# DIMENSIONS AND WEIGHTS

2 WIRE SINGLE-PHASE MOTORS 50Hz & 60Hz

F	2	Н	Weight	Thrust Load				
kW	HP	mm	Kg	N				
0.37	0.5	396	7.7	2000				
0.55	0.75	416	8.6	2000				
0.75	1	431	9.2	2000				
1.1	1.5	456	10.4	2000				
1.5	2	491	11.9	2000				

#### 3 WIRE SINGLE-PHASE MOTORS 50Hz & 60Hz

F	2	Н	Weight	Thrust Load		
kW	HP	mm	Kg	N		
0.37	0.5	346	7.3	2000		
0.55	0.75	365	8.2	2000		
0.75	1	380	8.8	2000		
1.1	1.5	405	10.0	2000		
1.5	2	440	11.5	2000		
2.2	3	495	14.0	3000		
3	4	607	19.4	5000		
3.7	5	683	22.7	5000		
4	5.5	683	22.8	5000		

# 3 WIRE THREE-PHASE MOTORS 50Hz & 60Hz P2 H Weight Thrust Load

kW	HP	mm	Kg	N
0.37	0.5	330	6.7	2000
0.55	0.75	346	7.4	2000
0.75	1	365	8.2	2000
1.1	1.5	380	8.9	2000
1.5	2	405	10.0	2000
2.2	3	440	11.6	3000
3	4	516	15.2	5000
3.7	5	607	19.5	5000
4	5.5	607	19.5	5000
5.5	7.5	683	23.1	5000
7.5	10	783	27.5	5000

## MATERIAL SPECIFICATIONS

Component	Material
lotor Shell	304 Stainless steel
and Guard	NBR
able Connector	EPDM
pper end bracket cover	304 Stainless steel
pper end bracket	Zinc plated cast iron
lechanical seal	Ceremic/Carbon
haft (0.5 - 3 HP)	304 Stainless steel
haft (4 - 10HP)	630 Stainless steel
otor (0.5 - 3 HP)	Aluminum
otor (4 - 10HP)	Copper
onnector	PPS
Inding	Copper
ower end bracket	Aluminum
ower end bracket cover	304 Stainless steel

Note

Speicifications subject to change without notice

STAIRS INDUSTRIAL CO., LTD. NO.3-8, Sanchial Tsun, Lutsao Hsiang, Chiai Hsien, Taiwan,

E-mail: stairs@stairs.com.tw Website: www.stairs.com.tw



SUBMERSIBLE MOTOR - 2 WIRE - 3 WIRE

CERTIFICATE





### **APPLICATIONS**

STAIRS rewindable 4" oil filled submersible motors are designed to operate dependably in 4" and larger boreholes.

#### GENERAL SPECIFICATIONS

Mounting flage	4" NEMA standard
Degree of protection	IP 68
Insulation class	F
Single phase motors	0.37 kW up to 4.0 kW
Three phase motors	0.37 kW up to 7.5 kW
Standard voltages	1~207-244 (50Hz) 1~100-116 or 254 or 207-244(60Hz) 3~207-244 or 360-424(50Hz) 3~360-424 or 207-244(60Hz)
Cable length	1.7 M 0.37 kW up to 1.5 kW 2.5 M 2.2 kW up to 7.5 kW

## **OPERATING PARAMETERS**

Max voltage variation	+ 10% / - 10%
Max starts / h	40
Max water temperature	35°C
Flow rate	0.2m/sec
Axial thrust	2000N from 0.37 kW up to 1.5 kW 3000N 2.2 kW 5000N from 3 kW up to 7.5 kW
Max immersion depth	200m

#### **FEATURES**

- Removable waterproof cable connector for easy maintenance operations
- Cable materials are CE approved (for potable water applications)
- Non-toxic oil Premium quality, colorless white a
- Special stator design for high starting torque in single-phase models
- Unique single-phase electrical design for PSC starting, and starting capacitor + PSC starting.
- Motor casing shaft upper cover and bottom and made of stainless steel
- Ting plated east iron upper breeks
- 1 zinc-pialea casi ilon opper biacke
- Stators are designed for higher efficiency and the ability to operate within wider voltage fluctuations.
- Use of high quality European made components such as mechanical seal, cable connectors, copper winding wires and insulations.
- All motors 100% tested.

