

Upgrading to V1000 from VS Mini V7

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1. Replacement Models

This document list compatibility differences for upgrading from CIMR-V7AA to CIMR-VA A.

*Use the table below for upgrading from V7 to V1000 when operating an induction motor.

2. Model Replacement Checklist

Classification	Item	Items to Check	Check
Hardware	General	<u>Dimensions</u> Dimensions and installation holes differ between older and newer models. A separate attachment is available for lining up installation mounting holes. For instructions, see section 4.	
		<u>Heatsink or other attachments</u> A special attachment is required if using an external heatsink. See section 4 for details.	
		<u>Digital operator installation</u> *Digital operator Digital operator size differs between older and newer models. Dimensions are different and therefore not compatible. *Digital operator for remote operation Not compatible. New operator will need to be purchased and the panel cut out to allow for the new operator.	
		<u>Check any customized or special specifications</u> Be sure to review the specifications included with the drive to verify any customized functions or design.	
	Main Circuit	<u>Main Circuit Lines</u> (including ground wiring) There are some differences between models regarding the location and ordering for main circuit terminals block wiring. If wiring does not reach when connecting to the main circuit terminals, consider using extensions for those wires.	
		<u>Main Circuit Terminal Block Connections</u> The number of terminals and the size of the terminals have been changed for V1000. Review section 3-1 in this document for details on terminal changes in the main circuit.	
	Control Circuit	<u>Check control circuit wiring</u> There are some differences between models regarding the location and ordering for control circuit terminal block wiring. If wiring does not reach when connecting to control circuit terminal block, consider using extensions for those wires.	
		<u>Control circuit terminal block wiring</u> Review section 3-2 in this document for details on terminal changes in the control circuit.	
Software	Software	<u>Check software version and any customized software</u> Check which software version the drive is running to see if the standard software is being used, or if some customized version has been installed. Contact Yaskawa directly regarding and questions about the software installed on the drive.	
	Parameter	<u>Check parameter settings</u> There are several parameter difference between both drives. Take particular care checking parameter settings and then matching the proper functions and parameters as listed in section 5 of this document. For any parameters not covered in this document, please contact Yaskawa directly to ensure proper compatibility with V1000.	

Classification	Item	Items to Check	Check
Option Miscellaneous	Option Control Board	<u>Option Control Board</u> Option boards are not compatible between V7 and V1000. A new option board is required when upgrading.	
	Peripherals	<u>Braking Resistor</u> Braking resistors can simply be used as they have been. No changes need to be made when upgrading the drive.	
		<u>AC or DC Reactors</u> An AC and DC reactors can simply be used as they have been. No changes need to be made when upgrading the drive.	
		<u>Noise Filter</u> Noise filters can simply be used as they have been. No changes need to be made when upgrading the drive.	
		<u>Extension Cable</u> Extension cables can simply be used as they have been. No changes need to be made when upgrading the drive. A new digital operator will need to be purchased for upgrading to V1000.	

Be sure to check the user manual for other information on your drive when preparing to upgrade to V1000.



Contact Yaskawa for catalogs, instruction manuals, pricing, and other information.

For technical support, contact our Call Center at 0120-114-616.

3. Terminal Compatibility Chart

3-1. Main Circuit Terminals

- Note that although functions do not change between VS mini V7 (simply "V7" here) and V1000, there are difference in terminal sizes.

Main Circuit Terminal V7	Main Circuit Terminal V1000	Comments
R/L1	R/L1	For main circuit power supply
S/L2	S/L2	
T/L3	T/L3	
U/T1	U/T1	For drive output
V/T2	V/T2	
W/T3	W/T3	
B1	B1	Braking resistor connection terminal
B2	B2	
+1	+1	DC reactor or DC power supply input (positive terminal)
+2	+2	DC reactor
--	--	DC power supply input (negative terminal)
 (2 terminals)	 (2 terminals)	Ground 200 V class: 100 max 400 V class: 10 max

3-2 Control Circuit Terminal, Signal Level

- Terminal sizes differ between VS Mini V7 and V1000. See section 3-4.
- Below is a table of function defaults.

Control Circuit Terminal		Name	Signal Level	
V7	V1000		V7	V1000
S1		Multi-Function Input Selection 1 (Closed: FWD Run Open: Stop)	Photocoupler 24 Vdc, 8 mA	
S2		Multi-Function Input Selection 2 (Closed: REV Run Open: Stop)		
S3		Multi-Function Input Selection 3 (External Fault (N.O.))		
S4		Multi-Function Input Selection 4 (Fault Reset)		
S5		Multi-Function Input Selection 5 (Multi-Step Speed Command 1)		
S6		Multi-Function Input Selection 6 (Multi-Step Speed Command 2)		
S7		Multi-Function Input Selection 7 (Jog Command)		
SC		Multi-Function Input Selection Common	Control Signal Common	Sequence Common
RP		Main Speed Command Pulse Train Input	Response Frequency max 33 kHz	Response Frequency 0.5 to 32 kHz
FS	+V	Power Supply for Frequency Setting	+12 V (allowable current max 20 mA)	+10.5 V (allowable current max 20 mA)
FR	A1	Main Speed Frequency Reference Voltage Input or Current Input (V1000: Multi-Function Analog Input 1)	0 to +10 Vdc (20 k Ω) 4 to 20 mA (250 Ω) 0 to 20 mA (250 Ω)	0 to +10 Vdc (20 k Ω)
CN2	A2	Multi-Function Analog Input 2	0 to +10 Vdc (20 k Ω) 4 to 20 mA (250 Ω)	0 to +10 Vdc (20 k Ω) 4 to 20 mA (250 Ω) 0 to 20 mA (250 Ω)
FC	AC	Frequency Reference Common	0 V	
--	HC	Safety Command Common	--	24 Vdc, 10 mA
--	H1	Safety Input	--	Open: Coast to stop. Closed: Normal operation Be sure to remove the jumper between terminals HC and H1 when using the safety input. Output is shut off within 1 ms. Wiring should be no more than 30 m.


Control Circuit Terminal		Name	Signal Level	
V7	V1000		V7	V1000
MA		N.O. Output (Fault)	Contact Output 30 Vdc 1 A max 250 Vac 1 A max	Contact Output 30 Vdc 10 mA to 1A 250 Vac 10 mA to 1A
MB		N.C. Output (Fault)		
MC		Contact Output Common		
P1		Photocoupler Output 1 (During Run)	Photocoupler Output +48 Vdc, 50 mA max	
P2		Photocoupler Output 2 (Frequency Agree)		
PC		Photocoupler Output Common		
--	MP	Pulse Train Output	--	Max 32 kHz
AM		Analog Monitor Output	0 to +10 Vdc, 2 mA max Resolution: 8 bit	0 to +10 Vdc, 2 mA max Resolution 1/1000
AC		Monitor Common	0 V	0 V





3-3 Comm. Circuit Terminal

Comm. Circuit Terminal		Name	Signal Level	
V7	V1000		V7	V1000
R+	R+	Comm. Input (+)	RS-485/422 Memobus Protocol Max 19.2 kbps	RS-485/422 MEMOBUS Protocol 115.2 kbps max
R-	R-	Comm. Input (-)		
S+	S+	Comm. Output (+)		
S-	S-	Comm. Output (-)		
--	IG	Comm. ground	--	0 V





3-4 V7 and V1000 Terminal Sizes and Wire Gauge Difference

Main Circuit Terminal Size and Wire Gauge

 Indicates the grounding terminal

Power Supply	Model	Model	Terminal Signal	Terminal Screw	Tightening Torque (N·M)	Connection Possible Wire Gauge (mm ²)	Recommended Wire Size (mm ²)
200 V Class 3-Phase	V7	20P1 20P2 20P4 20P7	R/L1, S/L2, T/L3 U/T1, V/T2, W/T3, -, +1, +2, B1, B2, 	M3.5	0.8 to 1.0	0.75 to 2.0	2
	V1000	2A0001 2A0002 2A0004 2A0006					
	V7	21P5	R/L1, S/L2, T/L3 U/T1, V/T2, W/T3, -, +1, +2, B1, B2	M4	1.2 to 1.5	2.0 to 5.5	2
	V1000	2A0010					
	V7	21P5		M4	1.2 to 1.5	2.0 to 5.5	3.5
	V1000	2A0010					
	V7	22P2	R/L1, S/L2, T/L3 U/T1, V/T2, W/T3, -, +1, +2, B1, B2, 	M4	1.2 to 1.5	2.0 to 5.5	3.5
	V1000	2A0012					
	V7	23P7	R/L1, S/L2, T/L3 U/T1, V/T2, W/T3, -, +1, +2, B1, B2, 	M4	1.2 to 1.5	2.0 to 5.5	5.5
	V1000	2A0020					

