

Product Group: Variable Frequency Drives
 Number: AN-VFD-010

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Title: MA7200 – CV7300 Parameter Conversion

Summary: General Guide for Converting MA7200 Parameters to Parameters within the CV7300.



This Cross Reference Guide is a General Guide for converting the MA7200 parameters over to similar parameters within the CV7300. Customer is responsible for ensuring that each VFD Parameter setting applies to their individual application.

Parameter Groups:

1. AN (Frequency Command) Parameter Group

MA7200	Description	CV7300	Description
AN-01	Frequency Command 1	6-00	Keypad Frequency
AN-02	Frequency Command 2	6-02	Preset Speed #1 (Hz)
AN-03	Frequency Command 3	6-03	Preset Speed #2 (Hz)
AN-04	Frequency Command 4	6-04	Preset Speed #3 (Hz)
AN-05	Frequency Command 5	6-05	Preset Speed #4 (Hz)
AN-06	Frequency Command 6	6-06	Preset Speed #5 (Hz)
AN-07	Frequency Command 7	6-07	Preset Speed #6 (Hz)
AN-08	Frequency Command 8	6-08	Preset Speed #7 (Hz)
AN-09	Frequency Command 9		Not Applicable
AN-10	Frequency Command 10		Not Applicable
AN-11	Frequency Command 11		Not Applicable
AN-12	Frequency Command 12		Not Applicable
AN-13	Frequency Command 13		Not Applicable
AN-14	Frequency Command 14		Not Applicable
AN-15	Frequency Command 15		Not Applicable
AN-16	Frequency Command 16		Not Applicable
AN-17	Jog Frequency Command	6-01	Jog Frequency (Hz)

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2. BN (Operation Command) Parameter Groups

MA7200	Description	CV7300	Description
BN-01	Acceleration Time 1	3-02	Acceleration Time # 1 (Seconds)
BN-02	Deceleration Time 1	3-03	Deceleration Time # 1 (Seconds)
BN-03	Acceleration Time 2	3-06	Acceleration Time # 2 - MFIT (Seconds)
BN-04	Deceleration Time 2	3-07	Deceleration Time # 2 MFIT (Seconds)
BN-05	Analog Frequency Cmd. Gain (Voltage)	7-00	AIN Gain (%)
BN-06	Analog Frequency Cmd. Bias (Voltage)	7-01	AIN Bias (%)
BN-07	Analog Frequency Cmd. Gain (Current)	7-00	AIN Gain (%)
BN-08	Analog Frequency Cmd. Bias (Current)	7-01	AIN Bias (%)
BN-09	Multi-Function Analog Input Gain	7-05	AI2 Gain (%)
BN-10	Multi-Function Analog Input Bias		Not Applicable
BN-11	Auto Torque Boost Gain	10-1	Volts/Hz Curve Modification - Torque Boost (%)
BN-12	Monitor 1	4-00~4-05	Digital Display Operation
BN-13	Monitor 2	4-00~4-05	Digital Display Operation
BN-14	Multi-Function Analog Output AO1 Gain	8-01	Analog Output Gain (%)
BN-15	Multi-Function Analog Output AO2 Gain		Not Applicable
BN-16	PID Detection Gain	11-1	Feedback Gain
BN-17	PID Proportional Gain	11-2	Proportional Gain
BN-18	PID Integral Gain	11-3	Integration Time (Seconds)
BN-19	PID Differential Time	11-4	Differentiation Time (Seconds)
BN-20	PID Bias	11-5	PID Offset
		11-6	PID Offset Adjust (%)
BN-21	1st Step Time Under Auto-Run Mode		Not Applicable
BN-22	2nd Step Time Under Auto-Run Mode		Not Applicable
BN-23	3rd Step Time Under Auto-Run Mode		Not Applicable
BN-24	4th Step Time Under Auto-Run Mode		Not Applicable
BN-25	5th Step Time Under Auto-Run Mode		Not Applicable
BN-26	6th Step Time Under Auto-Run Mode		Not Applicable
BN-27	7th Step Time Under Auto-Run Mode		Not Applicable
BN-28	8th Step Time Under Auto-Run Mode		Not Applicable
BN-29	9th Step Time Under Auto-Run Mode		Not Applicable
BN-30	10th Step Time Under Auto-Run Mode		Not Applicable
BN-31	11th Step Time Under Auto-Run Mode		Not Applicable
BN-32	12th Step Time Under Auto-Run Mode		Not Applicable
BN-33	13th Step Time Under Auto-Run Mode		Not Applicable
BN-34	14th Step Time Under Auto-Run Mode		Not Applicable
BN-35	15th Step Time Under Auto-Run Mode		Not Applicable
BN-36	16th Step Time Under Auto-Run Mode		Not Applicable
BN-37	Timer Function On-Delay Time	2-06	Delay-On Timer (Seconds)
BN-38	Timer Function Off-Delay Time		Not Applicable

