



*Montanari*  
DRIVE TECHNOLOGY

# 扶梯有齿曳引机 ESCALATOR GEARBOXES





耐用可靠的曳引机，  
为您的项目服务和助力。

**DURABLE  
AND RELIABLE  
TRACTION MACHINES.  
FOR YOUR BEST  
PROJECTS.**

MADE IN ITALY



# 技术参数

# TECHNICAL FEATURES

蒙塔纳锐制动系统 安全设计

Montanari braking system designed for safety.

位于变速箱和电机之间，固定在蜗杆上。

Positioned between the gearbox and the motor. Fixed on the worm shaft.

适合连续使用：散热良好的加强筋框架结构

标准尺寸的法兰和轴，兼容市场上所有的电机

输出轴便于安装标准链条用链轮

输出轴：右置或左置

- Suitable for continuous use: ribbed frame that allows heat dissipation.
- Flange and shaft with standard dimensions, compatible with the motors on the market.
- Slow shaft easy to fit in pinions for standard chain.
- Output shaft: right or left.

## M73ES - M93ES:

扶梯曳引机安装了百货商场、购物中心、电影院、酒店等商业建筑内  
Traction machine for escalators installed in commercial buildings such as department stores, multi-storey shopping centers, multiplex cinemas, hotels etc..

超过 **80%** 标准效率齿轮箱

More than **80%** standard efficiency gearboxes



M73ES

M93ES

# ME165 - ME190:

公共交通型扶梯主机：地铁站、火车站、飞机场等

Traction machine for escalators dedicated to the public service such as metro stations, railway stations, airports etc..

超过 **90%** 高效齿轮箱

More than 90% high efficiency gearboxes.



ME165

ME190

## 额外选项

## OPTIONAL EXTRAS

制动器微动开关

Microswitch for brake control

链轮

Sprocket for chain

旋转传感器

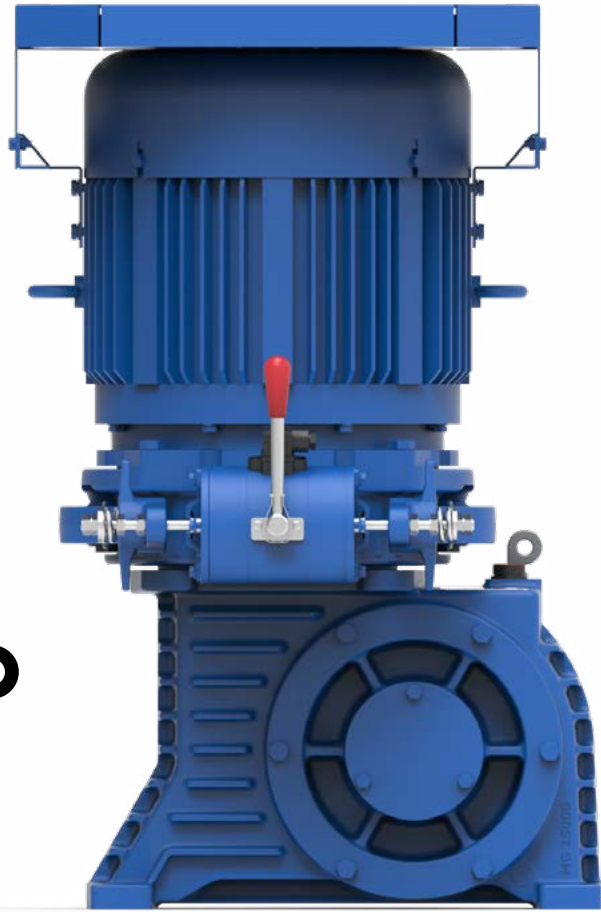
Rotation sensor

制动器磨损传感器

Brake wear sensor

用途：商业服务  
Use: commercial service

效率超过  
Efficiency more than  
**80%**



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**抱闸系统 - BRAKE SYSTEM**

类型 - Type	启动/维持 V - Start / hold V
数据 - Data	207/104 V <sub>DC</sub> S1 1,12/0,56 A - 232/116 W - 185 OHM
Booster power board 230 V <sub>AC</sub>	