Power Supply	Model	Model	Terminal Signal	Terminal Screw	Tightening Torque (N•M)	Connection Possible Wire Gauge (mm ²)	Recommended Wire Size (mm ²)
200 V Class 3-Phase	V7	25P5	R/L1, S/L2, T/L3 U/T1, V/T2, W/T3, -, +1, +2, ⊥	M5	2.5	5.5 to 8.0	8 V1000 only ⊥ M5
	V1000	2A0030		M4	2.2 to 2.5	5.5 to 14.0	
	V7	25P5	B1, B2	M5	2.5	5.5 to 8.0	8
	V1000	2A0030		M4	1.2 to 1.5	2.0 to 5.5	5.5
	V7	27P5	R/L1, S/L2, T/L3 U/T1, V/T2, W/T3, -, +1, +2, ⊥	M5	2.5	5.5 to 8.0	8
	V1000	2A0040		M4	2.2 to 2.5	5.5 to 14.0	14 V1000 only ⊥ M5 = 8
	V7	27P5	B1, B2	M5	2.5	5.5 to 8.0	8
	V1000	2A0040		M4	1.2 to 1.5	2.0 to 5.5	5.5
200 V Class Single-Phase	V7	B0P1 B0P2 B0P4	R/L1, S/L2, U/T1, V/T2, W/T3, -, +1, +2, B1, B2, ⊥	M3.5	0.8 to 1.0	0.75 to 2.0	2
	V1000	BA0001 BA0002 BA0003					
	V7	B0P7	R/L1, S/L2, U/T1, V/T2, W/T3, -, +1, +2, B1, B2, ⊥	M4	1.2 to 1.5	2.0 to 5.5	3.5
	V1000	BA0006					2
	V7	B1P5	R/L1, S/L2, U/T1, V/T2, W/T3, ⊥	M4	1.2 to 1.5	2.0 to 5.5	5.5
	V1000	BA0010					3.5
	V7	B1P5	-, +1, +2, B1, B2	M4	1.2 to 1.5	2.0 to 5.5	5.5
	V1000	BA0010					
	V7	B2P2	R/L1, S/L2, U/T1, V/T2, W/T3, -, +1, +2, B1, B2, ⊥	M4	1.2 to 1.5	2.0 to 5.5	5.5
	V1000	BA0012					
	V7	B3P7	R/L1, S/L2, U/T1, V/T2, W/T3, -, +1, +2, B1, B2	M5	3.0	3.5 to 8.0	8
	V1000	BA0018			2.2 to 2.5		
	V7	B3P7	⊥	M4	1.2 to 1.5	2.0 to 8.0	8
	V1000	BA0018		M5	2.2 to 2.5	3.5 to 8.0	

Power Supply	Model	Model	Terminal Signal	Terminal Screw	Tightening Torque (N•M)	Connection Possible Wire Gauge (mm²)	Recommended Wire Size (mm²)
400 V Class 3-Phase	V7	40P2 40P4 40P7 41P5 42P2	R/L1, S/L2, T/L3 U/T1, V/T2, W/T3, -, +1, +2, B1, B2, 	M4	1.2 to 1.5	2.0 to 5.5	2
	V1000	4A0001 4A0002 4A0004 4A0005 4A0007					
	V7	43P0 43P7	R/L1, S/L2, T/L3 U/T1, V/T2, W/T3, -, +1, +2, B1, B2	M4	1.2 to 1.5	2.0 to 5.5	2
	V1000	4A0009 4A0011					
	V7	43P0 43P7		M4	1.2 to 1.5	2.0 to 5.5	3.5
	V1000	4A0009 4A0011					
	V7	45P5	R/L1, S/L2, T/L3 U/T1, V/T2, W/T3, -, +1, +2	M4	1.4	3.5 to 5.5	5.5
	V1000	4A0018			1.2 to 1.5	2.0 to 5.5	
	V7	45P5	B1, B2	M4	1.4	3.5 to 5.5	5.5
	V1000	4A0018			1.2 to 1.5	2.0 to 5.5	5.5
	V7	45P5		M4	1.4	3.5 to 5.5	5.5
	V1000	4A0018		M5	2 to 2.5	5.5 to 14	
	V7	47P5	R/L1, S/L2, T/L3 U/T1, V/T2, W/T3, -, +1, +2	M5	2.5	5.5 to 8	5.5
	V1000	4A0023		M4	1.2 to 1.5	5.5 to 14	8
	V7	47P5	B1, B2,	M5	2.5	5.5 to 8	5.5
	V1000	4A0023		M4	1.2 to 1.5	2.0 to 5.5	5.5
	V7	47P5		M5	2.5	5.5 to 8	5.5
	V1000	4A0023			2 to 2.5	5.5 to 14	

Control Circuit Terminal Size and Wire Gauge (same for all models)

Power Supply	Model	Model	Terminal Signal	Terminal Screw	Tightening Torque (N•M)	Connection Possible Wire Gauge (mm²)	Recommended Wire Size (mm²)
Shared	V7	Shared	MA, MB, MC	M3	0.5 to 0.6	stranded wire 0.5 to 1.25 single line 0.5 to 1.25	0.75
	V1000	Shared				stranded wire 0.25 to 1.5 single line 0.25 to 1.5	
Shared	V7	Shared	S1-S7, P1, P2, SC, PC, R+, R-, S+, S-, FS, FR, FC, AM, AC, RP	M2	0.22 to 0.25	stranded wire 0.5 to 0.75 single line 0.5 to 1.25	0.75
	V1000	Shared				stranded wire 0.25 to 1.0 single line 0.25 to 1.5	

4. Install Dimensions and Replacement Attachment

4-1 Enclosure Panel

(units: mm)

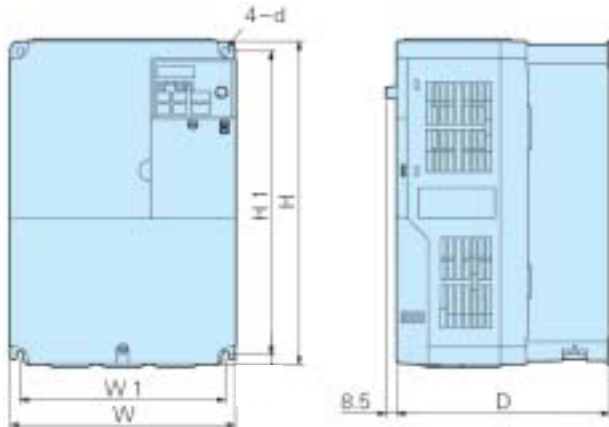
Power Supply	V7 CIMR-V7AA	V1000 CIMR-VA	V7			V1000			Replacement Attachment Handling No.	
			W	H	D	W	H	D	Normally Install	External Heatsink
3-Phase 200 V	20P1	2A0001	68	128	76	68	128	76	Unnecessary	100-034-075
	20P2	2A0002							Unnecessary	
	20P4	2A0004			108			108	Unnecessary	100-034-076
	20P7	2A0006			128			128	Unnecessary	100-034-077
	21P5	2A0010	108		131	108		129	Unnecessary	100-034-079
	22P2	2A0012			140			137.5	Unnecessary	
	23P7	2A0020	140		143	140		143	Unnecessary	100-034-080
	25P5	2A0030	180	260	170	140	254	140	100-036-356	100-036-361
	27P5	2A0040								
Single-Phase 200 V	B0P1	BA0001	68	128	76	68	128	76	Unnecessary	100-034-075
	B0P2	BA0002							Unnecessary	
	B0P4	BA0003			131			118	Unnecessary	100-034-076
	B0P7	BA0006	108		140	108		137.5	Unnecessary	100-036-418
	B1P5	BA0010			156			154	Unnecessary	100-034-079
	B2P2	BA0012	140		163	140		163	Unnecessary	100-034-080
	B3P7	BA0018	170		180	170		180	Unnecessary	100-036-357
3-Phase 400 V	40P2	4A0001	108	128	92	108	128	81	Unnecessary	100-034-078
	40P4	4A0002			110			99	Unnecessary	100-036-418
	40P7	4A0004			140			137.5	Unnecessary	
	41P5	4A0005			156			154	Unnecessary	100-034-079
	42P2	4A0007	140			143			100-036-355	
	43P0	4A0009			100-036-360					
	43P7	4A0011			Unnecessary			100-034-080		
	45P5	4A0018	180	260	170	140	254	140	100-036-356	100-036-361
	47P5	4A0023								

*Starting at 5.5 kW, all drives are NEMA1 Type 1 compliant.

