

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									[GPD]	[GPH]
		1.38	2.00	4.00	6.00	8.00	10.00	12.00	13.00	13.68		
		0.06	0.08	0.17	0.25	0.33	0.42	0.50	0.54	0.57		
1/4" 100% Length Min Flow 1.38 GPD 0.06 GPH MAWP 4,000 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						
	2,400	0.658	0.817	1.352	1.881	2.409						
	2,800	0.709	0.882	1.464	2.039	2.614						
	3,200	0.760	0.947	1.576	2.197	2.818						
	4,000	0.863	1.078	1.800	2.514	3.227						

Plunger Diameter [in]	Discharge Pressure [PSIG]	Flow Rate									[GPD]	[GPH]
		3.10	7.00	11.00	15.00	19.00	23.00	27.00	31.00	33.50		
		0.13	0.29	0.46	0.63	0.79	0.96	1.13	1.29	1.40		
3/8" 100% Length Min Flow 3.10 GPD 0.13 GPH MAWP 1,800 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			
	500	0.443	0.714	0.990	1.268	1.546	1.822	2.100	2.535			
	600	0.477	0.765	1.058	1.352	1.647	1.940	2.235	2.691			
	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			
	1,200	0.647	1.032	1.424	1.818	2.212	2.603	2.997	3.570			
	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				

Plunger Diameter [in]	Discharge Pressure [PSIG]	Flow Rate									[GPD]	[GPH]
		5.51	12.00	20.00	28.00	36.00	44.00	52.00	60.00	60.43		
		0.23	0.50	0.83	1.17	1.50	1.83	2.17	2.50	2.52		
1/2" 100% Length Min Flow 5.51 GPD 0.23 GPH MAWP 1,000 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				
	200	0.428	0.663	0.952	1.243	1.532	1.822	2.112				
	300	0.484	0.738	1.050	1.363	1.676	1.988	2.301				
	400	0.533	0.809	1.148	1.489	1.829	2.169	2.509				
	500	0.582	0.880	1.247	1.615	1.982	2.349	2.717				
	600	0.643	0.967	1.366	1.766	2.165	2.564	2.964				
	700	0.704	1.054	1.485	1.917	2.348	2.779	3.211				
	800	0.763	1.139	1.603	2.068	2.532	2.996	3.461				
	1,000	0.877	1.307	1.839	2.371	2.902	3.433	3.966				

*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.