

# Hitachi® 6" Submersible Motors

Stainless Steel



Hitachi Motors are designed for long service life and years of dependable operation. Innovative design and robust characteristics make this the perfect motor for your pumping applications.

Combined with exceptional insulation and a patented epoxy fill resin, these motors exceed NEMA requirements for high water temperature by 18°F (-7.7°C). Designed with internal lubrication and cooling blend of water, antifreeze, and an antirust mixture, Hitachi submersible motors are unique in providing the industry with innovative and robust design features that will extend the serviceable life of your installation.

## APPLICATIONS

High-thrust water well applications.

## SPECIFICATIONS

**Motor Sleeve:** Stainless steel construction

**Castings:** Baked epoxy-coated gray iron

**Fasteners:** Stainless steel

**Shaft:** NEMA splined stainless steel

**Flange:** NEMA standard type

**Rotor:** Double epoxy-coated

**Thrust Bearings:** Kingsbury-type 420 stainless steel

**Mechanical Seal:** Nitrile rubber (NBR), grease packed

**Diaphragm:** Nitrile rubber

**Sand Cap:** Polyurethane

**Sand Slinger:** Stainless steel

**Lead Wire (or Cable):** Double-insulated, heat and water-resistant, 167°F/75°C, 600V

## FEATURES

**Higher Efficiencies and Lower Current Consumption:** For reduced energy costs.

**Corrosion-Resistant Design:** For long life.

**High-Capacity Kingsbury-Type Bearings:** For dependable performance.

**Low-Profile NEMA Design:** For ease of installation.

**Replaceable Plug-in Motor Lead:** For ease of maintenance.

**Dual Voltage Type:** For application versatility (5 HP – 30 HP 3-Phase Motors).

**VFD-Compatible**

## Hitachi Control Box

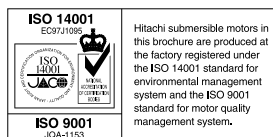
Type 1 NEMA Enclosure

In-Panel Circuit Breaker

Magnetic Contactor

Terminal Blocks for External Controls

UL Recognized



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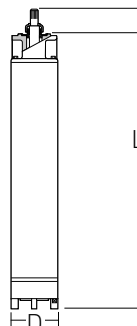
# Hitachi® 6" Submersible Motors