**备注 - NOTES**

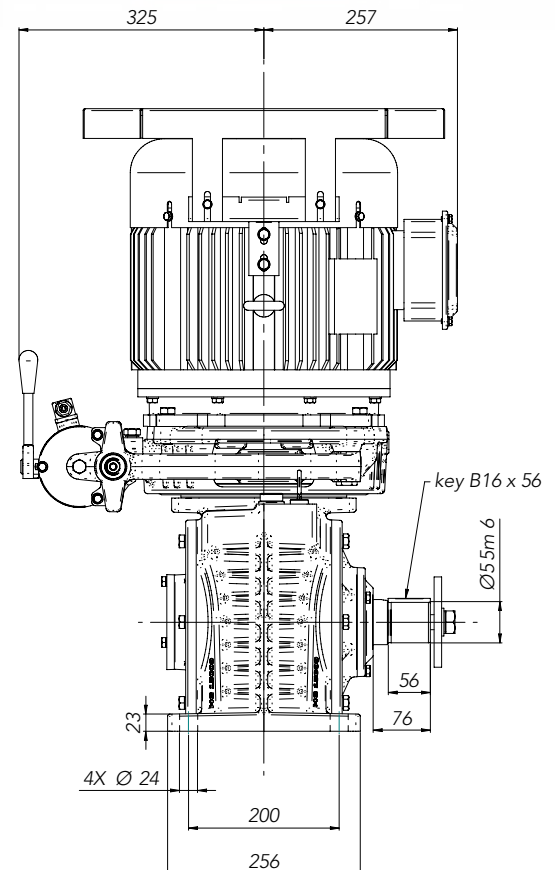
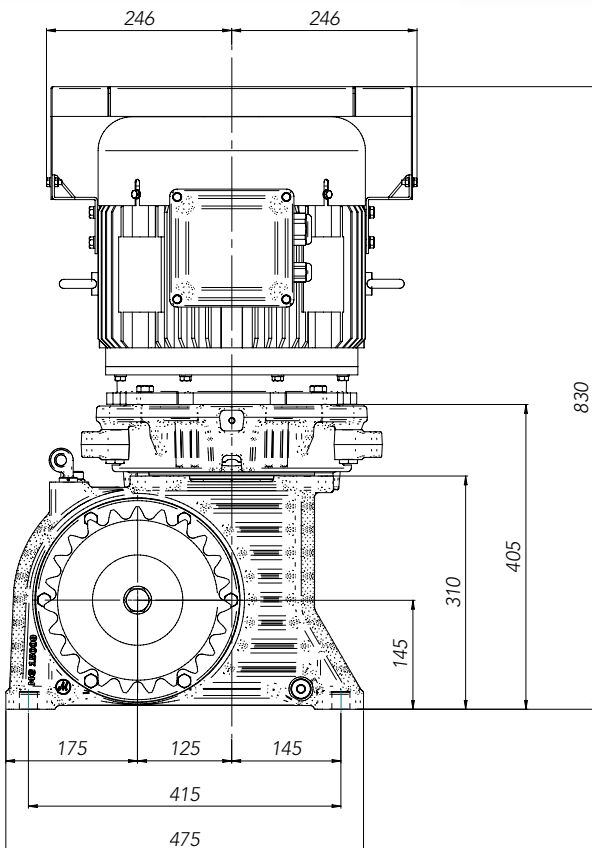
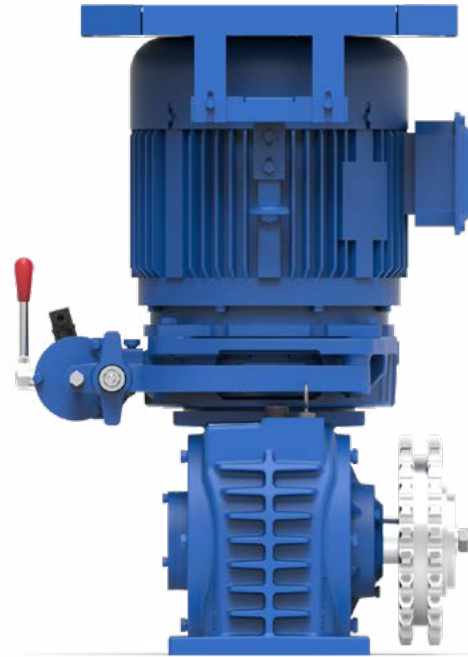
保护装置 - Protection:	IP55
环境温度 - Ambient temperature:	max 40 °C
合成油 - Synthetic oil:	ISO VG460
制动器 - Brake:	2 x 140 Nm