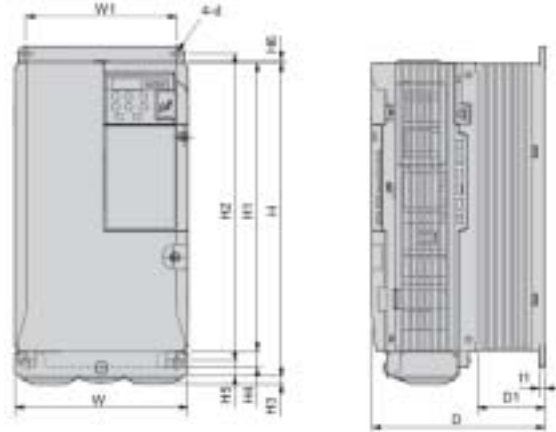
If drives are to operate within an enclosure panel, first remove the top and bottom covers of the drive, and use the drive according to IP00 specifications. Removing the top and bottom covers will make the drive non-compliant with IP20 specifications.

4-2 NEMA 1

V7 (CIMR-V7AA25P5)



V1000 (CIMR-VA2A0030)



(Units: mm)

Power Supply	V7 CIMR-V7AA	V1000 CIMR-VA	V7					V1000						Replacement Attachment Handling No.
			W	H	D	W1	H1	W	H	D	W1	H1	H2	
3-Phase 200 V	20P1	2A0001	68	148	76	56	118	68	148	76	56	128	118	Unnecessary
	20P2	2A0002			108					108				Unnecessary
	20P4	2A0004			128					128				Unnecessary
	20P7	2A0006			131					129				Unnecessary
	21P5	2A0010	108	148	140	96	118	108	148.9	137.5	96	128	118	Unnecessary
	22P2	2A0012			143					143				Unnecessary
	23P7	2A0020	140	260	170	164	244	140	254	140	122	234	248	Unnecessary
	25P5	2A0030	180		170					140				100-036-356
Single-Phase 200 V	B0P1	BA0001	68	148	76	56	118	68	148	76	56	128	118	Unnecessary
	B0P2	BA0002			131					118				Unnecessary
	B0P4	BA0003			140					137.5				Unnecessary
	B0P7	BA0006			156					154				Unnecessary
	B1P5	BA0010	108	148	163	128	118	140	148.9	163	128	128	118	Unnecessary
	B2P2	BA0012			170					180				Unnecessary
	B3P7	BA0018	170	166	180	158	118	170	166	180	158	128	118	Unnecessary
3-Phase 400 V	40P2	4A0001	108	148	92	96	118	108	148.9	81	96	128	118	Unnecessary
	40P4	4A0002			110					99				Unnecessary
	40P7	4A0004			140					137.5				Unnecessary
	41P5	4A0005			156					154				Unnecessary
	42P2	4A0007	140	148	143	128	118	108	148.9	143	128	128	118	Unnecessary
	43P0	4A0009			143					143				100-036-355
	43P7	4A0011	180	260	170	164	244	140	254	140	122	234	248	Unnecessary
	45P5	4A0018			170					140				100-036-356
	47P5	4A0023												

IP29 enclosure panel is standard up to 3.7 kW.

Separate installation kit is available for NEMA 1 conformity.

5. Parameter Comparison Table

5-1. Use the table below for matching parameters between V7 and V1000.

*Before adjusting any parameter values, first set C6-01 to 0.

Model Parameter Name	V7		V1000		Comments																						
	Parameter No. n	Default	Parameter No. -	Default																							
Parameter Access Level	001	1	A1-01	2	<table><tr><th>V7</th><th>V1000</th></tr><tr><td>n001 0</td><td>A1-01 0</td></tr><tr><td>n001 1 to 4</td><td>A1-01 2</td></tr><tr><td>n001 5</td><td>A1-01 2 and b1-08 1</td></tr><tr><td>n001 6</td><td>o4-11 1</td></tr><tr><td>n001 8</td><td>A1-03 2220</td></tr><tr><td>n001 9</td><td>A1-03 3330</td></tr></table>	V7	V1000	n001 0	A1-01 0	n001 1 to 4	A1-01 2	n001 5	A1-01 2 and b1-08 1	n001 6	o4-11 1	n001 8	A1-03 2220	n001 9	A1-03 3330								
V7	V1000																										
n001 0	A1-01 0																										
n001 1 to 4	A1-01 2																										
n001 5	A1-01 2 and b1-08 1																										
n001 6	o4-11 1																										
n001 8	A1-03 2220																										
n001 9	A1-03 3330																										
Initialize	001	1	A1-03	0																							
PRG Mode Run Command Selection	001	1	b1-08	0																							
U2, U3 Initialization Selection	001	1	o4-11	0																							
Control Method Selection	002	0	A1-02	0	<table><tr><th>V7</th><th>V1000</th></tr><tr><td>n002 0</td><td>A1-02 0</td></tr><tr><td>n002 1</td><td>A1-02 2</td></tr></table>	V7	V1000	n002 0	A1-02 0	n002 1	A1-02 2																
V7	V1000																										
n002 0	A1-02 0																										
n002 1	A1-02 2																										
Run Command Selection	003	0	b1-02	1	<table><tr><th>V7</th><th>V1000</th></tr><tr><td>n003 0</td><td>b1-02 0</td></tr><tr><td>n003 1</td><td>b1-02 1</td></tr><tr><td>n003 2</td><td>b1-02 2</td></tr><tr><td>n003 3</td><td>b1-02 3</td></tr></table>	V7	V1000	n003 0	b1-02 0	n003 1	b1-02 1	n003 2	b1-02 2	n003 3	b1-02 3												
V7	V1000																										
n003 0	b1-02 0																										
n003 1	b1-02 1																										
n003 2	b1-02 2																										
n003 3	b1-02 3																										
Frequency Reference Selection	004	0	b1-01	1	<table><tr><th>V7</th><th>V1000</th></tr><tr><td>n004 0</td><td>-</td></tr><tr><td>n004 1</td><td>b1-01 0</td></tr><tr><td>n004 2</td><td>b1-01 1 and H3-01 0 or H3-09 0</td></tr><tr><td>n004 3</td><td>b1-01 1 and H3-09 2</td></tr><tr><td>n004 4</td><td>b1-01 1 and H3-09 3</td></tr><tr><td>n004 5</td><td>b1-01 4</td></tr><tr><td>n004 6</td><td>b1-01 2</td></tr><tr><td>n004 7</td><td>b1-01 1 and H3-01 0 or H3-09 0</td></tr><tr><td>n004 8</td><td>b1-01 1 and H3-09 2</td></tr><tr><td>n004 9</td><td>b1-01 3</td></tr></table>	V7	V1000	n004 0	-	n004 1	b1-01 0	n004 2	b1-01 1 and H3-01 0 or H3-09 0	n004 3	b1-01 1 and H3-09 2	n004 4	b1-01 1 and H3-09 3	n004 5	b1-01 4	n004 6	b1-01 2	n004 7	b1-01 1 and H3-01 0 or H3-09 0	n004 8	b1-01 1 and H3-09 2	n004 9	b1-01 3
V7	V1000																										
n004 0	-																										
n004 1	b1-01 0																										
n004 2	b1-01 1 and H3-01 0 or H3-09 0																										
n004 3	b1-01 1 and H3-09 2																										
n004 4	b1-01 1 and H3-09 3																										
n004 5	b1-01 4																										
n004 6	b1-01 2																										
n004 7	b1-01 1 and H3-01 0 or H3-09 0																										
n004 8	b1-01 1 and H3-09 2																										
n004 9	b1-01 3																										
Frequency Reference (Current)Terminal A2signal Level Selection	004 078	0 0	b1-01 H3-09	1 2																							
Stopping Method	005	0	b1-03	0	<table><tr><th>V7</th><th>V1000</th></tr><tr><td>n005 0</td><td>b1-03 0</td></tr><tr><td>n005 1</td><td>b1-03 1</td></tr></table>	V7	V1000	n005 0	b1-03 0	n005 1	b1-03 1																
V7	V1000																										
n005 0	b1-03 0																										
n005 1	b1-03 1																										
Reverse Prohibited Selection	006	0	b1-04	0	<table><tr><th>V7</th><th>V1000</th></tr><tr><td>n006 0</td><td>b1-04 0</td></tr><tr><td>n006 1</td><td>b1-04 1</td></tr></table>	V7	V1000	n006 0	b1-04 0	n006 1	b1-04 1																
V7	V1000																										
n006 0	b1-04 0																										
n006 1	b1-04 1																										
STOP Key Function Selection	007	0	o2-02	1	<table><tr><th>V7</th><th>V1000</th></tr><tr><td>n007 0</td><td>o2-02 1</td></tr><tr><td>n007 1</td><td>o2-02 0</td></tr></table>	V7	V1000	n007 0	o2-02 1	n007 1	o2-02 0																
V7	V1000																										
n007 0	o2-02 1																										
n007 1	o2-02 0																										
Frequency Reference Selection in LOCAL Mode	008	0	--	--	Setting not required																						

