

**TEFC**

FRAME SIZE	STANDARD BASE DIAMETER	ALTERNATE BASE DIAMETER	MAX 'BX' COUPLING BORE	'CD' DIM. COUPLING HEIGHT	TYPICAL SHIPPING WT. (LBS.)
182TP	10.000	-	1.001	17.56	150
184TP	10.000	-	1.001	17.56	170
213TP	10.000	-	1.001	17.56	210
215TP	10.000	-	1.001	17.56	220
254TP	10.000	12.00	1.251	22.94	265
256TP	10.000	12.00	1.251	22.94	300
284TP	10.000	12.00/16.50	1.251	26.56	320
286TP	10.000	12.00/16.50	1.251	26.56	330
324TP	16.500	12.00	1.501	28.50	665
326TP	16.500	12.00	1.501	28.50	690
364TP	16.500	-	1.751	30.00	900
365TP	16.500	-	1.751	30.00	925
404TP	16.500	-	1.938	39.93	1350
405TP	16.500	-	1.938	39.93	1500
444TP	16.500	20.00	1.938	43.06	1900

**WP-I**

FRAME SIZE	STANDARD BASE DIAMETER	ALTERNATE BASE DIAMETER	MAX 'BX' COUPLING BORE	'CD' DIM. COUPLING HEIGHT	TYPICAL SHIPPING WT. (LBS.)
213TP	10.000	-	1.001	17.56	210
215TP	10.000	-	1.001	17.56	210
254TP	10.000	12.00/16.50	1.250	23.38	265
256TP	10.000	12.00/16.50	1.251	23.38	300
284TP	10.000	12.00/16.50	1.251	24.75	305
286TP	10.000	12.00/16.50	1.251	24.75	325
324TP	16.500	12.00	1.501	28.22	635
326TP	16.500	12.00	1.501	28.22	675
364TP	16.500	12.00	1.501	31.16	730
365TP	16.500	12.00	1.501	31.16	800
404TP	16.500	20.00	1.813	36.94	1110
405TP	16.500	20.00	1.813	36.94	1200
H444TP	16.500	20.00	2.251	44.78	1500
H445TP	16.500	20.00	2.251	44.78	1600
447TPA	20.000	16.50/24.50	2.251	49.78	2200
H5006P	24.500	20.00	2.501	49.78	2700
H5008P	24.500	20.00	2.501	53.88	3125

- kW<sub>out</sub> = HP<sub>out</sub> x 0.746
- Torque in lb-ft =  $\frac{hp \times 5250}{rpm}$
- Motor synchronous speed in rpm =  $\frac{120 \times Hz}{\text{number of poles}}$
- Three-phase full-load amp =  $\frac{hp \times 0.746}{1.73 \times kV \times \text{efficiency}^* \times \text{power factor}^*}$
- Rated motor kVa =  $\frac{hp \times 0.746}{\text{efficiency}^* \times \text{power factor}^*}$
- kW loss =  $\frac{hp (0.746) (1.0 - \text{efficiency}^*)}{\text{efficiency}^*}$
- Wk<sup>2</sup> referred to motor shaft speed =  $\left[ \text{driven machine Wk}^2 \left( \frac{\text{driven machine rpm}}{\text{motor rpm}} \right)^2 \right] + \text{gear Wk}^2 \text{ at motor speed}$
- Acceleration time =  $\frac{0.462 (\text{Wk}^2 \text{ of motor and load}) rpm^2}{\text{motor rated kW} \times 10^6 \times \text{per-unit effective accelerating torque}}$
- kVA inrush = percent in rush x rated kVA
- Approximate voltage drop (%) =  $\frac{\text{motor kVA inrush}}{\text{transformer kVA}} \times \text{transformer impedance (normally 5\% to 7\%)}$
- Stored kinetic energy in kW-sec = 2.31 x (total Wk<sup>2</sup>) x rpm<sup>2</sup> x 10<sup>7</sup>
- Inertia constant (H) in seconds =  $\frac{\text{stored kinetic energy in kW-seconds}}{hp (0.746)}$
- Conversion factors: CV = (metric hp) = 735.5 watts = 75 kg-m/sec      Wk<sup>2</sup> (lb-ft) = 5.93 x GD<sup>2</sup> (kg-m<sup>2</sup>)
- Ventilating - air requirements: 100-125 cfm of 40°C air at 1/2-in. water pressure for each kW of loss
- Degrees C = (Degrees F - 32) x 0.556
- Degrees F = (Degrees C x 1.8) + 32

\*Efficiency and power factor stated as decimal value rather than percentage.