable by hand tools to find better screen performance.

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 screen vibrators with "drop by drop" trickle system.

Ambient temperature

From -20°C to +60°C.

Vibrator thermal protection

With thermal protector at 130°C for the entire range, or on request with 130°C PTC thermistors (DIN 44081-44082). Thermal protection not installed on MVTX-G series.

Fixing of the vibrator

Typical horizontal.

Lubrication

All vibrators are lubricated in the factory. Periodic re-lubrication recommended.

Terminal box

Large fixed electrical connections. The terminal cover, with increased thickness, is designed to contain internal explosions.

Electric motor

Three-phase asynchronous type. Insulated windings using the "drop by drop" trickle system with Class H resin. The rotor is die cast aluminum.

Casing

Made in three parts. Central part in aluminum, external parts in aluminum or spheroidal cast iron.

Bearing flange

In grey cast iron.

4 poles - 1500/1800 rpm

	Description				Mechanical specifications								Electrical specifications			
	Code	Type	SIZE	Certifications UL, Ex, IEC, CE	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	601573	MVTX 15/3500-G/D	70	• • • •	1369	951	3450	3500	33,8	34,3	169	158	2270	2250	1840	1870
	601574	MVTX 15/5000-G/D	80	• • • •	1990	1387	5007	5023	49,1	49,3	235	220	3140	3130	2600	2600
	601575	MVTX 15/7900-G/D	90	• • • •	3147	2191	7930	7930	77,8	77,8	304	289	3650	4000	3212	3520

* Working moment = 2 x static moment.



By the MVTX series is derived the MVTX-G series: specifically designed for use in a potentially explosive gas atmosphere, they are commonly used on oil and gas drilling rigs. The MVT series is also available for use in standard locations, without a potentially explosive atmosphere.

Approvals	series MVTX	series MVTX-G
	Class I, Groups CD Class II, Groups EFG Oper. Temp. T4 (135°C) (Amb. Temp. -20°C ÷ +40°C)	Class I, Groups CD Oper. Temp. T3 (200°C) (Amb. Temp. -20°C ÷ +60°C)
	ATEX II 2 GD Ex d IIB 105°C Gb Ex tb IIIC T105°C Db (Amb. Temp. -20°C ÷ +40°C)	ATEX II 2 G Ex d IIB 150°C Gb (Amb. Temp. -20°C ÷ +60°C)
	Ex d IIB T105°C Gb Ex tb IIIC T105°C Db (Amb. Temp. -20°C ÷ +40°C)	Ex d IIB T150°C Gb (Amb. Temp. -20°C ÷ +60°C)

Bearings

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

Motor shaft

Treated steel alloy (Isothermic hardening) resistant to stress.

Eccentric weights

Different eccentric weights can be in accordance with customer requirements.

Weight covers

In aluminum alloy.

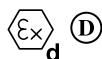
Painting

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

Certifications



Certificate: E129825.
Category: Class I, Groups CD,
Class II, Groups EFG
Temperature class: T4 (135°C).
Standards: UL N° 674-886, CSA C22.2



Certificate: DEMKO 12 ATEX 1103487X
Category: II 2 GD Ex d IIB 105°C Gb -
Ex tb IIIC T105°C Db. Directive: ATEX 94/9/EC
CENELEC EN 60079-0, 60079-1, 60079-31
Zones of use: 1, 2, 21, 22



Certificate of Conformity n° IECEx UL 11.0043X.
Category: Ex d IIB 105°C Gb - Ex tb IIIC T105°C Db
Standards: IEC 60079-0, 60079-1, 60079-31

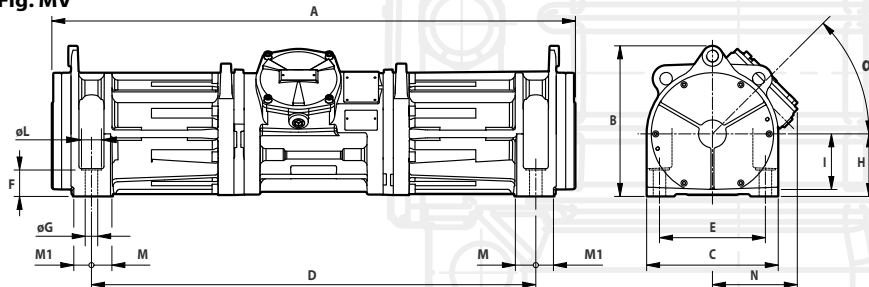


Certificate GGTN Permit and Gost-R
Category: Ex d IIB 105°C Gb - DIP A21 IP66 T105°C
Standards GOST R 51330.0-99,
GOST-R 51330.1-99, GOST R IEC 61241-1-1-99.



Comply with the applicable European Union directives

Fig. MV



Specifications

Dimensional specifications (mm)

Max. current		I _a /I _N	Type	Fig.	A	B	C	D	E	Holes		F	H	I	øL	M	M1	N	α	Cable entry
400V 50 Hz	460V 60 Hz									øG	N°									
4,00	3,50	6,50 8,10	MVTX 15/3500-G/D	MV	1130	325	284	959	228.5	27	4	57	135	120	43	44	38	183	45°	NPT 3/4"
5,40	4,85	7,80 9,90	MVTX 15/5000-G/D	MV	▲	367	284	▲	▲	▲	▲	▲	160	▲	▲	▲	▲	330	45°	NPT 3/4"
6,50	6,20	7,70 8,90	MVTX 15/7900-G/D	MV	▲	398	330	▲	▲	▲	▲	▲	180	▲	▲	▲	▲	350	30°	NPT 3/4"

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

▲ Different mounting bolt patterns and different end housing are available. Please contact sales office at Italtibras.