

SinuMEC



Sinusoidal Motor Efficiency Controller

Power Electronics Systems

www.pe-sys.com



Power Electronics Systems

- Power Electronics develops, manufactures and markets energy efficiency products and solutions
- Variety of solutions for lighting and electrical motors, without infrastructure changes
- Development and manufacturing of power electronics systems since **1980: Soft Starters, VFDs and Multifunction Controllers**
- Proven contribution to preserving our environment
- Endorsing Member of the European Motor Challenge Programme





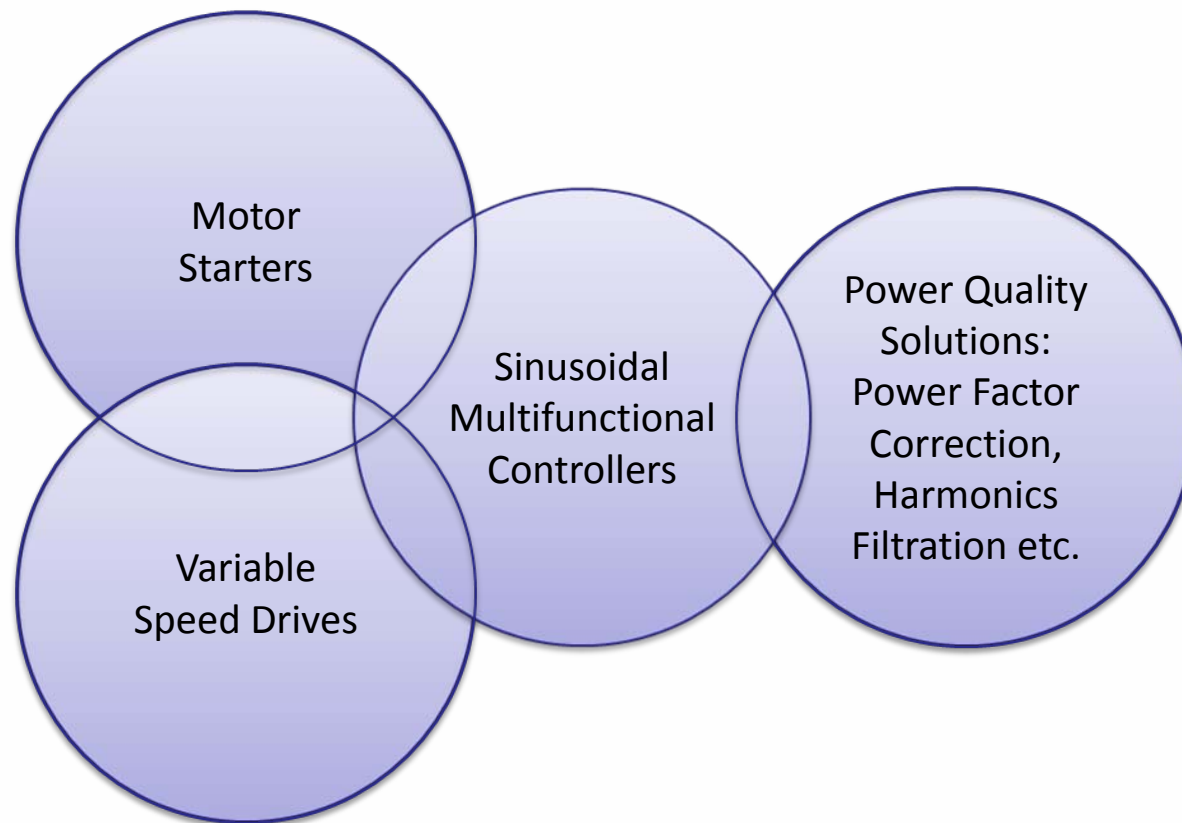
SinuMEC

Sinusoidal Motor Efficiency Controller

- Comprehensive multifunction controller for AC induction motors, including:
 - Starting
 - Energy saving
 - Harmonic filtration
- Applicable for variable or partial load motors running at fixed speed
- Does not change the motor operation – speed, torque, throughput etc.

