ZF electric traction drive eTRAC

With the electric traction drive eTDW ZF developed an innovative driveline solution for applications in agricultural systems. The scope of deployment for this novel driveline design is wide ranging. Electric driven axle systems for trailers and slurry tankers as well as electric driven stabilizer wheels for ploughs are just some examples of this. Due to the sharing of the drive power between the tractor and trailer or implement there are substantial advantages in difficult driving situations. The highly dynamically controlled traction support from the electrical drive facilitates working under arduous conditions. Consequently, cultivation of the fields during adverse weather conditions with poor soil condition is possible. The time frames available to the farmer for field work are therefore significantly lengthened.

The electric traction drive requires reduced tractive power on the tractor. Therefore, either more powerful implements can be operated, or implements can be operated with a powerful but lighter-weighted tractor model. Consequently, productivity can be increased, or the fuel consumption and the soil compaction can be reduced.

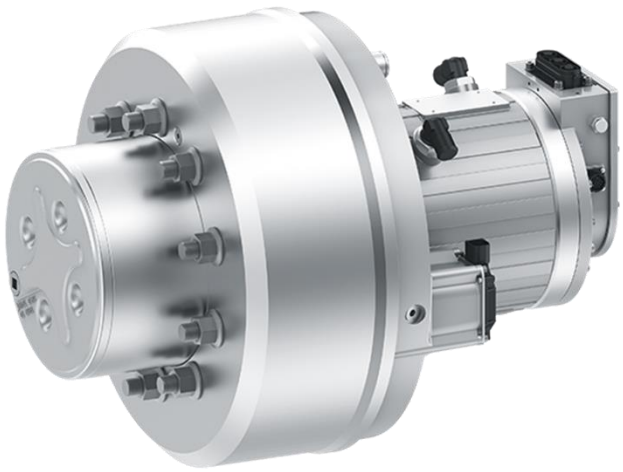
The electric traction drive is equipped with a fluid-cooled three-phase asynchronous motor with a high-power density and a following transmission stage. The electric power available matches many requirements in diverse agricultural application.

Characteristics

- Electrical single-wheel drive with 650V three-phase asynchronous motor
- Motor cooling system (water-glycol)
- Interface for drum brake system

Advantages

- Increased productivity
- Higher constant driving speed
- Optimized slip control (traction management)
- Improved traction, increased driving safety, ground protection
- Use of a powerful but lighter-weighted tractor with same implement
- Possible application of more powerful implement at unchanged tractor size



Technical Data	eTRAC
	eTDW 80
Max. output torque [Nm]	14,300
Max. output speed (1/min)	171
Ratio	40,96
Type of Protection	IP67 (IP6K9K)
Coolant	water/glykol
Engine	three-phase IPM
Nominal voltage (V eff)	400
Nominal Power (kW) S1 / S2	60 / 100
Nominal Torque (Nm) S1 / S2	190 / 350
Nominal engine speed(1/min)	3000
Engine operating mode	S1

S1: continuous duty at constant load
S2: short-time duty with a maximum continuous running time