

Components Design

Cooling System

Fan Cover

- Aerodynamic concept
- Easier assembly
- Better air flow distribution over frame
- Increased mechanical strength
- Provisions for encoder and canopy

Fan

- Reduction of fan blades
- Reinforced fan hub structure
- Noise level reduction
- Increased air flow

Frame

- Terminal box positioned at DE to improve heat dissipation (frames 225S/M to 355A/B)
- Reduced winding and bearing temperatures

Vibration Monitoring

- Flat areas at both ends for placement of accelerometers

Eyebolts

- Safer and easier handling
- High mechanical resistance

Solid Feet

- Higher resistance to impacts
- Suitable for applications with high vibration
- Easier installation and alignment

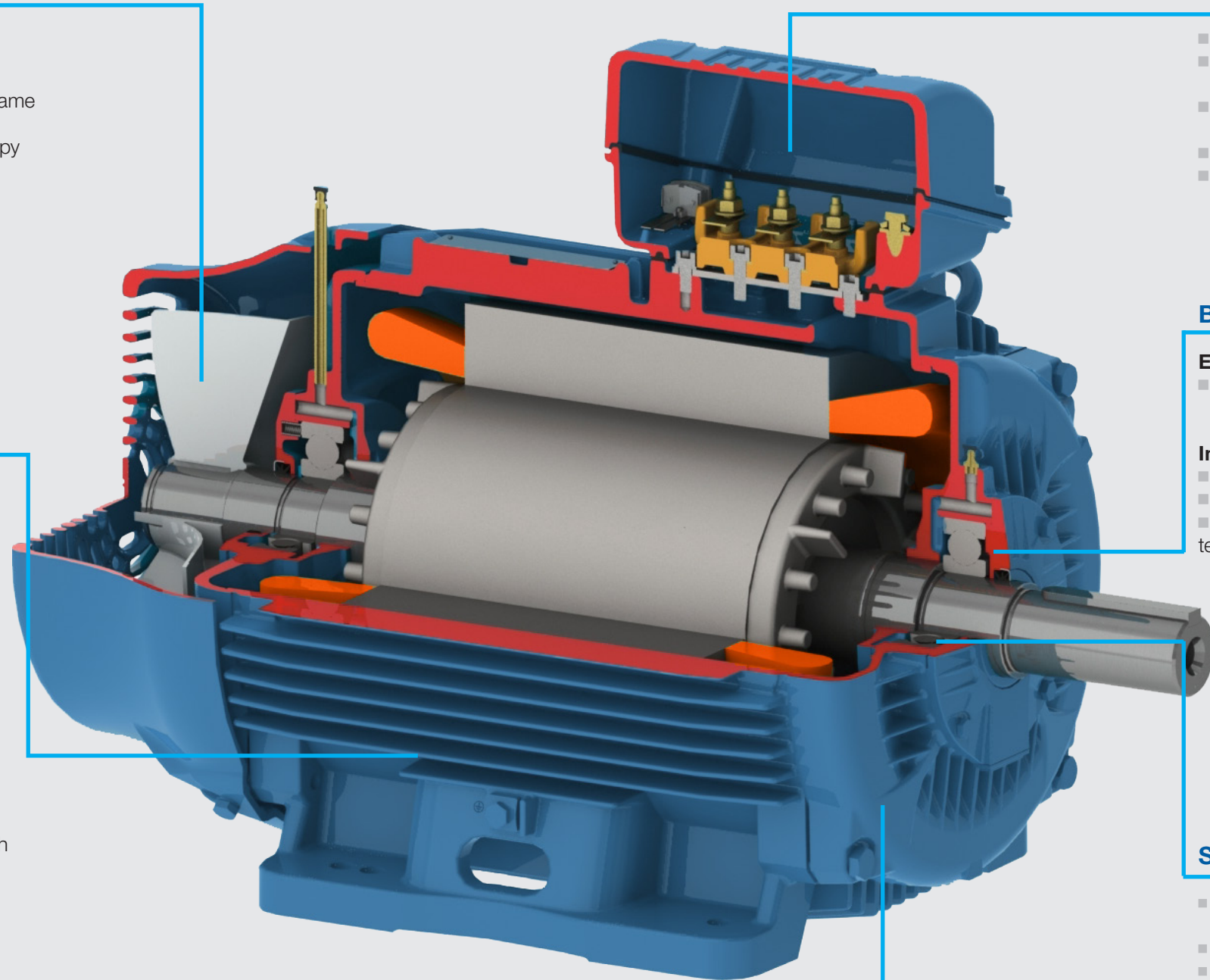
Endshields Subsystem

DE (Drive Endshield)

