marantec
drive technology

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2022

Commercial Operator Preview

SERVICE.
DIVERSITY.

QUALITY.
INDIVIDUAL SOLUTIONS.

THIS IS WHAT
DRIVES US

VTA

VTA sectional door drive for operation with variable speed control

SECTIONAL DOOR DRIVES

The VTA is the first drive from a new generation of high-quality commercial door drives with DC technology for spring balanced sectional doors. It features a commercial variable speed DC drive with a rugged, durable industrial gearbox. This combination makes the VTA unique and offers several advantages including a self-locking feature and a built-in force cut-off. It can be easily and inexpensively equipped with a battery back-up. In case of an emergency, the drive can be operated by using a chain, crank, or unlocking device. This ensures operational safety at any time.

Key Features

01 Visually appealing compact design and drive system.

02 Optimized for spring balanced sectional doors up to 194 sq. ft. with a max door weight of 514 lbs. with a maximum height of 17 ft.

03 No active closing edge protection necessary for doors up to 150 Sq ft (14 m^2).

04 Force limitation in direction OPEN and CLOSED.

05 Soft-Start and Soft-Stop protect the door and maintenance repair costs.

06 Smart run enables movement at high closing speed above standard measuring height.

07 Variable speed and quiet, smooth running without the use of frequency converters.

08 Accepts multiple types of unlocking and emergency release devices including hand crank and hoist chain.

09 Integrated control board.

10 Power requirements 85V - 265V 1-Phase 50/60 Hz.

11 Electronic absolute encoder.

12 Operating temperature range from -5 °F to +140°F.

13 20 cycles per hour, even at an ambient temperature of 140 °F.

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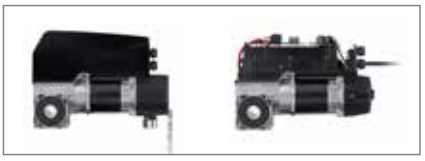

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VTA

VTA sectional door drive for operation with variable speed control

Technical Specifications

Description	Unit	VTA 14-61	VTA 11-72	VTA 11-62	VTA 11-32
Unit weight (E | KE)	Kg	8	12.1 | 14.3	12.1 | 14.3	12.1 | 14.3
Unit weight (E | KE)	Lbs	17.6	26.7 | 31.5	26.7 | 31.5	26.7 | 31.5
Dimensions (E | KE)	WxHxL (mm)	104x257x339 | 379	105x277x358 | 398	105x277x358 | 398	105x277x358 | 398
Dimensions (E | KE)	WxHxL (in)	4.1x10.1x11.1 | 14.9	4.1x10.9x14.1 | 15.7	4.1x10.9x14.1 | 15.7	4.1x10.9x14.1 | 15.7
Noise Output	dB(A)	<70	< 70	< 70	< 70
Operating Temp Range	°F	-20 to +60	-20 to +60	-20 to +60	-20 to +60
Output Torque	Nm	25	45	35	20
Static Holding Torque	Nm	400	600	600	600
Static Holding Torque	Lbs	897	1346	1346	1346
Motor RPM	Min-1	24	19	24	45
Output Shaft Revolutions		13	20	20	20
Shaft Diameter	mm	25.4	25.4	25.4	25.4
Shaft Diameter	in	1	1	1	1
Emergency Operation	-	E | KE	E | KE	E | KE	E | KE
Power Specs	-	84 – 265, 1-Phase, 60Hz	84 – 265, 1-Phase, 60Hz	84 – 265, 1-Phase, 60Hz	84 – 265, 1-Phase, 60Hz
Current Rating (Amps)	A	1.1. - 2.5	2.2	2.2	2.2
Horsepower	Hp	1/2	1/2	1/2	1/2
Protection Class	IP	1	1	1	1
Protection Grade	IP	54	54	54	54
DC Power Out	V DC	24	24	24	24
Circuit Amps	A	16	16	16	16

(E) = Quick Release Model (KE) = Emergency Chain Hoist Model

MDF

MDF Three-phase a.c. jackshaft drives for roller shutters and roller grilles with integrated safety catch device

ROLLER SHUTTER DRIVES

The MDF jackshaft drives feature a compact design, facilitating the widest range of installation possibilities. A maintenance-free safety catch device is already integrated in the drive which helps provide safe and secure door operation. Marantec provides the right commercial operator solution for most industrial applications, including custom applications.

