

CONSTANT PRESSURE CONTROLS

FW1141
0326
Supersedes
0620

Artesian Drive® For Centrifugal Pump Applications

Artesian Drive® is a line of custom programmed Variable Frequency Drives (VFD) that enhance the performance of standard centrifugal pumps. When applied correctly to three phase motor driven pumps, the Artesian Drive® eliminates pressure cycling associated with conventional pressure switch controlled water pumping systems and provides a constant output pressure by increasing or decreasing motor speed, based upon demand.

Artesian Drive® is factory programmed for F&W centrifugal pumps to provide optimum performance and motor protection. The Artesian® Drive can be used with other pump brands, provided the pump is powered by a three phase motor that does not exceed the maximum current output rating of the drive.

**NEMA 4
Enclosures**



INCLUDED ITEMS

- Factory programmed variable frequency drive
- NEMA 4 enclosure
- Pressure sensor, preset at 50 PSI
- Sensor adjustment tool
- Sensor cable (10 ft.)



Specifications

FEATURES

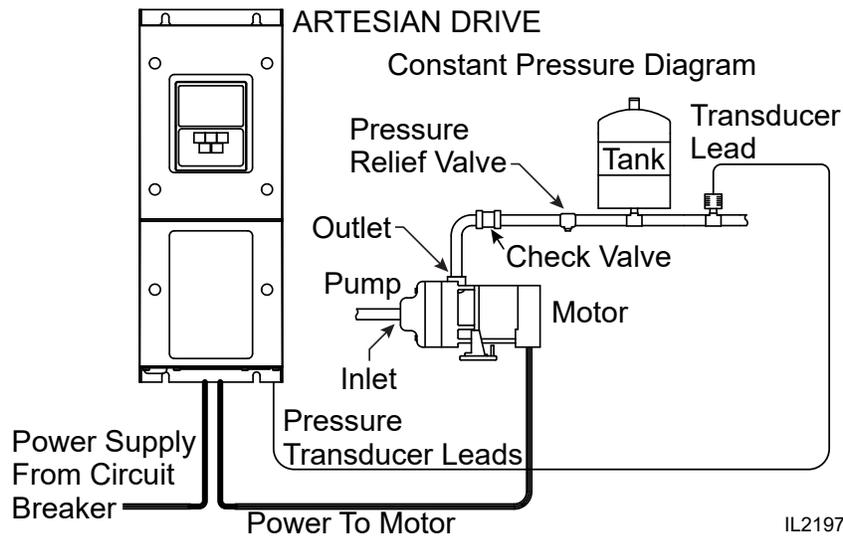
- Pre-programmed Drives: No need for field technician to program the drive at the site
- Drives are available for any 1 thru 15 HP centrifugal pump that is powered by a three phase motor
- Drives up to 3 HP permit the use of widely available 230 volt, single phase power source
- Constant water pressure with a wide range of settings (15 - 95 PSI)*
- Pressure is easily adjusted with a 7/32" allen wrench
- Works with a small pressure tank or a larger tank, already in place
- No in-rush current at startup
- Soft start reduces mechanical/electrical stress, prolonging pump and motor life
- Built-in protection and diagnostics
- Motor overload
- Locked or bound pump - with auto reversing torque
- Low line voltage
- Short circuit
- High voltage / lightning protection
- Dry run conditions, using intelligent load monitoring
- Overheated drive with automatic reset

*NOTE: The maximum obtainable system pressure is limited by the performance of the pump installed.

DRIVE SPECIFICATIONS AND DIMENSIONS

	AD 070059	AD 096074	AD 096096	AD 150145	AD 420210	AD 180145	AD 220210	AD 280280	AD 420410																					
Input from power source	Voltage					180-264 VAC Single Phase																								
	Frequency					50/60 Hz																								
	Current (Max)					13.9 A	19.5 A	19.5 A	36.4 A	55.8 A	18.8 A	29.1 A	36.4 A	55.8 A																
"Output to Motor (Three Phase)"	Voltage										Voltage Automatically Adjusts with Frequency (0 thru 230 VAC)																			
	Frequency Range										30-60 Hz																			
	Current Programed										5.9 A	7.4 A	9.8 A	14.5 A	21.0 A	14.5 A	20.0 A	28.0 A	41.0 A											
Current Max										7.0 A	11.0 A	11.0 A	15.0 A	23.0 A	18.0 A	23.0 A	30.0 A	46.0 A												
For Use With	Motor										Standard 60Hz Pump & 230 V 3-Phase Motor Combination																			
	Reference HP Rating*										1.5	2	3	5	7.5	5	7.5	10	15											
Pressure Setting	Factory preset										50 PSI																			
	Range										15-95 PSI																			
Operating Conditions	"Operating Temperature (at 230V Input)"					"-10°C to 40°C (-15°F to 104°F)"					"-10°C to 50°C (-15°F to 122°F)"					"-10°C to 40°C (-15°F to 104°F)"					"-10°C to 50°C (-15°F to 122°F)"									
	Relative Humidity										Max 95% non-condensing																			
	Enclosure Rating										IP66	IP66	IP66	IP55	IP55	IP66	IP55	IP55	IP55											
Physical Characteristics	Controller Size (inches)										7.4 x 10.2 x 9.5					6.8 x 17.8 x 9.5					8.3 x 12.2 x 10.5					6.8 x 17.8 x 9.5				
	Weight										10.6 lbs.	10.6 lbs.	10.6 lbs.	25.4 lbs.	25.4 lbs.	16.1 lbs.	25.4 lbs.	25.4 lbs.	25.4 lbs.											

TYPICAL INSTALLATION



IL2197

