

## Hoists

### Application Overview

Hoists are used to raise and lower materials in construction sites, transportation and shipping and several manufacturing industries. Drive reliability and hoist specific control features such as brake control are essential. Emerson Control Techniques offers AC and DC drives along with cost and space saving plug-in control options that include onboard PLCs, multiple feedback types, network connectivity and expandable I/O to meet the challenges of hoist control applications.

### Application Requirements

#### Control & Connectivity

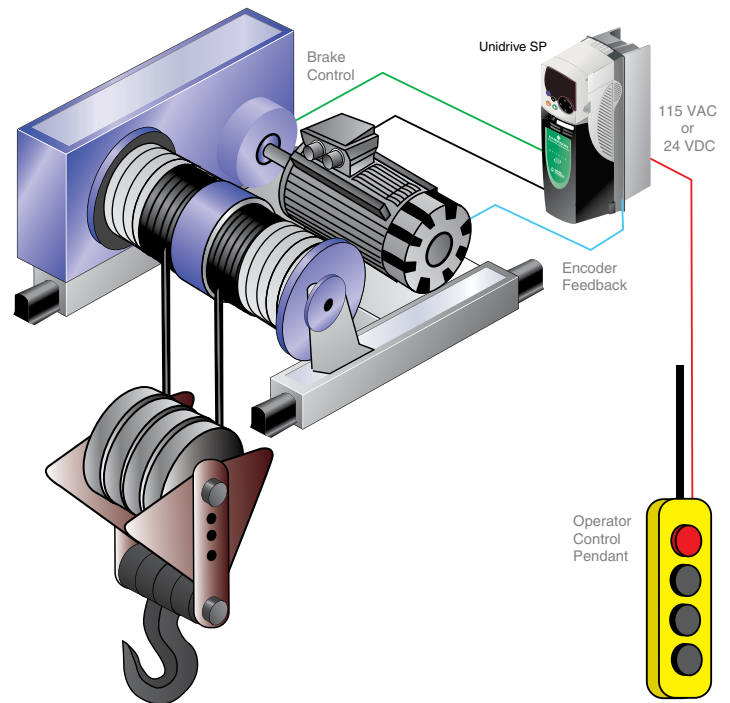
- No roll back on starting or stopping
- Auto tune without uncoupling load
- Load sharing capability
- Precise positioning
- 120 -240VAC and 24 VDC I/O interface
- Preset speeds with fine control mode
- Extended speed range

#### Protection

- Torque proving
- Over speed protection
- Phase loss detection
- Encoder feedback loss
- Brake monitoring

#### Minimize Operating Costs

- Ease of installation
- Energy savings with overhauling loads – regenerative braking/common DC bus



### Control Techniques' Solutions

#### VFDs, DC & Packaged drives

- Available up to 2900 hp
- Global voltage ratings (115/230/480/575/690Vac)
- Global standards (UL/cUL/CE/C-Tick/ISO9002)
- Compatible with standard NEMA B motors
- NEMA1 / UL Type 1 options
- On-board PLC functionality
- Wide range of I/O option modules
- All major fieldbus connectivity options (Profibus, Ethernet, EtherCAT, DeviceNet, more)
- RS485 Modbus RTU standard
- Industry leading warranties



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# Hoist Solutions

## Control Techniques' Performance Advantages

### Control\*

- AC Control (Open Loop Vector, Closed Loop Vector, Rotor Flux\*\* and Servo control modes) plus DC control
- Brake control
- Motorized potentiometer control
- 8 preset speeds standard  
– expandable with PLC option
- Built-in dynamic braking transistors
- Regenerative braking option
- Common DC bus connections
- 120-240V I/O interface option module

### Total System Protection

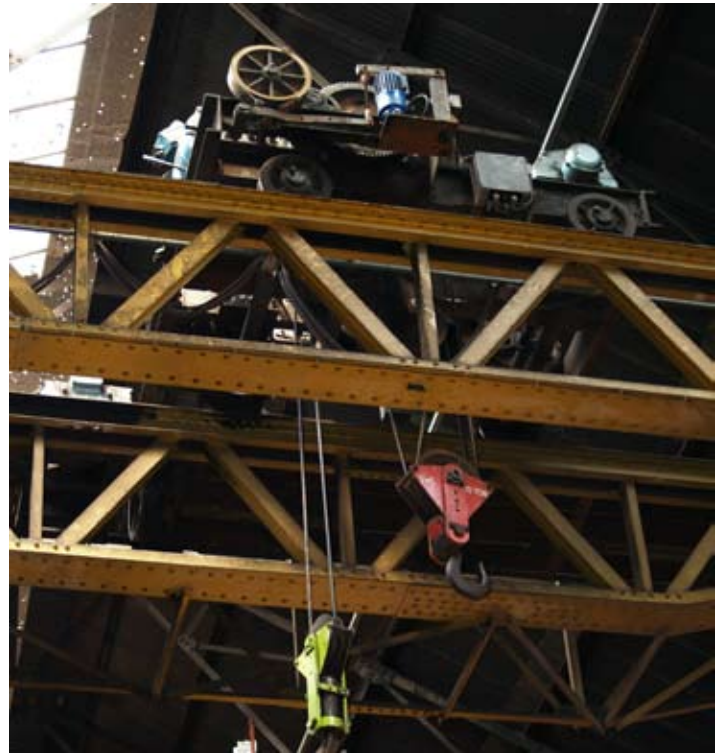
- Safe torque off system protection
- Torque proving
- S-ramp soft start and stop
- Over speed protection
- Automatic switch to RFC\*\* mode on encoder loss
- Brake slip detection
- Intelligent thermal motor protection
- Multi level password protection
- Built-in diagnostics

### Maximum uptime

- Very high quality—Product reliability
- Easy setup - hoist specific menu
- SmartCard programming backup
- Rotational or static auto tune (No need to uncouple motor)
- Last 10 trips logged

\* Features vary by model range and options fitted. Contact your local sales representative for assistance in product selection.

\*\* Rotor Flux Control (Encoderless closed loop vector) provides exceptional speed and torque control.



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