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MA7200	Description	CV7300	Description
BN-39	Energy Saving Gain	3-21	Energy Saving Gain (%)
BN-40	3	4-00~4-05	Digital Display Operation
BN-41	Pulse Input Upper Limit	1-06	Frequency Command Source Sel.
BN-42	Pulse Input Gain	5-04 (S5)	Multi-Function Input Terminal S5
BN-43	Pulse Input Bias	5-10	Encoder Impulse Ratio
BN-44	Pulse Input Delay Time		Not Applicable
BN-45	PID Feedback Display at 0%		Not Applicable
BN-46	PID Feedback Display at 100%		Not Applicable

3. CN (Control) Parameter Groups

MA7200	Description	CV7300	Description
CN-01	Input Voltage	0-07	AC Line Input Voltage (VAC)
CN-02	Max Output Frequency	10-4	Maximum Frequency (Hz)
CN-03	Max Output Voltage	10-5	Maximum Frequency Voltage Ratio (%)
CN-04	Max Voltage Frequency	10-4	Maximum Frequency (Hz)
CN-05	Middle Output Frequency	10-6	Mid Frequency (Hz)
CN-06	Voltage at Middle Output Frequency	10-7	Mid Frequency Voltage Ratio (%)
CN-07	Min Output Frequency	10-8	Minimum Frequency (Hz)
CN-08	Voltage at Min Output Frequency	10-9	Minimum Frequency Voltage Ratio (%)
CN-09	Motor Rated Current	0-02	Motor Rated Current (Amp)
CN-10	No Load Current of Motor	10-2	Motor No Load Current (Amps AC)
CN-11	Rated Slip of Motor	10-3	Motor Slip Compensation (%)
CN-12	Line-to-Line Resistance of Motor	14-0	Stator Resistance (Ohms)
		14-1	Rotor Resistance (Ohms)
CN-13	Torque Compensation of Core Loss	14-4	Ferrite Loss Conductance (gm)
CN-14	DC Injection Braking Starting Frequency	3-10	DC Injection Brake Start Frequency (Hz)
CN-15	DC Braking Current	3-11	DC Injection Brake Level (%)
CN-16	DC Injection Braking Time at Stop	3-12	DC Injection Brake Time (Seconds)
CN-17	DC Injection Braking Time at Start	3-12	DC Injection Brake Time (Seconds)
CN-18	Frequency Command Upper Bound	3-00	Frequency Upper Limit
CN-19	Frequency Command Lower Bound	3-01	Frequency Lower Limit
CN-20	Frequency Jump Point 1	3-13	Skip Frequency # 1 (Hz)
CN-21	Frequency Jump Point 2	3-14	Skip Frequency # 2 (Hz)
CN-22	Frequency Jump Point 3	3-15	Skip Frequency # 3 (Hz)
CN-23	Jump Frequency Width	3-16	Skip Frequency Bandwidth (+/- Hz)
CN-24	Number of Auto Restart Attempt	2-03	Number of Auto Restart Attempts
CN-25	Stall Prevention During Acceleration	9-01	Trip Prevention Level During Acceleration
CN-26	Stall Prevention During Running	9-05	Trip Prevention Level In Run Mode (%)
CN-27	Communication Fault Detection Time	13-6	Communication Time-Out Detection Time

