

Feature	Advantages
Temperature range	<p>One motor design for artic, desert or standard Rig</p> <p>-40°C in every case</p> <p>up to +55°C without derating</p> <p>around 85dBA @ 1m</p>
Low Noise	<p>around -5dB @ 1m less than competition</p> <p>adding silencer or VFD operation possible to reduce noise level to 75dBA @ 1m</p> <p>reduction of noise level</p>
VFD Blower	<p>no limitation in voltage or frequency</p> <p>extended lifecycle of main motor (drive main motor in optimum temperature)</p> <p>up to 44% savings, „green efficiency“</p>
Design	<p>MP, DW, RT motors are interchangeable</p> <p>design with bigger shaft for high sideloads (belt or chain driven)</p> <p>standardized and customized options for protection / On- and offshore</p>
Quality shaft	<p>Rolled out 90° angle for less stress on the shaft for higher loads</p> <p>single or double shaft</p> <p>special shaft design possible</p>
Isolation	<p>better isolation material for longer life time</p> <p>3x time isolation and varnish</p> <p>insulation test with 3,3kV</p>
Less inertia	<p>faster operation in DW</p> <p>less weight, higher hook load</p> <p>1500hp: GEB28 767 ft/lb² compare to 1600hp: Breuer 593ft/lb²</p> <p>1500hp: GEB28 8750 ftlb compare to 1600hp: Breuer 10566 ftlb</p>
More torque	<p>Longer overload cycle up to 10min</p> <p>higher overload curves possible</p>
Maintenance	<p>no maintenance in between 50.000h compare to GE max. 25.000h</p> <p>extended Bearing lifetime, no grease intervalls</p> <p>No downtime in between planned service intervalls</p>
customization	<p>All ideas are possible</p> <p>e.g. silencer, air ducts, IP56 water cooling, special filters, air exhaust,</p> <p>for Container, buildings, outside, desert operation, special vibration protection kits</p>
Temperature sensor	<p>Redundancy on all sensors (2x5 platinum RTD, 2x3 PTC)</p> <p>thermal switch (PTC) for emergency shut down</p> <p>ATEX possible without pressure sensor</p> <p>Footprint, shaft and hub are in line with 5GE752, GEB20/22/28/29 (can easily replace GE motor with Breuer)</p>
interchangeable	<p>BREUER motors are always matching inside the space of an GE motor (can easily replace GE motor with Breuer)</p>
Vibration monitoring	<p>Boreholes prepared in vertical and horizontal axes</p> <p>for calculation of needed service</p> <p>Auto detection without to be at the Rig location</p>
Quality	<p>Made in Germany quality product</p> <p>BREUER 144 years of motor history - mainly for underground mining (ATEX zones)</p> <p>technical advantages in the complete motor concept</p>
Breuer motors	<p>one supplier for motor – drive solution</p> <p>optimized concept, easier handling</p> <p>Direct to use motors, VFD and complete Drive houses and TopDrive Container</p> <p>Complete customized solution by using only standard stacks and standard controller</p>
VFD solutions	<p>Around 10% smaller than main competition</p> <p>Tested and experienced system for > 10 years in drilling (Controller in > 500 VFD units)</p>