Stainless Steel

ORDERING INFORMATION															
HP	KW	VOLTS	PH	SERVICE FACTOR	CATALOG NUMBER	RATED INPUT AMPS	SERVICE FACTOR INPUT AMPS	WINDING RESISTANCE (OHMS)	THRUST CAPACITY	LENGTH (L)		DIAMETER (D)		WEIGHT	
										IN.	MM	IN.	MM	LBS.	KG
<b>6" DIAMETER 60 HZ</b>															
5	3.7	200	3	1.15	6HIT2-5-8	17.5	19.5		3,500	22.95"	582.9	5.5"	139.7	95	43.0
5	3.7	230	1	1.15	6HIT2-5-1	24	27.5	R-Y, B-Y, R-B, 2.172, 0.512, 2.627	3,500	26.97"	685.0	5.5"	139.7	110	49.9
5	3.7	230	3	1.15	6HIT2-5-2	15	17	0.806	3,500	22.95"	582.9	5.5"	139.7	95	43.0
5	3.7	460	3	1.15	6HIT2-5-4	7.5	8.5	3.05	3,500	22.95"	582.9	5.5"	139.7	95	43.0
7.5	5.5	200	3	1.15	6HIT2-7-8	25.4	28.5		3,500	24.80"	629.9	5.5"	139.7	99	43.0
7.5	5.5	230	1	1.15	6HIT2-7-1	36	41	R-Y, B-Y, R-B, 1.401, 0.400, 1.774	3,500	29.92"	760.0	5.5"	139.7	128	58.1
7.5	5.5	230	3	1.15	6HIT2-7-2	22	26	0.651	3,500	24.80"	629.9	5.5"	139.7	99	43.0
7.5	5.5	460	3	1.15	6HIT2-7-4	11	13	2.43	3,500	24.80"	629.9	5.5"	139.7	99	43.0
10	7.5	200	3	1.15	6HIT2-10-8	33.3	37.2		3,500	26.97"	685.0	5.5"	139.7	110	49.9
10	7.5	230	1	1.15	6HIT2-10-1	50	58	R-Y, B-Y, R-B, 1.052, 0.316, 1.310	3,500	29.92"	760.0	5.5"	139.7	128	58.1
10	7.5	230	3	1.15	6HIT2-10-2	29	33	0.448	3,500	26.97"	685.0	5.5"	139.7	110	49.9
10	7.5	460	3	1.15	6HIT2-10-4	14.5	16.5	1.619	3,500	26.97"	685.0	5.5"	139.7	110	49.9
15	11	200	3	1.15	6HIT2-15-8	47.4	53.5		3,500	29.92"	760.0	5.5"	139.7	128	58.1
15	11	230	1	1.15	6HIT2-15-1	72	85	R-Y, B-Y, R-B, 0.678, 0.230, 0.850	3,500	33.46"	849.9	5.5"	139.7	148	67.1
15	11	230	3	1.15	6HIT2-15-2	42	46	0.312	3,500	29.92"	760.0	5.5"	139.7	128	58.1
15	11	460	3	1.15	6HIT2-15-4	21	23	1.074	3,500	29.92"	760.0	5.5"	139.7	128	58.1
20	15	200	3	1.15	6HIT2-20-8	61.2	69.5		3,500	31.5"	800.1	5.5"	139.7	137	62.1
20	15	230	3	1.15	6HIT2-20-2	54	60	0.258	3,500	31.5"	800.1	5.5"	139.7	137	62.1
20	15	460	3	1.15	6HIT2-20-4	27	30	0.861	3,500	31.5"	800.1	5.5"	139.7	137	62.1
25	18.5	200	3	1.15	6HIT2-25-8	77.3	87.5		3,500	36.22"	920.0	5.5"	139.7	161	73.0
25	18.5	230	3	1.15	6HIT2-25-2	68	76	0.21	3,500	36.22"	920.0	5.5"	139.7	161	73.0
25	18.5	460	3	1.15	6HIT2-25-4	34	38	0.666	3,500	36.22"	920.0	5.5"	139.7	161	73.0
30	22	200	3	1.15	6HIT2-30-8	91.8	104		3,500	38.19"	970.0	5.5"	139.7	176	79.8
30	22	230	3	1.15	6HIT2-30-2	82	94	0.166	3,500	39.19"	970.0	5.5"	139.7	176	79.8
30	22	460	3	1.15	6HIT2-30-4	41	47	0.554	3,500	38.19"	970.0	5.5"	139.7	176	79.8
40	30	460	3	1.15	6HIT2-40-4	56	61	0.358	5,000	40.55"	1,030.0	5.5"	139.7	187	84.8
<b>8" DIAMETER 60 HZ</b>															
50	37	460	3	1.15	86HIT2-50-4*	65	73	0.331	5,000	45.28"	1,150.0	7.52"	191.0	353	160.1
60	45	460	3	1.15	86HIT2-60-4*	80	90	0.278	5,000	48.03"	1,220.0	7.52"	191.0	408	185.1

NOTE: 6" motors are 3450 rpm, 60 Hz, 1.15 SF.

## OUTLINE DIMENSIONS



Shaft Extension  
2.87" (72.9 mm)

For lengths, refer to Ordering Information tables.

Dimensions are for estimating purposes only.