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MA7200		Description	CV7300		Description
CN-28		LCD Digital Operator Display Unit	4-04		Custom Units (Line Speed) Value
CN-29		Freq. Agree Detection Level During Accel.	8-04		Frequency Reached (Hz)
CN-30		Freq. Agree Detection Level During Decel.	8-04		Frequency Reached (Hz)
CN-31		Frequency Agree Detection Width	8-05		Frequency Reached Bandwidth (+/- Hz)
CN-32		Torque Detection Level 1	9-14		Over Torque Threshold Level (%)
CN-33		Torque Detection Time 1	9-15		Over Torque Activation Delay Time (Seconds)
CN-34		Carrier Frequency Setting	3-22		Carrier Frequency (kHz)
CN-35		Speed Search Detection Level			Not Applicable
CN-36		Speed Search Time			Not Applicable
CN-37		Min. Baseblock Time			Not Applicable
CN-38		V/F Curve Speed Search			Not Applicable
CN-39		Low Voltage Alarm Detection Level			Not Applicable
CN-40		Slip Compensation Primary Delay Time			Not Applicable
CN-41		S-Curve Characteristic Time at Accel. Start	3-04		S-Curve Acc/Dec #1 (Seconds)
CN-42		S-Curve Characteristic Time at Accel. End	3-04		S-Curve Acc/Dec #1 (Seconds)
CN-43		S-Curve Characteristic Time at Decel. Start	3-04		S-Curve Acc/Dec #1 (Seconds)
CN-44		S-Curve Characteristic Time at Decel. End	3-04		S-Curve Acc/Dec #1 (Seconds)
CN-45		PG Parameter			Not Applicable
CN-46		Pole No. of Motor			Not Applicable
CN-47		ASR Proportional Gain 1			Not Applicable
CN-48		ASR Integral Gain 1			Not Applicable
CN-49		ASR Proportional Gain 2			Not Applicable
CN-50		ASR Integral Gain 2			Not Applicable
CN-51		ASR Upper Bound			Not Applicable
CN-52		ASR Lower Bound			Not Applicable
CN-53		Excessive Speed Deviation Detection Level			Not Applicable
CN-54		Over-speed Detection Level			Not Applicable
CN-55		PID Integral Upper Bound	12-3		Integration Limit Value (%)
CN-56		PID Primary Delay Time Constant	12-4		Integration Value Resets to Zero when Feedback Signal Equals the Intended Value
			12-5		Allowable Integration Error Margin (Units)
CN-57		Motor Line-to-Line Resistance (R1)	14-0		Stator Resistance (Ohms)
CN-58		Motor Rotor Equivalent Resistance (R2)	14-1		Rotor Resistance (Ohms)
CN-59		Motor Leakage Inductance (Ls)	14-2		Equivalent Inductance (mH)

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MA7200	Description	CV7300	Description
CN-60	Motor Mutual Inductance (Lm)	14-2	Equivalent Inductance (mH)
CN-61	Slip Compensation Gain		Not Applicable
CN-62	Torque Detection Level 2		Not Applicable
CN-63	Torque Detection Time 2		Not Applicable

4. SN (System) Parameter Groups

MA7200	Description	CV7300	Description
SN-01	Inverter Capacity Selection	15-0	Drive Horsepower Code
SN-02	V/F Curve Selection	10-0	Volts/Hz Pattern
SN-03	Operator Display	1-01	Run/Stop - Forward/Reverse Operation Mode with External Terminals
		15-6**	Reset Drive to Factory Settings
SN-04	Run Source Selection	1-00	Run Command Source Selection
SN-05	Frequency Command Selection	1-06	Frequency Command Source Selection
SN-06	Stopping Method Selection	1-05	Stopping Method Selection
SN-07	Priority of Stopping	1-03	Keypad Stop Button
SN-08	Prohibition of REV Run	1-02	Prohibition of Reverse Operation
SN-09	Output Frequency Up/Down Function	1-07	Keypad Operation with Up/Down Keys in Run Mode
SN-10	Frequency Command Characteristics Selection	7-03	AIN Slope
SN-11	Scanning Times at Input Terminal	5-07	Multi-Function Input Term S1 - S6 Signal Verification Scan Time (mSec X 4)
SN-12	Torque Detection 1 Selection	9-12	Over Torque Detection Selection
SN-13	Output Voltage Limit Selection		Not Applicable
SN-14	Stall Prevention During Acc. Function Selection	9-00	Trip Prevention Selection During Acceleration
SN-15	Stall Prevention During Dec. Function Selection	9-02	Trip Prevention Selection During Deceleration
SN-16	Stall Prevention During Running Function Selection	9-04	Trip Prevention Selection During Run Mode
SN-17	Fault Retry Setting		Not Applicable
SN-18	Operation Selection at Power Loss	2-00	Momentary Power Loss and Restart
SN-19	Zero Speed Braking Operation Selection		Not Applicable
SN-20	External Fault Contact Selection - Terminal 3	5-02	Multi-Function Input Terminal S3
SN-21	External Fault Contact Detection Selection - Terminal 3		Not Applicable
SN-22	External Fault Operation Selection		Not Applicable

