MANUALS



www.montanarigiulio.com



A unique container of all documentation available for gearboxes, gearless, speed governors and safety gears.

You may check your supply, configure the inverter, download manuals, tech reports, certificates and much more.

Search for Montanari Giulio App, available on Google Play and App store.

### SCAN THE QR TO DOWNLOAD ANDROID APP



### SCAN THE QR TO DOWNLOAD iOS APP



Thank you for choosing a Montanari product.

Since 1970, Montanari Group has been focused on providing its customers with the best traction machines and components for lifts and escalators.

We are proud to have you as a customer and user of the Montanari traction machines, and we are confident that we can work together for a long time.

Thanks again for your choice.

Massimo Montanari CEO of Montanari Group



REV.	DATE	DESCRIPTION	EDITED BY	VERIFIED BY	APPROVED BY
3	25/03/2020	First Redaction	Marketing Dept	Technical Dept Alberto Mantovani	STEFANO BERTONI (DTE)

### WARNING SYMBOLS USED IN THE MANUAL:

	It indicates that safety measures must be taken to avoid electric shock.
	It indicates that safety measures must be taken to prevent personal injury.
Ŵ	It indicates that safety measures must be taken to prevent damage to components.
<b>SSS</b>	It indicates that safety measures must be taken to prevent burns due to contact with hot/ overheated surface.
TIP	It indicates useful information before and during the installation step.
	It refers to specific parts of the manual.
4	It refers to the proper product disposal.

### CONTENTS

1. 1.1 1.2	GENERAL INFORMATION Introduction Copyright	7
2. 2.1 2.2 2.3 2.4 2.5	SAFETY Intended use User's obligations Correct disposal Specific hazards Legal References	8 8 9 9
3. 3.1 3.2	IDENTIFICATION AND DATA Identification plate Dimensions	9
4. 4.1 4.2	TRANSPORT AND STORAGE Handling Storage	16
5. 5.1 5.2 5.3	DESCRIPTION General description Main components Brake	18 18
6. 6.1 6.2 6.3 6.4	INSTALLATION General installation information Installation surface Installation procedure Electrical installation - Connections	19 20 20
7. 7.1 7.2 7.3	CONNECTION OF THE BRAKE FOR RESCUE SYSTEM Connection of the cable to the brake levers Connection of the cable to the hand release lever Rescue System	24 26



8.	OPERATION	
8.1	Connections	
8.2	Additional components	
8.3	General operation information	27
9.	TROUBLESHOOTING, MAINTENANCE AND REPAIR	27
9.1	General information	27
9.2	Traction/return sheave	28
9.3	Replacement of components	28
9.4	Problems, causes and solutions	
9.5	Maintenance and repair	29
9.5.1	General indications	29
9.5.2	2 Description of maintenance activities	29
10.	SPARE PARTS	30
10.1	General information	30
10.2	How to order spare parts	
11.	BRAKE CERTIFICATE	30
11.1		
11.2		
12.	COMPLIANCE DECLARATION	33

### 1. GENERAL INFORMATION

### 1.1 Introduction

These operating instructions must always be available for consultation. No liability is accepted for any malfunction due to installation not conforming to specifications, except in cases approved by Montanari Giulio & C.

All persons involved in the installation, operation, maintenance and repair of the unit must have read and understood the instructions.

No liability is accepted for damage, breakage or accident caused by failure to follow the instructions.

To make technical improvements, Montanari reserves the right, if deemed necessary, to modify the units and accessories, preserving their essential characteristics and improving efficiency and safety, without notice.

### 1.2 Copyright

All rights to these operating instructions belong to Montanari Giulio & C. S.r.l. The information in this manual may not be reproduced or used in an unauthorized manner or made available to third parties without prior approval.

If you have any questions, please contact:

MONTANARI GROUP HEADQUARTER - MONTANARI GIULIO & C. Srl Via Bulgaria 39 - 41122 - Modena - Italia Tel: +39 059 453611 - Fax: +39 059 315890 www.montanarigiulio.com info@montanarigiulio.com



### 2. SAFETY

### 2.1 Intended use

The MGV25 gearless machine range is supplied ready for safe and reliable use. Any modification by the user that may affect safety or reliability is prohibited; it is also prohibited to tamper with devices or functions designed to prevent accidental contact.



The Montanari MGV25 gearless machine range must be used and operated in strict compliance with the conditions set out in the supply contract.

Technical specifications considered: speed, cab capacity, cab weight, presence or absence of compensation, roping at the time of order.

No liability is accepted for any malfunction due to installation not conforming to specifications, except in cases approved by Montanari Giulio & C.

