TECHNICAL BROCHURE WH-WC-2020



# WORKHORSE W4C, W6C, W4H



## **Volume Series**



- Permanent Magnet DC brushless motor
- Rebuildable **centrifugal** pump end
- DC or AC Wide Input Range
- Field Repairable Helical Mechanism
- Internal variable speed controller
- 304 Stainless Steel pump and motor
- Variable current & Over voltage protection

- Water-lubricated thrust bearings
- Water-filled encapsulated motor
- Soft start and soft stop to extend life
- Built-in Run-Dry protection
- Extremely reliable
- Laser welded stainless housing
- Comprehensive 2 Year Warranty

### Models:

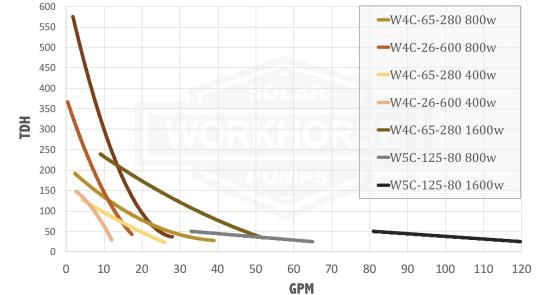
W4C-26-600 W4C-65-280 W5C-125-80

### Input Voltage:

DC 60 – 360VDC *Max Voc 450V* AC 120 – 240VAC 50/60Hz

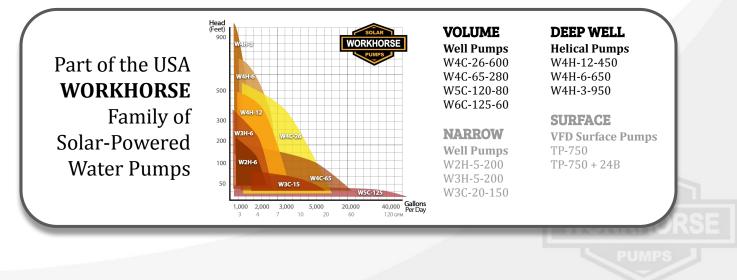
Current Range: 1.5 – 8A Power Input Range: 400w – 3000w Speed Range: 500 – 4500RPM Diameter: 4/5 Inch Protection Class: JP 68

### WORKHORSE Volume Series



### **Ideal Applications**

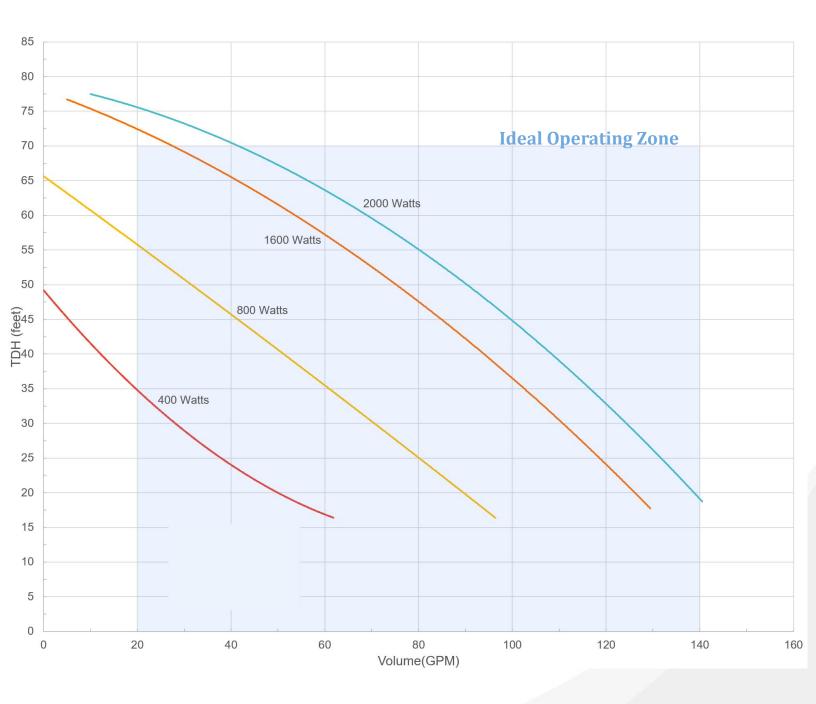
Higher volume, lower pumping head (Ponds, Canals, Springs) Productive older wells with higher particulate count



## W6C-125-80 VOLUME SERIES



The W5C-125-80 is an ultra high volume centrifugal solar pump with a 5" OD pump end to allow for the higher pumping volumes. It is able to produce a maximum of 125 GPM and 80ft of pumping head. Featuring up to 2hp motor, it is ideal for irrigation projects, keeping ponds full and other applications where a large volume of water is required.