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MA7200		Description	CV7300	Description
SN-23	Motor Overload Protection Selection		9-08	Electronic Motor Overload Protection Operation Mode
			9-09	Motor Type Selection
SN-24	Frequency Command Characteristics Selection at External Analog Input Terminal		SW2 or SW3 Setting	
SN-25	Multi-Function Input Terminal Function Selection - Terminal 5		5-02	Multi-Function Input Terminal S3
SN-26	Multi-Function Input Terminal Function Selection - Terminal 6		5-03	Multi-Function Input Terminal S4
SN-27	Multi-Function Input Terminal Function Selection - Terminal 7		5-04	Multi-Function Input Terminal S5
SN-28	Multi-Function Input Terminal Function Selection - Terminal 8		5-05	Multi-Function Input Terminal S6
SN-29	Multi-Function Analog Input (AUX) Function Selection		5-06	Multi-Function Input Terminal AIN
SN-30	Multi-Function Output Terminal (RA-RB-RC) Function Selection		8-02	Output Relay R1 Operation Mode
SN-31	Multi-Function Output Terminal (D01) Function Selection		Not Applicable	
SN-32	Multi-Function Output Terminal (D02) Function Selection		8-03	Output Relay R2 Operation Mode
SN-33	Multi-Function Analog Output (AO1) Function Selection		8-00	Analog Output Voltage Mode (0-10VDC, Term. FM+)
SN-34	Multi-Function Analog Output (AO2) Function Selection		Not Applicable	
SN-35	Pulse Output Multiplier Selection		Not Applicable	
SN-36	Inverter Address		13-0	Assigned Communication Station Number
SN-37	RS-485 Comm. Baud Rate Setting		13-1	Baud Rate Setting (bps)
SN-38	RS-485 Comm. Transmission Parity Setting		13-3	Parity Selection
SN-39	RS-485 Comm. Fault Stop Selection		Not Applicable	
SN-40	PG Speed Control Function		Not Applicable	
SN-41	Operation Selection at PG Open Circuit		Not Applicable	
SN-42	Operation Selection at PG Large Speed Deviation		Not Applicable	
SN-43	Operation Selection at PG Over-speed Detection Deviation		Not Applicable	
SN-44	Operation Mode Selection During Auto-Run		Not Applicable	
SN-45	Auto-Run Mode Operation Selection 1		Not Applicable	
SN-46	Auto-Run Mode Operation Selection 2		Not Applicable	
SN-47	Auto-Run Mode Operation Selection 3		Not Applicable	

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MA7200		Description	CV7300		Description
SN-48		Auto-Run Mode Operation Selection 4			Not Applicable
SN-49		Auto-Run Mode Operation Selection 5			Not Applicable
SN-50		Auto-Run Mode Operation Selection 6			Not Applicable
SN-51		Auto-Run Mode Operation Selection 7			Not Applicable
SN-52		Auto-Run Mode Operation Selection 8			Not Applicable
SN-53		Auto-Run Mode Operation Selection 9			Not Applicable
SN-54		Auto-Run Mode Operation Selection 10			Not Applicable
SN-55		Auto-Run Mode Operation Selection 11			Not Applicable
SN-56		Auto-Run Mode Operation Selection 12			Not Applicable
SN-57		Auto-Run Mode Operation Selection 13			Not Applicable
SN-58		Auto-Run Mode Operation Selection 14			Not Applicable
SN-59		Auto-Run Mode Operation Selection 15			Not Applicable
SN-60		Auto-Run Mode Operation Selection 16			Not Applicable
SN-61		Applied Torque Mode	0-00		Control Mode
SN-62		Language Selection	0-08		Language Selection
SN-63		Parameter Copy	3-18		Copy Unit
SN-64		PID Function	11-0		PID Mode Selection
SN-65		Brake Resistor Protection	9-00		Trip Prevention Selection During Acceleration
			9-02		Trip Prevention Selection During Deceleration
			9-04		Trip Prevention Selection in Run Mode
SN-66		Motor Parameters Auto-tuning Selection	0-06		Motor Parameter Auto Tuning
SN-67		Control Mode Selection	0-00		Control Mode
SN-68		Control Selection			Not Applicable
SN-69		Torque Detection 2 Selection			Not Applicable
SN-70		Engineering Unit			Not Applicable

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