

Electric Motor Drive System

The electric motor drive system manages and monitors electrical drives, typically used in industrial settings. It provides a robust power and control solution for demanding operations.



ADDITIONAL IMAGES



Overview

Industrial Electric Drive Solutions

This comprehensive electric drive system is engineered for demanding industrial applications, including petroleum prospecting and drilling rig operations. It provides a robust, modular infrastructure comprising low-voltage drive systems, motor control centers (MCC), and specialized wellsite circuitry. Designed for reliability and ease of maintenance, the system supports both AC and DC drive configurations to ensure precise control over heavy machinery like drawworks and mud pumps.

System Capabilities

Key Control Features

- Closed-loop control for drawworks
- Direct torque conversion
- Shared DC bus architecture
- Digital and analog speed control modes
- Bus-based communication system

Advanced System Functions

Data Recording • Remote Transmission • Self-Diagnosis • Zero-Speed Torque Output

Supported Drive Technologies

AC Variable Frequency Drive (VFD), DC Silicon Controlled Rectifier (SCR) Drive

AC Drive (VFD) Specifications

VFD Module Components

- Generator Control
- Rectifier and Inverter
- Dynamic Brake
- PLC Control System
- MCC System
- Transformers
- Air-Conditioning

DC Drive (SCR) Specifications

SCR System Advantages

- Wide input voltage range
- High adjustment precision
- Simple commissioning
- Modular rectifier design
- AC-SCR-DC transmission

Maintenance and Design

Modular and Reliable Design

The system architecture prioritizes operational uptime through a modular design approach. Inverters and rectifier components are designed for rapid removal and installation, significantly reducing maintenance downtime. Furthermore, the system is built in strict accordance with relevant electrical codes, featuring high-quality power cabling and optimized routing for safe, long-term industrial operation.