

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