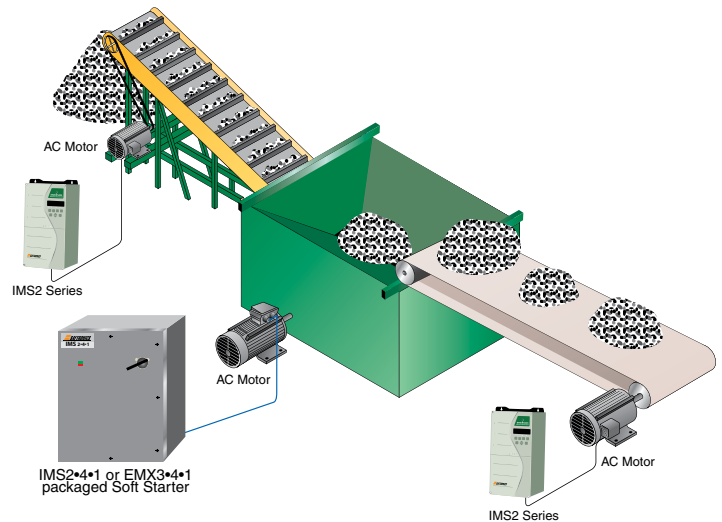


Rock Crushers

Application Overview

A typical crusher application is designed to take large rock or other aggregate material and reduce it to smaller rocks, gravel or rock dust. Typical problems crushers face in this application are related to starting. A partially or fully loaded crusher has considerably different starting requirements than that of an unloaded crusher. Determining the optimum start profiles for the motor/load along with monitoring capabilities is a must in this application. As you can imagine, the cost related to a starter failure in this application can be expensive. Therefore a soft starter has to be rugged and reliable.



Application Requirements

Easy to Use

- User friendly set up/programming
- Crusher quick start menus
- Intelligent keypad
- Real language feedback
- Adaptive functionality

Protection

- Complete motor protection
- Metering and monitoring capabilities
- Customizable system protection
- Easy to read displays
- Advanced trouble shooting capabilities
- Time and date stamped logs (EMX3)

Rugged & Reliable

- Durable in harsh environments
- Continued operation after an SCR failure (EMX3)
- Rated for heavy duty operation
- Elimination of costs due to downtime

Control Techniques' Solutions

Crusher Duty Soft Starter Packages

- IMS2*4*1 & EMX3*4*1 pre-engineered packages built specifically for the mining and aggregate industries

Crusher Duty packages include:

- Enclosed Non-Ventilated Nema 12 Enclosure
- Circuit Breaker w/Door Operator
- Digital Heavy Duty Solid State Starter
- Full Horsepower Rated Bypass Contactor
- Control Power Transformer
- Emergency Start Switch
- External Class 20 Overload
- Terminal Strip for Remote Operation Wiring
- Real time clock with battery backup (EMX3)
- Forward and reverse jog function (EMX3)



CONSIDER IT SOLVED™

Rock Crusher Solutions

Control Techniques' Performance Advantages

IMS2

- Easy set up and commissioning
- Compact size and field configurable
- Universal input voltage 208 to 690VAC
- Bypass terminals
- Programmable relay and analog outputs
- Constant current, current ramp or torque start
- Built in motor protection
- Serial communication capabilities
- Dual motor sets
- 2 or 3 Wire start stop control
- Local/Remote reset
- Flexible bus bar configuration



EMX3

- Emergency run mode
- Adaptive functionality
- 99 event date & time stamped logs
- Expanded functionality
- Serial communications
- Multiple quick start menus
- DC injection braking
- Real language feedback
- LCD backlit keypad
- Remote keypad mounting option
- Parameter copy other starter
- Removable terminals
- Field configurable bus bars
- Powerthrough - enables the choice of continuous operation despite an SCR failure. This allows production to continue while long-term remedial action can be taken.



IMS2 • 4- • 1 pre-engineered package pictured above.

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IMS2



EMX3