### 2.2 User's obligations

The operator must ensure that all persons involved in installation, operation, maintenance and repair have read and understood the supplied operating instructions and have adapted to them in order to:

- Avoid damage to property or persons.
- Ensure safe and reliable operation of the unit.
- Avoid breakage and environmental damage due to misuse.

In particular:

• Always observe the relevant environmental and safety regulations when transporting, assembling, installing, operating, maintaining and dismantling the unit.

• The unit must only be used, maintained and repaired by authorized, properly trained and qualified personnel.

- The gearless must not be cleaned using high-pressure cleaning equipment.
- All work must be carried out with care and with due attention to safety.
- Any work on the unit should only be carried out when it is not in operation.

• A warning must be placed on the main switch to clearly indicate that work is in progress on the unit.

- No welding must be carried out on the unit.
- Do not use the unit as a grounding point for welding operations.

• If any changes are detected (e.g. overheating or unusual noise) during operation, switch off immediately.

• Rotating components must be equipped with appropriate guards to prevent contact.

• If the unit is intended for installation in plant or machinery, the manufacturer of such plant or machinery must ensure that the standards, indications and descriptions contained in these operating instructions are incorporated into its own instructions.

• The information on the warning or identification plates must be complied with. These plates must be kept clean and legible at all times. Missing plates must be replaced.

- All spare parts can be obtained from Montanari Group.
- 2.3 Correct disposal

4

Respect the environment and dispose of the product according to the regulations in force in the country of installation.

### 2.4 Specific hazards

Depending on the conditions of use, the surface of the unit can become very hot.



### 2.5 Legal References

2.5	седагк	lab. 1
Ν	Norm	Description
1	UNI 10147	Maintenance: Terminology.
2		Safety rules for the construction and installation of lifts - Lifts for the transport of persons and goods.
		Safety rules for the construction and installation of lifts - Examinations and tests.
4	EN 81 - 21	Safety rules for the construction and installation of lifts - Lifts for the transport of persons and goods - Part 21: New passenger and goods passenger lifts in existing building.

### 3. IDENTIFICATION AND DATA

### 3.1 Identification plate

The data on the plate are:

### Fig. 1 - Example of Identification Plate

Manufactu	urer the rel	ode to access Ap		ed torque Seria	al number
Manufacturer's address Gearless machine <u>code</u>	MADE IN ITALY CODICE GEARLESS GEARLESS CODE ANNO YEAR 2019	tanari Giulio e C TIRY C C MGX800809638E00 TIPO TYPE MGX80	96 - 53 RPM 670 Nm	022611 25,6 - 14,1 Hz 15 A H 40% ED 330 Kg 6,7 - 3,7 kW	Frequency Rated current Cycle type Weight Power rating
Year of pr	oduction .	Model	Motor pole no.	Rated voltage	

ഗ
25.
ž
2
≥
S
E
N.
벁
V
Å
₹
Ċ
AL
÷
Ċ
Ë
뿌
≨
Ç
4
s S
Ë
2
∢
B

One.											
Tab. 2	Weight	[Kg]	120	120	120	120	120	120	120	120	
	Duty Cycle		180S/H 40%								
	/	[Kg] [kg·m2]	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	
	Static Load	[Kg]	1800	1800	1800	1800	1800	1800	1800	1800	
	Ls	[mH]	33	18	64	33	18	11	8	4	
	Rs	[U]	3,5	2	6,8	3,5	1,85	1,2	0,78	0,46	
•	F	[Hz]	9	15,3	80	16	25,6	37,3	48	68	
20270	Poles	[N°]	16	16	16	16	16	16	16	16	
	EMF	[V·s/ rad]	14	10	20	14	11	80	7	с	
	Imax	[]	17	19	15	21	28	36	43	56	
	Cmax Imax EMF	[Nm]	380	320	460	460	460	460	460	460	
AKA	μ	$[\forall]$	11	13,5	8,1	11	14,5	19	19,5	26	
	Cn	[Nm]	250	235	250	250	250	250	220	220	
	Ŋ	Σ	210	210	360	360	360	360	360	360	
TIINE LECTINICAL UTARAULERISTICS: INGV233	Speed	[RPM]	45	115	90	120	192	292	360	510	
L Z	Pn	kW	1,15	2,8	1,5	3,1	ŝ	7,6	8,3	11,7	
MACH	Type		MGV25S								
GEARLESS MACI	MGV25S	Code machine	MGV25100452B500	MGV25101152B500	MGV25100603B500	MGV25101203B500	MGV25101923B500	MGV25102803B500	MGV25103603B500	MGV25105103B500	