**选项 - OPTIONAL**

旋转传感器 - Rotation Sensor:	PNP or NPN
磨损传感器 - Worn Sensor:	24V DC 1A
制动器微动开关 - Brake Microswitch:	NO - NC AC15 2A / 250V DC13 0.25A / 250V

版本 Version	减速比 Ratio	输出速度 Output speed RPM	最大扭矩 Max torque Nm	功率 Power kW	效率 <sup>(1)</sup> Efficiency 满载 - Full load	重量 Weight kg
M73ES-5.5-6P	24.5	39.18	1099	5.5	<b>0.85</b>	285
M73ES-7.5-6P	24.5	39.18	1499	7.5	<b>0.85</b>	295

(1) 只有齿轮箱 - only gearbox

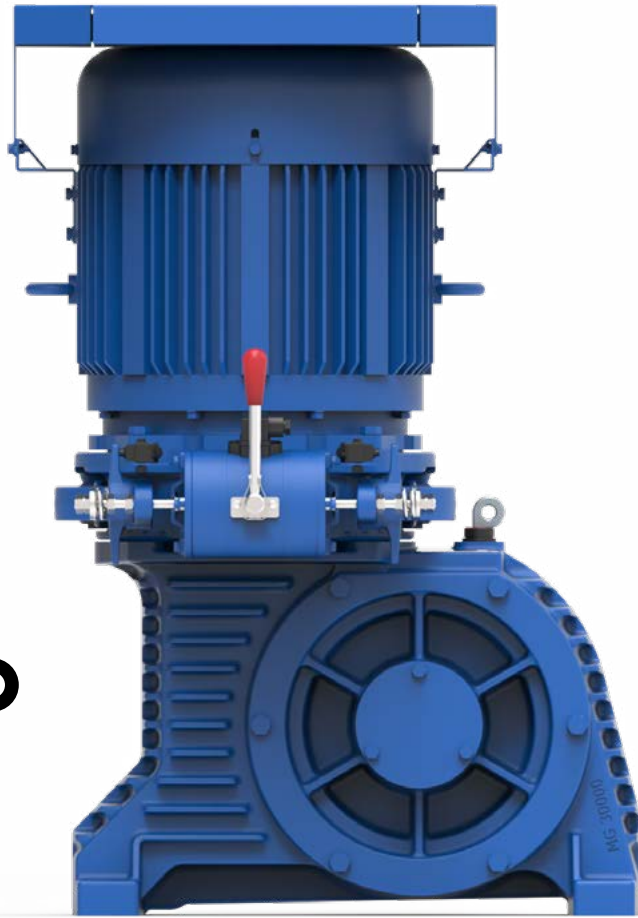


技术图纸-右置输出轴  
 Technical drawing with right output shaft.