Model Parameter Name	V7		V1000		Comments							
	Parameter No. n	Default	Parameter No. -	Default								
Frequency Setting ENTER Key Function Selection	009	0	o2-05	0	<table><tr><td>V7</td><td>V1000</td></tr><tr><td>n009 0</td><td>o2-05 0</td></tr><tr><td>n009 1</td><td>o2-05 1</td></tr></table>		V7	V1000	n009 0	o2-05 0	n009 1	o2-05 1
V7	V1000											
n009 0	o2-05 0											
n009 1	o2-05 1											
Operation Selection when Operator Disconnected	010	0	o2-06	0	<table><tr><td>V7</td><td>V1000</td></tr><tr><td>n010 0</td><td>o2-06 0</td></tr><tr><td>n010 1</td><td>o2-06 1</td></tr></table>		V7	V1000	n010 0	o2-06 0	n010 1	o2-06 1
V7	V1000											
n010 0	o2-06 0											
n010 1	o2-06 1											
Max Output Frequency (FMAX)	011	60.0 Hz	E1-04	60.0 Hz								
Max Voltage (VMAX)	012	200.0 V	E1-05	200.0 V								
Base Frequency (FA)	013	60.0 Hz	E1-06	60.0 Hz								
Mid Output Frequency (FB)	014	1.5Hz	E1-07	3.0 Hz								
Mid Output Frequency Voltage (VC)	015	12.0 V	E1-08	16.0 V								
Minimum Output Frequency (FMIN)	016	1.5Hz	E1-09	1.5Hz								
Minimum Output Frequency Voltage (VMIN)	017	12.0 V	E1-10	12.0 V								
Acceleration Time Units	018	0	C1-10	1	<table><tr><td>V7</td><td>V1000</td></tr><tr><td>n018 0</td><td>C1-10 1</td></tr><tr><td>n018 1</td><td>C1-10 0</td></tr></table>		V7	V1000	n018 0	C1-10 1	n018 1	C1-10 0
V7	V1000											
n018 0	C1-10 1											
n018 1	C1-10 0											
Accel Time 1	019	10.0 s	C1-01	10.0 s								
Decel Time 1	020	10.0 s	C1-02	10.0 s								
Accel Time 2	021	10.0 s	C1-03	10.0 s								
Decel Time 2	022	10.0 s	C1-04	10.0 s								
S-Curve Characteristics Time at Accel Start	023	0 s	C2-01	0.20 s								
S-Curve Characteristics Time at Accel End	023	0 s	C2-02	0.20 s								
S-Curve Characteristics Time at Decel Start	023	0 s	C2-03	0.20 s								
S-Curve Characteristics Time at Decel End	023	0 s	C2-04	0.00 s								
Frequency Reference 1	024	6.00 Hz	d1-01	0.00 Hz								
Frequency Reference 2	025	0.00 Hz	d1-02	0.00 Hz								
Frequency Reference 3	026	0.00 Hz	d1-03	0.00 Hz								
Frequency Reference 4	027	0.00 Hz	d1-04	0.00 Hz								
Frequency Reference 5	028	0.00 Hz	d1-05	0.00 Hz								
Frequency Reference 6	029	0.00 Hz	d1-06	0.00 Hz								

Model Parameter Name	V7		V1000		Comments										
	Parameter No. n	Default	Parameter No. -	Default											
Frequency Reference 7	030	0.00 Hz	d1-07	0.00 Hz											
Frequency Reference 8	031	0.00 Hz	d1-08	0.00 Hz											
Jog Frequency Reference	032	6.00 Hz	d1-17	6.00 Hz											
Frequency Reference Upper Limit Value	033	100%	d2-01	100.0%											
Frequency Reference Lower Limit Value	034	0%	d2-02	0.0%											
Frequency Reference Setting/Display Units	035 152	0	o1-03	0	<table><tr><th>V7</th><th>V1000</th></tr><tr><td>n035, n152 0</td><td>o1-03 0</td></tr><tr><td>n035, n152 1</td><td>o1-03 1</td></tr><tr><td>n035, n152 2 to 39</td><td>o1-03 2 (E2-04, E4-04, E5-04)</td></tr><tr><td>n035, n152 40 to 3999</td><td>o1-03 3 (o1-10, o1-11)</td></tr></table>	V7	V1000	n035, n152 0	o1-03 0	n035, n152 1	o1-03 1	n035, n152 2 to 39	o1-03 2 (E2-04, E4-04, E5-04)	n035, n152 40 to 3999	o1-03 3 (o1-10, o1-11)
V7	V1000														
n035, n152 0	o1-03 0														
n035, n152 1	o1-03 1														
n035, n152 2 to 39	o1-03 2 (E2-04, E4-04, E5-04)														
n035, n152 40 to 3999	o1-03 3 (o1-10, o1-11)														
Motor Rated Current	036	--	E2-01	--	Default determined by drive capacity										
Motor Protection Function Selection	037	0	L1-01	1	<table><tr><th>V7</th><th>V1000</th></tr><tr><td>n037 0</td><td>L1-01 1</td></tr><tr><td>n037 1</td><td>L1-01 2 to 4</td></tr><tr><td>n037 2</td><td>L1-01 0</td></tr></table>	V7	V1000	n037 0	L1-01 1	n037 1	L1-01 2 to 4	n037 2	L1-01 0		
V7	V1000														
n037 0	L1-01 1														
n037 1	L1-01 2 to 4														
n037 2	L1-01 0														
Motor Protection Operation Time	038	8 minutes	L1-02	1 minute	Normally setting is not required										
Cooling Fan ON/OFF Control Selection	039	0	L8-10	0	<table><tr><th>V7</th><th>V1000</th></tr><tr><td>n039 0</td><td>L8-10 0</td></tr><tr><td>n039 1</td><td>L8-10 1</td></tr></table>	V7	V1000	n039 0	L8-10 0	n039 1	L8-10 1				
V7	V1000														
n039 0	L8-10 0														
n039 1	L8-10 1														
Motor Rotational Direction Selection	040	0	b1-14	0	<table><tr><th>V7</th><th>V1000</th></tr><tr><td>n040 0</td><td>b1-14 0</td></tr><tr><td>n040 1</td><td>b1-14 1</td></tr></table>	V7	V1000	n040 0	b1-14 0	n040 1	b1-14 1				
V7	V1000														
n040 0	b1-14 0														
n040 1	b1-14 1														
Accel Time 3	041	10 s	C1-05	10.0 s	Can be used as Accel Time 1 for motor 2 in V1000.										
Decel Time 3	042	10 s	C1-06	10.0 s	Can be used as Decel Time 1 for motor 2 in V1000.										
Accel Time 4	043	10 s	C1-07	10.0 s	Can be used as Accel Time 2 for motor 2 in V1000.										
Decel Time 4	044	10 s	C1-08	10.0 s	Can be used as Decel Time 2 for motor 2 in V1000.										
Frequency Reference Bias (Up/Down 2)	045	0.00 Hz	d4-03	0.00 Hz											
Frequency Reference Accel/Decel Selection (Up/Down 2)	046	0	d4-04	0											
Frequency Reference Bias Operation Selection (Up/Down 2)	047	0	d4-05	0											
Frequency Reference Bias Value (Up/Down 2)	048	0.0%	d4-06	0.0%											