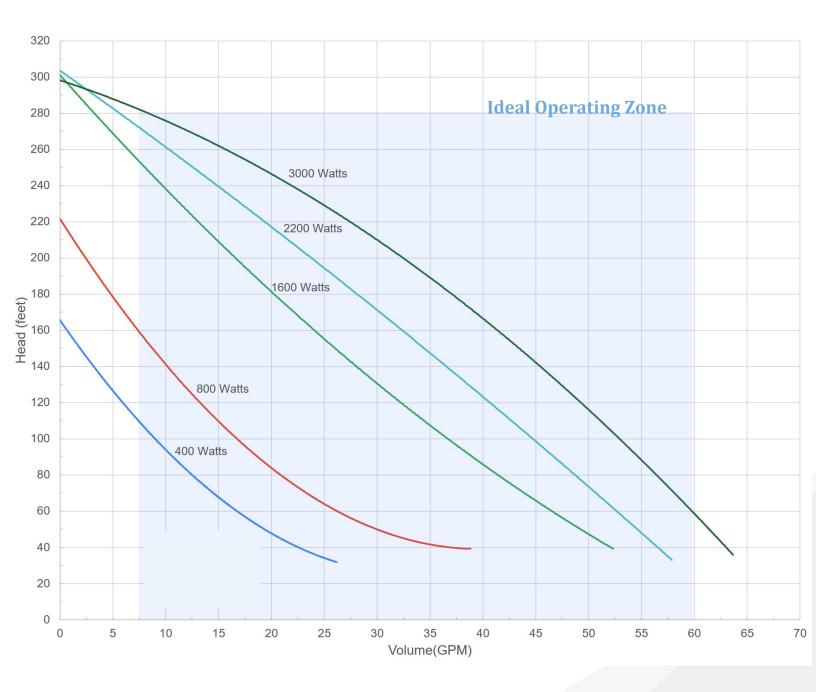






### W4C-65-280 volume series

The W4C-65-280 is a high volume centrifugal solar pump with a 4" OD pump end to allow for a balance between pumping volume and pumping head. It is able to produce a maximum of 65 GPM and 280ft of pumping head. Featuring up to 3hp motor, it is ideal for irrigation projects, keeping ponds full and other applications where a large volume of water is required.

