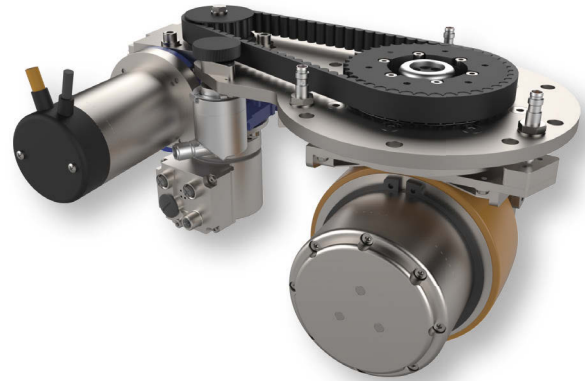


Short description

Thanks to its extremely compact design coupled with the highest power density, the wheel/steering drive achieves the best performance for demanding omnidirectional solutions in AGVs / AMRs. Requirements-based adjustments allow for flexible design in terms of load capacity, torque, interfaces and sensors.

Thanks to the optimised drive design, the lowest vehicle heights can be achieved, which leads to very flat transport platforms for low under-clearance heights.

In combination with the MTA Motor Controller for two drives, a powerful, compact overall system becomes available that is perfectly coordinated for combined use.



Key Features

- **Scalable modular system** for transport weights of 500 kg for one and up to 2,000 kg total weight with four drives
- **Flexible construction** of the mechanical drive design, to ensure a high level of integration in relation to the vehicle design
- **Compact design** with space-saving installation for the lowest under-clearance heights
- **Reduced application outlay** when used with MTA Motor Controller for two axes
- **Service brake for emergency stop functions** for maximum safety
- **Continuous digitalisation**, as well as diagnosis and analysis via CANopen is guaranteed, which leads to high availability
- **Redundant encoder systems** for safety-relevant operating states
- **Individual design** of new AGV/AMR generations through MTA drive components

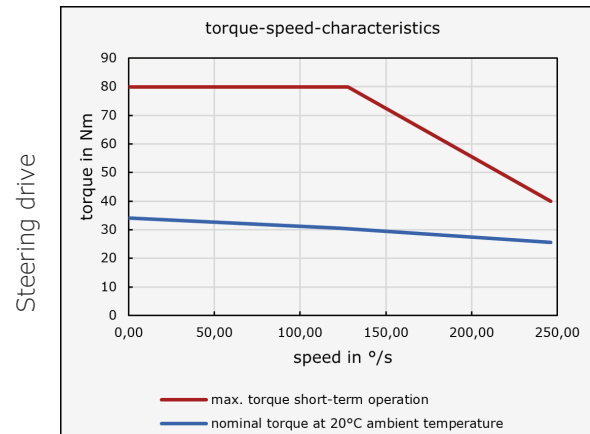
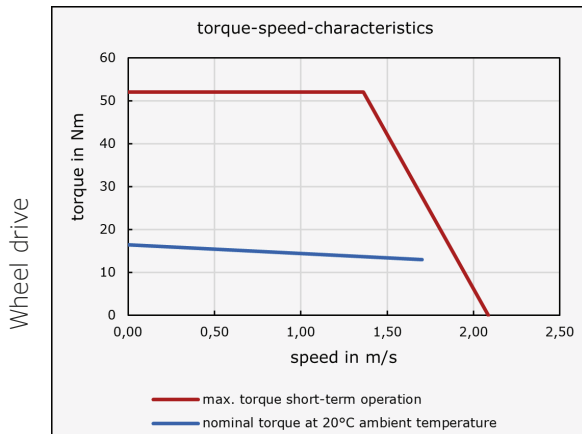
Technical data

Wheel Drive	
Description	
Nominal voltage	48 VDC
Nominal power	340 W
Nominal Speed	1,6 m/s
Nominal torque	13 Nm
Maximum torque	52 Nm
Nominal current	8,9 Arms
Maximum current	40 Arms
Maximum wheel load	500 kg
Ambient temperature	0 ... 40 °C
Encoder	magnetic encoder, 5 VDC, 1024 ppr
Brake	Holding-/operating brake, spring-applied, 24 VDC, 4Nm
Temperature sensor	PT1000
Protection class	IP54

Steering Drive*	
Description	
Nominal voltage	48 VDC
Nominal power	107 W
Nominal speed	245 °/s
Nominal torque	25,5 Nm
Maximum torque	80 Nm
Nominal current	8,7 Arms
Maximum current	25 Arms
Ambient temperature	0 ... 40 °C
Encoder	magnetic encoder, 5 VDC, 1024 ppr
Brake	none
Temperature sensor	PTC - 140°C
Protection class	IP54

* values are related to the wheel

Characteristics



Connections

Motor cable Wheel Drive
length 0,6 m
with Wago 770-253*

Signal	PIN
U	1
V	2
W	3

Motor cable Steering Drive
length 0,6 m
with Wago 770-254*

Signal	PIN
U	1
V	2
W	3
PE	4

Signal cable Wheel Drive
length 0,6 m w. Wago 734-324/019-044 + 734-427*

Signal	PIN
Br+	1
Br GND	2
A (24V)	3
B (24V)	4
24V	5
GND	6
n.c.	7
TH1	8
TH2	9
GND	10
5V	11
I-	12
I+	13
B-	14
B+	15
A-	16
A+	17
PWM-	18
PWM+	19
shield	20

Signal cable Steering Drive
length 0,6 m w. Wago 734-316/019-044 + 734-126*

Signal	PIN
TH1	1
TH2	2
GND	3
5V	4
I-	5
I+	6
B-	7
B+	8
A-	9
A+	10
PWM-	11
PWM+	12
shield	13

* also available with open ends or other connectors

Dimensions