用途：商业服务  
Use: commercial service

效率超过  
Efficiency more than

**80%**



MADE IN ITALY



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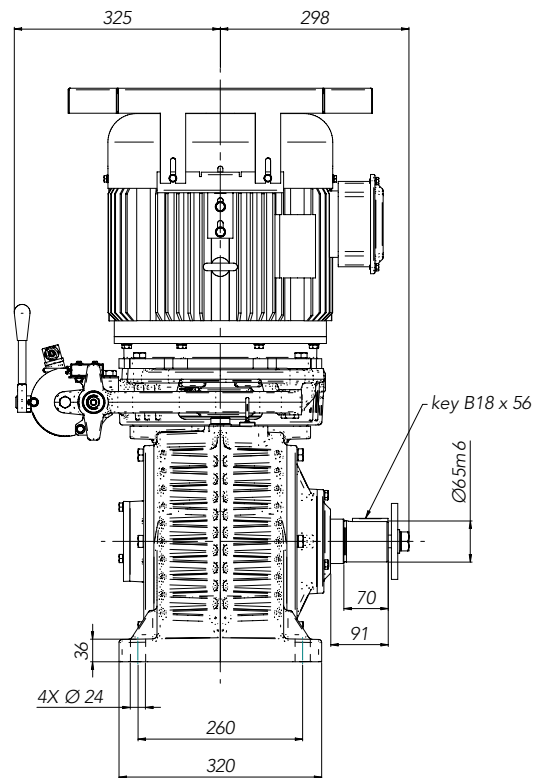
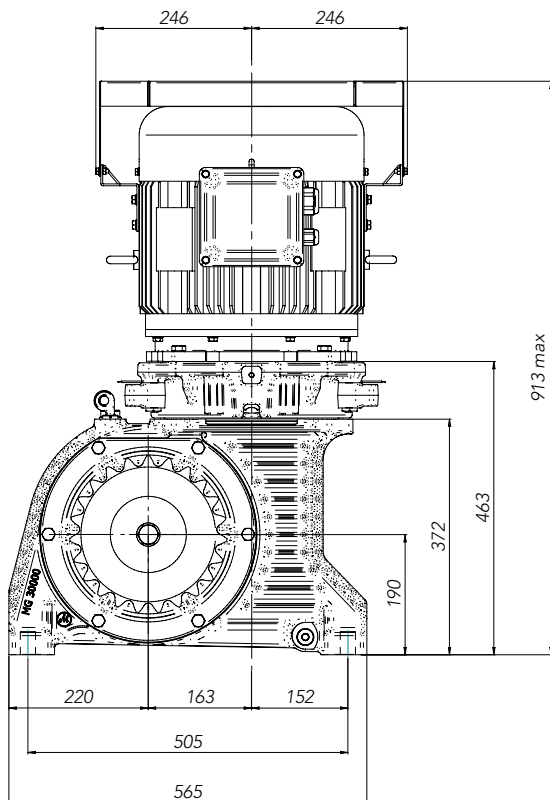
保护装置 - Protection:	IP55
环境温度 - Ambient temperature:	max 40 °C
合成油 - Synthetic oil:	ISO VG460
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版本 Version	减速比 Ratio	输出速度 Output speed	最大扭矩 Max torque	功率 Power	效率 <sup>(1)</sup> Efficiency	重量 Weight
		RPM	Nm	kW	满载 - Full load	kg
M93ES-7.5-6P	24.5	39.18	1499	7.5	<b>0.85</b>	355
M93ES-11-6P	24.5	39.18	2198	11	<b>0.85</b>	390
M93ES-15-6P	24.5	39.18	2998	15	<b>0.85</b>	410

(1) s只有齿轮箱 - only gearbox



技术图纸-右置输出轴  
 Technical drawing with right output shaft

用途：公共服务  
Use: public service

效率超过  
Efficiency more than

# 90%



MADE IN ITALY



### 抱闸系统 - BRAKE SYSTEM

类型 - Type	启动/维持 V - Start / hold V
数据 - Data	207/104 VDC S1 1,78/0,89 A - 369/184 W - 116 OHM
<i>Booster power board 230 V<sub>AC</sub></i>	