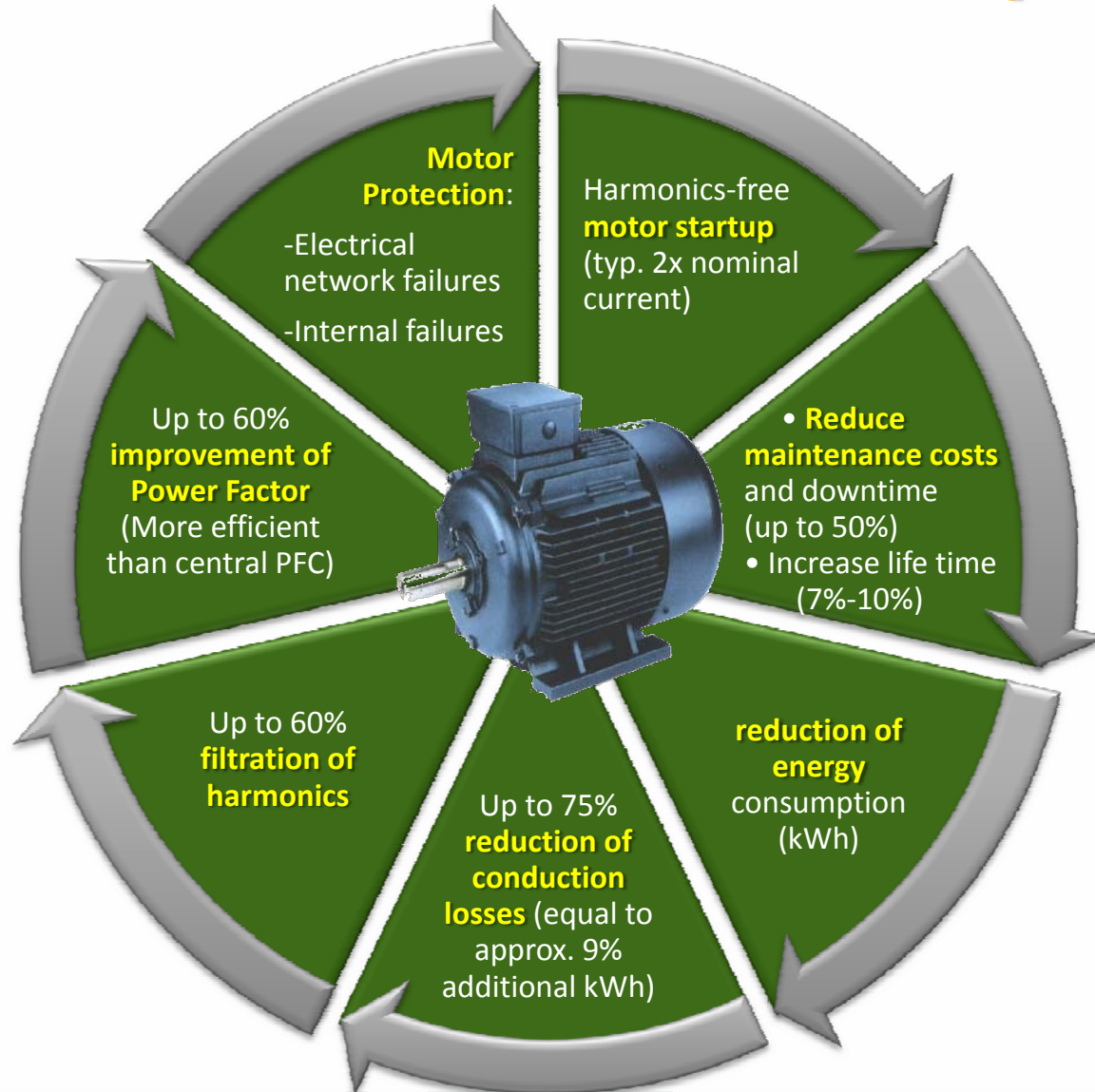


Products on the Market Today



SinuMEC

Multifunction Sinusoidal Motor Efficiency Controller

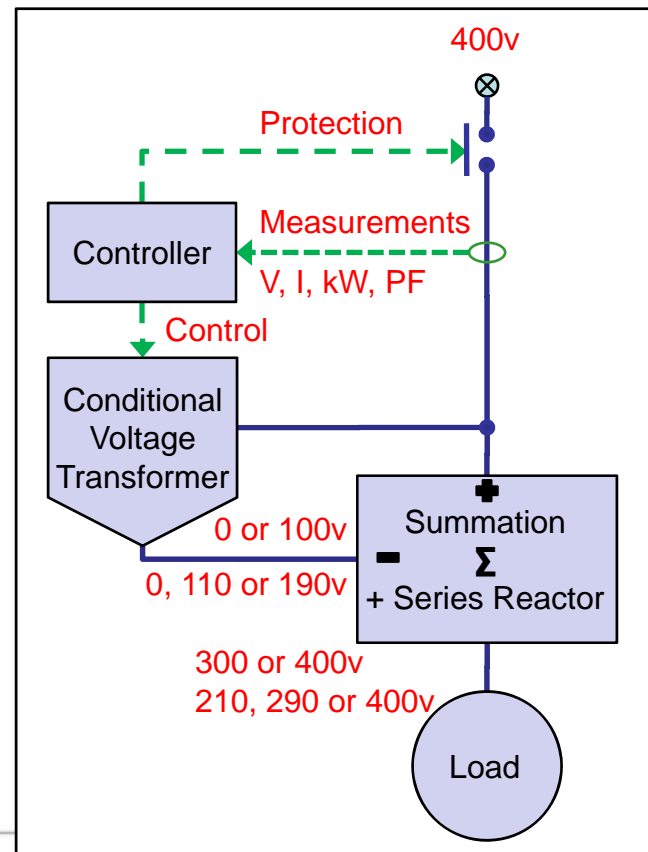
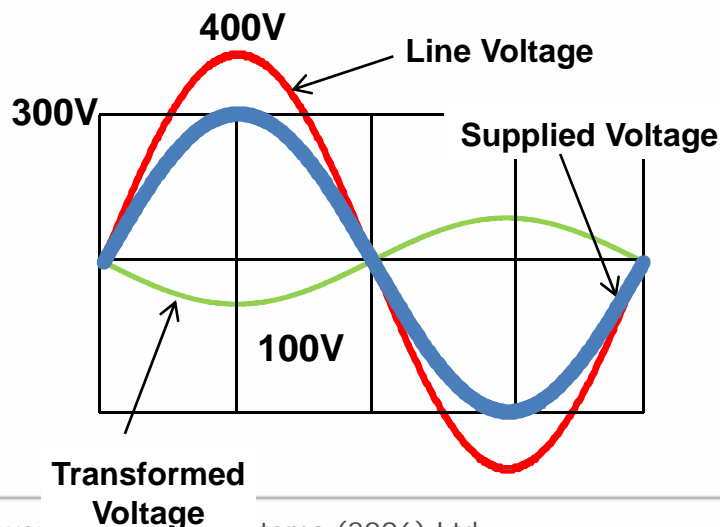