Model Parameter Name	V7		V1000		Comments																																																																																
	Parameter No. n	Default	Parameter No. -	Default																																																																																	
Analog Frequency Reference Change Level (Up/Down 2)	049	1.0%	d4-07	1.0%																																																																																	
Terminal S1 Function Selection	050	1	H1-01	40																																																																																	
Terminal S2 Function Selection	051	2	H1-02	41	<table><tr><th>V7</th><th>V1000</th></tr><tr><td>n050 to 56 1</td><td>H1-01 to H1-06 40</td></tr><tr><td>n050 to 56 2</td><td>H1-01 to H1-06 41</td></tr><tr><td>n050 to 56 3</td><td>H1-01 to H1-06 24</td></tr><tr><td>n050 to 56 4</td><td>H1-01 to H1-06 25</td></tr><tr><td>n050 to 56 5</td><td>H1-01 to H1-06 14</td></tr><tr><td>n050 to 56 6</td><td>H1-01 to H1-06 3</td></tr><tr><td>n050 to 56 7</td><td>H1-01 to H1-06 4</td></tr><tr><td>n050 to 56 8</td><td>H1-01 to H1-06 5</td></tr><tr><td>n050 to 56 9</td><td>H1-01 to H1-06 32</td></tr><tr><td>n050 to 56 10</td><td>H1-01 to H1-06 6</td></tr><tr><td>n050 to 56 11</td><td>H1-01 to H1-06 7</td></tr><tr><td>n050 to 56 12</td><td>H1-01 to H1-06 8</td></tr><tr><td>n050 to 56 13</td><td>H1-01 to H1-06 9</td></tr><tr><td>n050 to 56 14</td><td>H1-01 to H1-06 61</td></tr><tr><td>n050 to 56 15</td><td>H1-01 to H1-06 62</td></tr><tr><td>n050 to 56 16</td><td>H1-01 to H1-06 A</td></tr><tr><td>n050 to 56 17</td><td>H1-01 to H1-06 1</td></tr><tr><td>n050 to 56 18</td><td>H1-01 to H1-06 2</td></tr><tr><td>n050 to 56 19</td><td>H1-01 to H1-06 20</td></tr><tr><td>n005 0</td><td></td></tr><tr><td>n050 to 56 19</td><td>H1-01 to H1-06 24</td></tr><tr><td>n005 1</td><td></td></tr><tr><td>n050 to 56 20</td><td>H1-01 to H1-06 2C</td></tr><tr><td>n005 0, 1</td><td></td></tr><tr><td>n050 to 56 21</td><td>H1-01 to H1-06 21</td></tr><tr><td>n005 0</td><td></td></tr><tr><td>n050 to 56 21</td><td>H1-01 to H1-06 25</td></tr><tr><td>n005 1</td><td></td></tr><tr><td>n050 to 56 22</td><td>H1-01 to H1-06 2D</td></tr><tr><td>n005 0, 1</td><td></td></tr><tr><td>n050 to 56 23</td><td>H1-01 to H1-06 19</td></tr><tr><td>n050 to 56 24</td><td>H1-01 to H1-06 30</td></tr><tr><td>n050 to 56 25</td><td>H1-01 to H1-06 31</td></tr><tr><td>n050 to 56 26</td><td>H1-01 to H1-06 B</td></tr><tr><td>n050 to 56 27</td><td>H1-01 to H1-06 1A</td></tr><tr><td>n052 0</td><td>H1-03 0</td></tr><tr><td>n056 34</td><td>H1-07 10, 11</td></tr><tr><td>n056 35</td><td>H1-07 67</td></tr><tr><td>n056 36</td><td>H1-07 75, 76</td></tr></table>	V7	V1000	n050 to 56 1	H1-01 to H1-06 40	n050 to 56 2	H1-01 to H1-06 41	n050 to 56 3	H1-01 to H1-06 24	n050 to 56 4	H1-01 to H1-06 25	n050 to 56 5	H1-01 to H1-06 14	n050 to 56 6	H1-01 to H1-06 3	n050 to 56 7	H1-01 to H1-06 4	n050 to 56 8	H1-01 to H1-06 5	n050 to 56 9	H1-01 to H1-06 32	n050 to 56 10	H1-01 to H1-06 6	n050 to 56 11	H1-01 to H1-06 7	n050 to 56 12	H1-01 to H1-06 8	n050 to 56 13	H1-01 to H1-06 9	n050 to 56 14	H1-01 to H1-06 61	n050 to 56 15	H1-01 to H1-06 62	n050 to 56 16	H1-01 to H1-06 A	n050 to 56 17	H1-01 to H1-06 1	n050 to 56 18	H1-01 to H1-06 2	n050 to 56 19	H1-01 to H1-06 20	n005 0		n050 to 56 19	H1-01 to H1-06 24	n005 1		n050 to 56 20	H1-01 to H1-06 2C	n005 0, 1		n050 to 56 21	H1-01 to H1-06 21	n005 0		n050 to 56 21	H1-01 to H1-06 25	n005 1		n050 to 56 22	H1-01 to H1-06 2D	n005 0, 1		n050 to 56 23	H1-01 to H1-06 19	n050 to 56 24	H1-01 to H1-06 30	n050 to 56 25	H1-01 to H1-06 31	n050 to 56 26	H1-01 to H1-06 B	n050 to 56 27	H1-01 to H1-06 1A	n052 0	H1-03 0	n056 34	H1-07 10, 11	n056 35	H1-07 67	n056 36	H1-07 75, 76
V7	V1000																																																																																				
n050 to 56 1	H1-01 to H1-06 40																																																																																				
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n050 to 56 4	H1-01 to H1-06 25																																																																																				
n050 to 56 5	H1-01 to H1-06 14																																																																																				
n050 to 56 6	H1-01 to H1-06 3																																																																																				
n050 to 56 7	H1-01 to H1-06 4																																																																																				
n050 to 56 8	H1-01 to H1-06 5																																																																																				
n050 to 56 9	H1-01 to H1-06 32																																																																																				
n050 to 56 10	H1-01 to H1-06 6																																																																																				
n050 to 56 11	H1-01 to H1-06 7																																																																																				
n050 to 56 12	H1-01 to H1-06 8																																																																																				
n050 to 56 13	H1-01 to H1-06 9																																																																																				
n050 to 56 14	H1-01 to H1-06 61																																																																																				
n050 to 56 15	H1-01 to H1-06 62																																																																																				
n050 to 56 16	H1-01 to H1-06 A																																																																																				
n050 to 56 17	H1-01 to H1-06 1																																																																																				
n050 to 56 18	H1-01 to H1-06 2																																																																																				
n050 to 56 19	H1-01 to H1-06 20																																																																																				
n005 0																																																																																					
n050 to 56 19	H1-01 to H1-06 24																																																																																				
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n050 to 56 20	H1-01 to H1-06 2C																																																																																				
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n050 to 56 22	H1-01 to H1-06 2D																																																																																				
n005 0, 1																																																																																					
n050 to 56 23	H1-01 to H1-06 19																																																																																				
n050 to 56 24	H1-01 to H1-06 30																																																																																				
n050 to 56 25	H1-01 to H1-06 31																																																																																				
n050 to 56 26	H1-01 to H1-06 B																																																																																				
n050 to 56 27	H1-01 to H1-06 1A																																																																																				
n052 0	H1-03 0																																																																																				
n056 34	H1-07 10, 11																																																																																				
n056 35	H1-07 67																																																																																				
n056 36	H1-07 75, 76																																																																																				
Terminal S3 Function Selection	052	3	H1-03	24																																																																																	
Terminal S4 Function Selection	053	5	H1-04	14																																																																																	
Terminal S5 Function Selection	054	6	H1-05	3																																																																																	
Terminal S6 Function Selection	055	7	H1-06	4																																																																																	
Terminal S7 Function Selection	056	10	H1-07	6																																																																																	

Parameter Name	Model	V7		V1000		Comments
		Parameter No. n	Default	Parameter No. -	Default	
Terminal MA, MB, MC Function Selection		057	0	H2-01	E	
Terminal P1 Function Selection (open collector)		058	1	H2-02	0	
Terminal P2 Function Selection (open collector)		059	2	H2-03	2	
Multi-Function Analog Input (Voltage) Terminal A1 Input Gain		060	100%	H3-03	100%	
Multi-Function Analog Input (Voltage) Terminal A1Input Bias		061	0%	H3-04	0%	
Analog Input Filter Time Constant		062	0.10 s	H3-13	0.03 s	
SI-T WDT Error Selection		063	0	--	--	
Operation Selection at Frequency Reference Loss		064	0	L4-05	0	
Monitor Output Type Selection		065	0	--	--	Setting unnecessary
Multi-Function Analog Output 1 Terminal AM Monitor Selection		066	0	H4-01	102	
Multi-Function Analog Output 1 Terminal AM Output Gain		067	1.00	H4-02	100.0%	

