



## ZF electric traction drive eTRAC

With the electric traction drive units ZF developed an innovative driveline solution for applications in agricultural engineering. 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 attachment 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 softened ground 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 attachments can be operated with a lighter tractor model. Consequently productivity can be increased or the fuel consumption and the soil compaction can be reduced.

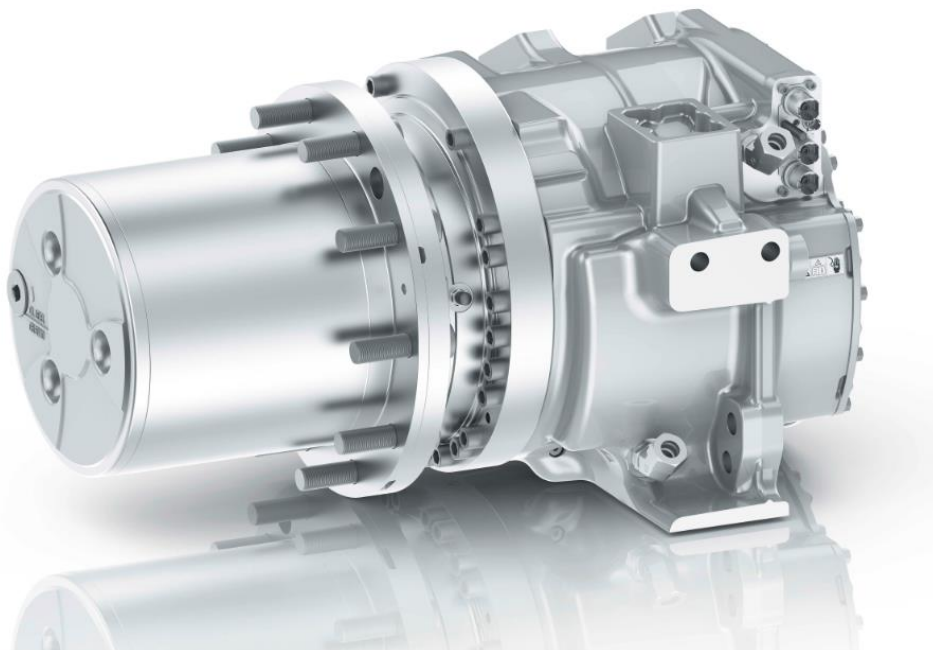
The electric traction drive is equipped with a fluid-cooled three-phase asynchronous motor with a high power density and a following transmission stage. The rated voltage is 400 V AC. The electric power available matches many requirements in diverse agricultural application.

### Characteristics

- Electrical single-wheel drive with 400V three-phase asynchronous motor
- Compact high integration motor design
- Dual motor cooling system (air, water-glycol)
- Integrated brake control system

### Advantages

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



Technical Data	eTRAC		
	GPE 25	GPA 35	GPE 50
Max. output torque [Nm]	1,720	2,850	16,500
Max. output speed (1/min)	205	220	210
Ratio	26,75	24,97	35,84
Type of Protection	IP54	IP54	IP6K9K
Coolant	aerial	aerial	water/glykol 50/50
Engine	three-phase asynchronous motor	three-phase asynchronous motor	three-phase asynchronous motor
Nominal voltage (V eff)	32	50	400
Nominal power (kW)	5,4	8,0	60
Nominal engine speed(1/min)	1,795	2,900	4,500
Engine operating mode	S2-60min	S2-60min	S1

S1: continuous duty at constant load

S2: short-time duty with a maximum continuous running time