Tab. 3

	Certificate		EU-BD 845
S	Braking Force	[Nm]	2X270Nm
RAKE CHARACTERISTICS	Current	[Y]	0.4A
CHARAC	Voltage	Σ	207V <sub>DC</sub>
BRAKE	Power	M	2X79W
	Brake model Power		RTW250
	Model		MGV25S



10

<b>3V25M</b>
S: MG
RISTIC
ACTER
CHAR/
CAL
ECHNI
INE T
MACH
ESS
GEARL

Tab. 4

1.		_	_	_	_	_	
Weight	[Kg]	180	180	180	180	180	
Duty Cvcle		180S/H 40%	180S/H 40%	180S/H 40%	180S/H 40%	180S/H 40%	
/	[kg·m2]	0,2	0,2	0,2	0,2	0,2	
Static Load	[Kg]	3400	3400	3400	3400	3400	
Ls	[HH]	40	25	15	8	5	
Rs	[U]	3,8	2,25	1,4	0,75	0,47	
F	[Hz]	10,7	16	25,6	37,3	50,7	
Poles	[。N]	16	16	16	16	16	
EMF	[V·s/ rad]	20	15	12	6	7	
Imax	[A]	21	27	36	50	62	
In Cmax Imax EMF	[Nm]	665	665	665	665	665	
	$\overline{\triangleleft}$	12	15	20	27	35	
C	[V] [Nm]	385	385	385	385	385	
47	Σ	360	360	360	360	360	
Speed Vn Cn	[RPM]	80	120	192	280	380	
Pn	kΜ	3,2	4,8	1,7	11,3		
Type		MGV25M	MGV25M	MGV25M	<b>MGV25M</b>	MGV25M	
MGV25M	Code machine	MGV25150803B700 MGV25M	MGV25151203B700 MGV25M	MGV25151923B700	MGV25152803B700	MGV25153803B700	

Tab. 5 EU-BD 845 Certificate 2X410 Nm Current (In) Force (Cn) [MM] **BRAKE CHARACTERISTICS** 0,4 A ₹ Voltage (Vn) 207V<sub>DC</sub> Σ 2X 82 W Power (Pn) ≥ Brake model **RTW350** MGV25M Model

_
5ML
12
ษ
Σ
ŝ
Ĕ
RIS
Ē
U A
2
Ŧ
U L
CAL
ž
<b>IECH</b>
Ĕ
<b>INE</b>
Ş
Ā
S
ш
<b>^</b> RL
GEA
0

Tab. 6	Weight	[Kg]	220	220	220	220	220	
	Duty Cycle		180S/H 40%					
	1	[kg·m2]	0,28	0,28	0,28	0,28	0,28	
	Static Load	[Kg]	3400	3400	3400	3400	3400	
	LS	[Hm]	32	20	11	7	2	
	Rs	[U]	2,8	1,8	96'0	0,62	0,47	
	Ч	[Hz]	10,7	16	25,6	34	40	
	Poles	[ <sub>N</sub> ]	16	16	16	16	16	
	EMF	[V·s/ rad]	20	16	12	6	œ	
	Imax	[A]	27	35	47	62	68	
	In Cmax Imax EMF	[A] [Nm]	915	915	915	915	915	
	Ч	$[\underline{\forall}]$	15	19	25	34	37	
	C	[M] [Nm]	530	530	530	530	530	
	ЧЛ	Σ	360	360	360	360	360	
	Speed	[RPM]	80	120	192	255	300	
	Pn	kW	4,4	6,7	10,7	14,2	16,6	Ē
	Type		<b>MGV25ML</b>	MGV25ML	MGV25ML	<b>MGV25ML</b>	MGV25ML	
	MGV25ML	Code machine	MGV25200803BC00	MGV25201203BC00	MGV25201923BC00	MGV25202553BC00	MGV25203003BC00	

