

# Series ATP

## 12VDC Power Consumption Chart



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### SERIES ATP POWER CONSUMPTION

1. Identify largest plunger diameter that can accomplish the application flow range and discharge (injection) pressure.\*
2. Use the application maximum discharge pressure and flow rate to find the current draw in amps at 12VDC.
3. Repeat steps 1-2 for the second head on a 2-head unit, if applicable. Any plunger combination can be used on a 2-head unit.
4. Sum the two current draw values each head to find the total current draw for the 2-head pump, if applicable.
5. Use the total current draw in amps at 12VDC to size a CheckPoint Series SPS or custom 12VDC solar power system.

Plunger Diameter [in]	Discharge Pressure [PSIG]	Flow Rate									
		1.38	2.00	4.00	6.00	8.00	10.00	12.00	13.00	13.68	[GPD]
		0.06	0.08	0.17	0.25	0.33	0.42	0.50	0.54	0.57	[GPH]
1/4"  100% Length Min Flow 1.38 GPD 0.06 GPH  MAWP 5,000 PSIG	0	0.308	0.398	0.701	1.001	1.301	1.604	1.718	1.776	1.814	Current Draw @ 12VDC [A]
	400	0.362	0.465	0.811	1.153	1.494	1.847				
	800	0.416	0.532	0.920	1.304	1.688	2.090				
	1,200	0.476	0.603	1.028	1.448	1.869					
	1,600	0.541	0.677	1.134	1.585	2.037					
	2,000	0.607	0.752	1.240	1.722	2.205					
	2,800	0.709	0.882	1.464	2.039	2.614					
	3,200	0.760	0.947	1.576	2.197	2.818					
	3,600	0.812	1.013	1.688	2.356	3.023					
	4,000	0.863	1.078	1.800	2.514	3.227					
4,500	0.971	1.749	2.260	2.713							
5,000	1.491	1.814	2.372	2.871							

Plunger Diameter [in]	Discharge Pressure [PSIG]	Flow Rate									
		3.10	7.00	11.00	15.00	19.00	23.00	27.00	31.00	33.50	[GPD]
		0.13	0.29	0.46	0.63	0.79	0.96	1.13	1.29	1.40	[GPH]
3/8"  100% Length Min Flow 3.10 GPD 0.13 GPH  MAWP 3,500 PSIG	0	0.273	0.462	0.654	0.846	1.039	1.231	1.429	1.756	1.959	Current Draw @ 12VDC [A]
	200	0.341	0.563	0.788	1.015	1.242	1.467	1.697	2.067		
	400	0.409	0.664	0.923	1.184	1.445	1.704	1.966	2.379		
	800	0.534	0.854	1.180	1.508	1.835	2.161	2.489	2.984		
	1,000	0.591	0.943	1.302	1.663	2.023	2.382	2.743	3.277		
	1,400	0.711	1.122	1.540	1.961	2.382	2.801	3.222			
	1,800	0.838	1.301	1.774	2.249	2.724	3.196	3.671			
	2,000	1.07	1.49	1.91	2.41	2.92	3.36	3.83			
	2,500	1.37	1.84	2.4	3.00	3.54	4.07	4.6			
	3,000	1.6	2.18	2.79	3.43	4.09	4.7	5.16			
3,500	1.81	2.38	2.9	3.55	4.20	4.92	5.54				

Plunger Diameter [in]	Discharge Pressure [PSIG]	Flow Rate									
		5.51	12.00	20.00	28.00	36.00	44.00	52.00	60.00	60.43	[GPD]
		0.23	0.50	0.83	1.17	1.50	1.83	2.17	2.50	2.52	[GPH]
1/2"  100% Length Min Flow 5.51 GPD 0.23 GPH  MAWP 2,200 PSIG	0	0.301	0.506	0.759	1.013	1.266	1.519	1.772	2.197	2.223	Current Draw @ 12VDC [A]
	100	0.365	0.584	0.856	1.128	1.399	1.670	1.942			
	400	0.533	0.809	1.148	1.489	1.829	2.169	2.509			
	600	0.643	0.967	1.366	1.766	2.165	2.564	2.964			
	800	0.763	1.139	1.603	2.068	2.532	2.996	3.461			
	900	0.820	1.223	1.721	2.220	2.717	3.215	3.713			
	1,000	0.877	1.307	1.839	2.371	2.902	3.433	3.966			
	1,500	1.21	1.46	1.94	2.48	3.06	3.59	5.003			
	2,000	1.89	2.29	2.75	3.46	4.16	4.84	5.53			
	2,200	2.6	3.4	3.69	4.4	5.13	5.85	6.61			

\*These tables are relevant only for the Series ATP pump set to full (100%) stroke length and coupled with the 12VDC variable speed 6-67 RPM Class 1 Division 2 motor only. The amp values shown are for a 1-head unit and are based on 12VDC voltage. The minimum flow shown for each plunger size is based on the 6 RPM minimum speed of the motor with the pump stroke length set at maximum (100%). Lower flow rates down to zero can be achieved by using the mechanical stroke length reduction. Use the amp value for the minimum flow shown when using the plunger below that flow rate. Selecting the largest plunger that can meet the application maximum pressure and flow while at 100% stroke length will optimize the current draw and solar power system size, as well as provide better turndown resolution.