4.1.3 Connecting the Motor to the Soft Starter

**Wye Motor.** The soft starter can be used for either a three-lead or six-lead wye motor. Connecting the soft starter to a wye motor inserts the SCRs directly in the line wiring, referred to as "In Line" wiring.

**Delta Motor.** The soft starter can be used for either 6 or 12 lead delta motors. If the motor is hard wired as delta, the starter must be connected and sized with "In Line" wiring as shown in Fig. 7a. Fig. 7b shows the soft starter connected with the SCRs inside the delta, referred to as "Inside Delta" wiring. For Inside Delta wiring, the soft starter power rating may be increased (line current = 1.73 phase current) relative to the In Line power rating.

The type of connection, "In Line" or "Inside Delta" must be set using the DIP switch SW1.3 (see Section 7.1) on the control board.

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**Fig. 7 : Motor Connections**

**Fig. 7a**

**In Line Connection**

3 or 6 Lead Wye Motors and 3 Lead Delta Motors

**Fig. 7b**

**Inside Delta Connection**

6 or 12 Lead Delta Motors

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**Fig. 8 : In Line Connection; Inside Delta Connection**

**Rated Current \( I_e \) Equals Motor Rated Current \( I_n \)
3 Leads to the Motor**

**Rated Current \( I_e \) Equals Approx. 58 % of Motor Rated Current \( I_n \)
6 Leads to the Motor (Like for Wye-Delta Starters)**

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**Fig. 8a**

**Fig. 8b**