# **GEARLESS MACHINE TECHNICAL CHARACTERISTICS: MGV25 L**

Tab. 7

Weight	[Kg]	240	240	240	240	240	240
Duty Cycle		180S/H 40%	180S/H 40%	180S/H 40%	180S/H 40%	180S/H 40%	180S/H 40%
/	[kg·m2]	0,31	0,31	0,31	0,31	0,31	0,31
Static Load	[Kg]	3400	3400	3400	3400	3400	3400
TS	[mH]	37	18	11	œ	5	e
Rs	[U]	3,2	1,5	0,95	0,65	0,47	0,28
Ψ.	[Hz]	80	16	21,3	28	34	48
Poles	[N°]	16	16	16	16	16	16
Imax EMF	[V·s/ rad]	24	18	14	11	10	7
Imax	[A]	27	40	49	59	71	91
Cmax	[Nm]	1100	1100	1100	1100	1100	1100
μ	$[\forall]$	15	22	28	32	40	52
C	[Nm]	630	630	630	630	630	630
ЧЛ	Σ	360	360	360	360	360	360
Speed	[RPM]	60	120	160	210	255	360
Pn	kW	4	7,9	10,6	13,9	16,8	23,7
Type		MGV25L	<b>MGV25L</b>	MGV25L	MGV25L	MGV25L	MGV25L
MGV25L	Code machine	MGV25260603BC00	MGV25261203BC00 MG	MGV25261603BC00	MGV25262103BC00	MGV25262553BC00	MGV25263603BC00

EU-BD 1014 Certificate 2X600Nm Force (Cn) [Nm] Current (In) 1.8A – 0.9A ₹ **BRAKE CHARACTERISTICS**  $207V_{\text{DC-PEAK}} - 104V_{\text{DC-HOLD}}$ Voltage (Vn) Σ 2X 372W - 2X 92W Power (Pn) ≥ Brake model **RTW600** MGV25ML-L Model

Tab. 8

м

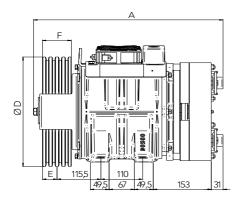
Tab. 9

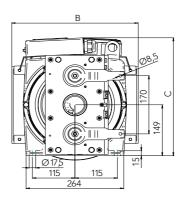
### 3.2 Dimensions

The technical drawings and the overall dimensions follow.

Gearless Type	Traction Sł Ø D	D A	imensio B	ns [mm] C	E*	
MGV25S	160 210	88 80	500	300	344	55
	240	80	500	300	344	55
	320	75		342	357	52

Fig. 2 MGV25S



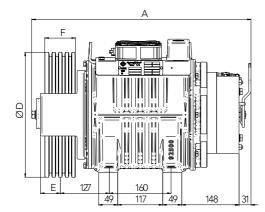


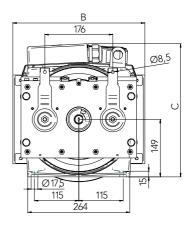


1ab. 10	Tab.	10
---------	------	----

	MGV25M							
Pul	ley	Ropes			Dimensions			
ØD	F	Ø	min - max	Pitch	А	В	С	E
m	m	mm	n°	mm	mm	mm	mm	mm
210	106	6,5	3 - 8	12				
210	100	0,0	9 - 10	9,5				
	70		3 - 8	12		301	344	55
240	70	6,5	9 - 10	9,5		301	344	55
240	10/	0,0	3 - 8	12	568			
	106		9 - 10	9,5				
	80		3 - 6	17				
320	0 115	8	7	13		342	357	52
	115		8	12				

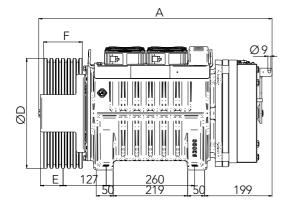
Fig. 3 MGV25M

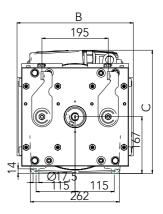




								Tab. 11	
	MGV25ML - L								
Pul	Pulley Ropes Dimensions								
ØD	F	Ø	min - max	Pitch	А	В	С	E	
m	m	mm	n°	mm	mm	mm	mm	mm	
210	106	6,5	3 - 8	12				64	
210	100	0,0	9 - 10	9,5				04	
	70		3 - 8	12		315		55	
240	/0	/0	6,5	9 - 10	9,5		515		55
240	106 6	0,5	3 - 8	12	689		362	1.1	
		06	9 - 10	9,5				64	
			3 - 4	17					
320	320 115	8	7	13		342		67	
			8	12					

Fig. 4 MGV25ML - L









Only use lifting systems and equipment with adequate lifting capacity for handling. The entire packaging is designed to allow movement with for lift and for lift truck.

### 4. TRANSPORT AND STORAGE

4.1 Handling

All gearless machines are packed in crates or cages.

Different types of packaging can be used, depending on the size and means of transport. Unless otherwise specified, the packaging complies with the HPE quidelines.

