

Quattro AC

Power control for the AC Induction elevator lift motor shall be a PWM-PWM drive with active front end convertor, Magnetek Quattro or equal with the following features:

- Four quadrant, fully regenerative, bi-directional power flow.
- Current harmonics at the utility power line to be less than 8% THDi without external filters.
- Operating power factor at utility lines to be greater than 98% without addition of external components
- Closed loop motor current regulation with smooth step less control of torque at all speeds. Protective current limiting with up to 250% current available during acceleration. Auto-Tune sensing of motor electrical characteristics.
- A contactor shall be provided to safely interrupt the AC motor circuit as required by code. A second positive power disconnect means shall also be provided to meet redundant code requirements.
- Velocity feedback shall be from a dual channel, incremental encoder with differential signaling electrically isolated from motor frame and shaft. Direct coupling to the elevator motor shaft is preferred. Minimum resolution should be such that the encoder produces greater than 20,000 Hz at contract elevator speed. 5V and 12V isolated power must be available to operate said encoder.
- Provision for optional hand held programmer with parameter text display, or serial communications to car controller, or use of personal computer for adjustment and storage of configuration and parameter set point data.
- CSA listed basic motor control hardware. Agency recognized and approved motor overload software function. Fusing to be included for primary power input and the motor field control circuit.
- All components to be contained in a NEMA 1 type enclosure.