### 备注 - NOTES

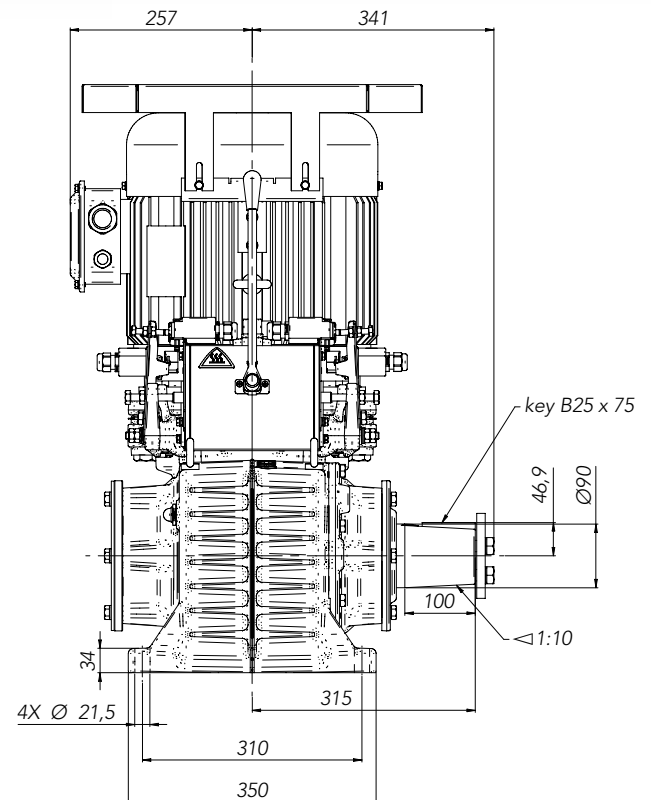
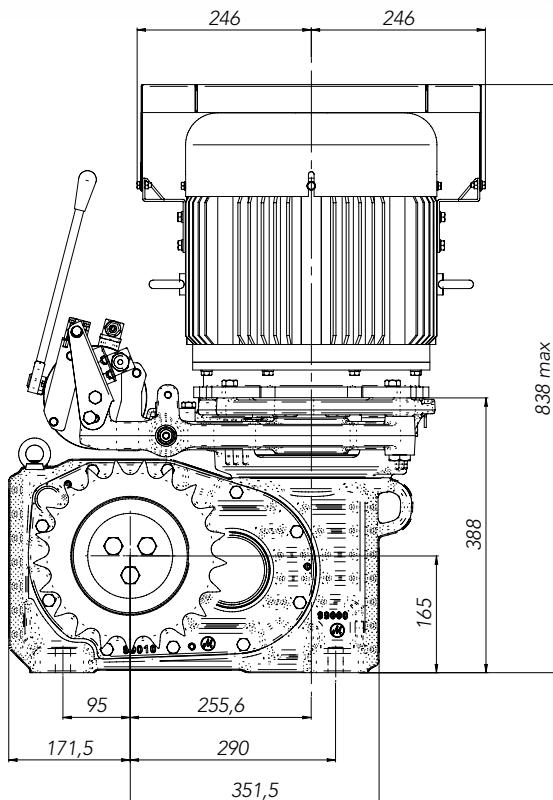
保护装置 - Protection:	IP55
环境温度 - Ambient temperature:	max 40 °C
合成油 - Synthetic oil:	ISO VG460
制动器 - Brake:	2 x 260 Nm

### 选项 - OPTIONAL

旋转传感器 - Rotation Sensor:	PNP or NPN
磨损传感器 - Worn Sensor:	24V DC 1A
制动器微动开关 - Brake Microswitch:	NO - NC AC15 2A / 250V DC13 0.25A / 250V