Parameter Name	Model	V7		V1000		Comments												
		Parameter No. n	Default	Parameter No. -	Default													
Multi-Function Analog Input Terminal A2 Input Gain		068 071	100%	H3-11	100.0%	Use A2 because V1000 doesn't have CN2												
Multi-Function Analog Input Terminal A2 Input Bias		069 072	0%	H3-12	0%	Use A2 because V1000 doesn't have CN2												
Analog Input Filter Time Constant		070 073	0.10 s	H3-13	0.03 s	Use A2 because V1000 doesn't have CN2												
Pulse Train Input Gain		074 129	100% 1.00	H6-03	100.0%													
Pulse Train Input Bias		075	0%	H6-04	0.0%													
Pulse Train Input Filter Time		076	0.10 s	H6-05	0.10 s													
Multi-Function Analog Input Current Terminal A2 Function Selection		077	0	H3-10	0	<table><tr><th>V7</th><th>V1000</th></tr><tr><td>n077 0</td><td>H3-10 F</td></tr><tr><td>n077 1</td><td>H3-10 2</td></tr><tr><td>n077 2</td><td>H3-10 1</td></tr><tr><td>n077 3</td><td>Setting not required</td></tr><tr><td>n077 4</td><td>H3-10 4</td></tr></table>	V7	V1000	n077 0	H3-10 F	n077 1	H3-10 2	n077 2	H3-10 1	n077 3	Setting not required	n077 4	H3-10 4
V7	V1000																	
n077 0	H3-10 F																	
n077 1	H3-10 2																	
n077 2	H3-10 1																	
n077 3	Setting not required																	
n077 4	H3-10 4																	
Frequency Reference Bias Setting		077 079	3 10%	H3-12	0.0%	<table><tr><th>V7</th><th>V1000</th></tr><tr><td>n078 0</td><td>H3-09 0, 1</td></tr><tr><td>n078 1</td><td>H3-09 2</td></tr></table>	V7	V1000	n078 0	H3-09 0, 1	n078 1	H3-09 2						
V7	V1000																	
n078 0	H3-09 0, 1																	
n078 1	H3-09 2																	
Carrier Frequency Selection		080	--	C6-02	--	Default determined by drive capacity												
Momentary Power Loss Operation Selection		081	0	L2-01	0	<table><tr><th>V7</th><th>V1000</th></tr><tr><td>n081 0</td><td>L2-01 0</td></tr><tr><td>n081 1</td><td>L2-01 1</td></tr><tr><td>n081 2</td><td>L2-01 2</td></tr></table>	V7	V1000	n081 0	L2-01 0	n081 1	L2-01 1	n081 2	L2-01 2				
V7	V1000																	
n081 0	L2-01 0																	
n081 1	L2-01 1																	
n081 2	L2-01 2																	
Number of Fault Restarts		082	0	L5-01	0													
Jump Frequency 1		083	0.0 Hz	d3-01	0.0 Hz													
Jump Frequency 2		084	0.0 Hz	d3-02	0.0 Hz													
Jump Frequency 3		085	0.0 Hz	d3-03	0.0 Hz													
Jump Frequency Width		086	0.00 Hz	d3-04	1.0 Hz													
Cumulative Operation Time Selection		087	0	o4-02	0	<table><tr><th>V7</th><th>V1000</th></tr><tr><td>n087 0</td><td>o4-02 0</td></tr><tr><td>n087 1</td><td>o4-02 1</td></tr></table>	V7	V1000	n087 0	o4-02 0	n087 1	o4-02 1						
V7	V1000																	
n087 0	o4-02 0																	
n087 1	o4-02 1																	
Cumulative Operation Time Setting		088	0H	o4-01	0H													
DC Braking Current		089	50%	B2-02	50%													
DC Braking Time at Stop		090	0.5 s	B2-04	0.5 s													
DC Braking Time at Start		091	0.0 s	b2-03	0.00 s													

Parameter Name \ Model	V7		V1000		Comments												
	Parameter No. n	Default	Parameter No. -	Default													
Stall Prevention during Deceleration	092	0	L3-04	1	<table><tr><th>V7</th><th>V1000</th></tr><tr><td>n092 0</td><td>L3-04 1</td></tr><tr><td>n092 1</td><td>L3-04 0</td></tr></table>	V7	V1000	n092 0	L3-04 1	n092 1	L3-04 0						
V7	V1000																
n092 0	L3-04 1																
n092 1	L3-04 0																
Stall Prevention Level during Acceleration	093	170%	L3-02	--	Default settings for the carrier frequency in V1000 differ by drive capacity. If n093 is set to 200% in V7, then set L3-01 to 0 (disabled) in V1000.												
Stall Prevention during Run	094	160%	L3-06	--	Default settings for the carrier frequency in V1000 differ by drive capacity. If n094 is set to 200% in V7, then set L3-04 to 0 (disabled) in V1000.												
Frequency Detection Level	095	0.00 Hz	L4-01	0.0 Hz													
Torque Detection Operation Selection 1	096 117	0 0	L6-01	0	<table><tr><th>V7</th><th>V1000</th></tr><tr><td>n096, 117 0</td><td>L6-01 0</td></tr><tr><td>n096, 117 1</td><td>L6-01 1, 5</td></tr><tr><td>n096, 117 2</td><td>L6-01 3, 7</td></tr><tr><td>n096, 117 3</td><td>L6-01 2, 6</td></tr><tr><td>n096, 117 4</td><td>L6-01 4, 8</td></tr></table>	V7	V1000	n096, 117 0	L6-01 0	n096, 117 1	L6-01 1, 5	n096, 117 2	L6-01 3, 7	n096, 117 3	L6-01 2, 6	n096, 117 4	L6-01 4, 8
V7	V1000																
n096, 117 0	L6-01 0																
n096, 117 1	L6-01 1, 5																
n096, 117 2	L6-01 3, 7																
n096, 117 3	L6-01 2, 6																
n096, 117 4	L6-01 4, 8																
Torque Detection Level 1	098 118	160% 10%	L6-02	150%													
Torque Detection Time 1	099 119	0.1 s 0.1 s	L6-03	0.1 s													
Frequency Reference Hold Function Selection	100	0	d4-01	0	<table><tr><th>V7</th><th>V1000</th></tr><tr><td>n100 0</td><td>d4-01 0</td></tr><tr><td>n100 1</td><td>d4-01 1</td></tr></table>	V7	V1000	n100 0	d4-01 0	n100 1	d4-01 1						
V7	V1000																
n100 0	d4-01 0																
n100 1	d4-01 1																
Speed Search Decel Time (Current Detection)	101	2.0 s	b3-03	2.0 s													
Speed Search Operation Current (Current Detection)	102	150%	b3-02	120%													
Torque Compensation Gain	103	1.0	C4-01	1.00													
Torque Compensation Primary Delay Time Constant	104	0.3sec	C4-02	200 ms													
Motor Iron Loss	105	--	E2-10	--	Default determined by drive capacity												
Motor Rated Slip	106	--	E2-02	--	Default determined by drive capacity												
Motor Resistance Between Lines	107	--	E2-05	--	Default determined by drive capacity												
Motor Leakage Inductance	108	--	E2-06	--	Default determined by drive capacity												
Motor De-Coupled Load Current	110	--	E2-03	--	Default determined by drive capacity												
Slip Compensation Gain	111	0.0	C3-01	0.0													
Slip Compensation Primary Delay Time Constant	112	2.0 s	C3-02	2000 ms													
Regen During Run, Slip Compensation Selection	113	0	C3-04	0	<table><tr><th>V7</th><th>V1000</th></tr><tr><td>n113 0</td><td>C3-04 0</td></tr><tr><td>n113 1</td><td>C3-04 1</td></tr></table>	V7	V1000	n113 0	C3-04 0	n113 1	C3-04 1						
V7	V1000																
n113 0	C3-04 0																
n113 1	C3-04 1																

