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# Robust & Powerful

# **Hub Wheel Drive TDH-Series**

# Robustly built with precise driving characteristics.

Wheel hub drives are characterized by a **compact design** with drive components integrated into the drive wheel.

The particularly robust design also permits **high static and dynamic wheel loads**.

The high wheel torques at low speeds stand for precise maneuvering and makes these drives perfect for driving up inclines.

- · Complete motor-brake-gearbox-unit
- · Low energy consumption due to high efficiency
- · Sustainable by energy recuperation
- · Compact design by integration of drive unit into wheel
- Robust and maintenance-free
- · Designs provides various options

#### **TDH230**

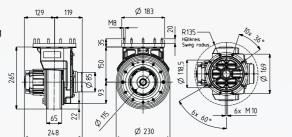
Traction drive gearbox with aluminum die cast housing and integrated AC induction motor.

Holding brake, four-point bearing and speed sensor.

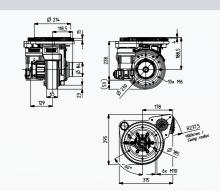
Temperature monitoring, protection class IP43.

Battery voltage 24 Volt,

motor power up to 600 Watt.







# TDH230i (electric steering)

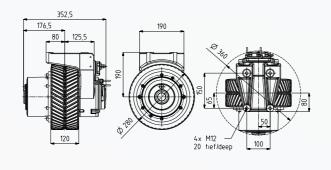
Traction/steer gearbox in aluminum die cast housing with integrated AC motor as well as integrated steer and steer sensor.

Holding brake, four-point bearing and speed sensor. Temperature monitoring, protection class IP43. Battery voltage 24 Volt, motor power up to 600 Watt.

# **TDH280**

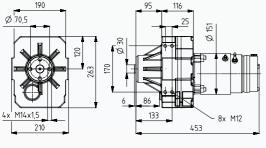
Traction drive gearbox with integrated AC induction motor.

Holding brake and speed sensor.
Temperature monitoring, protection class IP55 for use in wet areas.
Battery voltage 36 Volt,
motor power up to 1.2 kW.









#### **TDH405**

Traction drive in load-bearing cast housing for direct mounting to vehicle chassis for coaxial axle design, AC motor with speed sensor and holding brake.

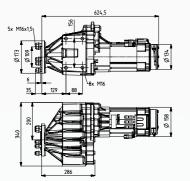
Temperature monitoring, protection class IP43.

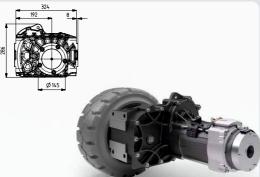
Battery voltage 48 Volt,
motor power up to 0.85kW.

# **TDH440**

Traction drive in load-bearing cast housing for direct mounting to vehicle chassis optimized for narrow wheel track for use of two traction drive units on a single axle, AC motor and speed sensor. Protection class IP43.

Battery voltage 48 Volt, motor output up to 2.0 kW.





# Hub Wheel Drive TDH-Series

#### **Benefits**

- · Complete motor-brake-gearbox-unit
- · Minimal turn radius / low installation height
- · Integration of drive unit into wheel
- Easy vehicle implementation (Plug & play)
- Maintenance-free drive
- · Application specific motor selection
- · Sustainable by enery recuperation
- · Electromechanical holding brake for parking and emergency stopping

# **Options**

- UL execution
- Wheel size
- Tire profiles for wet and dry surfaces
- Traction motors for battery voltages from 24 to 48 V

# **Application Examples**

- Pallet jacks
- · Automated guided vehicles
- Sweeper / Scrubbers
- · Aerial work platforms
- Tow motors
- Utility trucks
- Rail vehicles







Automated guided vehicles

## **Technical Data**

Hub Wheel Drive	TDH230 TDH230i (electric steering)	TDH280	TDH405	TDH440
Gearbox Data				
Static Wheel Load	7,000 N	8,000 N	12,000 N	15,000 N
Gear Reduction Ratios	36.04	42.0	66.83	69.15
Max. wheel torque (static)	360 Nm	525 Nm	900 Nm	2200 Nm
Wheel Diameter Ø x Wheel Width	230 x 65 mm	280 x 120 mm	350 x 100 mm up to 450 x 150 mm	300 x 100 mm up to 500 x 180 mm
Motor Data				
Output (S2-60 min)	0.6 kW	1.2 kW	0.85 kW	2.0 kW
Rated voltage	AC 3x15 Volt Delta Connection (24 Volt battery) AC 3x22 Volt Delta Connection (36 Volt battery) AC 3x28 Volt Delta Connection (48 Volt battery)			
Max. Amperage	90 A	143 A	122 A	
Brake Data				
Voltage	DC 24 V			
Torque	7 Nm	11 Nm	18 Nm	30 Nm

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