In some cases, the machines are mounted on wooden pallets to enable them to be transported correctly on trucks. The packaging may not be stacked in any way. It is recommended to check the conditions of the material when it is received. In case of damage, do not proceed with the installation unless expressly authorized by Montanari Giulio & C. Observe the symbols on the packaging to prevent damage to property or personal injury. Here are the meanings of the symbols that may appear on the packaging.



Keep dry



Upper side





Handle with care

Do not use hooks



Attachment point



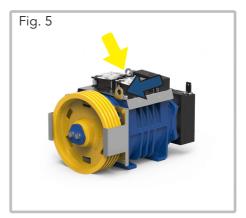
Keep away from heat sources

16



For lifting, anchor points (eyebolts) are provided as shown in Fig. 5.

Use only the specified eyebolts to handle the unit.



### 4.2 Storage

The gearless machine must be stored in the position of use on a wooden base not subject to vibrations, in a covered and sheltered place.



If the unit is stored outdoors, it should be covered, taking care that no moisture and/or other foreign matter can accumulate on it.



Supplies for special environmental conditions during transport (e.g. by ship) and storage (climate, temperature, etc.) must be contractually agreed.



- Check the correct operation of the motor and brake after installation.
- Repairs may only be carried out by the manufacturer or by authorised per-
- sonnel.
  - The machine can be red-hot.
  - These machines must be connected to inverters.
- When the machine is rotating, both manually and mechanically, it can act as a generator and produce high voltage.
  - During configuration, the machine is powered by high voltage.



### 5. DESCRIPTION

5.1 General description

The MGV25 series gearless machines are permanent magnet motors with double brake system.

### 5.2 Main components

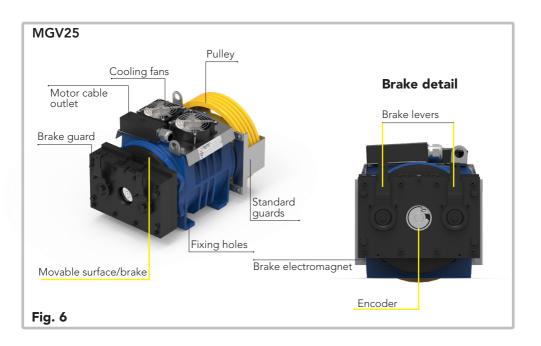
The unit consists of the main groups as shown in Fig. 6.

MGV25 range is equipped with a PTC thermal probe inside the windings to protect against overheating (winding temperature up to 130°C) and with a thermo-contact for the activation of the fans. Refer to the electrical connections for more details. -

Lubrication



The gearless machine contains no oil and it is supplied with bearings already lubricated throughout the life of the machine; no further lubrication is required.



### 5.3 Brake

The gearless machine is supplied with a brake that conforms to the standards indicated in paragraph 2.5.

The brake system is pre-calibrated by the manufacturer and no further adjustment is required.

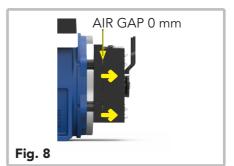


The brake system operates as follows:

• **Not powered** (electromagnet not powered): the brake disc is clamped by the movable surfaces (yellow arrows Fig. 7). In this condition the system does not move.

• When the brake electromagnet is **powered**, it releases the brake disc (yellow arrows Fig. 8); now the motor is released.





Brake system powered

Brake system not powered

- 6. INSTALLATION
- 6.1 General installation information



The gearless machine must be installed in a building or in a closed travel compartment.

Do not use the gearless machine in an explosive atmosphere.

The room temperature must be between '0°C and +40°C.

Assembly and 'installation must be carried out with great care by qualified and trained personnel.

The manufacturer cannot be held responsible for damage caused by incorrect assembly or incorrect installation.

Before starting work, make sure that adequate lifting and handling equipment is available.

No welding work must be carried out on the unit.

The unit must not be used as a grounding point for welding operations. The bearings can be irreparably damaged.

All fixing points specified by the manufacturer must be used.



The air supply for cooling must not be prevented.

### 6.2 Installation surface

The installation surface must be uniform and level.

The levelling tolerance is 0.1 mm.

The installation surface must be rigid and robust enough to withstand the forces involved.

### 6.3 Installation procedure

The gearless machine can be lifted using the eyebolts for the insertion of the belts or lifting chains (see also the paragraph on storage and handling). Particular attention is needed to avoid that the gearless machine receives blows in correspondence of the brake disc; the brake levers and the electrical connections of the board are very delicate. Lifting example Fig. 9.



Place the unit on the installation surface and secure it.

- Fixing screws and nuts must be tightened to the prescribed torque.
- Use bolts with a minimum strength class of 8.8.

