

COOLING TOWER MOTORS



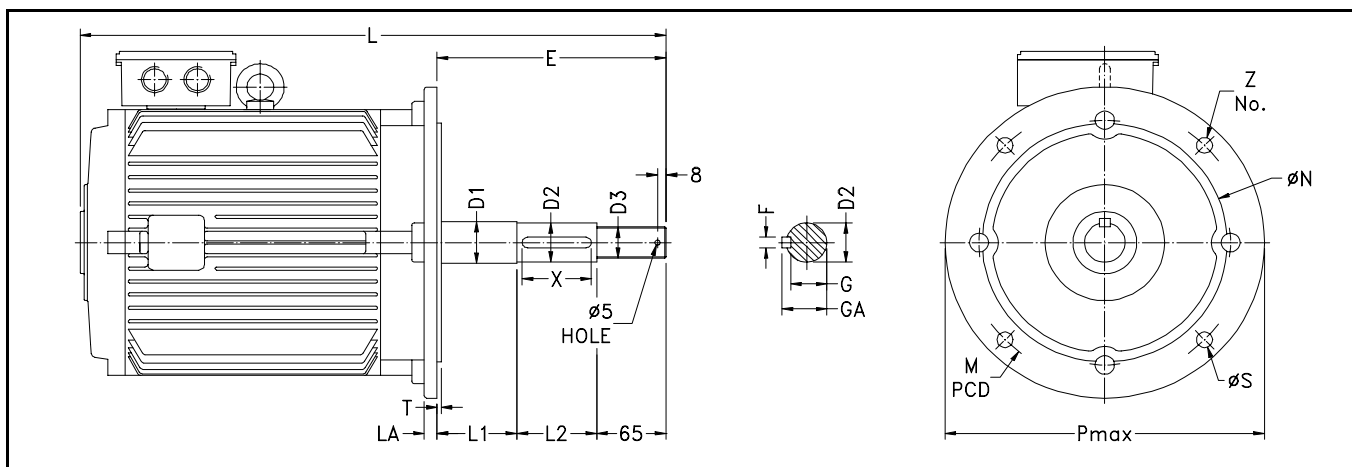
INTRODUCTION

'HINDUSTAN' Cooling tower motors are specially designed flange mounted motors in totally enclosed construction to suit air conditioning & refrigeration industries. They are provided with special long shaft construction with external threaded end to directly mount the fan blades. This also helps in the better cooling of the motor. Motors are compact in design & less in weight to facilitate easy maintenance. They are available as standard catalogue designs or as custom built.

RANGE

Power : 0.37 to 22.0 kW
 Polarity : 4P, 6P, 8P, 10P & 12P
 Mounting : B5 flange mounted
 Frame size : 71 to 280
 Voltage : 415V \pm 10% or as required
 Frequency : 50Hz \pm 5% or as required
 Ambient : 45°C.
 Altitude : upto 1000m above m. s. l.
 Enclosure : Totally enclosed (TE)
 Protection : IP55
 Insu. class : Class F insulation with temp. rise limited to class B.

MECHANICAL DIMENSIONS



Frame	D1	D2	D3	F	G	GA	L1	L2	E	P max	M PCD	øN	øS	Z No.	T	LA	X	L
71	15	14	M12	5	11	16	50	40	155	160	130	110	10	4	3.5	9	35	331
80	20	19	M16	6	15.5	21.5	50	55	170	200	165	130	12	4	3.5	10	45	368
90S	25	24	M16	8	20	27	50	55	170	200	165	130	12	4	3.5	10	45	380
90L	25	24	M16	8	20	27	50	55	170	200	165	130	12	4	3.5	10	45	405
100L	30	28	M24	8	24	31	50	55	170	250	215	180	15	4	4	11	45	432
112M	30	28	M24	8	24	31	50	55	170	250	215	180	15	4	4	11	45	446
132S	40	38	M30	10	33	41	75	75	215	300	265	230	15	4	4	12	65	515
132M	40	38	M30	10	33	41	75	75	215	300	265	230	15	4	4	12	65	553
160M	45	42	M30	12	37	45	75	75	215	350	300	250	19	4	5	13	65	614
160L	45	42	M30	12	37	45	75	75	215	350	300	250	19	4	5	13	65	658
180M	50	48	M30	14	42.5	51.5	100	120	285	350	300	250	19	4	5	13	110	727
180L	50	48	M30	14	42.5	51.5	100	120	285	350	300	250	19	4	5	13	110	765
200L	60	55	M30	16	49	59	100	120	285	400	350	300	19	4	5	15	110	846
225MX	65	60	M30	18	53	64	100	120	285	450	400	350	19	8	5	16	110	850
250MX	75	65	M36	18	58	69	100	120	285	550	500	450	24	8	5	18	110	920
280MX	85	75	M36	20	68	80	100	120	285	550	500	450	24	8	5	18	110	1025

