ISA-TS

THE FIRST OF ITS KIND IGBT BASED MEDIUM VOLTAGE ADVANCED SOFT STARTER

IGEL ELECTRIC

DESIGNED FOR APPLICATIONS THAT REQUIRE A LOW STARTING CURRENT AND A HIGH STARTING TORQUE

Key Advantages

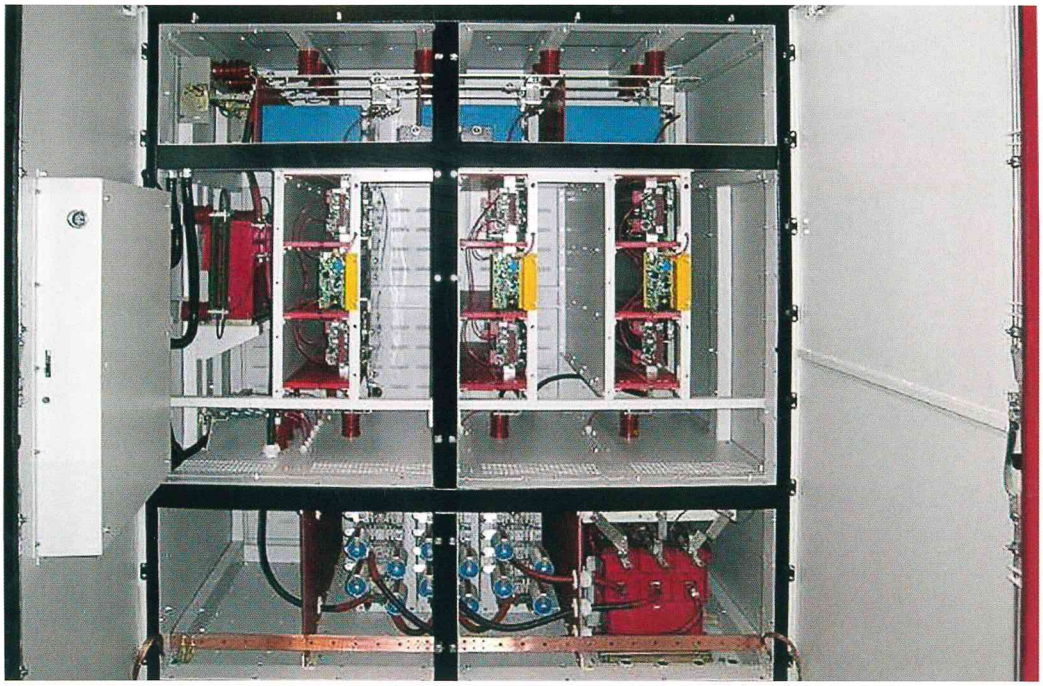
- Assure high torques starting
- Allows to perform long start without having forced cooling
- Allows big acceleration without tachometer feedback, which is very helpful in applications as desalination pumps or conveyers
- Provides a solution for applications which do not require motor speed and/or torque control during operation, but where SCR-based soft starting is not suitable
- Starts current at nominal motor current or lower in most applications
- Uses a specialized synchronization system for the Integrated bypass function
- Change direction of rotation without contactors
- Allows operation of motor at speed lower than nominal speed

WHY HAVE WE DEVELOPED ANOTHER TYPE OF STARTER?

- Some loads require high torques that do not allow significant reduced voltage
- Some loads usually require high starting torque and very low starting current
- Need of low starting current during starting from network
- To integrate a starting capacitor for a low starting current
- To integrate an advanced tachometer for controlling a starting speed
- Increasing heat during the usual starting process, requires a expensive marks with forced cooling
- The frequency of operation is equal for network frequency, during start with soft starter
- Reduced torque with reduced voltage by soft starter
- Limited starting current
- High Slip, lower than 1-S. efficiency

YOUR COST SAVINGS

- Significantly lower price point than a Medium Voltage VFD, yet provides similar soft start and soft stop features
- Integrated bypass ensures no energy loss during operation, reduces energy waste and operational costs
- Decrease in peak network demand
- Option of Incoming isolator switch with no increase in cabinet size
- No need for liquid cooling system — low maintenance, saving time and cost
- Low part count and uncomplicated design — simpler maintenance on site
- Streamlined design translates into at least 50% reduction in space requirements vs. a VFD with comparable performance



TECHNICAL SPECIFICATIONS

- Input voltage — Up to 11 kV 50/60Hz +10% -15%.
- Power range — 200KW to 30000KW
- Mains starting current — 10% to 120% of motor rated current
- Starting capacity of 100% of FLC for 600 seconds at 50°C, numerous number of starts
- Starting torque - Up to 150% of motor rated toque
- Internal synchronization system (bypass), from TorqueStart to mains and back
- Soft Start and Soft Stop
- Multi-start capabilities
- Electronic Potential Current Transformer (EPCT) voltage and current measurements via fiber optics
- Integrated data logger and wave form capture for all major system signals (current and voltage)
- Option for remote diagnostics and failure analysis

Industries and applications

WATER

- WATER PUMPS
- WASTE WATER PUMPS
- BOOSTER PUMPS

Oil & gas

- Compressors
- Oil pumps
- LNG pumps

Mining

- Fans and blowers
- Conveyor belts
- Ball mills

Industry

- Compressors
- Refrigeration chillers
- Mixers

Distict Cooling

- Chiller

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- **IGEL® Electric GmbH**
- A high-tech power-electronics company at the forefront of design.
- Leading edge designs based on continuous field research, testing and development.
- Comprehensive range of Soft Starter: Low Voltage and Medium Voltage units for standard and heavy duty applications.
- Engineering of industrial electronic motor control systems.

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