# WHEEL DRIVES Gearless Direct Drive



#### Short Description

The new dimension of direct drives for differential AGVs and AMRs from MTA: With the gearless direct drive, a revolutionary technology has been created that ensures whisper-quiet movement at a barely perceptible noise level. The compact power pack enables minimal energy consumption with high power density and exceptionally quiet running. The integrated brake for emergency stop function brings the vehicle to a standstill in a short time, thus reducing possible hazardous situations.



### Key Features

- Low maintenance and long service life due to the elimination of gears or other wear parts
- Due to the **compact design**, the drive finds its place in all vehicle sizes
- Low noise maximum running smoothness due to gearless design
- **Safety** In addition to deceleration through recuperation, deceleration with the integrated brake is also possible (emergency stop)
- Maximum **robustness** due to the use of high-quality components (shocks, uneven floors)
- Optimum controllability up to standstill with MTA Motor Controllers
- Reduced rolling friction reduction of friction losses to a minimum through the use of special rubber linings
- Simple and fast mounting due to the mounting flange

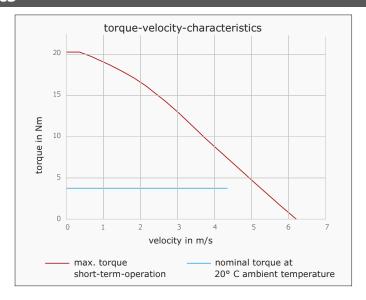
#### Technical Data

Designation	
Nominal voltage*	48 VDC
Nominal power	240 W
Velocity	4.4 m/s
Nominal torque	3.8 Nm
Max. torque	20 Nm
Nominal current	7.3 A
Max. current	50 A
Max. wheel load	100 kg
Ambient temperature	0 40° C
Feedback	magnetic encoder 5 VDC, 1024 ppr
Brake	Holding/emergency stop brake, spring-applied 24 VDC, 12 Nm
Temperature sensor	PT1000
Protection class	IP54

<sup>\*</sup> Also available in 24 VDC.



## Characteristics



## Connections

# Motor cable length 0.4 m with flying leads

Signal	Description	Wire color
U	Motor phase U	Black 1
V	Motor phase V	Black 2
W	Motor phase W	Black 3

# Brake line length 0.4 m with flying leads

Signal	Description	Wire color
+	Brake +	Yellow
-	Brake -	Yellow

# Encoder line length 0.4 m with flying leads

Signal	Description	Wire color
GND	Encoder - Ground	Green/Brown
5 VDC	Encoder - Supply	Green/White
I-	I- Track	Violet
I+	I+ Track	Yellow
B-	B- Track	Pink
B+	B+ Track	Grey
Α-	A- Track	Black
A+	A+ Track	Red
PWM-	PWM- Track	Green
PWM+	PWM+ Track	Brown
TH1	PT1000+	Blue
TH2	PT1000-	White

### Dimensions