Electrical performance for Cooling Tower 3 Phase Sq. cage induction motors suitable for 415V±10%, 50Hz±5%, ambient temperature 45°C, Class 'F' insulation with class B temp. rise, IP 55 protection, totally enclosed (TE) construction, continuous (S1) duty.

Output		Frame	Type Designation	Speed (rpm)	Current (A)	Torque (kgm)	Efficiency %			Power Factor			STA	STT	POT	GD ² (kgm ²)
KW	HP						FL	3/4L	1/2L	FL	3/4L	1/2L				
0.37	0.50	71	2HL1 713-04	1380	1.05	0.26	66.0	65.0	58.0	0.74	0.64	0.53	3.5	1.9	2.1	0.0022
0.75	1.0	80	2HL1 803-04	1415	1.75	0.52	74.0	73.0	68.0	0.81	0.70	0.55	4.5	2.0	2.3	0.0049
		90S	2HL1 900-06	925	2.0	0.79	72.0	71.0	66.0	0.72	0.64	0.52	5.0	2.2	2.4	0.0095
1.1	1.5	90S	2HL1 900-04	1415	2.5	0.76	76.5	76.0	74.0	0.80	0.70	0.55	5.0	2.2	2.5	0.0072
		90L	2HL1 906-06	930	2.9	1.15	75.0	74.0	69.0	0.70	0.58	0.42	5.0	2.2	2.4	0.0122
		100L	2HL1 106-08	700	3.0	1.53	74.0	73.0	71.0	0.69	0.60	0.48	4.0	1.8	2.0	0.0296
1.5	2.0	132S	2HL1 130-12	460	3.8	2.33	70.0	68.0	64.0	0.58	0.50	0.40	3.5	1.7	1.9	0.0826
		90L	2HL1 906-04	1420	3.3	1.03	79.0	79.0	77.0	0.80	0.70	0.55	5.0	2.2	2.5	0.0093
		100L	2HL1 106-06	940	3.5	1.55	76.0	75.0	71.0	0.78	0.73	0.60	5.0	2.0	2.3	0.0269
		112M	2HL1 123-08	705	3.9	2.07	77.0	77.0	74.0	0.69	0.64	0.51	4.0	1.9	2.1	0.0467
2.2	3.0	132S	2HL1 130-10	555	4.5	2.63	74.0	74.0	71.0	0.63	0.55	0.43	4.5	2.0	2.2	0.0826
		132M	2HL1 133-12	460	4.9	3.18	71.0	70.0	66.0	0.60	0.52	0.42	3.5	1.7	1.9	0.1198
		112M	2HL1 123-06	945	4.9	2.27	80.0	79.5	75.5	0.78	0.70	0.55	5.0	2.0	2.3	0.0047
		132S	2HL1 130-08	710	5.2	3.02	79.0	79.0	76.0	0.75	0.65	0.52	5.0	2.2	2.4	0.0826
3.7	5.0	132M	2HL1 133-10	555	5.7	3.86	78.0	78.0	76.0	0.69	0.61	0.49	4.5	2.0	2.2	0.1198
		160M	2HL1 163-12	465	6.0	4.61	79.0	79.0	75.0	0.65	0.54	0.45	4.5	2.0	2.2	0.2072
		132S	2HL1 130-06	950	7.5	3.79	82.5	82.5	81.5	0.83	0.73	0.64	5.0	2.0	2.3	0.0826
		132M	2HL1 133-08	710	8.6	5.08	81.0	81.0	79.0	0.74	0.65	0.52	5.0	2.2	2.4	0.1156
5.5	7.5	160M	2HL1 163-10	560	9.0	6.44	81.0	81.0	79.0	0.71	0.62	0.50	5.0	2.1	2.3	0.2072
		160L	2HL1 166-12	465	10.0	7.75	80.0	80.0	77.0	0.64	0.55	0.42	4.5	2.0	2.2	0.2857
