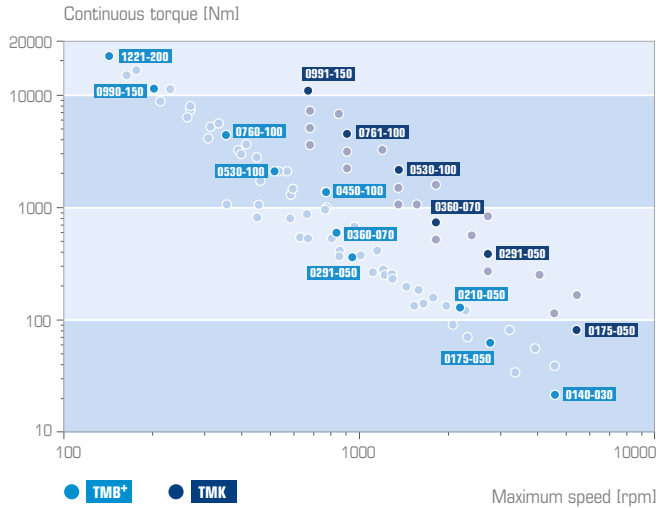


## TORQUE MOTORS SPEED RANGE

ETEL offers the most comprehensive standard torque motor range in the industry. With more than 100 models to choose from, almost any requirement can be successfully fulfilled.

All families of torque motors benefit from ETEL's inhouse ironcore design expertise that provides unmatched torque efficiency, low torque ripple and operate at 600 VDC bus voltage.

For more information, refer to our **Torque Motors** catalog and **TMB\*/TMK** leaflet.



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# Torque Motors

## ■ ■ ■ TMB+

TMB+ is an evolution of the renowned TMB torque motor that provides a combination of increased performance and new features while maintaining the interfaces of existing motors. With its outstanding performance level, TMB+ will give access to direct drive technology to more applications while keeping quality and reliability at their highest level and reducing cost of ownership.



TMB+

### Characteristics

- With cage and liquid cooling channels
- External diameter up to 1290 mm
- Large hollow shaft up to 1070 mm
- Peak torque up to 42900 Nm
- Speed up to 4590 rpm

### Highlights

- Low torque ripple
- Very high peak torque
- More than 60 standard sizes available
- Very high continuous torque density
- Extendible speed range with flux weakening (up to 3 times)
- Compatible with IMTHP module for accurate thermal control

## ■ ■ ■ TMK

The performance of ETEL's torque motors have been further increased by the use of «buried magnets» technology on the latest TMK family. For more demanding applications, the TMK series can achieve more torque and significantly faster speeds than TMB motors thanks to its unique rotor design.

### Characteristics

- With cage and liquid cooling channels
- External diameter up to 1050 mm
- Large hollow shaft up to 800 mm
- Peak torque up to 20800 Nm
- Maximum rated speed up to 5450 rpm

### Highlights

- Low torque ripple
- Very high peak torque
- Highly robust motor (fully encapsulated magnets)
- Continuous torque increased by up to 30% vs. TMB+
- Extendible speed range with flux weakening (up to 5 times)
- Up to 6 times more mechanical power in the same footprint as TMB+
- Compatible with IMTHP module for accurate thermal control



TMK

## ■ ■ ■ TML / TMM

The TML / TMM is a low weight and compact version of the famous TMB motor. This motor range is perfectly suited for applications that require the dynamic performance level of a direct drive torque motor while being less demanding in continuous torque.



TMM

TML

### Characteristics

- Without cage and no liquid cooling option
- External diameter up to 581 mm
- Large hollow shaft up to 420 mm
- Peak torque up to 4990 Nm
- Maximum rated speed up to 2600 rpm

### Highlights

- Low torque ripple
- Same peak torque as water-cooled series
- Two mounting methods available (TML/TMM)
- Compatible with IMTHP module for accurate thermal control