

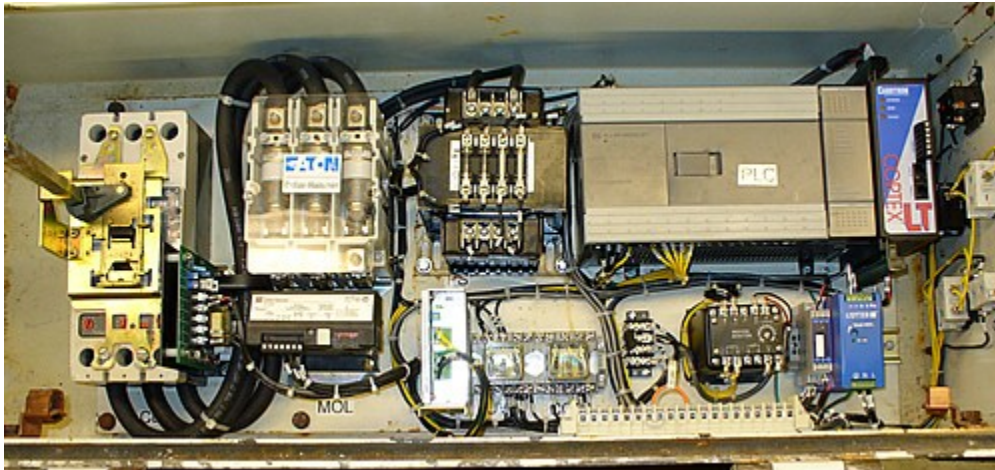
Rock Crusher / Pick Breaker Conveyor Feeder Drive

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Functional Description

A self-contained controller that senses current on the Rock Crusher / Pick Breaker Motor, compares this with a desired, preset level (typically around 95 percent of full load), and modulates the rate of the feed conveyor to maintain this load. The unloaded pick motor draws a low current that causes the controller to call for a maximum conveyor speed.

As product is delivered to the conveyor inlet and up to the breaker section, pick/crusher motor current increases, reaching a trigger point at which the controller begins to reduce conveyor speed. A balance is established that keeps the feeder conveyor at a speed that maintains the pick motor current at the preset level. If the incoming material mix changes, the corresponding change in motor current causes the conveyor speed to move up or down.



Drive Compatibility

Versatile output will interface with most standard industrial variable speed drives (typically, ± 10 VDC):

- 1) DC Drives
- 2) AC Inverter Drives
- 3) Eddy-Current Drives
- 4) Hydraulic/Hydrostatic Drives

Packaging

The following components are mounted on a rolled-edge steel sub-panel for mounting in customer's enclosure:

- AC Line circuit breaker (operator handle and shaft are included for customer mounting on front panel)
- Mercury contactors for Pick Motor and Conveyor Motor/VS Inverter
- Electronic motor overload relays
- Pick motor current sensing transducer
- PLC Industrial Controller provides supervision of these functions:

- Operational sequencing
- Safety interlocks, limit switches, and operational sensors
- Conveyor zero-speed and belt breakage through customer-supplied inductive prox sensor
- HMI Touch Screen shipped loose for customer mounting on front panel of enclosure

Optional Features for Feeder Conveyor Drive

- Sub-panel mounted and wired in a welded steel enclosure w/ HMI on enclosure cover
- Data monitoring and recording in real-time with extended storage capability
- Remote Process and Data monitoring through local plant network and Internet
- Remote troubleshooting and programming with plant-controlled limited access
- Automatic notification of system malfunctions through e-mail, text, cell phone, etc. (with Internet connection)

Specifications

- Horsepower range: 50 to 200 Horsepower at 230 or 460VAC (Both Pick & Conveyor motors)
- Low voltage (24VDC) control circuits

Call Carotron today: **1-888-286-8614**

We welcome the opportunity to review your rock crusher / pick breaker feeder-conveyor drive application. Our goal is always to help you keep your industrial machinery up and running at maximum efficiency so you can serve your customers with confidence!



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