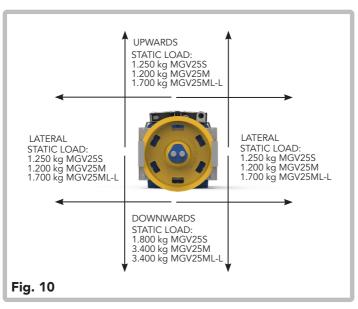
• Do not force or hit the fixings to position them; this could damage the bearings, rings, etc.

Mount the safety devices.

The static load changes depending on the roping direction. (Fig. 10):

	Tab. 12		
Bolt tightening torques (class 8.8)			
Thread	M20		
Tightening torque (Nm)	410		

### Load direction

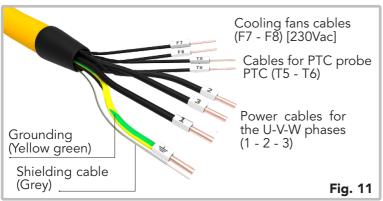




6.4 Electrical installation - Connections

The gearless machine is supplied with:

• Cable for the power supply of the motor [1 - 2 - 3, Ground, SC], for the power supply of the cooling fan (230 Vac) [F7-F8] and of the PTC guard [T5-T6] (Fig. 11).



Cable



- The power cable must be routed separately from the other cables.
- The motor power cable is shielded and the shield must be grounded.

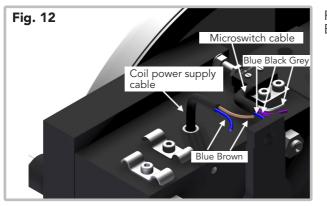
• The encoder cable must be routed away from the motor power cable to avoid electrical interference.

• The brake system has a power cable and another cable for the microswitch contacts. (Figure no. 12). All electrical data are listed on the label of the brake system. The microswitch has two contacts: one open and one closed. (Fig. 12).

• These contacts indicate the brake condition (tab. 13).

### Tab. 13

Brake disc	closed	Condition contact	Brake d	isc free	Condition contact
BLACK	BLUE	Disconnected	BLACK	BLUE	Connected
сом	N.O.	Disconnected	COM.	— N.O.	connected
BLACK	GREY	<b>a</b>	BLACK	GREY	
сом.	N.C.	Connected	сом.	N.C.	Disconnected



Power supply Brake

### - Standard mode:

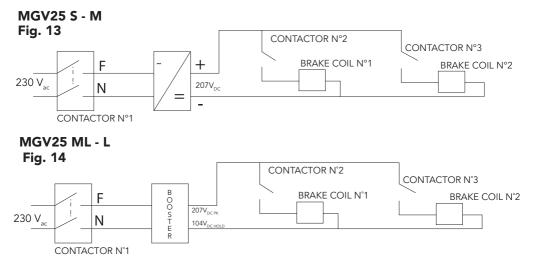
It is possible controlling only contactor 1 and leaving contactors 2 and 3 closed. (Fig. 13).

This protects the brake from dangerous overvoltage and noise when closing.

### Emergency mode and inspection mode:

The use of all contactors is recommended. Using only contactor no. 1 during opening and/or closing operations may cause an unacceptable delay when closing the brake.

Typical application with brake coils in parallel configuration.





### 7. CONNECTION OF THE BRAKE FOR RESCUE SYSTEM

For installations with machine room, the cable and release lever are supplied as standard. The kit is shown in Fig. 15.



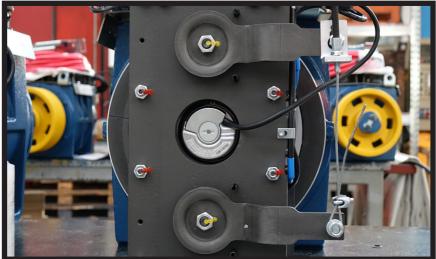
Lever for manual brake release. Connection cable for brake levers for manual rescue system (3.5 m).

Components for fixing the cable.

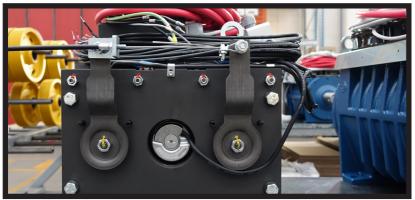
7.1 Connection of the cable to the brake levers

Insert the end of the cable into the lever holes. Tension and fix. Fold the end and secure with the rope clamp as shown in the figure. At the end, the result is as in the figures below.