Key Features

01 Integrated safety catch device, independent of position and speed, free of maintenance and wear, integrated dampening.

02 Self-aligning bearings.

03 Roll-formed worm shaft allows from more precise tolerance and helps improve performance.

04 Dimensions between center line: 5.71 or 4.72 in.

05 Emergency operation via emergency hand crank (KU) (1-sided or 2-sided) or emergency hand chain (KE).

06 Straightforward conversion from crank to chain.

07 End position setting via electronic absolute encoder or mechanical limit switch.

08 Thermal protection in the motor windings.

09 High duty motor cycle, standard. Identified by the addendum HD or contact your local dealer or Marantec Sales representative.

10 Power Supply 240V/480V/60hz 3 Phase (custom solutions on request).

11 Plug-in connections.

12 Version with external control, for combination with an extensive control program.
Supply: 240V/480V/60hz 3 Phase
Frequency: 60hz
Control voltage: 24V-DC

13 Custom versions, such as different voltages and frequencies, other drive motor speeds, higher protection classes and hollow shaft diameters on request.

STA

STA Sectional door drives for spring-balanced doors

The STA series of commercial operators are optimally designed for spring-balanced sectional doors. They feature a very durable motor that supplies a great deal of power in a compact footprint. For flexibility and ease of installation, the STA drive series features external controls. STA drives are versatile and can be quickly customizable for individual customer requirements.

Key Features

01 STA with external control.

02 Pressure cast aluminum housing.

03 Roll-formed worm shaft allows from more precise tolerance and helps improve performance.

04 STA with external control and double wormed shaft bearings.

05 Standard 1 in. or 25.4 mm sleeve shaft. Special sleeve shaft on request.

06 Emergency operation via emergency hand crank (KU), emergency hand chain (KE),emergency unlocking device (E) or emergency unlocking device with spring reset (E-FR).

07 Straightforward conversion from crank to chain.

08 Maintenance unlocking, optional.

09 End position setting via electronic absolute encoder or mechanical limit switch.

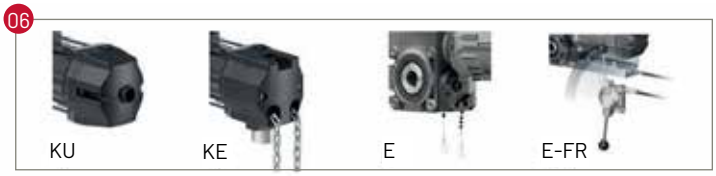
10 Thermal protection in the motor windings.

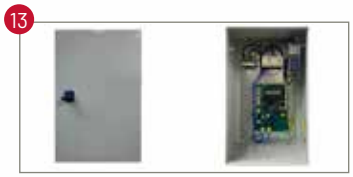
11 High duty motor cycle, standard.

12 Plug-in connections.

13 Version with external control, for combination with an extensive control program.
Supply: 240V/480V 3 Phase
Frequency: 60hz
Control voltage: 24V-DC

14 Custom versions, such as different voltages and frequencies, other drive motor speeds, higher protection classes and hollow shaft diameters on request.





MTZ-FU

MTZ-FU High-speed door drive for operation with a frequency converter

The MTZ series of commercial operators provide the optimal solution for light-weight and heavy flexible roll-up doors as well as high-speed roller shutters, up to 216 rpm and 2/3 hp at 60Hz. Marantec high-speed door drives are compact, jackshaft drives that are very easy to install on site. A maintenance-free safety catch device is already integrated in the drive which helps provide safe and secure door operation. Marantec provides the right commercial operator solution for most industrial applications, including custom applications.