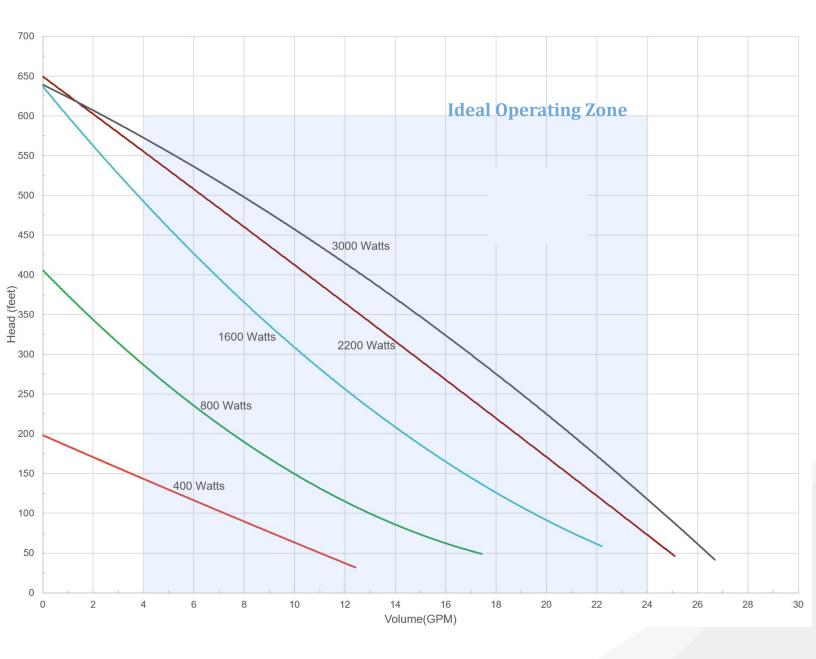






### W4C-26-600 volume series

The W4C-26-600 is a medium volume centrifugal solar pump with a 4" OD pump end to allow for operation at higher pumping head for those deeper wells, while maintaining impressive volume. It is able to produce a maximum of 26 GPM and 600ft of pumping head. Featuring up to 3hp motor, it is ideal for larger livestock projects, households and projects where the water is a bit deeper.





## **Deep Series**



- Permanent Magnet DC brushless motor
- Helical Rotor positive displacement pump end
- DC or AC Wide Input Range

50/60Hz

4500RPM

**Diameter:** 4/5 Inch

Protection Class: IP 68

- Field Repairable Helical Mechanism
- Internal variable speed controller
- 304 Stainless Steel pump and motor
- Variable current & Over voltage protection

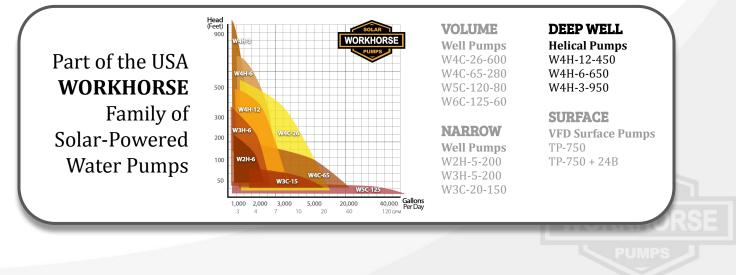
- Water-lubricated thrust bearings
- Water-filled encapsulated motor
- Soft start and soft stop to extend life
- **Run-Dry protection**
- Extremely reliable
- Laser welded stainless housing
- **Comprehensive 2 Year Warranty**

### Models: 1000 -W4H-3-950 800w 900 W4H-12-450 W4H-6-650 800 -W4H-12-450 1600w W4H-3-950 700 W4H-12-450 400w 600 **Input Voltage:** -W4H-12-450 800w HO 500 DC 60 - 360VDC Max Voc 450V 400 AC 120 - 240VAC 300 200 Current Range: 1.5 – 8A 100 **Power Input Range:** 0 400w - 3000w 3 0 1 2 Δ 5 6 7 8 9 10 11 12 13 **GPM** Speed Range: 500 -