### MGV25S Fig. 16



### MGV25M Fig. 17

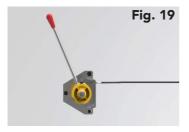


### MGV25ML-L Fig. 18





7.2 Connection of the cable to the hand release lever



Fix the lever to the wall with the bolts (not supplied). Connect the cable to the support as shown in Fig. 19.

Insert the other end of the cable into the screw hole. Tighten to stop. Fig. 20.

Fig. 20



### 7.3 Rescue System

It must be performed by an independent electrical device capable of opening the brake and moving the gearless machine at a reduced speed. The characteristics of the synchronous motor can be exploited as it slows down the cab when the phases are short-circuited.

### 8. OPERATION

### 8.1 Connections

Connect the motor, brake, and monitoring devices.

The connection must be made by qualified personnel in accordance with the applicable safety regulations. Installation and operation requirements and current national and international standards must be met.

### 8.2 Additional components

If third party additional components or options are installed, please refer to the information in the respective separate documentation provided.

### 8.3 General operation information

When operating the MGV25 unit, be sure to check that the following situations do not occur:

- Excessive operating temperature.
- Excessive and unusual noise.

If any irregularity occurs during operation, turn off the power immediately. Identify the cause of the malfunction by using the table in Chap. 9, containing a list of possible problems, causes and suggested remedies.



If the cause of the malfunction cannot be identified, or if the unit has been repaired using the means available, you should contact one of our service centres for a specialised service.

### 9. TROUBLESHOOTING, MAINTENANCE AND REPAIR

### 9.1 General information



Problems and malfunctions occurring during the warranty period, which are not precisely identified or which require work on the unit, must be referred to the manufacturer's Customer Service department.

Observe all safety rules.

Do not disassemble the motor on site.

The bearings are protected and do not require any additional lubrication under standard conditions of use.

Do not use high-pressure cleaners on the motor.

Montanari cannot guarantee or be held responsible for unauthorized operations on the unit, improper use, modifications made without its consent or the use of non-genuine spare parts.



When repairing problems or malfunctions, the unit must be put out of service in order to prevent unintentional start-up. Place a warning sign on the starting switch.



### 9.2 Traction/return sheave

Periodically, at least once a year, check the wear of the grooves in the traction sheave.

In case of slipping ropes or excessive wear, contact Montanari Giulio & C. for replacement instructions, always indicating the serial number.

### 9.3 Replacement of components

Instructions for the replacement of any component must be requested each time from the technical department specifying the serial number.

### 9.4 Problems, causes and solutions

Tab. 14

Diagnostic Table							
Problems	Causes	Solutions					
	Motor phases are connected in the wrong way	Check the connection condition of the motor phases					
	Wrong inverter configuration	Check the inverter settings					
	Inverter defective	Replace the device					
The motor does not work	Brake faulty	See below					
	Motor mechanically locked	Contact Montanari Giulio & C.					
	Motor connections loosened	Tighten the connections of the machine controller.					
	Excessive temperature	See below					
Brake system not working	Brake power supply wrong	Check the correct supply voltage of the brake coil.					
Diake system not working	Brake system defective	Contact Montanari Giulio & C.					
	Cooling fan not working.	Replace the fan					
Excessive temperature	Cooling fan not correctly connected.	Check the voltage of the cooling fan. (230 V ac)					
	PTC sensor defective	Contact Montanari Giulio & C.					
	Wrong inverter settings	Check the inverter settings					
	Alignment of the motor with the deflection sheave incorrect.	Check and correct the alignment.					
Noise while travelling	Encoder defective	Replace encoder					
rivoise wille travening	Wrong inverter settings	Check the inverter settings					
	Bearing defective	Contact Montanari Giulio & C.					

- 9.5 Maintenance and repair
- 9.5.1 General indications



The unit must only be used, maintained and repaired by authorized, properly trained and qualified personnel.

Compliance with the inspection and maintenance intervals is part of the conditions for the validity of the warranty.

9.5.2 Description of maintenance activities

# Stop the unit and put it out of service. Place a warning sign on the start switch to prevent unintentional start.

Cleaning the unit. Remove dirt on the unit with a hard brush. Remove corrosion signs. The unit must not be cleaned with high pressure washing equipment.



10. SPARE PARTS

10.1 General information



By keeping the main spare parts and wear parts in stock, the unit can  $\mathbf{V}_{\mathsf{TIP}}$  always be used.

### 10.2 How to order spare parts

The manufacturer guarantees only genuine spare parts and accessories supplied by him.

Other parts not supplied by the manufacturer have not been tested or approved. The use of these parts can therefore compromise certain characteristics of the gearless machine and expose it to active and passive safety risks.



