G5+ High Frequency Software

Software Number: VSG106113
Part Number: CIMR-G5MXXXXXF-003

1.0 Introduction:

This custom software is designed for high frequency motor applications. The drive's maximum output frequency can be set to either 1000 Hz or 1300 Hz, depending upon E1-14. E1-14 is a Factory Access Level parameter. This software is only available in V/f control (A1-02 = 0). Several drive functions have been deleted to in order to free up CPU processing time needed for this software.

E1-14 = 0 for 1000 Hz
E1-14 = 1 for 1300 Hz

2.0 Basic Specification:

- Maximum Output Frequency: 1000 Hz *1
- Available Control Modes: V/f Control (A1-02 = 0)
- Applicable Inverter Models: 230V Class, 20P4 - 2075
  460V Class, 40P4 - 4045
  600V Class, 51P5 - 5055

3.0 Deleted Functions and Constants:

A1-02	Control Method
B1-05	Zero-speed Operation
B7	Droop Function
B9	Zero Servo Function
C3-05	Flux Calculation Method
C4	Torque Compensation Function
C5	ASR Function
C8	Factory Tuning
D5	Torque Reference Function
E2-04	Motor Poles
E2-06	Leakage Inductance
E2-07	Saturation Comp 1
E2-08	Saturation Comp 2
E2-09	Mechanical Loss
E3	Motor 2 Control Method
E5-04	Motor 2 Motor Poles
E5-06	Motor 2 Leakage Inductance
F1	PG Option Card Setup
L7	Torque Limit Function
O1-04	Display Units

*1: 1300 Hz when E1-14 = 1.

4.0 Deleted Monitors:
U1-05 Motor Speed
U1-09 Torque Reference
U1-19 Motor Excitation Current Id
U1-21 ASR Input
U1-22 ASR Output
U1-23 Speed Deviation
U1-26 Voltage Reference Vq
U1-27 Voltage Reference Vd
U1-32 ACR (q) Output
U1-33 ACR (d) Output
U1-35 Zero Servo Pulses
U2-06 Motor Speed at Fault
U2-10 Torque Reference at Fault

5.0 Modified constants:

B6-01 Dwell Frequency at Start:	1000.0 Hz max *1
B6-03 Dwell Frequency at Stop:	1000.0 Hz max *1
B8-02 Energy-Saving Frequency:	1000.0 Hz max *1
C6-01 Carrier Frequency:	10.0 kHz max
C6-02 Carrier Frequency:	10.0 kHz max
D1-01 Frequency Reference 1:	1000.0 Hz max *1
D1-02 Frequency Reference 2:	1000.0 Hz max *1
D1-03 Frequency Reference 3:	1000.0 Hz max *1
D1-04 Frequency Reference 4:	1000.0 Hz max *1
D1-05 Frequency Reference 5:	1000.0 Hz max *1
D1-06 Frequency Reference 6:	1000.0 Hz max *1
D1-07 Frequency Reference 7:	1000.0 Hz max *1
D1-08 Frequency Reference 8:	1000.0 Hz max *1
D1-09 Jog Frequency:	1000.0 Hz max *1
D3-01 Jump frequency 1:	1000.0 Hz max *1
D3-02 Jump frequency 2:	1000.0 Hz max *1
D3-03 Jump frequency 3:	1000.0 Hz max *1
E1-04 Max Output Frequency:	1000.0 Hz max *1
E1-06 Base Frequency:	1000.0 Hz max *1
E1-07 Mid Frequency A:	1000.0 Hz max *1
E1-09 Min Frequency:	1000.0 Hz max *1
E1-11 Mid Frequency B:	1000.0 Hz max *1
H1-xx Multi-Function DI:	Deleted D, E, 71, 72, 77
H2-xx Multi-Function DO:	Deleted 1D, 30, 31, 33
H3-xx Multi-Function AI:	Deleted 10, 11, 12, 13, 14, 15
H4-xx Multi-Function AO:	Deleted 5, 9, 19, 21, 22, 23, 26, 27, 32, 33
L4-01 Speed Agree Level:	1000.0 Hz max *1
L4-03 Speed Agree Level +/-:	-1000 to 1000 Hz max *1

*1: 1300 Hz when E1-14 = 1.