### **WORKHORSE** Deep Series

### **Ideal Applications**

Higher pumping head, Lower volume Particle free deep well water pumping



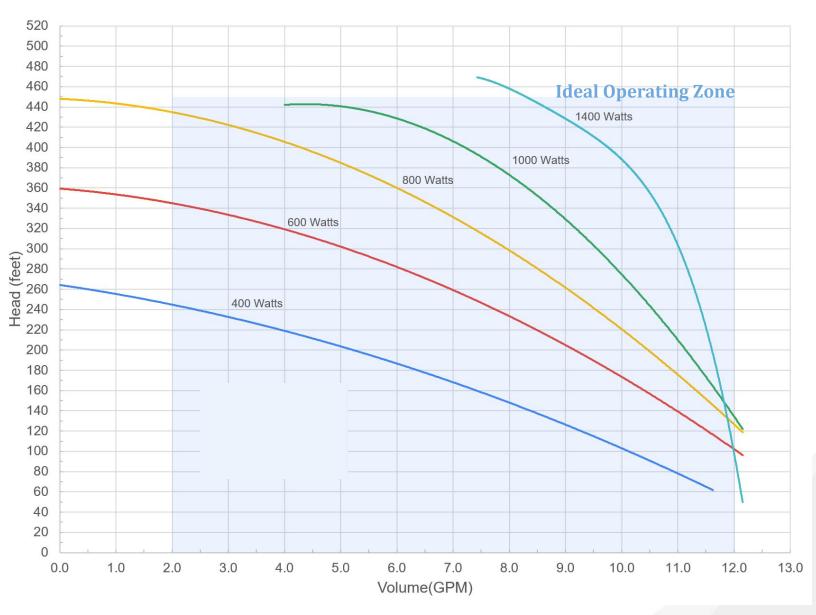
WorkhorsePumps.com

916-623-4621



### W4H-12-450 DEEP SERIES

The W4H-12-450 is a medium volume helical solar pump with a 4" OD pump end to allow for operation at higher pumping head for those deeper wells, while maintaining impressive volume. It is able to produce a maximum of 12 GPM and 450ft of pumping head. Featuring up to 1.5hp motor, it is ideal for livestock projects, households and projects where the water is a bit deeper than a centrifugal pump can handle.





## W4H-6-650 *DEEP SERIES*



The W4H-6-650 is a medium volume helical solar pump with a 4" OD pump end to allow for operation at higher pumping head for those deeper wells, while maintaining impressive volume. It is able to produce a maximum of 6 GPM and 650ft of pumping head. Featuring up to 1.5hp motor, it is ideal for livestock projects, households and projects where the water is a bit deeper than a centrifugal pump can handle.

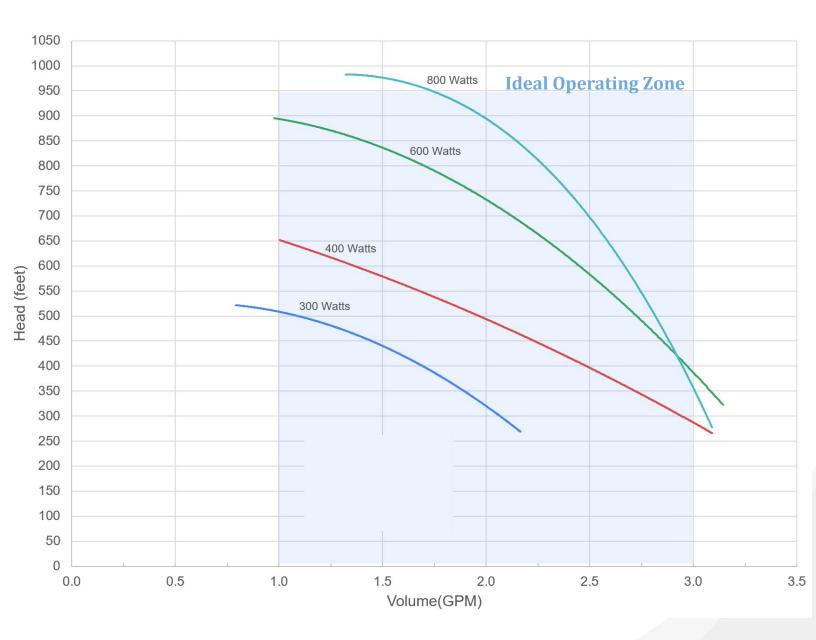
Head	W4H-3-950 GPM 400w	W4H-3-950 GPM 800w	W4H-6-650 GPM 600w	W4H-6-650 GPM 800w	W4H-6-650 GPM 1200w		
25	3	3	6	6	6		
50	3	3	6	6	6		
75	3	3	6	6	6		
100	3	3	6	6	6		
125	3	3	6	6	6		
150	3	3	5.5	6	6		
175	3	3	5.2	6	6		
200	3	3	4.9	6	6		
225	3	3	4.8	6	6		
250	3	3	4.6	5.5	6		
275	2.9	3	4.4	5.2	6		
300	2.9	3	4.3	4.9	5.8		
325	2.8	3	4.2	4.8	5.6		
350	2.7	3	4	4.7	5.1		
375	2.5	2.9	3.8	4.4	4.8		
400	2.4	2.9	3.6	4.3	4.6		
425	2.3	2.9	3.4	4.1	4.4		
450	2.2	2.8	3.3	4	4.3		
475	2.1	2.8	3.1	3.8	4.2		
500	2	2.8		3.6	4		
525	1.8	2.8		3.4	3.9		
550	1.6	2.8		3.3	3.6		
575	1.4	2.8		2.8	3.4		
600	1.3	2.8			3.1		
625	1.2	2.8			2.9		
650	1	2.7					