## ORDERING INFORMATION

HP	KW	VOLTS	PH	CATALOG NUMBER
<b>HITACHI CONTROL BOX</b>				
5	3.7	230	1	HIT-5CBD
7.5	5.5	230	1	HIT-7.5CBD
10	7.5	230	1	HIT-10CBD
15	11	230	1	HIT-15CBD

# Hitachi® 6" Submersible Motors

Stainless Steel

CABLE SELECTION																				60° C				
COPPER CABLE SIZE - From Control Box to Motor (in feet)																								
MOTOR				AWG													MCM							
VOLTS / HZ	HP	KW	FUSE		14	12	10	8	6	4	3	2	1	0	00	000	0000	250	300	350	400	500		
			STD	Dual Element																				
<b>THREE PHASE</b>																								
230 V 60 Hz	5	4	45	25	149	237	378	598	931	1484	1865	2356	2967	3746	4726	5966	7516	8873						
	8	6	60	35	-	-	247	391	609	970	1220	1540	1940	2449	3090	3901	4914	5802	6965	8142	9308			
	10	8	80	45	-	-	-	308	479	764	961	1213	1529	1930	2434	3073	3872	4571	5488	6415	7334	9125		
	15	11	125	70	-	-	-	221	344	548	689	871	1097	1384	1746	2205	2778	3279	3937	4602	5261	6546		
	20	15	150	90	-	-	-	-	264	420	528	667	841	1061	1339	1690	2130	2514	3018	3528	4034	5019		
	25	19	200	100	-	-	-	-	-	332	417	527	664	838	1057	1334	1681	1985	2383	2785	3184	3962		
	30	22	225	125	-	-	-	-	-	-	337	426	537	677	855	1079	1359	1605	1926	2252	2575	3203		
40*	30	300	175	-	-	-	-	-	-	-	328	413	522	659	831	1047	1236	1484	1735	1984	2468			
460 V 60 Hz	5	4	20	10	595	947	1511	2393	3723	5935	7461	9422												
	8	6	30	15	389	619	988	1564	2434	3880	4878	6161	7761	9797										
	10	8	40	20	307	488	778	1233	1918	3057	3844	4854	6115	7719	9738									
	15	11	60	30	-	350	558	884	1376	2193	2757	3482	4387	5537	6986	8819								
	20	15	80	45	-	-	428	678	1055	1682	2114	2670	3363	4245	5356	6761	8518							
	25	19	100	50	-	-	-	535	833	1328	1669	2108	2655	3351	4228	5338	6725	7939	9531					
	30	22	110	60	-	-	-	433	673	1073	1349	1704	2147	2710	3419	4316	5437	6419	7706	9008				
	40	30	150	80	-	-	-	-	519	827	1040	1313	1654	2088	2634	3325	4189	4946	5937	6940	7935	9873		
	40*	30	150	80	-	-	-	-	502	801	1007	1271	1601	2022	2550	3220	4056	4789	5749	6720	7683	9559		
	50	37	175	100	-	-	-	-	-	639	803	1014	1277	1612	2034	2568	3235	3819	4585	5359	6127	7623		
	50*	37	175	100	-	-	-	-	-	691	869	1097	1382	1745	2201	2779	3501	4133	4961	5799	6631	8250		
	60	45	225	125	-	-	-	-	-	-	675	852	1073	1355	1709	2158	2719	3210	3853	4504	5149	6407		
	60*	45	225	125	-	-	-	-	-	-	705	890	1121	1415	1785	2254	2839	3352	4024	4704	5378	6691		
	75	55	250	150	-	-	-	-	-	-	-	735	926	1168	1474	1861	2344	2768	3323	3884	4441	5525		
	100	75	350	200	-	-	-	-	-	-	-	-	-	-	878	1108	1399	1762	2081	2498	2920	3338	4153	
	125	93	450	250	-	-	-	-	-	-	-	-	-	-	-	893	1127	1420	1676	2012	2352	2689	3346	
150	111	500	275	-	-	-	-	-	-	-	-	-	-	-	-	1162	1371	1646	1924	2200	2737			

Lengths only meet the US National Electrical Code ampacity requirements for individual conductors rated 60° C in free air or water, NOT in magnetic enclosures, conduit or direct buried. Refer to NEC Table 310.15(B)(17) for more information.