The Technology

- Transforming only the unnecessary voltage allows voltage control with significantly smaller than full power transformation
- Different steps and voltage combinations allows different output voltage levels, depending on the application and product model
- Patented technology, installed worldwide since year 2000

Advantages:

- More compact, lightweight and low losses compared with same size autotransformer
- No disconnection of voltage during changeovers
- No harmonics





Features

- **Extremely low losses – 0.5%**
- **Installed between the motor and its breaker – one unit per motor**
- **Models from 7.5 to 150kW**
- **Internal bypass contactor with external control**
- **Integral support for reverse energy flow (the excessive energy is returned to the network)**
- **Digital control, LCD display and Modbus communication**



Examples of applications from Tested Installations

- Conveyors
- Bucket elevators
- Sifters / Screeners / Vibrators
- Granulators / Shredders / Mills / Flakers / Pelletizers
- Mixers
- Presses
- Grinders
- Fans
- Pumps (Vacuum, Hydraulic, Mud)
- Any motor with variable/partial load



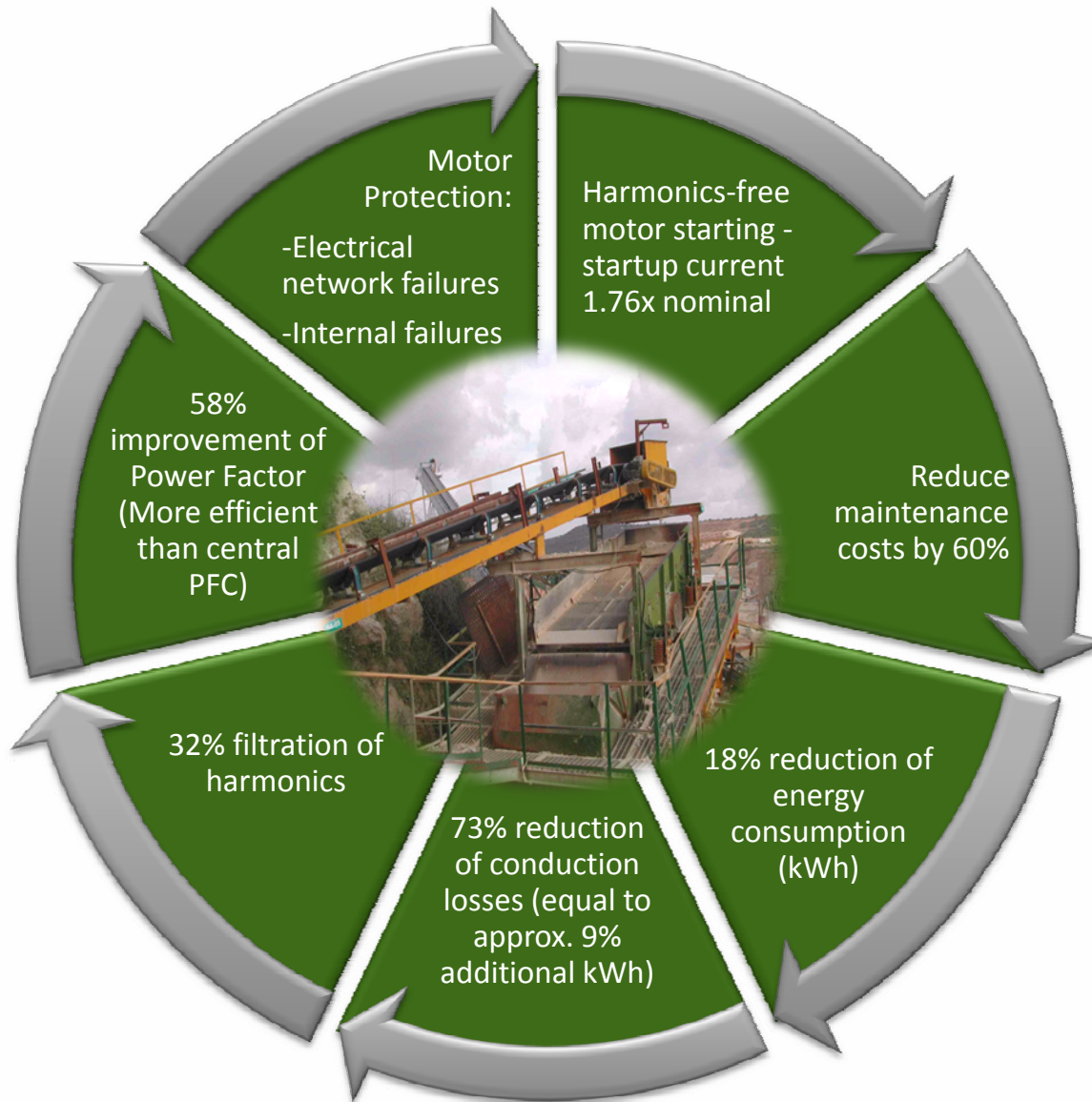
