



The 360° Magnetic Monopole Field Effect™ Technology

## Quantakinetic's Core Technology

---

The fundamental architecture of QKT™ electric motors and generators is a ground-breaking step forward for rotating electromagnetic machine technology. The full embedding of coils inside the ferromagnetic core results in total flux containment versus comparable rotating electromagnetic machines that only channel 20% of the flux.

This dramatic efficiency improvement results in far less heat being generated which reduces insulation breakdown and increases durability. It also offers significant military heat signature reduction as well as magnetic signature reduction advantages.

The simple symmetrical circular geometry of the coils and resulting rotor and/or stator coupled with the electrically independent coil configuration, instead of a series bridge style one, stops a single short from disabling the whole rotor and/or stator and hence the complete motor/generator. This also supports excellent noise, vibration, and harshness reduction.

Motors and generators can also be configured to eliminate the use of all permanent magnets thru stator transformer like coupling so rare earth costs are squelched and very high temperature operating environments become possible with the elimination of demagnetization concerns. Switching of stator coils can also be employed as a variable drive system so gear trains can be eliminated.

QKT™ motors and generators inherently channel magnetic force to the rotation shaft area such that it is not a loss but rather a force utilized to levitate the shaft off of the static support only bearings. This results in elimination of bearing wear.

Finally, subsequent QKT™ motor/generator configurations are expected to include additional Back EMF reduction technology for further performance and efficiency advances.



*The 360° Magnetic Monopole Field Effect™ Technology*

QKT™ electric motors and generators are suitable for use across the complete range of motorized transportation, commercial, and industrial markets. The motor/generator design is completely scalable from mini to mega applications and potentially micro and nano applications in the future. Our two initial generator sizes of 250 KW and 50 KW are suitable to replace the generators in most building stationary backup and intermittent usage cell phone tower gen-set applications. Our initial motor size will be 25 HP. Additional generator and motor sizes will follow.

QKT™ motors/generators are much simpler and less costly to manufacture than traditional motors/generators. They do not require the build-out of highly custom production equipment or the purchase of expensive complex tooling for their manufacture. They can be produced in large quantities from simple moldings, simple stampings, 3D printing and with standard production CNC machining, assembled with specialized high accuracy repetitive serial production equipment. The capital investment cost for initial high volume production will be under US\$10 million dollars.

