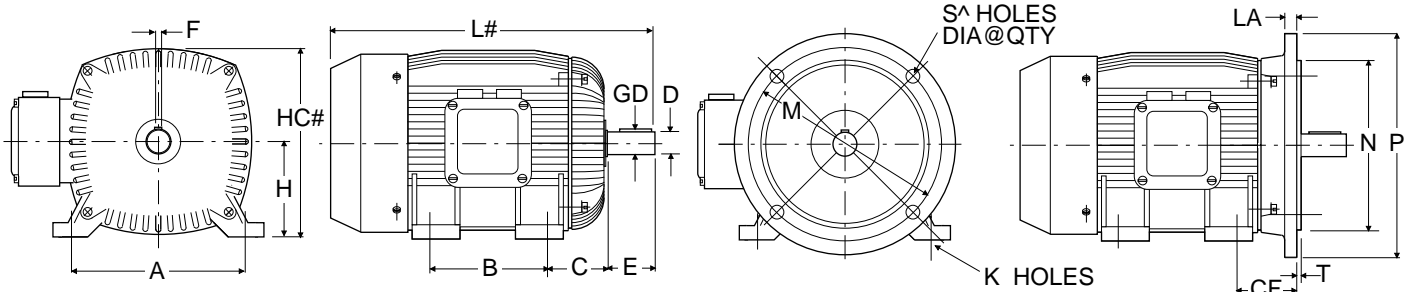


# ELECTRIC MOTORS 415V AC SQUIRREL CAGE DESIGN TEFC TO IEC STANDARDS



# Dimensions so marked are subject to variation depending on the brand of motor being used and may not be shown.  
**S^A** Frames 63 through 200L have 4 holes on 45 deg. The remainder 8 holes on 22 deg 30 min. Relationship of power output verses frame may vary with manufacturer.

FRAME	DIMENSIONS (mm)																POWER RANGE kW @ MOTOR RPM				
	A	B	C	CF	D	E	F	GD	H	HC#	K	LA	M	N	P	S^A	T	3000	1500	1000	750
63	100	80	40	40	11	23	4	12.5	63	124	7	6	115	95	140	10	3	0.12-0.25	0.12-0.18		
71	112	90	45	45	14	30	5	16	71	140	7	9	130	110	160	10	3.5	0.37-0.55	0.25-0.37	0.18	0.12
80	125	100	50	50	19	40	6	21.5	80	158	10	10	165	130	200	12	3.5	0.75-1.10	0.55-0.75	0.37-0.55	0.18
90S	140	100	56	56	24	50	8	27	90	178	10	10	165	130	200	12	3.5	1.50	1.10	0.75	0.37
90L	140	125	56	56	24	50	8	27	90	178	10	10	165	130	200	12	3.5	2.20	1.50	1.10	0.55
100L	160	140	63	63	28	60	8	31	100	198	12	11	215	180	250	15	4	3.0	2.2-3.0	1.5	0.75-1.1
112M	190	140	70	70	28	60	8	31	112	222	12	11	215	180	250	15	4	4.0	4.0	2.2	1.5
132S	216	140	89	89	38	80	10	41	132	260	12	12	265	230	300	15	4	5.5-7.5	5.5	3.0	2.2
132M	216	178	89	89	38	80	10	41	132	260	12	12	265	230	300	15	4	9.2	7.5	4.0-5.0	3.0
160M	254	210	108	108	42	110	12	45	160	314	15	18	300	250	350	19	5	11.0-16.0	9.2-11.0	7.5	4.0-5.5
160L	254	254	108	108	42	110	12	45	160	314	15	18	300	250	350	19	5	18.5	15.0	9.2-11.0	7.5
180M	279	241	121	121	48	110	14	51.5	180	354	15	18	300	250	350	19	5	22.0	18.5		9.2
180L	318	279	121	121	48	110	14	51.5	180	354	15	18	300	250	350	19	5	22.0	22.0	15.0	11.0
200M	318	267	133	133	55	110	16	59	200	392	19	18	350	300	400	19	5		22.0	15.0	11.0
200L	356	305	133	133	55	110	16	59	200	392	19	18	350	300	400	19	5	30.0-37.0	30.0	18.5-22.0	15.0
225S	356	286	149	149	55/60	110	16/18	#	225	455	19	18	400	350	450	19	5	45	37.0-45.0	30	18.5-22.0
225M	356	311	149	149	55/60	110	16/18	#	225	455	19	18	400	350	450	19	5	45	37.0-45.0	30	18.5-22.0
250S	406	311	168	168	60/70	140	18/20	#	250	480	24	18	500	450	550	19	5	55.0-75.0	55.0-75.0	37.0-45.0	30.0-37.0
250M	406	349	168	168	60/70	140	18/20	#	250	480	24	18	500	450	550	19	5	55.0-75.0	55.0-75.0	37.0-45.0	30.0-37.0

NO RESPONSIBILITY IS ACCEPTED FOR OMISSIONS VARIATIONS OR ERRORS

## CONVERSIONS AND USEFUL FORMULA

### CONVERSIONS TORQUE

- Nm x 0.7376 = lbf ft
- lbf ft x 1.356 = Nm
- lb in x 0.1130 = Nm
- kgm x 9.807 = Nm
- kgm x 7.232 = lbf ft

### POWER

- kW x 1.341 = HP
- HP x 0.7457 = kW
- Met HP x 0.7355 = kW
- Ton of Rfg x 3.517 = kW

### PRESSURE

- PSI x 0.0689 = Bar
- Bar x 14.5 = PSI
- inH<sub>2</sub>O x 0.249 = kPa

### VOLUME

- Gal (UK) x 4.546 = Litres
- Gal (US) x 3.785 = Litres
- Cu Ft x 28.32 = Litres

### LENGTH

- Inch x 25.4 = mm
- Feet x 0.3048 = metre

### AREA

- Sq Inch x 6.452 = Sq cm
- Sq Ft x 0.0929 = Sq mtr

### VELOCITY

- Ft/s x 0.3048 = m/s
- mph x 1.609344 = km/h
- Knot UK x 1.853 = km/h

### MASS

- Oz x 28.3495 = gram
- lb x 0.4536 = kg
- Ton UK x 1.016 = Tonne

#### POWER TORQUE AND SPEED RELATIONSHIPS US UNITS

$$T = \frac{HP \times 5252}{RPM} \quad HP = \frac{T \times RPM}{5252} \quad RPM = \frac{HP \times 5252}{T}$$

Where T = Torque Ft Lbs  
 HP = Horsepower  
 RPM = Revs Per Minute

#### POWER TORQUE AND SPEED RELATIONSHIPS ISO UNITS

$$T = \frac{kW \times 9549}{RPM} \quad kW = \frac{T \times RPM}{9549} \quad RPM = \frac{kW \times 9549}{T}$$

Where T = Torque Newton Metres  
 kW = Kilowatts  
 RPM = Revs Per Minute

#### HYDRAULIC ( FLUID POWER) POWER US UNITS

$$HP = \frac{PSI \times US GPM}{1714} \quad PSI = \text{Lbs per Sq Inch Pressure}$$

US GPM = Gallons Per Minute US  
 Above is theoretical power. Add inefficiency.

#### HYDRAULIC ( FLUID POWER) POWER ISO UNITS

$$kW = \frac{Bar \times L/min}{600} \quad Bar = \text{Pressure Bar}$$

L/min = Litres Per Minute  
 Above is theoretical power. Add inefficiency.

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