This document describes the pump motors combined for kits MULTI ISLAND.

BEFORE MAKING A CHOICE

To establish the correct pump motor kit is necessary to know the amount of water to be treated daily on average, the depth of the well and the relative availability of water, the water level, the application type (irrigation, irrigation at constant pressure , filling a basin, other uses).

The solar pumps are features to use the solar energy source. The MPPT softwares are used for adapting the number of revolutions of the engine to the voltage and power available in the PV generator, power that can never be as stable as the public electrical supply network or as an engine generator.

The performance of motors and pumps indicated below by the manufacturer are measured in optimal conditions of feeding, with engines at full speed and without hydraulic circuit leak. These conditions can not be replicated in a real application if not for fractions of time, and only in the presence of sufficient photovoltaic field and of a hydraulic circuit equivalent. Is therefore necessary to make a choice that takes account of these elements to not see performance less than desirable.

The average work performed is then conditioned by the sun, on which everyone has no power.

SOME PUMPS AVAILABLES FOR MULTI ISLAND

- Multistage centrifugal
- NEMA flange 4"
- rigid coupling
- Technopolymer impeller
- body AISI304

Code	Motor Power (Kw)	Water flow $m^3(h)$																		
		0,6	0,9	1,2	1,5	1,8	2,1	2,4	2,7	3	3,6	4,2	4,8	5,4	6	7,2	8,4	9,6	10,8	12
		depth (m)																		
PO0037*001	0,37	55	46	33	18															
PO0037*002	0,37			32	31	30	29	28	24	20	12									
PO0055*001	0,55	105	85	60	30															
PO0055*002	0,55				43	42	41	40	39	37	32	28	20	12	6					
PO0075*001	0,75	141	117	81	40															
PO0075*002	0,75		86	83	78	72	68	60	50	40										
PO0110*001	1,1			101	98	95	89	83	77	70	54	33								
PO0110*002	1,1									53	51	48	45	41	38	29	18			
PO0150*001	1,5		178	172	164	153	140	126	108	90										
PO0150*002	1,5									77	74	71	68	63	59	46	28			
PO0220*001	2,2		247	237	224	208	189	170	147	120										
PO0220*002	2,2						142	139	136	132	122	111	97	80	62					
PO0300*001	3				217	212	208	202	196	189	170	149	120	87	50					
PO0300*002	3												98	96	94	87	79	70	58	46

The head pressures and flow rates shown are some of the available.

For different characteristics and for higher powers we ask you to contact our offices.

BRUSHLESS SYNCHRONOUS MOTORS 3PH FOR MULTI ISLAND

- NEMA flange 4", AISI304, cooling and internal lubrication by oil
- 2 meters of cable included
- Insulation grade F
- Degree of protection: IP68
- Minimum speed of cooling flow: 0.3m / 35 ° C
- 20 starts per hour maximum
- Maximum operating depth: 250 mt
- Suitable for inverters

Output power P2 (kW)	Input power P1 (KW)	Nominal voltage (Vac)	Nominal Current (A)	Nominal speed (rpm)	PV nom. voltage (Vdc)	PV String (n)	PV Min power (W)	Weight (kg)
0,37	0,47	50	5,5	3000	80	2/3	700	4
0,55	0,70	50	10,5	3000	80	2/4	1000	4
1,1	1,40	130	6,5	3000	180	6/7	2100	6,6
1,1	1,40	230	3,5	3000	340	10/11	2100	6,6
2,2	2,75	230	7,5	3000	340	10/11	3300	8,5
3	3,75	230	12	3000	340	10/11	5600	8,5

ASYNCHRONOUS MOTORS 3PH FOR MULTI ISLAND

- NEMA flange 4", AISI304, cooling and internal lubrication by oil
- 2 meters of cable included
- Insulation grade F
- Degree of protection: IP68
- Minimum speed of cooling flow: 0.3m / 35 ° C
- 20 starts per hour maximum
- Maximum operating depth: 250 mt
- Suitable for inverters 30/50Hz

Output power P2 (kW)	Input power P1 (KW)	Nominal voltage (Vac)	Nominal Current (A)	Nominal speed (rpm)	PV nom. voltage (Vdc)	PV String (n)	PV Min power (W)	Weight (kg)
0,55	0,9	110	5,5	2850	170	6/7	1350	7,3
0,75	1,3	110	8,5	2850	170	7/8	1950	8,5
1,1	1,7	230	5,9	2820	340	10/11	2550	9,4
1,5	2,3	230	8,2	2820	340	10/11	3450	11,4
2,2	3,2	230	10,6	2820	340	10/11	4800	13,6
3	4,5	230	12,8	2820	340	10/11	6750	20

ASYNCHRONOUS MOTORS 3PH FOR MULTI ISLAND MAXY

- NEMA flange 4" or 6", AISI304/cast iron, cooling and internal lubrication by oil
- 2 meters of cable included
- Insulation grade F
- Degree of protection: IP68
- Minimum speed of cooling flow: 0.3m / 35 ° C
- 20 starts per hour maximum
- Maximum operating depth: 250/300 mt
- Suitable for inverters 30/50Hz

Output power P2 (kW)	Input power P1 (KW)	Nominal voltage (Vac)	Nominal Current (A)	Nominal speed (rpm)	PV nom. voltage (Vdc)	PV String (n)	PV Min power (W)	Weight (kg)
3	4,05	400	7,9	2840	540	18/22	6,00	17,5
4	5,43	400	10,2	2850	540	18/22	8,25	20,8
5,5	7,11	400	13,1	2840	540	18/22	10,7	24,1
7,5	9,55	400	18	2840	540	18/22	14,4	45,2
9,2	11,46	400	22	2840	540	18/22	17,2	48,6
11	13,86	400	25,5	2840	540	18/22	20,8	53
15	17,96	400	33,4	2840	540	18/22	27,0	59
18,5	22,3	400	41	2845	540	18/22	33,5	67
22	26,5	400	47	2825	540	18/22	40,0	70,6
30	35,13	400	61,5 **	2830	540	18/22	52,7	86,8
37	44,2	400	79,3	2830	540	18/22	66,3	98,8

ASSEMBLY, INSTALLATION AND SAFETY NOTES

1. Submersible pumps and motors are designed to operate immersed in water. Is allowed to use only in clear water, as drinking water or industrial. It is forbidden to use with liquids other than those mentioned.

2. The connection of the motor must be performed by trained personnel for work on electrical and electronic systems. Do not open motor or pump. Do not change either mechanically or electrically. Before switching on connect the devices to the ground and check the correct adjustment of all the devices of regulation and control matched.

3. The transport of the devices must always be in horizontal as original packaging. Other positions can damage the product.

4. If the time storage of engine has exceeded one year or if the weight is abnormal (lower), test the filling and isolation with appropriate tool (before disconnected from other devices as inverter or other). Any fillings should be performed by trained and following the necessary procedures sent by HPS.

5. The motor connection to the pump should be performed with care, using bolts and washers provided, making sure to apply grease resistant and acid-free in the joint before mating. The work on the bolts should proceed slowly and equal at all points.

6. The motor must be adequately cooled, then make sure that the size of the well in terms of diameter is not excessive compared to the diameter of the motor. If you need to use the special cooling tube supplied separately as an option.

7. The motors not require routine maintenance. Repairs are to be carried out by workshops prepared and authorized or HPS.

TECHNICAL ASSISTANCE

Directly or through its partners, please contact HPS Srl at the following references:

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