



TECHNICAL NOTE #:	TN_VFD_GP1_008-G
EFFECTIVE DATE:	08-27-02
SUPERSEDES DATE:	
ORIGINATOR:	Mark Thrash
NO. OF PAGES:	2

GP10 and VG10 Test Guidelines

Withstand Voltage Test (HIPOT)

Purpose

To test and verify the insulation resistance between the circuitry and the enclosure.

Conditions

Apply voltage between the circuitry and the enclosure

2,000 volts for 230V units

2,500 volts for 40 ~ 400HP, 460V units

2,500 volts for 450 ~ 800HP, 460V units

Check items

Megohmmeter reading marks infinite (out of range) resistance. Set instrument's range as follows.

200Mohms-250V range for 230V units

200Mohms-500V range for 460V units

Operations check with no motor, for drives 30HP and larger.

Purpose

To initialize the drive parameters and verify its output voltage.

Conditions

The drive is connected to a 3 phase 460V or 230V power supply,

The test is carried out with no motor connected to the drive output.

Check items

After initialization the parameters, the measure output voltages between terminals U, V and W are approx. 460V or 230V RMS.

Final test run motor

Purpose

To test the drive functions and capabilities under a load condition.

Conditions

Drive connected to appropriate size and voltage motor.

Check items

Control voltages at different points in the drive.

Control Terminals 13 to 11 = 10 Volt DC

P24 to CM = 24Volt DC

Initialization parameters (H03)

To perform initialization, press STOP and ^ keys together to set H03=1, then press the FUNC/DATA key. (Returns all functions to factory setting)

Drive reaction to momentary power failure

Ability to drive the motor in the range of specified frequencies
(GP10 = 120Hz and VG10 = 400Hz.)

Verify current limit (F40 Driving and F41 Braking)

Over voltage detecting function
(DC bus 230V input = 400Vdc and 460V input = 780Vdc)

Confirm Data setting via keypad and copy function.

Confirmation of final data

Final Inspection

Purpose

To inspect cosmetic attribute and information of the drive.

Conditions

Drive uncovered

Check items

Test label

Screws

Connectors

More than 12.7 mm of gap between conductive parts and the printed circuit boards supports.

More than 9.5 mm of gap between conductive parts and the enclosure.

Enclosure

Terminal block

Serial number

Labels