

General Motor Knowledge
Part 19

Motor Nameplate
(The Model Number)

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What can you determine about a Morrill motor from the name plate? Is it a shaded pole (SP) or permanent split capacitor (PSC) motor? How powerful is it? How much power will it consume. How big should the fuse be? How fast will it turn a fan blade? Which direction? What voltage? What frequency? How is it protected from over temperature? Who says so? Who made it and when? This information and more is permanently stamped in the aluminum back cap that covers our oil reservoir.

At the very top of our nameplate is the corporate name, "Morrill Motors". Beneath Morrill Motors is "Ft. Wayne, Indiana", corporate headquarters. Beneath this is the model number. The model number contains a great deal of information.

You should already be able to recognize the SP or PSC as being the beginning of our model number. This may be preceded by a letter to designate a really significant feature such as (M) for multi-speed. The motor type is followed by a number to designate the number of poles. For the 4-pole SP motors this is normally a dash (-), but many of you will remember the old SP6B motors. These were shaded pole, 6-pole motors. The B normally designates the frame size, 3.3 inches in diameter in this example. This position in our model number may be used to signify a special lamination like the SP-D203. The SP-D203 was a shaded pole, 4-pole motor it was 3.3 inches in diameter, but used a special stator lamination to achieve its' high efficiency. A "C" in this location would represent our smaller 2.2 inch diameter frame size. Permanent split capacitor (PSC), 2-pole, C-frame (2.2" diameter), 1/2" lamination stack (another C) and 2 watts output = PSC2CC2. The lamination stack length code uses a letter for each 1/8" increment starting at: A=1/4", B=3/8", C=1/2", D=5/8", E=3/4" and so on; G=1", L=1 1/2" and R=2". The letters I and O are not used because they might be mistaken for numbers 1 and 0.

Permanent Split Capacitor = PSC

4-Poles = 4

3.3" Frame Diameter = B

1.2" Lamination Stack = C

2.3 Watts Output = 203

This discussion will be continued over the next few months, both in this column and in "Technical Training Sessions" in the plant where you work.