\* = motors are 8" diameter

# Hitachi® 6" Submersible Motors

Stainless Steel

CABLE SELECTION																				75° C				
COPPER CABLE SIZE - From Control Box to Motor (in feet)																								
MOTOR				AWG													MCM							
VOLTS / HZ	HP	KW	FUSE		14	12	10	8	6	4	3	2	1	0	00	000	0000	250	300	350	400	500		
			STD	Dual Element																				
<b>THREE PHASE</b>																								
230 V 60 Hz	5	4	45	25	149	237	378	598	931	1484	1865	2356	2967	3746	4726	5966	7516	8873						
	8	6	60	35	-	155	247	391	609	970	1220	1540	1940	2449	3090	3901	4914	5802	6965	8142	9308			
	10	8	80	45	-	-	195	308	479	764	961	1213	1529	1930	2434	3073	3872	4571	5488	6415	7334	9125		
	15	11	125	70	-	-	-	221	344	548	689	871	1097	1384	1746	2205	2778	3279	3937	4602	5261	6546		
	20	15	150	90	-	-	-	-	264	420	528	667	841	1061	1339	1690	2130	2514	3018	3528	4034	5019		
	25	19	200	100	-	-	-	-	208	332	417	527	664	838	1057	1334	1681	1985	2383	2785	3184	3962		
	30	22	225	125	-	-	-	-	-	268	337	426	537	677	855	1079	1359	1605	1926	2252	2575	3203		
40*	30	300	175	-	-	-	-	-	-	-	328	413	522	659	831	1047	1236	1484	1735	1984	2468			
460 V 60 Hz	5	4	20	10	595	947	1511	2393	3723	5935	7461	9422												
	8	6	30	15	389	619	988	1564	2434	3880	4878	6161	7761	9797										
	10	8	40	20	307	488	778	1233	1918	3057	3844	4854	6115	7719	9738									
	15	11	60	30	220	350	558	884	1376	2193	2757	3482	4387	5537	6986	8819								
	20	15	80	45	-	-	428	678	1055	1682	2114	2670	3363	4245	5356	6761	8518							
	25	19	100	50	-	-	338	535	833	1328	1669	2108	2655	3351	4228	5338	6725	7939	9531					
	30	22	110	60	-	-	-	433	673	1073	1349	1704	2147	2710	3419	4316	5437	6419	7706	9008				
	40	30	150	80	-	-	-	-	519	827	1040	1313	1654	2088	2634	3325	4189	4946	5937	6940	7935	9873		
	40*	30	150	80	-	-	-	-	502	801	1007	1271	1601	2022	2550	3220	4056	4789	5749	6720	7683	9559		
	50	37	175	100	-	-	-	-	-	639	803	1014	1277	1612	2034	2568	3235	3819	4585	5359	6127	7623		
	50*	37	175	100	-	-	-	-	433	691	869	1097	1382	1745	2201	2779	3501	4133	4961	5799	6631	8250		
	60	45	225	125	-	-	-	-	-	537	675	852	1073	1355	1709	2158	2719	3210	3853	4504	5149	6407		
	60*	45	225	125	-	-	-	-	-	561	705	890	1121	1415	1785	2254	2839	3352	4024	4704	5378	6691		
	75	55	250	150	-	-	-	-	-	-	582	735	926	1168	1474	1861	2344	2768	3323	3884	4441	5525		
	100	75	350	200	-	-	-	-	-	-	-	-	696	878	1108	1399	1762	2081	2498	2920	3338	4153		
	125	93	450	250	-	-	-	-	-	-	-	-	-	708	893	1127	1420	1676	2012	2352	2689	3346		
150	111	500	275	-	-	-	-	-	-	-	-	-	-	-	922	1162	1371	1646	1924	2200	2737			

Lengths only meet the US National Electrical Code ampacity requirements for individual conductors rated 75° C in free air or water, NOT in magnetic enclosures, conduit or direct buried. Refer to NEC Table 310.15(B)(17) for more information.

