

## 8 DIMENSIONS—AC SMALL (FRACTIONAL) AND MEDIUM (INTEGRAL) MOTORS

### 8.1 System for Designating Frames

The system for designating frames of motors consist of a series of numbers in combination with letters, defined as follows: [MG 1-4.2]

#### 8.1.1 Small Motors

The frame number for small motors is the D dimension in inches multiplied by 16. The letters C, H, Y, and Z immediately follow the frame number to denote variations, for general purpose motors, as follows: [MG 1-4.2.2]

C – Type C face-mounting

H – Indicates a frame having an F dimension larger than that of the same frame without the suffix letter H

Y – Special mounting dimensions (dimensional diagram must be obtained from the manufacturer)

Z – All mounting dimensions are standard except the shaft extension

*Note:* Other letters are also used to denote other motor types.

#### 8.1.2 Medium Motors

The system for numbering the frames of medium motors is as follows, (see also Table 13, Figure 3, Figure 4, Figure 5, and Figure 6): [MG 1-4.2]

- a) The first two digits of the frame number are equal to four times the D dimension in inches. When this product is not a whole number, the first two digits of the frame number is the next higher whole number.
- b) The third and, when required, the fourth digit of the frame number is obtained from the value of 2F in inches by referring to the columns headed 1 to 15, inclusive, in Table 13.

The letters C, CH, D, R, S, T, U, V, Y, or Z immediately following the frame number are used to denote variations as follows:

C – Type C face mounting on drive end. (When the face mounting is at the end opposite the drive, the prefix F shall be used, making the suffix letters FC.)

CH – Type C face-mounting dimensions are different from those for the frame designation having the suffix letter C. The letters CH are to be considered as one suffix and shall not be separated.)

D – Type D flange-mounting on drive end. (When the flange mounting is at the end opposite the drive, the prefix F shall be used, making the suffix letters FD.)

R – Drive end tapered shaft extension having dimensions in accordance with Table 21.

S – Standard short shaft for direct connection (see Table 20, Table 21, Table 22, Table 23, and Table 24).

T – Included as part of a frame designation for which standard dimensions have been established (see Table 20, Table 21, Table 22, Table 23, and Table 24).

U – Previously used as part of a frame designation for which standard dimensions had been established (no longer included in MG 1).

V – Vertical mounting only.

Y – Special mounting dimensions (dimensional diagram must be obtained from the manufacturer).

Z – All mounting dimensions are standard except the shaft extension(s). Also used to designate motor with double shaft extension.