The manufacturer will not assume any responsibility and will not recognize warranty for damage caused by spare parts and accessories not supplied by the manufacturer himself.

When ordering spare parts, always specify:

- Order no. of the machine to which they must be applied;
- Description;
- Quantity.

To order spare parts, write to **service@montanarigiulio.com**.

### 11. BRAKE CERTIFICATE

The brake has been designed in accordance with the norm: EN 81 - 20:2014, EN 81-50:2015, EN81-1:1998+A3:2009(D).

This device can be used as a brake to slow down the cab in combination with a speed governor if the cab speed upwards is excessive. The exam certificate is EU-BD 845 + EU-BD 1014.

### 11.1 Exam certificate EU-BD 845 MGV25S-M

	Industrie Service
	MINATION CERTIFICATE nex IV, Part A of 2014/33/EU Directive
Certificate No.:	EU-BD 845
Certification Body of the Notified Body:	TÜV SÜD Industrie Service GmbH Westendstr. 199 80686 Munich - Germany Identification No. 0036
Certificate Holder:	Chr. Mayr GmbH & Co. KG Eichenstr. 1 87665 Mauerstetten - Germany
Manufacturer of the Test Sample: (Manufacturer of Serial Production – see Enclosure)	Chr. Mayr GmbH & Co. KG Eichenstr. 1 87665 Mauerstetten - Germany
Product:	Braking device acting on the shaft of the traction sheave, as part of the protection device against overspeed for the car moving in upwards direction and braking element against unintended car movement
Туре:	RTW Size 150, 200, 250, 350 Type 8012
Directive:	2014/33/EU
Reference Standards:	EN 81-20:2014 EN 81-50:2014 EN 81-1:1998+A3:2009
Test Report:	EU-BD 845 of 2015-09-30
Outcome:	The safety component conforms to the essential health and safety requirements of the mentioned Directive as long as the requirements of the annex of this certificate are kept.
Date of Issue:	2015-09-30
Date of Validity:	from 2016-04-20 Achim Janocha cation Body "lifts and cranes"



### 11.2 Exam certificate EU-BD 1014 MGV25ML-L



### 12. COMPLIANCE DECLARATION



MONTANARI GIULIO & C. S.r.I.

COMPLIANCE DECLARATION GEARLESS

Manufacturer Montanari Giulio & C. S.r.l. Via Bulgaria n.39, 41122 Modena

Models concerned by the current declaration:

MGX19 – MGV19 – MSG19M – MGS19L – MGV20M – MGV20L – MG200.3 – MGX21 – MGV25S – MGV25M – MGV25LL – MGV34 – MGV34S – MGV34M – MGV34LL – MGV34L – MGV34.4 – MGX35.6 – MGV34.6 – MGX75 – MGX80 – MDD035 – MDD070 – MGV30.4 – MGV30.6 - MGX53 - MGX53S

It is stated that the gearless in question comply with the Machines Directive 2006/42/CE as regards its relevant aspects and meets the following essential safety requirements as set out in Annex 1 of the directive:

- 1.3.2 risk of damage during the functioning;
- 1.5.1 electricity;
- 1.5.4 assembly errors;
- 1.5.8 noise;
- 1.5.9 vibration;
- 1.6 maintenance; 1.7.4 instructions.

The related technical documentation has been drafted in compliance with the Annex VII B.

 Therefore, it complies with the following directives:

 2014/33/UE, 2014/30/UE, 2014/35/UE

 In addition, with the following regulations:

 - UNI 10411-1; UNI 10411-3; UNI 10411-5; UNI EN 81-1:2010; UNI EN 81-20:2014

Note:

As regards, the fulfillment of the paragraph 9.7 of the UNI EN81-1:2010 and 5.5.7 UNI EN81-20:2014, it is recalled that Montanari provides safety device only upon explicit request by the customer.

Drafting: Stefano Bertoni - Technical Director

Signature: Massimo Montanari - Legal Representative



Modena, il 20/03/2020

Montanari Giulio & C. Srl - Montanari Group Headquarter Via Bulgaria, 39 - 41122 - Modena - Italia Tel: +39 059 453611 - Fax: +39 059 315890 - info@montanarigiulio.com www.montanarigiulio.com



## MONTANARI GROUP HEADQUARTER Montanari Giulio & C. Srl

Via Bulgaria 39 - 41122 - Modena - Italia Tel: +39 059 453611 - Fax: +39 059 315890 - info@montanarigiulio.com www.montanarigiulio.com