版本 Version	减速比 Ratio	输出速度 Output speed	最大扭矩 Max torque	功率 Power	效率 <sup>(1)</sup> Efficiency	重量 Weight
		RPM	Nm	kW	满载 - Full load	kg
ME165-26-7.5-6P	25.93	37.0	1760	7.5	<b>0.92</b>	385
ME165-19-7.5-6P	18.99	50.6	1310	7.5	<b>0.93</b>	
ME165-26-11-6P	25.93	37.0	2610	11	<b>0.92</b>	420
ME165-19-11-6P	18.99	50.6	1930	11	<b>0.93</b>	
ME165-26-15-6P	25.93	37.0	3550	15	<b>0.92</b>	445
ME165-19-15-6P	18.99	50.6	2630	15	<b>0.93</b>	

(1) 只有齿轮箱 - only gearbox


 技术图纸-右置输出轴  
 Technical drawing with right output shaft

用途：公共服务  
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效率超过  
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MADE IN ITALY



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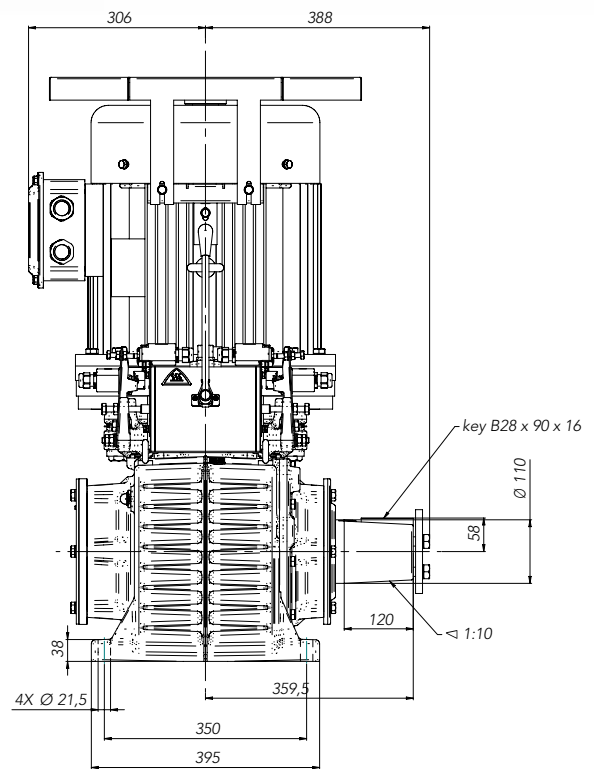
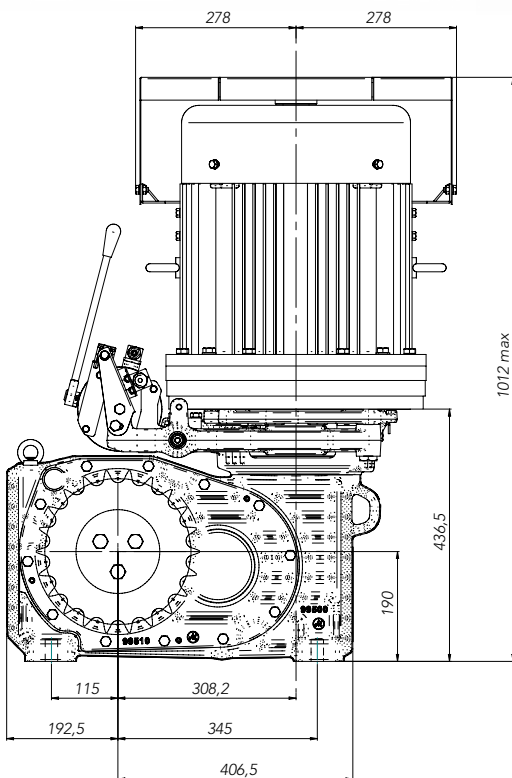
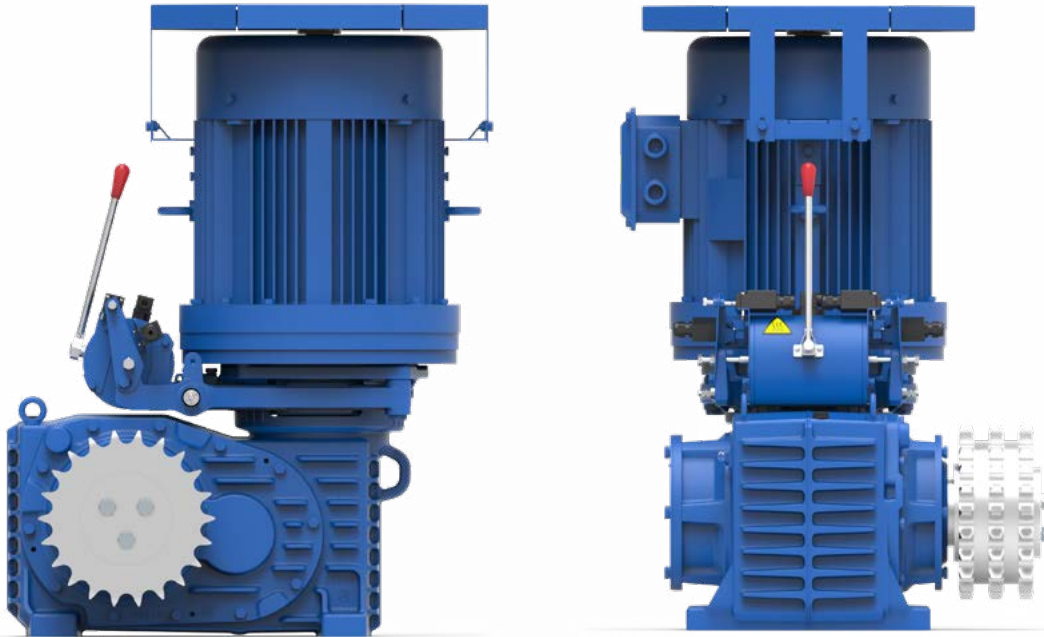
保护装置 - Protection:	IP55
环境温度 - Ambient temperature:	max 40 °C
合成油 - Synthetic oil:	ISO VG460
制动器 - Brake:	2 x 260 Nm