### TECHNICAL DATA

SINGLE-PHASE MOTORS 50 Hz PSC

Motor Type		P2		Voltage	In Istart		Efficiency PF		Nn Thrust Load		Capacitor	Cable	
3-Wire	2-Wire	KW	HP	v	Α	А	%	COSφ	RPM	N	μF	mm2	m
4R201	4R201M	0.37	0.5	230	3.7	12	53	0.90	2840	2000	16	1.5	1.
4R202	4R202M	0.55	0.75	230	5.0	15	62	0.90	2840	2000	20	1.5	1.
4R203	4R203M	0.75	1	230	6.2	20	64	0.90	2840	2000	25	1.5	1.
4R204	4R204M	1.1	1.5	230	8.1	32	68	0.90	2840	2000	35	1.5	1.
4R206	4R206M	1.5	2	230	10.4	38	73	0.90	2840	2000	40	1.5	1.
4R307	N/A	2.2	3	230	15.0	46	72	0.90	2840	3000	55	1.5	2.
4R508		3	4	230	22.7	70.8	67	0.90	2840	5000	70	2	2.
4R509	N/A	4	5.5	230	28.1	85	70	0.90	2840	5000	85	2	2.

## THREE-PHASE MOTORS 50 HZ DOL

	Motor Type	P	2	Voltage	In	Istart	Efficiency	PF	Nn	Thrust Load	Capacitor	Cable		
	3-Wiro	KW	HP	v	Α	А	%	COSφ	RPM	N	μF	mm2	m	
	4R222	0.37	0.5	230	2.9	7.8	60	0.80	2870	2000		1.5	1.7	
П	4R223	0.55	0.75	230	3.4	11.6	64	0.80	2850	2000		1.5	1.7	
	4R224	0.75	1	230	4.0	15	66	0.80	2840	2000		1.5	1.7	
	4R225	1.1	1.5	230	5.3	21	70	0.80	2850	2000		1.5	1.7	
	4R226	1.5	2	230	6.9	24	72	0.80	2850	2000		1.5	1.7	
	4R328	2.2	3	230	9.7	38	71	0.85	2850	3000		1.5	2.5	
	4R529	3	4	230	12.8	74	73	0.85	2850	5000		2.0	2.5	
	4R530	4	5.5	230	17.1	84	75	0.85	2850	5000		2.0	2.5	
	4R531	5.5	7.5	230	23.7	123	76	0.85	2850	5000		2.0	2.5	
	4R533	7.5	10	230	32.8	166	76	0.85	2850	5000		2.0	2.5	
	4R210	0.37	0.5	400	1.6	4.5	60	0.80	2820	2000		1.5	1.7	
	4R211	0.55	0.75	400	1.9	6.7	64	0.80	2840	2000		1.5	1.7	
	4R212	0.75	1	400	2.3	8.9	66	0.80	2840	2000		1.5	1.7	
	4R213	1.1	1.5	400	3.1	12	70	0.80	2850	2000		1.5	1.7	
	4R214	1.5	2	400	4.0	14	72	0.80	2850	2000		1.5	1.7	
	4R316	2.2	3	400	5.6	22	71	0.85	2850	3000		1.5	2.5	
	4R517	3	4	400	7.4	43	73	0.85	2840	5000		2.0	2.5	
	4R518	4	5.5	400	9.8	49	75	0.85	2850	5000		2.0	2.5	
	4R519	5.5	7.5	400	13.7	71	76	0.85	2850	5000		2.0	2.5	
	4R521	7.5	10	400	18.9	96	76	0.85	2850	5000		2.0	2.5	

