

**AC10 Primary Thyristor Control for Slip-ring Motors**

## A130 Hoist Amplifier

The A130 hoist amplifier has a high gain characteristic to effect a tight relationship between reference input, and drive speed. This is a basic requirement for hoist drives. It has a dedicated pole number: this is endorsed on the front handle. The A130 card has a single trim-pot adjustment, for torque during retardation in quadrant 4.



In the AC10 system, the average torque for acceleration is  $M_n \times 1,5$ . That is, acceleration torque  $M_a = M_n \times 1,5$ . To determine acceleration time  $t_a$ , system inertia  $J$  must be known. The equation is:

$$M_n = J \frac{\Delta\omega}{\Delta t}$$

with  $M_n$  in Nm  
 $J$  in  $\text{kgm}^2$   
 $\Delta\omega$  motor speed in rad/sec  
 $\Delta t$  acceleration time in sec

Function in hoist and lower mode is displayed by two high-density LED's. The A130 card occupies position 4 in the A2 eurorack assembly.



A130 card

