

# Pool & Spa OEM Pump/Motor Replacement Guide

## Square Flange and C-Flange Motors

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Motors and pumps need to be properly matched to one another to provide consistent, predictable performance. When selecting your NIDEC replacement motor you will need to know six important pieces of information:

- 1) Pump Mounting (ie. Square Flange, C-Flange, etc.)
- 2) Horsepower
- 3) Service Factor
- 4) Voltage
- 5) Frequency
- 6) Phase

**Most of this information can be attained from the motor nameplate. Always be sure that the total of horsepower times service factor of your new NIDEC motor is equal to or greater than the total of horsepower times service factor of the original motor.**

$$\text{Total Output HP} = (\text{horsepower}) \times (\text{service factor}) \\ = \text{THP or SFHP}$$

PUMP OEM	BRAND NAME	CATEGORY
Aqua Flo	Ultra Flow	C
Aqua Flo	Dominator	S
Astral	2000 Series	J
Baker Hydro	Hydron	J
Carvin Pool	Cygnat	S
Carvin Pool	Magnum & Magnum Force	J
Hayward	Super Pump	J
Hayward	Super Pump II	J
Hayward	Max-Flo	J
Hayward	Max-Flo II	S
Hayward	NorthStar	N
Hayward	TriStar	T
Jacuzzi Brothers	Bronze	C
Jacuzzi Brothers	Magnum & Magnum Force	J
Jandy/Zodiac	SHPF / SHPM	S
Jandy/Zodiac	JFloPro	S
Jandy/Zodiac	ePump	S
Pentair/Sta-Rite	DuraGlas / Max-E-Glas	S
Pentair/Sta-Rite	DuraGlas II / Max-E-Glas II	S
Pentair/Letro	Legend	P
Pentair/American	Ultra-Flow	S
Pentair/American	American Eagle	C
Pentair/Pac Fab	Challenger	S
Pentair/Pac Fab	WhisperFlo	S
Pentair/Pac Fab	Hydro Pump	C
Pentair /Purex	Pinnacle	S
Speck Pumps	Models 72, S90, Super Pro, 433, & ES90	J
Waterco	Hydrostorm, Hydrostar	S
Waterway	SVL56, Champion, SMF	S
Zodiac Pool	Polaris Vac-Sweep, PB4 Booster Pump	P

### CATEGORY "N" HAYWARD NORTHSTAR C-FLANGE THREADED SHAFT

HP	SERVICE FACTOR	VOLTAGE	ENERGY EFFICIENT EXTREME E® 6.5" Frame
3/4	1.85	208-230/115	ESN1072
1	1.40	208-230/115	EUSN1102
1	1.85	208-230/115	ESN1102
1 1/2	1.25	208-230/115	EUSN1152
1 1/2	1.60	208-230/115	ESN1152
2	1.20	208-230/115	EUSN1202
2	1.35	208-230	ESN1202
3	1.20	208-230	EUSN1302
3	1.60	208-230	ESN1302

### CATEGORY "C" NEMA® C-FLANGE KEYED SHAFT

HP	SERVICE FACTOR	VOLTAGE	STANDARD EFFICIENCY 6.5" FRAME	ENERGY EFFICIENT EXTREME E® 6.5" Frame
1/2	1.60	230/115	ASB120	ASB656
3/4	1.50	230/115	ASB121	ASB634
1	1.40	230/115	ASB122	ASB653
1.5	1.30	230/115	ASB123	ASB795
2	1.20	230	ASB124	ASB808
3	1.15	208-230		ASB817

### CATEGORY "T" HAYWARD TRISTAR REPLACEMENTS-SQUARE FLANGE

HP	SERVICE FACTOR	VOLTAGE	STANDARD EFFICIENCY 6.5" FRAME	ENERGY EFFICIENT EXTREME E® 6.5" Frame
1/2	1.98	208-230/115		ET3205
3/4	1.85	208-230/115		ET3207
3/4	1.25	230/115	ASB852	
1	1.85	208-230/115		ET3210
1	1.25	230/115	ASB853	
1.5	1.60	208-230/115		ET3215
1.5	1.10	230/115	ASB854	
2	1.35	208-230		ET3220
2	1.10	230/115	ASB859	
2.5	1.04	230	ASB840	
3	1.15	208-230	ASB844	

### CATEGORY "J" NEMA® C-FLANGE THREADED SHAFT

HP	SERVICE FACTOR	VOLTAGE	STANDARD EFFICIENCY		ENERGY EFFICIENT EXTREME E®		ENERGY EFFICIENT VARIABLE SPEED
			6.5" FRAME	5.5" FRAME	6.5" FRAME	5.5" FRAME	
1/2	1.60	230/115	ASB126	AST095	ASB657	ACT095	
3/4	1.00	230/115	ASB227	AST095			
	1.50	230/115	ASB127	AST125	ASB638	ACT125	
1	1.00	230/115	ASB228	AST125			NPTT125
	1.40	230/115	ASB128	AST165	ASB654	ACT165	
1.5	1.00	230/115	ASB229	AST165			NPTT165
	1.30	230/115	ASB129	AST225	ASB796		
2	1.00	230/115	ASB230	AST225			NPTT225
	1.20	230	ASB130	AST275	ASB809		
2.5	1.00	230	ASB231	AST275			NPTT270
3	1.15	208-230			ASB818		NPTT345
5	1.00	208-230			ASB819		

### CATEGORY "S" SQUARE FLANGE

HP	SERVICE FACTOR	VOLTAGE	STANDARD EFFICIENCY		ENERGY EFFICIENT EXTREME E®		ENERGY EFFICIENT VARIABLE SPEED
			6.5" FRAME	5.5" FRAME	6.5" FRAME	5.5" FRAME	
1/2	1.30	230/115		ASQ065			
	1.90	230/115	ASB846	ASQ095	ASB845	AQC095	
3/4	1.27	230/115	ASB852	ASQ095		AQC095	
	1.65	230/115	ASB847	ASQ125	ASB661	AQC125	
1	1.25	230/115	ASB853	ASQ125	ASQ125	AQC125	NPTQ125
	1.65	230/115	ASB848	ASQ165	ASB841	AQC165	
1.5	1.10	230/115	ASB854	ASQ165		AQC165	NPTQ165
	1.50	230/115	ASB858	ASQ225	ASB842		
2	1.10	230/115	ASB859	ASQ225			NPTQ225
	1.30	230	ASB748	ASQ260	ASB843		
2.5	1.04	230	ASB840	ASQ260			NPTQ270
3	1.15	208-230	ASB844		ASB844		NPTQ345
5	1.00	208-230			ASB850		

### CATEGORY "P" POOL CLEANERS

HP	SERVICE FACTOR	VOLTAGE	BRAND	NIDEC 56™ 6.5" Frame
3/4	1.50	230/115	Polaris	ASB625
	1.50	230/115	Letro	ASB668