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版本 Version	减速比 Ratio	输出速度 Output speed	最大扭矩 Max torque	功率 Power	效率 <sup>(1)</sup> Efficiency	重量 Weight
		RPM	Nm	kW	满载 - Full load	kg
ME190-26-15-6P	26.01	36.9	3570	15	<b>0.92</b>	540
ME190-19-15-6P	19.04	50.4	2640	15	<b>0.93</b>	
ME190-26-18.5-6P	26.01	36.9	4400	18.5	<b>0.92</b>	600
ME190-19-18.5-6P	19.04	50.4	3250	18.5	<b>0.93</b>	
ME190-26-22-6P	26.01	36.9	5230	22	<b>0.92</b>	610
ME190-19-22-6P	19.04	50.4	3870	22	<b>0.93</b>	

(1) 只有齿轮箱 - only gearbox



技术图纸-右置输出轴  
Technical drawing with right output shaft

在本节中,我们提到的一些使用蒙塔纳锐齿轮箱的自动扶梯案例都是最基础的应用,并不详尽,我们还可以提供其他解决方案,具体情况请与我们的销售部门联系。

In this section we submit some examples of use of the Montanari gearboxes for escalators.

Examples are based on the features of the most common escalator systems, but are not exhaustive of all the possible configurations. We invite you to contact our sales dept. for other solutions.