\* = motors are 8" diameter

# Hitachi® 6" Submersible Motors

Stainless Steel

CABLE SELECTION																				60° C			
COPPER CABLE SIZE - From Control Box to Motor (in feet)																							
MOTOR				AWG													MCM						
VOLTS	HP	KW	FUSE		14	12	10	8	6	4	3	2	1	0	00	000	0000	250	300	350	400	500	
			STD	Dual Element																			
<b>THREE PHASE</b>																							
230 V 60 Hz	5	4	45	25	-	-	378	598	931	1484	1865	2356	2967	3746	4726	5966	7516	8873					
	8	6	60	35	-	-	-	391	609	970	1220	1540	1940	2449	3090	3901	4914	5802	6965	8142	9308		
	10	8	80	45	-	-	-	-	479	764	961	1213	1529	1930	2434	3073	3872	4571	5488	6415	7334	9125	
	15	11	125	70	-	-	-	-	-	548	689	871	1097	1384	1746	2205	2778	3279	3937	4602	5261	6546	
	20	15	150	90	-	-	-	-	-	528	667	841	1061	1339	1690	2130	2514	3018	3528	4034	4519	5019	
	25	19	200	100	-	-	-	-	-	527	664	838	1057	1334	1681	1985	2383	2785	3184	3962			
	30	22	225	125	-	-	-	-	-	-	-	-	-	677	855	1079	1359	1605	1926	2252	2575	3203	
40*	30	300	175	-	-	-	-	-	-	-	-	-	-	-	831	1047	1236	1484	1735	1984	2468		
460 V 60 Hz	5	4	20	10	595	947	1511	2393	3723	5935	7461	9422											
	8	6	30	15	-	619	988	1564	2434	3880	4878	6161	7761	9797									
	10	8	40	20	-	-	778	1233	1918	3057	3844	4854	6115	7719	9738								
	15	11	60	30	-	-	558	884	1376	2193	2757	3482	4387	5537	6986	8819							
	20	15	80	45	-	-	-	678	1055	1682	2114	2670	3363	4245	5356	6761	8518						
	25	19	100	50	-	-	-	-	833	1328	1669	2108	2655	3351	4228	5338	6725	7939	9531				
	30	22	110	60	-	-	-	-	-	1073	1349	1704	2147	2710	3419	4316	5437	6419	7706	9008			
	40	30	150	80	-	-	-	-	-	-	1040	1313	1654	2088	2634	3325	4189	4946	5937	6940	7935	9873	
	40*	30	150	80	-	-	-	-	-	-	1007	1271	1601	2022	2550	3220	4056	4789	5749	6720	7683	9559	
	50	37	175	100	-	-	-	-	-	-	-	-	1277	1612	2034	2568	3235	3819	4585	5359	6127	7623	
	50*	37	175	100	-	-	-	-	-	-	-	1097	1382	1745	2201	2779	3501	4133	4961	5799	6631	8250	
	60	45	225	125	-	-	-	-	-	-	-	-	-	1355	1709	2158	2719	3210	3853	4504	5149	6407	
	60*	45	225	125	-	-	-	-	-	-	-	-	-	1415	1785	2254	2839	3352	4024	4704	5378	6691	
	75	55	250	150	-	-	-	-	-	-	-	-	-	-	1474	1861	2344	2768	3323	3884	4441	5525	
	100	75	350	200	-	-	-	-	-	-	-	-	-	-	-	-	1762	2081	2498	2920	3338	4153	
125	93	450	250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2012	2352	2689	3346		
150	111	500	275	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2200	2737		

Lengths meet the US National Electrical Code ampacity requirements for either individual conductors or jacketed rated 60° C cable and can be in conduit or direct buried. Flat molded and web/ribbon cable are considered jacketed cable. Refer to NEC Table 310.15(B)(16) for more information.