STORIK®



Coca-Cola



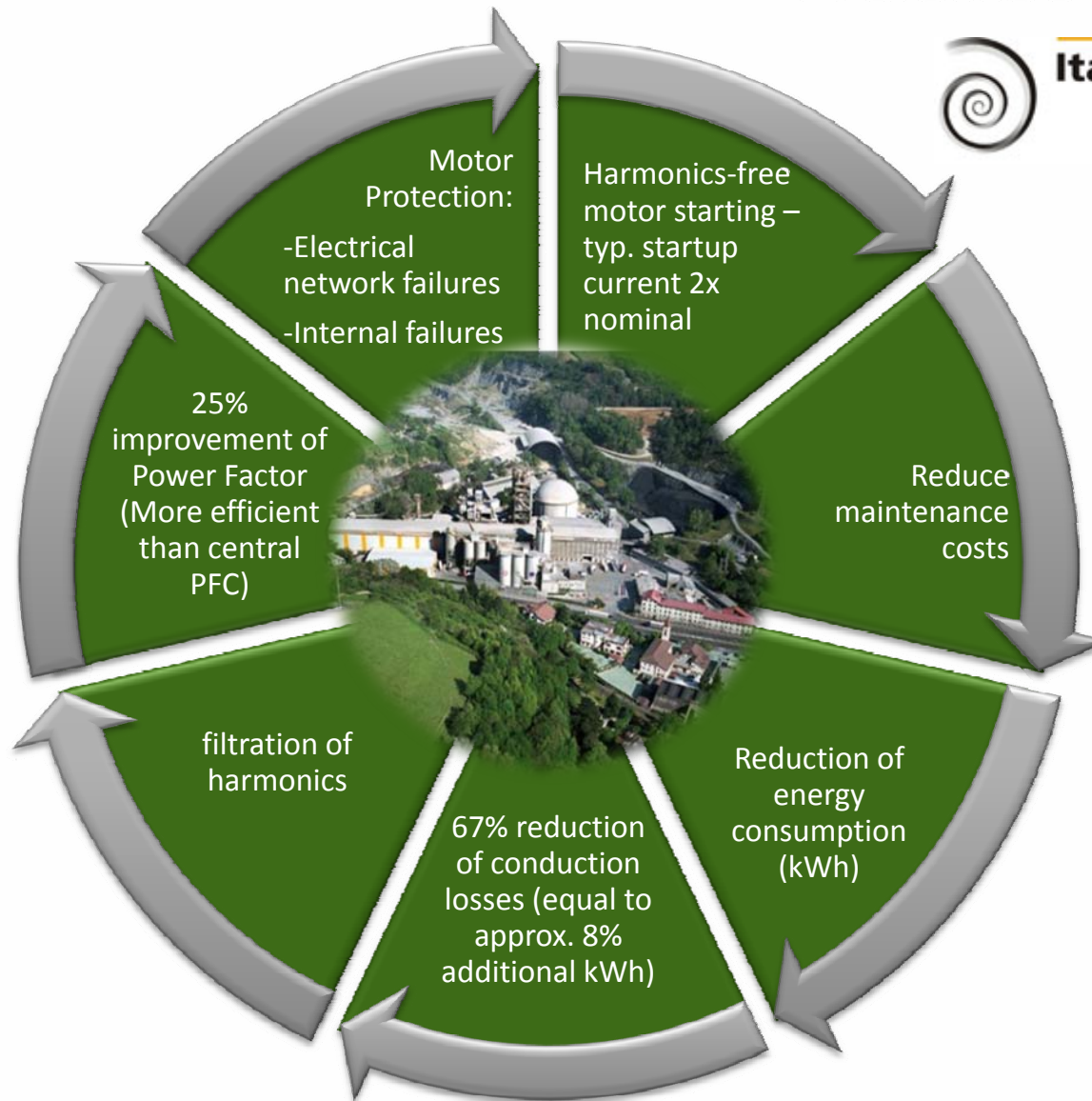
15kW Conveyor



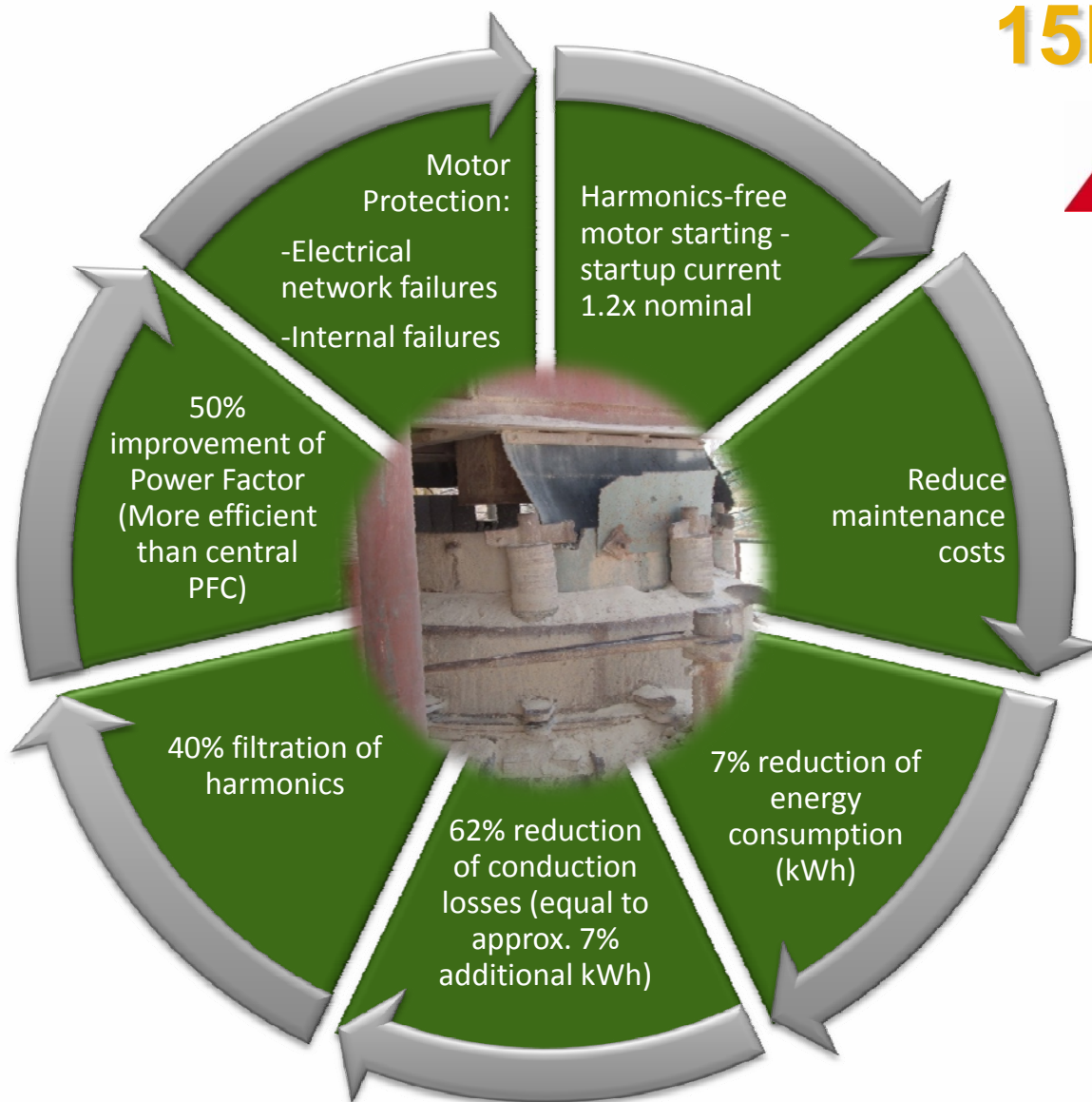
Bucket Elevator



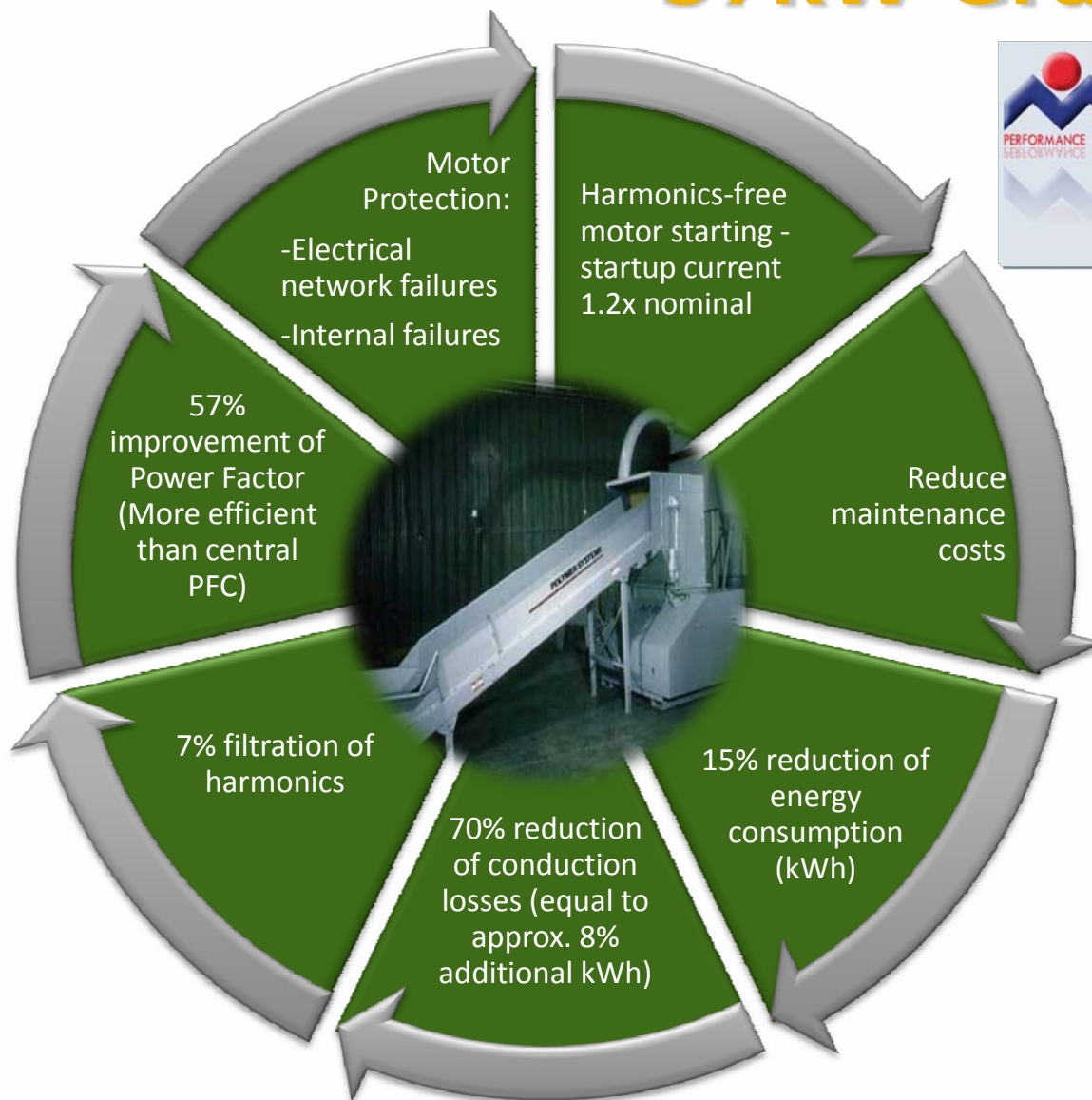
Italcementi Group



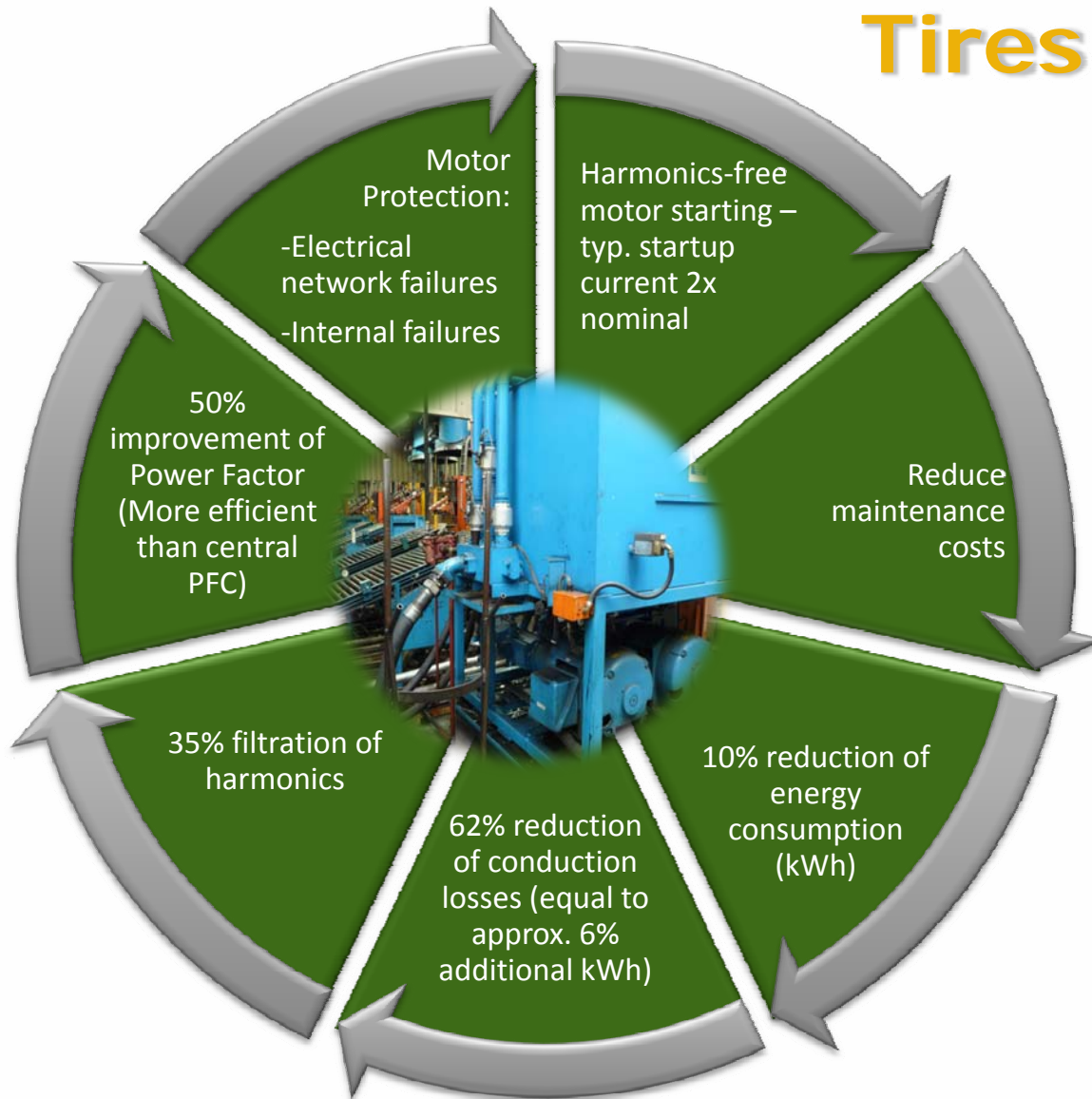
15kW Sifter



37kW Granulator