		132M	2HL1 133-06	950	11.0	5.64	85.0	85.0	83.5	0.82	0.77	0.67	5.0	2.0	2.3	0.1156
		160M	2HL1 163-08	720	12.0	7.44	86.0	86.0	83.0	0.74	0.68	0.58	5.0	2.0	2.2	0.2565
7.5	10.0	180M	2HL1 183-10	560	14.0	9.57	82.0	81.5	80.0	0.67	0.58	0.45	5.0	2.0	2.2	0.5057
		180L	2HL1 186-12	470	15.0	11.40	82.0	82.0	80.0	0.62	0.54	0.42	4.5	1.9	2.1	0.5949
		160M	2HL1 163-06	960	15.0	7.61	87.0	87.0	84.5	0.80	0.76	0.68	5.5	2.0	2.3	0.2625
		160L	2HL1 166-08	720	15.7	10.15	87.0	87.0	85.0	0.76	0.71	0.58	5.0	2.0	2.2	0.3440
9.3	12.5	180L	2HL1 186-10	565	18.0	12.93	83.0	82.5	80.0	0.70	0.62	0.48	5.0	2.0	2.2	0.5949
		180L	2HL1 187-12	470	20.0	15.54	82.0	82.0	80.0	0.64	0.55	0.43	4.5	1.9	2.1	0.6544
		160L	2HL1 166-06	965	17.5	9.39	88.0	88.0	85.0	0.84	0.81	0.70	5.5	2.0	2.3	0.3440
		180M	2HL1 183-08	725	20.0	12.49	87.5	87.5	85.0	0.74	0.70	0.57	5.0	2.0	2.2	0.5057
11.0	15.0	180L	2HL1 187-10	570	22.0	15.89	84.0	83.5	81.0	0.70	0.62	0.49	5.0	2.0	2.2	0.6544
		180L	2HL1 188-12	470	23.0	19.27	84.0	84.0	82.0	0.67	0.59	0.46	4.5	1.9	2.1	0.7734
		160L	2HL1 167-06	970	20.5	11.05	88.5	88.5	87.5	0.84	0.81	0.70	5.5	2.0	2.3	0.3440
		180L	2HL1 186-08	725	24.0	14.78	88.0	88.0	85.0	0.72	0.68	0.55	5.0	2.0	2.2	0.5949
15.0	20.0	180L	2HL1 188-10	570	25.0	18.80	85.0	85.0	83.0	0.72	0.64	0.50	5.0	2.0	2.2	0.7734
		200L	2HL1 206-12	485	33.0	22.09	84.5	84.0	81.0	0.55	0.47	0.38	4.5	1.9	2.1	1.2654
		200L	2HL1 206-08	725	31.0	20.15	88.5	88.0	86.0	0.76	0.72	0.60	5.0	2.0	2.2	1.0123
		200L	2HL1 206-10	575	34.0	25.41	86.5	86.0	84.0	0.71	0.63	0.52	4.5	2.0	2.2	1.2654
18.5	25.0	225MX	2HL1 223-12	480	40.0	30.44	85.5	85.5	83.5	0.61	0.54	0.43	4.0	1.8	2.0	1.8378
		225MX	2HL1 223-10	575	43.0	31.34	89.0	89.0	87.0	0.67	0.60	0.50	4.0	2.0	2.2	1.8378
		250MX	2HL1 253-12	485	54.0	37.15	86.5	86.0	82.0	0.55	0.48	0.37	4.0	1.9	2.1	2.5127
22.0	30.0	280MX	2HL1 283-12	485	56.0	44.18	89.0	89.0	87.0	0.61	0.54	0.44	4.0	1.8	2.0	5.2502

All figures are subject to tolerance as per IS: 325.

All the above ratings can be offered in flameproof enclosure wherever applicable



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