- Cooling fins for improved heat dissipation
- Reduced bearing operating temperature
- Reinforced endshield structure
- Bolt protection

NDE (Non-Drive Endshield)

- Designed with smooth surface to improve airflow
- Noise level reduction
- Structure stiffening to avoid machining deformation



Terminal Box

- Diagonally split for easier cable installation
- More space available for accessory connections
- Flexible mounting (B3T, B3R, B3L) for frames 225S/M to 355A/B
- Rotation 4 x 90°
- Fibre glass reinforced terminal block (BMC)

Bearing Caps

External

- Finned surface for improved bearing heat dissipation

Internal

- Redesigned grease path
- Improvement in lubrication quality
- Reduced grease operating temperatures

Sealing System

- Exclusive WSeal® for frame sizes 225S/M to 355A/B
- Increased dust and moisture protection
- V-Ring sealing for frames 63-200

Design Details

Cooling System

Designed to provide efficient airflow distribution across the motor frame, keeping operational temperatures low and assuring reliability and extended lifetime. The aerodynamic concept of the fan cover increases the effective airflow, and minimises recirculation losses between the fan and fan cover, whilst the robust design of the fan itself offers reduced noise levels. Motor terminal boxes (for frame sizes 225S/M to 355A/B) and eyebolts were repositioned in order to minimise obstructions and provide better airflow. This cooling system also contributes to:

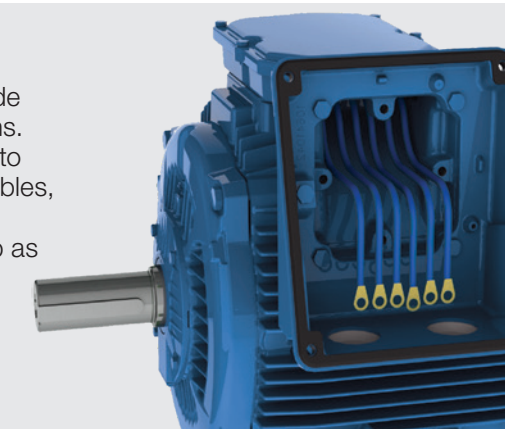
- Cooler bearing temperatures resulting in extended relubrication intervals.
- Reduced noise levels fulfilling the most demanding Health & Safety regulations.
- Lower overall operating temperatures resulting in a more efficient material usage.



Terminal Box

Increased internal volume and more accessible terminal blocks provide the user with safe and straightforward cable handling and connections. Diagonally split, the dimensions of the terminal boxes were designed to provide greater space for the incoming power and auxiliary supply cables, resulting in easier assembly.

For frame sizes 225S/M to 355A/B, the terminal box is located on top as standard, and can be mounted on the left or right side through modification using an adaptor.



Frame

Motor feet are solid providing a more resistant structure against vibration. For frame sizes 160M to 355A/B, the frame design incorporates flat surfaces at the DE and NDE which can be used as points for applying hand held vibration detectors.

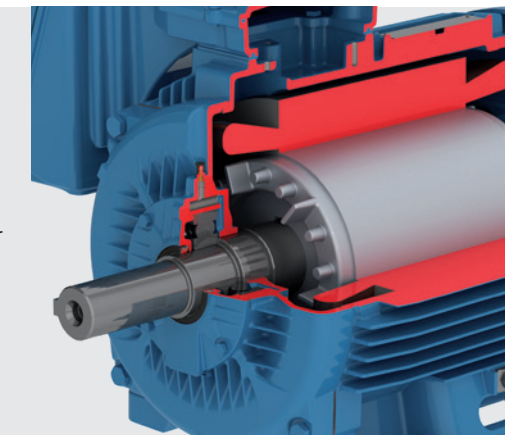
Benefits of the frame design:

- Reduced motor temperature
- Eyebolts positioned to provide safer and easier handling
- Simple and reliable vibration analysis
- Solid and integrated feet providing high mechanical stiffness particularly in heavy duty applications and also trouble free alignment during installation



Bearing Sealing System WSeal®

Composed of a double lipped V-Ring with metallic cap, the WSeal® (fitted to motors in frame sizes 225S/M to 355A/B) protects the motor from contamination by the ingress of liquids and dusts, thus guaranteeing the correct degree of protection in aggressive environments.



Driving efficiency and sustainability