Key Features

01 Version FU for operation with a frequency converter.

02 Integrated safety catch device, independent of position and speed, free of maintenance and wear, integrated damping.

03 Self-aligning bearings.

04 Roll-formed worm shaft allows from more precise tolerance and helps improve performance.

05 Standard 1" and 1-1/4" sleeve shaft. Special sleeve shaft on request.

06 Straightforward conversion from crank to chain.

07 End position setting via electronic absolute encoder or mechanical limit switch.

08 Thermal protection in the motor windings.

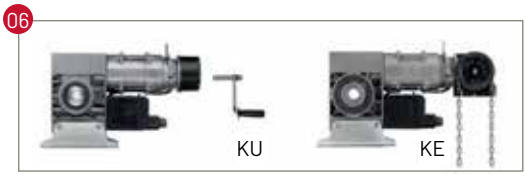
9 High duty motor cycle, standard.

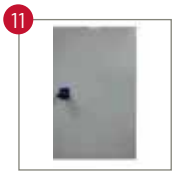
10 Plug-in connections.

11 Version with external control, for combination with an extensive control program
Supply: 230 / 400V / 3~
Frequency: 60 Hz
Control voltage: 24V-DC

12 Frequency converter control. Increasing the drive motor speed (operation with frequency converter) reduces the drive torque. The following applies in this case: Increasing the drive motor speed by 10% reduces the drive torque by 5%.

13 Custom versions, such as different voltages and frequencies, other drive motor speeds, higher protection classes and sleeve shaft diameters, on request.





DOOR TO DRIVE

Jackshaft drive selection criteria
Diameter of the winding shaft in inches
Suspended weight of the door in lbs.
Drives for frequency converter operation—
Nominal frequency 60 Hz

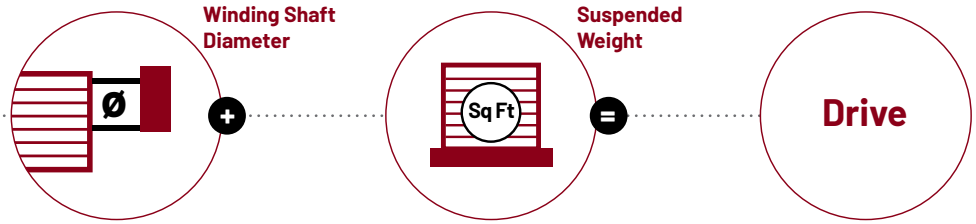
Winding Shaft Outside Diameter—inches MDF Series

MDF20-22-14 HD											
Diameter (ø outside) in.	4	4.3	5	5.2	6	6.3	7	7.6	8	8.6	9.6
Door Weight Lbs.	623	595	520	500	447	429	390	361	346	324	293

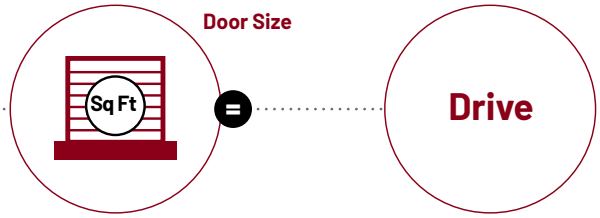
Winding Shaft Outside Diameter—inches MTZ Series

MTZ-FU 05-7-105 HD											
Diameter ø outside) in.	3.4	4	4.3	4.5	4.8	5	5.2	6	6.3	7	7.6
Door Weight Lbs.	185	163	154	147	141	132	125	116	105	94	88

Simple Drive Selection Process MDF & MTZ



Simple Drive Selection Process STA & VTA



VTA drives are optimized for spring balanced sectional doors up to 194 sq. ft., a maximum door weight of 514 lbs. with a maximum door height of 17 ft.*

STA drives are optimized for spring balanced sectional doors up to 538 sq ft., a maximum door weight of 1,430 lbs. with a maximum door height of 26 ft.*

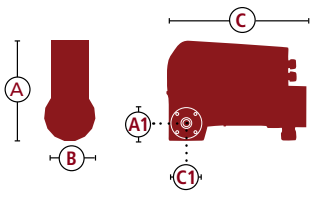
*The values account for 20% safety reserve, and material thickness of 1 in (25 mm). In certain situations, e.g. for additional door seals or double skin doors.