#### SINGLE-PHASE MOTORS 60 Hz PSC

3-Wire	2-Wire	кw	HP	v		Α	А	А	%	allowable load	overload factor	RPM	N	ŏF	mm2	m
4R261	R261M	0.37	0.5	110	1.6	8.5	9.8	30	64	0.89	0.95	3430	2000	65	1.5	1.7
4R251	4R251M	0.37	0.5	230	1.6	4.8	5.2	15	64	0.75	0.87	3430	2000	16	1.5	1.7
4R291	N/A	0.37	0.5	254	1.6	4.3	4.7	13.8	58	0.75	0.87	3430	2000	12.5	1.5	1.7
4R262	N/A	0.55	0.75	110	1.5	10.9	12.8	38	65	0.59	0.64	3440	2000	80	1.5	1.7
4R252	4R252M	0.55	0.75	230	1.5	5.6	6.6	19	65	0.75	0.88	3440	2000	20	1.5	1.7
4R292	N/A	0.55	0.75	254	1.5	5.3	6	17.1	62	0.79	0.90	3430	2000	16	1.5	1.7
4R263	N/A	0.75	1	110	1.4	11.5	14.5	50	68	0.98	0.99	3440	2000	100	1.5	1.7
4R253	R253M	0.75	1	230	1.4	6.3	7.6	25	68	0.89	0.95	3440	2000	25	1.5	1.7
4R293	N/A	0.75	1	254	1.4	5.5	6.7	19.3	66	0.88	0.95	3430	2000	20	1.5	1.7
4R254	4R254M	1.1	1.5	230	1.3	8.7	10.3	34	69	0.90	0.95	3450	2000	35	1.5	1.7
4R294	N/A	1.1	1.5	254	1.3	7.9	9.2	25.7	65	0.89	0.95	3450	2000	30	1.5	1.7
4R256	4R258M	1.5	2	230	1.25	10.6	12.2	41	72	0.92	0.95	3450	2000	40	1.5	1.7
4R296	N/A	1.5	2	254	1.25	11	12	38	68	0.84	0.90	3450	2000	35	1.5	1.7
4R357	N/A	2.2	3	230	1.15	14.4	16.1	45	70	0.96	0.98	3450	3000	55	1.5	2.5
4R397	N/A	2.2	3	254	1.15	14	15.4	48.9	71	0.93	0.96	3450	3000	45	1.5	2.5
4R558	N/A	3.7	5	230	1.15	25	28	64	71	0.96	0.97	3450	5000	75	2.0	2.5

Motor Type P2 Voltage S.F. In Imax Istart Efficiency PF % Nn Thrust Load Capacitor Cable

#### THREE-PHASE MOTORS 60 HZ DOL

	F	2	Voltage	S.F	In	n Imax	Istart	Efficiency	Pi	PF %		Thrust Load	Cat	ole	
Motor Type 3-Wire	KW	HP	v	-	А	А	Α	%	allowable load	overload factor	RPM	N	mm2	m	
4R280	0.37	0.5	230	1.6	2.8	3.3	10	68	0.55	0.63	3450	2000	1.5	1.7	
4R281	0.55	0.75	230	1.5	3.8	4.3	17	69	0.63	0.78	3450	2000	1.5	1.7	
4R282	0.75	1	230	1.4	4.5	5.2	24	72	0.65	0.77	3450	2000	1.5	1.7	
4R283	1.1	1.5	230	1.3	5.7	6.6	33	72	0.73	0.81	3450	2000	1.5	1.7	
4R284	1.5	2	230	1.25	7.6	8.5	40	74	0.69	0.77	3450	2000	1.5	1.7	
4R386	2.2	3	230	1.15	10.3	11.2	48	74	0.76	0.80	3450	3000	1.5	2.5	
4R587	3.7	5	230	1.15	17.5	18.7	109	75	0.75	0.78	3450	5000	2.0	2.5	
4R566	4	5.5	230	1.15	18.1	20	109	75	0.77	0.8 1	3450	5000	2.0	2.5	
4R588	5.5	7.5	230	1.15	25.3	27.6	134	75	0.76	0.80	3450	5000	2.0	2.5	_
4R589	7.5	10	230	1.15	34.1	36.9	215	76	0.73	0.78	3450	5000	2.0	2.5	
4R270	0.37	0.5	400	1.6	1.6	1.9	9	68	0.63	0.77	3450	2000	1.5	1.7	
4R271	0.55	0.75	400	1.5	2.2	2.5	11	69	0.65	0.80	3450	2000	1.5	1.7	
4R272	0.75	1	400	1.4	2.6	3	14	72	0.58	0.69	3450	2000	1.5	1.7	
4R273	1.1	1.5	400	1.3	3.3	3.8	19	72	0.74	0.82	3450	2000	1.5	1.7	
4R274	1.5	2	400	1.25	4.4	4.9	23	74	0.67	0.7.5	3450	2000	1.5	1.7	
4R376	2.2	3	400	1.15	- 6	6.5	28	74	0.74	0.79	3450	3000	1.5	2.5	
4R577	3.7	5	400	1.15	10	11	63	75	0.73	0.77	3450	5000	2.0	2.5	-
4R567	4	5.5	400	1.15	10.5	11.6	63	76	0.75	0.79	3450	5000	2.0	2.5	
4R578	5.5	7.5	400	1.15	14.5	15.9	78	75	0.76	0.80	3450	5000	2.0	2.5	
10000	20.00	40	100	4 40	40.7	04.0	404	70	0.70	0.70	0.150	6000	0.0	0.6	