\* = motors are 8" diameter

# Hitachi® 6" Submersible Motors

Stainless Steel

CABLE SELECTION																				75° C				
COPPER CABLE SIZE - From Control Box to Motor (in feet)																								
MOTOR				AWG													MCM							
VOLTS	HP	KW	FUSE		14	12	10	8	6	4	3	2	1	0	00	000	0000	250	300	350	400	500		
			STD	Dual Element																				
<b>THREE PHASE</b>																								
230 V 60 Hz	5	4	45	25	-	237	378	598	931	1484	1865	2356	2967	3746	4726	5966	7516	8873						
	8	6	60	35	-	-	247	391	609	970	1220	1540	1940	2449	3090	3901	4914	5802	6965	8142	9308			
	10	8	80	45	-	-	-	308	479	764	961	1213	1529	1930	2434	3073	3872	4571	5488	6415	7334	9125		
	15	11	125	70	-	-	-	-	344	548	689	871	1097	1384	1746	2205	2778	3279	3937	4602	5261	6546		
	20	15	150	90	-	-	-	-	420	528	667	841	1061	1339	1690	2130	2514	3018	3528	4034	4034	5019		
	25	19	200	100	-	-	-	-	-	417	527	664	838	1057	1334	1681	1985	2383	2785	3184	3962			
	30	22	225	125	-	-	-	-	-	-	-	537	677	855	1079	1359	1605	1926	2252	2575	3203			
40*	30	300	175	-	-	-	-	-	-	-	-	-	-	659	831	1047	1236	1484	1735	1984	2468			
460 V 60 Hz	5	4	20	10	595	947	1511	2393	3723	5935	7461	9422												
	8	6	30	15	389	619	988	1564	2434	3880	4878	6161	7761	9797										
	10	8	40	20	-	488	778	1233	1918	3057	3844	4854	6115	7719	9738									
	15	11	60	30	-	-	558	884	1376	2193	2757	3482	4387	5537	6986	8819								
	20	15	80	45	-	-	-	678	1055	1682	2114	2670	3363	4245	5356	6761	8518							
	25	19	100	50	-	-	-	535	833	1328	1669	2108	2655	3351	4228	5338	6725	7939	9531					
	30	22	110	60	-	-	-	-	673	1073	1349	1704	2147	2710	3419	4316	5437	6419	7706	9008				
	40	30	150	80	-	-	-	-	-	827	1040	1313	1654	2088	2634	3325	4189	4946	5937	6940	7935	9873		
	40*	30	150	80	-	-	-	-	-	801	1007	1271	1601	2022	2550	3220	4056	4789	5749	6720	7683	9559		
	50	37	175	100	-	-	-	-	-	-	803	1014	1277	1612	2034	2568	3235	3819	4585	5359	6127	7623		
	50*	37	175	100	-	-	-	-	-	-	869	1097	1382	1745	2201	2779	3501	4133	4961	5799	6631	8250		
	60	45	225	125	-	-	-	-	-	-	-	-	1073	1355	1709	2158	2719	3210	3853	4504	5149	6407		
	60*	45	225	125	-	-	-	-	-	-	-	890	1121	1415	1785	2254	2839	3352	4024	4704	5378	6691		
	75	55	250	150	-	-	-	-	-	-	-	-	-	1168	1474	1861	2344	2768	3323	3884	4441	5525		
	100	75	350	200	-	-	-	-	-	-	-	-	-	-	-	1399	1762	2081	2498	2920	3338	4153		
125	93	450	250	-	-	-	-	-	-	-	-	-	-	-	-	1420	1676	2012	2352	2689	3346			
150	111	500	275	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1646	1924	2200	2737			

Lengths meet the US National Electrical Code ampacity requirements for either individual conductors or jacketed rated 75° C cable and can be in conduit or direct buried. Flat molded and web/ribbon cable are considered jacketed cable. Refer to NEC Table 310.15(B)(16) for more information.

\* = motors are 8" diameter

# Hitachi® 6" Submersible Motors

Stainless Steel



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