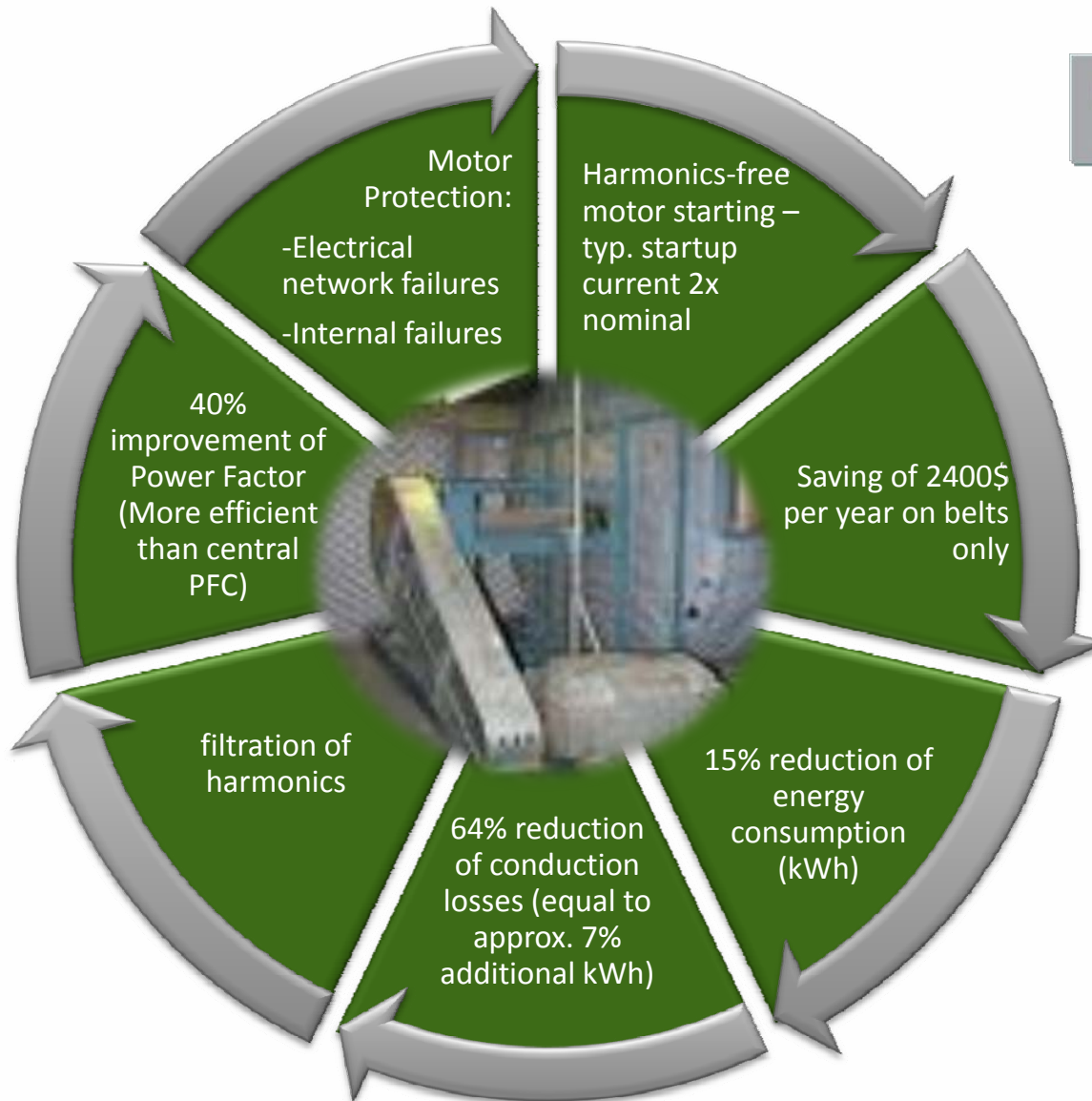


57kW Press Tires factory



45kW Fan

TIMBAR™

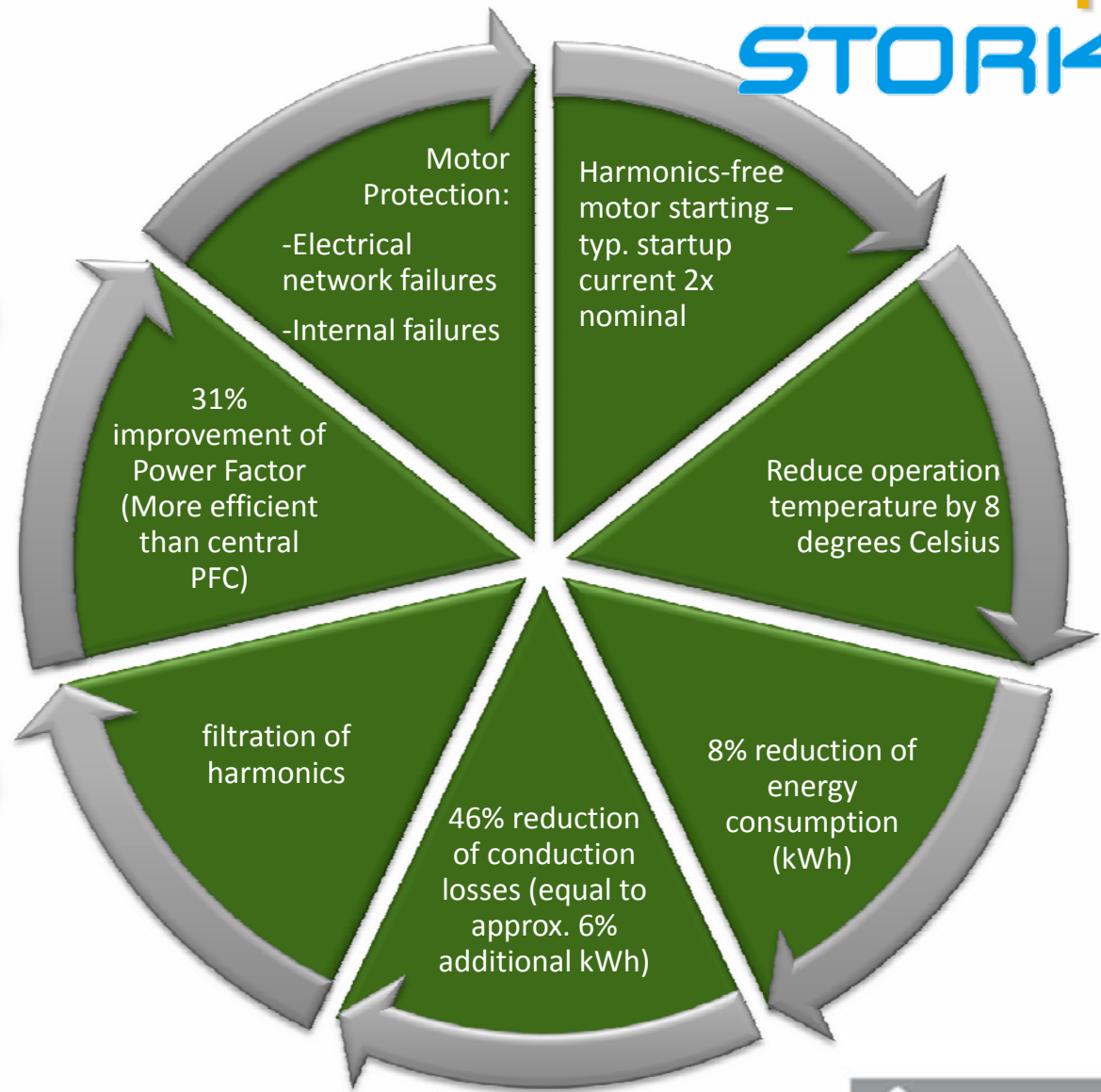
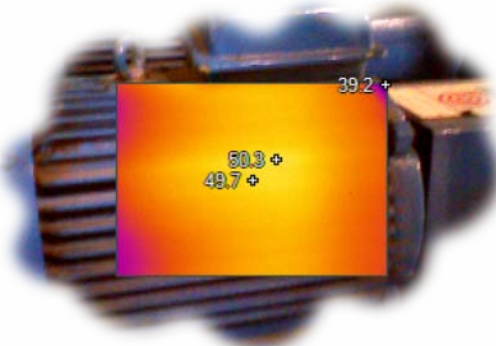


5.5kW Pump STORIK®

Without SinuMEC 58.2° C



With SinuMEC 50.3° C



Thank You



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