CONSTANT PRESSURE CONTROLS

FW1141 0618 Supersedes 1016

Antesian 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

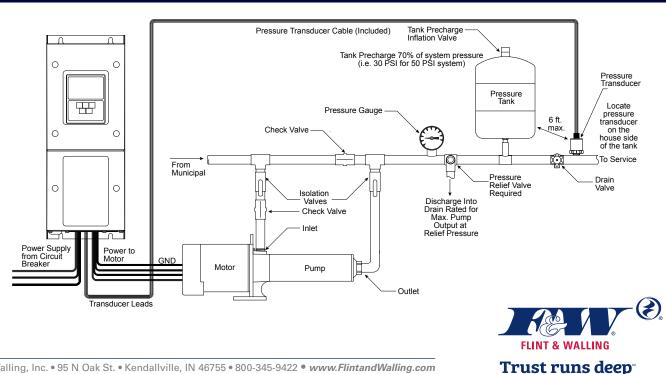
FEATURES

- 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										
		AD070059	AD096074	AD096096	AD150145	AD420210	AD180145	AD220210	AD280280	AD420410
Input from power source	Voltage	180-264 VAC Single Phase 180-264 VAC Three 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	"-10°C to 40°C			"-10°C to 50°C		"-10°C to 40°C	"-10°C to 50°C		
	(at 230V Input)"	(-	15°F to 104°F	-)"	(-15°F to 122°F)"		(-15°F to 104°F)"	(-15°F to 122°F)"		
	Relative Humidity	Max 95% non-condensing								
	Enclosure Rating	IP66	IP66	IP66	IP55	IP55	IP66	IP55	IP55	IP55
Physical	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		
Characteristics	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



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