用途: 商业服务

Commercial service

速度/Speed 0.5 m/s - 倾斜/Inclination 30 度角/deg.			
载重 Load* / hr	A	H	齿轮箱 - Gearbox
p/hr	mm	mm	Vers. / kW
3600	600	<= 4000	M73ES / 5.5
		4500 - 6000	M73ES / 7.5
		6500 - 9000	M93ES / 11
		9500 - 12000	M93ES / 15
4800	800	<= 4000	M73ES / 7.5
		4500 - 6000	M93ES / 11
		6500 - 9000	M93ES / 15
		9500 - 12000	2 x M93ES / 11
6000	1000	<= 3000	M73ES / 7.5
		3500 - 5000	M93ES / 11
		5500 - 7000	M93ES / 15
		7500 - 11000	2 x M93ES / 11
		11500 - 12000	2 x M93ES / 15

\*Load = 载重=人数/小时 = people per hour

工作周期为商业型用途

Duty cycle for commercial service

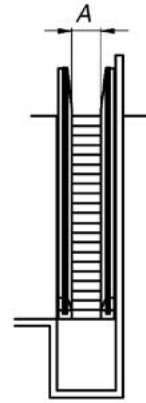
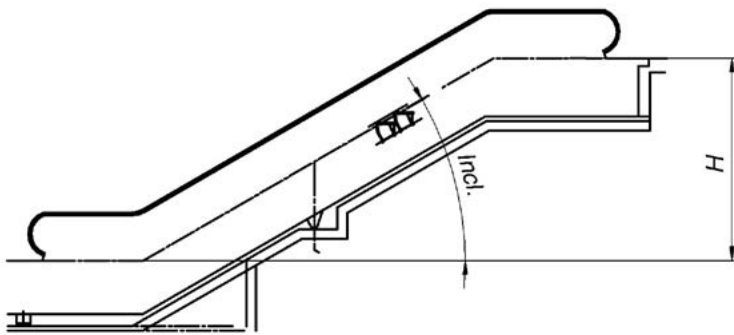
Escalators dedicated to commercial service.

Considering repeated cycles of 3h composed as below:

- 2% of time at 100% Mt\*
- 35% of time at 50% Mt
- 63% of time at 25% Mt

20 h/day - 10 years - 70.000 h

\*Mt = 转矩/torque moment



扶梯图纸

Incl.= 倾斜角度

H = 提升高度(上升)

A = 台阶尺寸

Drawing of an escalator:

Incl.= inclination in degrees

H = difference in height (rise)

A = step dimension

用途：公共服务

Public service

速度/Speed 0.5 m/s - 倾斜/Inclination 30 度角/deg.			
载重 Load* / hr	A	H	齿轮箱 - Gearbox
p/hr	mm	mm	Vers / kw
3600	600	<= 4500 - 7000	ME165 / 7.5
		8000 - 10000	ME165 / 11
		10500 - 12000	ME190 / 15
4800	800	<= 4000	ME165 / 7.5
		4500 - 6500	ME165 / 11
		7000 - 9500	ME190 / 15
		10000 - 11000	ME190 / 18.5 or 2 x ME165 / 11
6000	1000	<= 3000	ME165 / 7.5
		3500 - 5000	ME165 / 11
		5500 - 7000	ME190 / 15
		7500 - 8500	ME190 / 18.5 or 2 x ME165 / 11
		9000 - 10000	ME190 / 22 or 2 x ME165 / 11
		10500 - 12000	2 x ME190 / 15

\*Load = 载重=人数/小时 = people per hour

工作周期为公交型用途

Duty cycle for public service

基于EN115-1标准:

——公共交通型自动扶梯。

3小时周期工作效率如下:

Based on the guidelines of the EN115-1 regulation:

- escalators dedicated to public service.

Considering repeated cycles of 3h composed as below:

- 17% of time at 100% Mt\*
- 50% of time at 50% Mt
- 33% of time at 25% Mt

20 h/day - 20 years - 146.000 h

\*Mt = 转矩/torque moment