

## HPV 900 S2 PM

Power control for the Permanent Magnet AC elevator lift motor shall be an AC Elevator drive, Magnetek HPV 900 or equal with the following features:

- The drive shall use a three-phase, full-wave bridge rectifier and capacitor bank to provide a DC power supply for the drive.
- The drive shall provide a means for removing regenerated power from the drive motor during control times of an overhauling load. (This power shall be dissipated in a resistor bank or an optional regenerative power unit shall be used to reclaim energy instead of using resistive braking [select one]).
- The drive shall be able to measure primary motor characteristics and be adjusted or programmed to properly match the elevator hoist motor.
- The drive shall be capable of delivering a maximum of 250% current to accelerate the elevator to contract speed with rated load. The drive shall also be designed for a minimum of 100 starts per hour.
- The drive shall provide a step less infinitely variable, closed-loop speed regulator with provisions for self-generated, internal S-Curve speed profiling or the use of external analog or digital velocity reference inputs. An elevator specific speed regulator shall be used with regulation better than +/-0.5%. There shall be a provision for pre-torqueing and/or Anti-Roll-Back control at each start. An adjustable notch filter and high speed gain reduction features shall be available to help reject interference from rope resonance.
- Velocity and motor shaft position feedback shall be from an EnDat type encoder. Isolated power must be available to operate the encoder. A drive feature shall automatically determine encoder / PM rotor alignment.
- The drive shall be able to produce full motor torque at zero speed when using encoder feedback.
- The drive shall include an easy to use all-digital parameter set up and monitoring tool with local display and text adjustment descriptions. There shall be a provision for an optional hand held programmer, serial communications to car controller, or use of personal computer for adjustment and storage of configuration and parameter set point data.
- The basic drive shall be CSA listed for motor control hardware, including an agency recognized and approved motor overload software function.