

# CONSTANT PRESSURE CONTROLS

## *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.)



**Trust runs deep™**

# 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