Model Parameter Name	V7		V1000		Comments																					
	Parameter No. n	Default	Parameter No. -	Default																						
Number of Times SI-T Bus Detected	114	2	--	--																						
Automatic Reduction Function for Stall Prevention during Run Operation	115	0	L3-23	0	<table><tr><th>V7</th><th>V1000</th></tr><tr><td>n115 0</td><td>L3-23 0</td></tr><tr><td>n115 1</td><td>L3-23 1</td></tr></table>		V7	V1000	n115 0	L3-23 0	n115 1	L3-23 1														
V7	V1000																									
n115 0	L3-23 0																									
n115 1	L3-23 1																									
Stall Prevention during Run Selection	116	0	L3-05	1	<table><tr><th>V7</th><th>V1000</th></tr><tr><td>n116 0</td><td>L3-05 1</td></tr><tr><td>n116 1</td><td>L3-05 2</td></tr></table>		V7	V1000	n116 0	L3-05 1	n116 1	L3-05 2														
V7	V1000																									
n116 0	L3-05 1																									
n116 1	L3-05 2																									
Frequency Reference 9	120	0.00 Hz	d1-09	0.00 Hz																						
Frequency Reference 10	121	0.00 Hz	d1-10	0.00 Hz																						
Frequency Reference 11	122	0.00 Hz	d1-11	0.00 Hz																						
Frequency Reference 12	123	0.00 Hz	d1-12	0.00 Hz																						
Frequency Reference 13	124	0.00 Hz	d1-13	0.00 Hz																						
Frequency Reference 14	125	0.00 Hz	d1-14	0.00 Hz																						
Frequency Reference 15	126	0.00 Hz	d1-15	0.00 Hz																						
Frequency Reference 16	127	0.00 Hz	d1-16	0.00 Hz																						
PID Control Selection	128	0	b5-01	0	<table><tr><th>V7</th><th>V1000</th></tr><tr><td>n128 0</td><td>b5-01 0</td></tr><tr><td>n128 1</td><td>b5-09 0 and b5-01 1</td></tr><tr><td>n128 2</td><td>b5-09 0 and b5-01 2</td></tr><tr><td>n128 3</td><td>b5-09 0 and b5-01 3</td></tr><tr><td>n128 4</td><td>b5-09 0 and b5-01 4</td></tr><tr><td>n128 5</td><td>b5-09 1 and b5-01 1</td></tr><tr><td>n128 6</td><td>b5-09 1 and b5-01 2</td></tr><tr><td>n128 7</td><td>b5-09 1 and b5-01 3</td></tr><tr><td>n128 8</td><td>b5-09 1 and b5-01 4</td></tr></table>		V7	V1000	n128 0	b5-01 0	n128 1	b5-09 0 and b5-01 1	n128 2	b5-09 0 and b5-01 2	n128 3	b5-09 0 and b5-01 3	n128 4	b5-09 0 and b5-01 4	n128 5	b5-09 1 and b5-01 1	n128 6	b5-09 1 and b5-01 2	n128 7	b5-09 1 and b5-01 3	n128 8	b5-09 1 and b5-01 4
V7	V1000																									
n128 0	b5-01 0																									
n128 1	b5-09 0 and b5-01 1																									
n128 2	b5-09 0 and b5-01 2																									
n128 3	b5-09 0 and b5-01 3																									
n128 4	b5-09 0 and b5-01 4																									
n128 5	b5-09 1 and b5-01 1																									
n128 6	b5-09 1 and b5-01 2																									
n128 7	b5-09 1 and b5-01 3																									
n128 8	b5-09 1 and b5-01 4																									
Current Input for Frequency Reference to Terminal A2	129	1.00	H3-11	100.0%																						
Proportional Gain (P)	130	1.0	b5-02	1.00																						
Integral Time (I)	131	1.0 s	b5-03	1.0 s																						
Differential Time (D)	132	0.0 s	b5-05	0.00 s																						
PID Off-Set Tuning	133	0%	b5-07	0.0%																						
Integral Time (I) Upper Limit Value	134	100%	b5-04	100%																						
PID Primary Delay Time Constant	135	0.0 s	b5-08	0.00 s																						

Model Parameter Name	V7		V1000		Comments																										
	Parameter No. n	Default	Parameter No. -	Default																											
PID Feedback Fault Detection Selection	136	0	b5-12	0	<table><tr><th>V7</th><th>V1000</th></tr><tr><td>n136 0</td><td>b5-12 0</td></tr><tr><td>n136 1</td><td>b5-12 1</td></tr><tr><td>n136 2</td><td>b5-12 2</td></tr></table>	V7	V1000	n136 0	b5-12 0	n136 1	b5-12 1	n136 2	b5-12 2																		
V7	V1000																														
n136 0	b5-12 0																														
n136 1	b5-12 1																														
n136 2	b5-12 2																														
PID Feedback Loss Detection Level	137	0%	b5-13	0%																											
PID Feedback Loss Detection Time	138	1.0 s	b5-14	1.0 s																											
Energy Saving Mode Selection	139	0	b8-01	0	<table><tr><th>V7</th><th>V1000</th></tr><tr><td>n139 0</td><td>b8-01 0</td></tr><tr><td>n139 1</td><td>b8-01 1</td></tr></table>	V7	V1000	n139 0	b8-01 0	n139 1	b8-01 1																				
V7	V1000																														
n139 0	b8-01 0																														
n139 1	b8-01 1																														
Energy Saving Co-Efficient	140	--	b8-04	--	Default determined by drive capacity																										
Energy Saving Control Voltage Lower Limit Limiter (at 60 Hz)	141	50%	--	--	Setting not required																										
Energy Saving Control Voltage Lower Limit Limiter (at 6Hz)	142	12%	--	--	Setting not required																										
Average Time for Power	143	1 (24 ms)	--	--	Setting not required																										
Search Operation Voltage Limiter	144	0%	b8-06	0%																											
Voltage Step Width during Optimal Voltage Auto-Tuning (at 100%)	145	0.5%	--	--	Setting not required																										
Voltage Step Width during Optimal Voltage Auto-Tuning (at 5%)	146	0.2%	--	--	Setting not required																										
Pulse Train Input Scaling	149	2500 Hz	H6-02	1440 Hz																											
Pulse Train Monitor Selection	150	0	H6-06	102	<table><tr><th>V7</th><th>V1000</th></tr><tr><td>n150 0</td><td>H6-06 102 and H6-07 1440</td></tr><tr><td>n150 1</td><td>H6-06 102 and H6-07 1 × E1-04</td></tr><tr><td>n150 6</td><td>H6-06 102 and H6-07 6 × E1-04</td></tr><tr><td>n150 12</td><td>H6-06 102 and H6-07 12 × E1-04</td></tr><tr><td>n150 24</td><td>H6-06 102 and H6-07 24 × E1-04</td></tr><tr><td>n150 36</td><td>H6-06 102 and H6-07 36 × E1-04</td></tr><tr><td>n150 40</td><td>H6-06 101 and H6-07 1440</td></tr><tr><td>n150 41</td><td>H6-06 101 and H6-07 1 × E1-04</td></tr><tr><td>n150 42</td><td>H6-06 101 and H6-07 6 × E1-04</td></tr><tr><td>n150 43</td><td>H6-06 101 and H6-07 12 × E1-04</td></tr><tr><td>n150 44</td><td>H6-06 101 and H6-07 24 × E1-04</td></tr><tr><td>n150 45</td><td>H6-06 101 and H6-07 36 × E1-04</td></tr></table>	V7	V1000	n150 0	H6-06 102 and H6-07 1440	n150 1	H6-06 102 and H6-07 1 × E1-04	n150 6	H6-06 102 and H6-07 6 × E1-04	n150 12	H6-06 102 and H6-07 12 × E1-04	n150 24	H6-06 102 and H6-07 24 × E1-04	n150 36	H6-06 102 and H6-07 36 × E1-04	n150 40	H6-06 101 and H6-07 1440	n150 41	H6-06 101 and H6-07 1 × E1-04	n150 42	H6-06 101 and H6-07 6 × E1-04	n150 43	H6-06 101 and H6-07 12 × E1-04	n150 44	H6-06 101 and H6-07 24 × E1-04	n150 45	H6-06 101 and H6-07 36 × E1-04
V7	V1000																														
n150 0	H6-06 102 and H6-07 1440																														
n150 1	H6-06 102 and H6-07 1 × E1-04																														
n150 6	H6-06 102 and H6-07 6 × E1-04																														
n150 12	H6-06 102 and H6-07 12 × E1-04																														
n150 24	H6-06 102 and H6-07 24 × E1-04																														
n150 36	H6-06 102 and H6-07 36 × E1-04																														
n150 40	H6-06 101 and H6-07 1440																														
n150 41	H6-06 101 and H6-07 1 × E1-04																														
n150 42	H6-06 101 and H6-07 6 × E1-04																														
n150 43	H6-06 101 and H6-07 12 × E1-04																														
n150 44	H6-06 101 and H6-07 24 × E1-04																														
n150 45	H6-06 101 and H6-07 36 × E1-04																														
Pulse Train Monitor Scaling	--	--	H6-07	1440 Hz																											

