



1336 PLUS II Custom Firmware EN916 - Variable Voltage Control



ATTENTION: This Custom Firmware has been designed for a specific application and differs from the standard 1336 PLUS II product offering. It must be installed and run only under this custom application. Attempting to run this Custom Firmware under any other type of application or condition could result in unpredictable and/or hazardous conditions.

Description

Custom Firmware EN916 differs from the standard 1336 PLUS II version 3.002 firmware as follows:

- Drive parameters have been added to allow the drive output voltage to be controlled independently of the commanded output frequency. All voltage parameters are accessed from the new “Voltage Control” parameter group following the “Motor Control” group.

Voltage Control	This group of parameters are used to independently control drive output voltage.		
<p>[Control Select]</p> <p>Selects the motor control method for the drive. The default setting provides full stator flux control that is suitable for most applications.</p>	Parameter Number Parameter Type Factory Default <u>Units</u>	9 Read and Write “Sens Vector” <u>Display</u> <u>Drive</u> “Economize” 0 Stator Flux control with Economize “Sens Vector” 1 Stator Flux control “Fixed Boost” 2 V/Hz w/programmed accel/run boost “Full Custom” 3 V/Hz with full configuration “Variable Voltage” 4 Independent voltage/freq control (new selection)	
<p>[Minimum Voltage]</p> <p>This parameter sets the lowest voltage the drive will output when [Control Select] is set to “Variable Voltage”.</p>	Parameter Number Parameter Type Display Units / Drive Units Factory Default Minimum Value Maximum Value	333 Read and Write 1 Volt / 4096 = Drive Rated Volts 0 Volts 0 Volts 120% of Drive Rated Voltage	
<p>[Maximum Voltage]</p> <p>This parameter sets the highest voltage the drive will output.</p>	Parameter Number Parameter Type Display Units / Drive Units Factory Default Minimum Value Maximum Value	20 Read and Write 1 Volt / 4096 = Drive Rated Volts Drive Rated Volts 0 Volts 120% of Drive Rated Voltage	
<p>[Volt Incr Time]</p> <p>This value determines the time it will take the drive to ramp from 0 Volts to [Maximum Voltage when [Control Select] is set to “Variable Voltage”. The rate determined by this value and [Maximum Voltage] is linear.</p>	Parameter Number Parameter Type Display Units / Drive Units Factory Default Minimum Value Maximum Value	334 Read and Write 0.1 Second / Seconds x 10 10.0 Sec 0.0 Sec 3600.0 Sec	

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<p>[Volt Decr Time]</p> <p>This value determines the time it will take the drive to ramp from [Maximum Voltage] to 0 Volts when [Control Select] is set to "Variable Voltage". The rate determined by this value and [Maximum Voltage] is linear.</p>	<p>Parameter Number 335 Parameter Type Read and Write Display Units / Drive Units 0.1 Second / Seconds x 10 Factory Default 10.0 Sec Minimum Value 0.0 Sec Maximum Value 3600.0 Sec</p>
<p>[Voltage Command]</p> <p>This parameter displays the commanded voltage value from the reference specified by [Volt Select].</p>	<p>Parameter Number 336 Parameter Type Read Only Display Units / Drive Units 1 Volt / 4096 = Drive Rated Volts Factory Default None Minimum Value 0 Volts Maximum Value 120% Rated Drive Output Voltage</p>
<p>[Volt Select]</p> <p>This parameter specifies which input signal will be used as the [Volt Command] reference when [Control Select] is set to "Variable Voltage".</p>	<p>Parameter Number 337 Parameter Type Read and Write Factory Default "Volt Preset" Units <u>Display</u> <u>Drive</u> "Analog In 0" 0 "Analog In 1" 1 "Analog In 2" 2 "Volt Preset" 3 Refer to [Volt Preset] Value "Adapter 1-6" 4-9 "Volt Cmd Ref" 10 Refer to [Volt Command Ref] Value "Pre+AI0 Trim" 11 Refer to [Volt Trim%] Value "Pre+AI1 Trim" 12 "Pre+AI2 Trim" 13 "Pre+Trim Ref" 14 Refer to [Volt Trim% Ref] Value</p>
<p>[Volt Preset]</p> <p>This parameter specifies the output voltage setpoint value when [Volt Select] is set to "Volt Preset".</p>	<p>Parameter Number(s) 338 Parameter Type Read and Write Display Units / Drive Units 1 Volt / 4096 = Drive Rated Volts Factory Default 0 Volts Minimum Value 0 Volts Maximum Value 120% Drive Rated Volts</p>
<p>[Volt Trim%]</p> <p>This parameter specifies the volt trim% value when [Volt Select] is set to "Pre + Alx Trim". The value represents \pmVolt Trim% of [Rated Voltage].</p> <p>Minimum Input = -Volt Trim% Value Mid-Point Input = No Trim Maximum Input = +Volt Trim% Value</p>	<p>Parameter Number 339 Parameter Type Read and Write Display Units / Drive Units 1% / 4096 = 100% Factory Default 10% Minimum Value 0% Maximum Value +100%</p>
<p>[Volt Command Ref]</p> <p>This parameter specifies the drive output voltage when [Volt Select] is set to "Volt Cmd Ref". The parameter value is cleared at power-up and is not retained in eeprom storage. This parameter is intended to be used with a SCANport communications adapter via the [Data In xx] Adapter I/O parameters.</p>	<p>Parameter Number(s) 340 Parameter Type Read and Write Display Units / Drive Units 1 Volt / 4096 = Drive Rated Volts Factory Default 0 Volts Minimum Value 0 Volts Maximum Value 120% Drive Rated Volts</p>

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[Volt Trim% Ref]

This parameter specifies the voltage command trim% value added/subtracted to [Volt Preset] when [Volt Select] is set to "Pre+TrimRef". The trim value is \pm Volt Trim% of [Rated Voltage].

Minimum Input = -Volt Trim% Value

Mid-Point Input = No Trim

Maximum Input = +Volt Trim% Value

The parameter value is cleared at power-up and is not retained in eeprom storage. This parameter is intended to be used with a SCANport communications adapter via the [Data In xx] Adapter I/O parameters.

Parameter Number	341
Parameter Type	Read and Write
Display Units / Drive Units	1% / 4096 = 100%
Factory Default	0%
Minimum Value	0%
Maximum Value	+100%

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