### W4H-3-950 DEEP SERIES

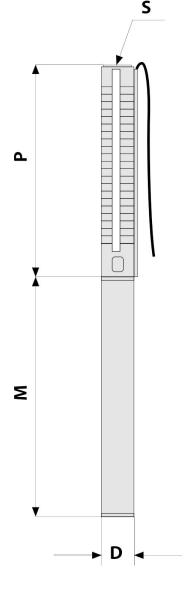
The W4H-3-950 is a low volume helical solar pump with a 4" OD pump end to allow for operation at very high pumping head for those especially deep low producing wells. It is able to produce a maximum of 3 GPM and 950ft of pumping head. Featuring up to 1.5hp motor, it is ideal for larger deep livestock wells, households and projects where the water is a very deep.





## **Pump Dimensions**

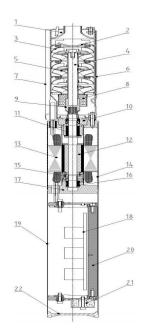




	W5C- 125-80	W4C- 65-280	W4C- 26-600	W4H- 3-950	W4H- 6-650	W4H- 12-450		
S	2" FNPT	2" FNPT	1.25" FNPT	1" FNPT	1.25" FNPT	1.25" FNPT		
D	5"	4"	4"	4"	4"	4"		
Р	20 3/4"	14 3/8"	20 5/8"	29 1/4"	30 3/8"	30 3/8"		
M	24 1/4"	24 1/4"	24 1/4"	24 1/4"	24 1/4"	24 1/4"		
Т	45"	38 5/8"	44 7/8"	53 1/2"	54 5/8"	54 5/8"		
W	47 lbs	34 lbs	38 lbs	35 lbs	36 lbs	36 lbs		

2" and 3" Diameter Pumps Available too.

- 1 Discharge chamber *Stainless steel*
- 2 Non-return valve Stainless steel
- 3 Guide vanes *PC/Stainless steel*
- 4 Pump Shaft *Stainless steel*
- 5 Impeller POM/Stainless steel
- 6 Impeller Fastener Stainless steel
- 7 Cable Cover Stainless steel
- 8 Pump Inlet *Stainless steel*
- 9 Shaft coupling Stainless steel
- 10 Upper Bearing Housing Stainless
- 11 Upper Bearing Silicon Carbide



12 Permanent Magnet Rotor

13 Motor Stator

- 14 Pump Housing Stainless steel
- 15 Thrust bearing Graphite
- 16 Lower Bearing Silicon Carbide
- 17 Lower Bearing Housing Stainless
- 18 Controller Housing Stainless steel
- 19 Controller Housing Stainless steel
- 20 Heatsink Aluminium
- 21 Inductor
- 22 Base Stainless steel

## **Other Specifications**

Power Input	DC 60 – 360VDC Max Voc 450V AC 120 – 240VAC 50/60Hz
Run Time	AC: Unlimited Solar: 6-10 hours/day depending on location
Start/Stop	No Limit (soft start built in)
Liquid Characteristics	pH 5 to 9 Maximum temperature 100F Sand Content: <1g/m3 for helical, <50g/m3 for centrifugal
Certifications	CE, TUV
Speed Range	500 – 4500RPM
Diameters	4", 5"
<b>Protection Class</b>	IP 68

Model	Watts Solar	Total Dynamic Head (ft)																	
		16	32	49	64	98	128	160	192	262	328	394	459	525	591	656	787	919	TDH
W5C-125-80	400w	62	23																
5" Centrifugal	800w	96	65	33															
	1600w	129	108	82															
W4C-65-280	400w	30	26	18	10	4													
4" Centrifugal	800w	45	39	35	29	17	11												
	1600w	65	60	55	47	40	30	21	14	5									
W4C-26-600	400w	12	12	10	10	5	3												
4" Centrifugal	800w	20	19	14	13	12	11	10	7	4	2								
	1600w	28	24	23	22	19	18	17	15	12	9	7	5						
W4H-12-450	400w					10	8	7	6										
4" Helical	800w					15	14	12	11	9	7	4							
	1600w							16	15	11	11	10	8						
W4H-3-950	400w						3	3	3	3	3	3	2	2	1				
4" Helical	800w										3	3	3	3	3	3	2	1	

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Call, Text or Email Us Anytime with Technical Questions

## 916-623-4621

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