TECHNICAL DATA

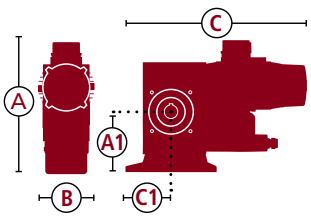
VTA, MDF, STA, and MTZ Drives

Description	VTA 14-61	MDF20-22-14 HD	STA 1-11-28 HD	MTZ-FU 05-7-105 HD
Horsepower	1/2 HP	3/4 HP	3/4 HP	1 HP
Drive motor speed min -1	15 - 30	14	28	45 - 156
Maximum safety catch torque Nm	N/A	784	N/A	309
Static holding torque	897 lbs	N/A	2,160 lbs	N/A
Motor output kW operating voltage V	85V - 265V 1-Phase	240V/480V/60hz 3 Phase	240V/480V/60hz 3 Phase	240V/480V/60hz 3 Phase
Control voltage V	24	24	24	24
Maximum cycles per hour *	20	30	30	45
Maximum cycles per day *	450	720	720	1080
Temperature range	-4 °F/140°F -20°C/+60°C	-4 °F/140°F -20°C/+60°C	-4 °F/140°F -20°C/+60°C	-4 °F/140°F -20°C/+60°C
Continuous sound pressure level dB(A)	< 70	< 70	< 70	< 70
Unit weight (approx.) lbs/kg	17.6 lbs/8 kg	41.9 lbs/19 kg	50.7 lbs/23 kg	41.9 lbs/19 kg (with chain 19.8 kg)
Maximum output revolutions	13	18	20	13
Operation with CS320 FU (frequency converter) kW V	N/A	N/A	N/A	1,5 480/3~
A / height KU / KE / E / E-FR	10.11/10.11/11.10 in 257/257/282 mm	12.48 in 317 mm	9.65/9.65/9.65 in 245/245/245 mm	11.42 in/11.42 in 290 mm/ 90 mm
B / width KU / KE / E / E-FR	4.09/4.09/4.09/4.09 in 104/104/104/104 mm	5.35/7.52 in 136/191 mm	5.35/7.52/5.35/5.35 in 136/191/136/136 mm	4.25 /7.4 in 108/190 mm
C / length KU / KE / E / E-FR mm	14.53/14.92/11.10/11.10 in 369/379/339/339 mm	17.24/18.90 in 438/480 mm	15.59/17.24/13.23/13.23 in 396/438/336/336 mm	18.15/21.61 in 461/549 mm
A1	1.79 in/45.5 mm	5.71 in/145 mm	2.17 in/55 mm	3.94 in/100 mm
C1	1.79 in/45.5 mm	4.33 in/110 mm	2.17 in/55 mm	3.35 in/85 mm
Ø - Possible sleeve shaft diameter	1.0/1.25 in 25.40/31.75 mm	1.0/1.25 in 25.40/31.75 mm	1.0/1.25 in 25.40/31.75 mm	1.0/1.25 in 25.40/31.75 mm
Variable speed	Yes	No	No	Yes
Connection to the shaft	Direct	Direct	Direct	Direct
Battery backup capable	Yes	N/A	N/A	N/A

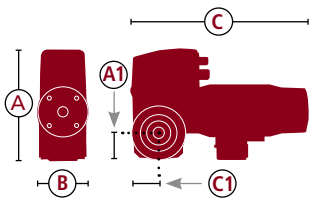
* One cycle corresponds to two door movements (opening and closing).



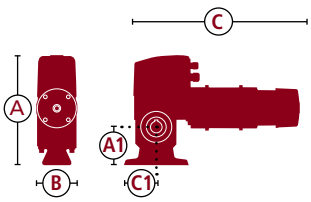
VTA 14-61



MDF20-22-14 HD



STA 1-11-28 HD



MTZ-FU 05-7-105 HD

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