

# VFD SPECIFICATIONS AND SETTINGS FOR GENERATOR DRIVE MOTOR

Revision date = July 25, 2014

## \* MOTOR NAMEPLATE DATA:

- > Marathon Electric model J13K
- > 230 volts AC
- > 1725 RPM at 60 Hz
- > 1 amp line current at full load

## \* GENERATOR SPEED:

- > 12-pole generator needs to spin at 600 RPM to output 60 Hz
- > Belt sheave ratio approximately 3:1
- > Motor needs to spin at approximately 1800 RPM

## \* VFD SPECIFICATIONS:

- > Automation Direct model GS1-10P2
- > 1/4 HP power rating
- > Single-phase 100-120 VAC input
- > Three-phase 200-240 VAC output

## \* VFD PARAMETER SETTINGS:

- > [0-00] Motor nameplate voltage = 230 (volts)
- > [0-01] Motor nameplate amps = 1.0 (amps)
- > [0-02] Motor base frequency = 60 (Hz)
- > [0-03] Motor base RPM = 1725 (RPM)
- > [0-04] Motor maximum RPM = 1850 (RPM)
- > [1-00] Stop methods = 1 ("coast to stop")
- > [1-01] Acceleration time = 30 (seconds)
- > [2-00] Volts/Hz settings = 2 ("fans and pumps")
- > [2-08] PWM carrier freq = 3 (kHz)
- > [3-00] Source of op command = 1 ("external, keypad STOP enabled")
- > [3-01] Multi-func input terms = 0 ("DI1=FWD/STOP, DI2=REV/STOP")
- > [4-00] Source of freq command = 3 ("4-20 mA external")
- > [4-05] Loss of analog signal = 2 ("continue at last frequency")
- > [6-15] Upper bound of out freq = 65.0 (Hz)
- > [6-16] Lower bound of out freq = 55.0 (Hz)

Note: begin VFD settings by restoring to factory defaults (enter value of 99 into parameter 9-08), then manually edit all the above settings one by one.

## \* VFD SWITCH SETTINGS:

- > V/I switch must be set to "I" position for analog \*current\* signal