Model Parameter Name	V7		V1000		Comments																								
	Parameter No. n	Default	Parameter No. -	Default																									
Communication Error Detection Operation Selection	151	0	H5-04	3	<table><tr><td colspan="2">V7</td><td colspan="2">V1000</td></tr><tr><td>n151</td><td>0</td><td colspan="2">H5-05 1 and H5-04 1</td></tr><tr><td>n151</td><td>1</td><td colspan="2">H5-05 1 and H5-04 0 (ramps to stop using C1-02)</td></tr><tr><td>n151</td><td>2</td><td colspan="2">H5-05 1 and H5-04 0 H1- 7 (ramps to stop using C1-04)</td></tr><tr><td>n151</td><td>3</td><td colspan="2">H5-04 3</td></tr><tr><td>n151</td><td>4</td><td colspan="2">H5-05 0</td></tr></table>	V7		V1000		n151	0	H5-05 1 and H5-04 1		n151	1	H5-05 1 and H5-04 0 (ramps to stop using C1-02)		n151	2	H5-05 1 and H5-04 0 H1- 7 (ramps to stop using C1-04)		n151	3	H5-04 3		n151	4	H5-05 0	
V7		V1000																											
n151	0	H5-05 1 and H5-04 1																											
n151	1	H5-05 1 and H5-04 0 (ramps to stop using C1-02)																											
n151	2	H5-05 1 and H5-04 0 H1- 7 (ramps to stop using C1-04)																											
n151	3	H5-04 3																											
n151	4	H5-05 0																											
CE Detection Selection	--	--	H5-05	1	<table><tr><td>n151</td><td>3</td><td colspan="2">H5-04 3</td></tr><tr><td>n151</td><td>4</td><td colspan="2">H5-05 0</td></tr></table>	n151	3	H5-04 3		n151	4	H5-05 0																	
n151	3	H5-04 3																											
n151	4	H5-05 0																											
Station Address	153	0	H5-01	1F																									
Communication Speed Selection	154	2	H5-02	3	<table><tr><td colspan="2">V7</td><td colspan="2">V1000</td></tr><tr><td>n154</td><td>0</td><td colspan="2">H5-02 1</td></tr><tr><td>n154</td><td>1</td><td colspan="2">H5-02 2</td></tr><tr><td>n154</td><td>2</td><td colspan="2">H5-02 3</td></tr><tr><td>n154</td><td>3</td><td colspan="2">H5-02 4</td></tr></table>	V7		V1000		n154	0	H5-02 1		n154	1	H5-02 2		n154	2	H5-02 3		n154	3	H5-02 4					
V7		V1000																											
n154	0	H5-02 1																											
n154	1	H5-02 2																											
n154	2	H5-02 3																											
n154	3	H5-02 4																											
Communication Parity Selection	155	0	H5-03	0	<table><tr><td colspan="2">V7</td><td colspan="2">V1000</td></tr><tr><td>n155</td><td>0</td><td colspan="2">H5-03 1</td></tr><tr><td>n155</td><td>1</td><td colspan="2">H5-03 2</td></tr><tr><td>n155</td><td>2</td><td colspan="2">H5-03 0</td></tr></table>	V7		V1000		n155	0	H5-03 1		n155	1	H5-03 2		n155	2	H5-03 0									
V7		V1000																											
n155	0	H5-03 1																											
n155	1	H5-03 2																											
n155	2	H5-03 0																											
Message Send Time	156	10ms	H5-06	5ms																									
RTS Control	157	0	H5-07	1	<table><tr><td colspan="2">V7</td><td colspan="2">V1000</td></tr><tr><td>n157</td><td>0</td><td colspan="2">H5-07 1</td></tr><tr><td>n157</td><td>1</td><td colspan="2">H5-07 0</td></tr></table>	V7		V1000		n157	0	H5-07 1		n157	1	H5-07 0													
V7		V1000																											
n157	0	H5-07 1																											
n157	1	H5-07 0																											
Motor Rated Capacity	158	--	E2-11	--	Default determined by drive capacity																								
Energy Saving Control Voltage Upper Limit Limiter (at 60 Hz)	159	120%	--	--	Setting not required																								
Energy Saving Control Voltage Upper Limit Limiter (at 6 Hz)	160	16%	--	--	Setting not required																								
Power Detection Hold Width during Optimum Voltage Auto-Tuning	161	10%	--	--	Setting not required																								
Power Detection Filter Time Constant	162	5 (20ms)	b8-05	20ms																									
PID Output Gain	163	1.0	b5-10	1.00																									
PID Feedback Value Selection	164	0	H3-01, 02 H3-09, 10 H6-01	--	<table><tr><td colspan="2">V7</td><td colspan="2">V1000</td></tr><tr><td rowspan="2">n164</td><td rowspan="2">0, 3</td><td colspan="2">H3-01 0, 1 and H3-02 B or H3-09 0, 1 and H3-10 B</td></tr><tr><td colspan="2">H3-09 2 and H3-10 B</td></tr><tr><td>n164</td><td>1, 4</td><td colspan="2">H3-09 3 and H3-10 B</td></tr><tr><td>n164</td><td>2</td><td colspan="2">H6-01 1</td></tr><tr><td>n164</td><td>5</td><td colspan="2"></td></tr></table>	V7		V1000		n164	0, 3	H3-01 0, 1 and H3-02 B or H3-09 0, 1 and H3-10 B		H3-09 2 and H3-10 B		n164	1, 4	H3-09 3 and H3-10 B		n164	2	H6-01 1		n164	5				
V7		V1000																											
n164	0, 3	H3-01 0, 1 and H3-02 B or H3-09 0, 1 and H3-10 B																											
		H3-09 2 and H3-10 B																											
n164	1, 4	H3-09 3 and H3-10 B																											
n164	2	H6-01 1																											
n164	5																												
Built-In Braking Resistor Protection (ERF-type)	165	0	L8-01	0	<table><tr><td colspan="2">V7</td><td colspan="2">V1000</td></tr><tr><td>n165</td><td>0</td><td colspan="2">L8-01 0</td></tr><tr><td>n165</td><td>1</td><td colspan="2">L8-01 1</td></tr></table>	V7		V1000		n165	0	L8-01 0		n165	1	L8-01 1													
V7		V1000																											
n165	0	L8-01 0																											
n165	1	L8-01 1																											

Parameter Name Model	V7		V1000		Comments												
	Parameter No. n	Default	Parameter No. -	Default													
Input Phase Detection Level	166	0%	--	--	Setting not required												
Input Phase Protection Selection	167	0 s	L8-05	0													
Output Phase Detection Level	168	0%	--	--	Setting not required												
Output Phase Protection Selection	169	0.0 s	L8-07	0													
Enter Command Operation Selection (MEMOBUS)	170	0	--	--	Setting not required												
Frequency Reference Bias Upper Limit Value (Up/Down 2)	171	0.0%	d4-08	0.0%													
Frequency Reference Bias Lower Limit Value (Up/Down 2)	172	0.0%	d4-09	0.0%													
DC Braking Proportional Gain	173	83 (0.083)	--	--	Setting not required												
DC Braking Integral Time Constant	174	25 (100 ms)	--	--	Setting not required												
Carrier Frequency Reduction Selection	175	0	L8-38	0	<table><tr><th colspan="2">V7</th><th colspan="2">V1000</th></tr><tr><td>n175</td><td>0</td><td>L8-38</td><td>0</td></tr><tr><td>n175</td><td>1</td><td>L8-38</td><td>1</td></tr></table>	V7		V1000		n175	0	L8-38	0	n175	1	L8-38	1
V7		V1000															
n175	0	L8-38	0														
n175	1	L8-38	1														
COPY Function Selection	176	RDY	--	--	For use with option card												
READ Allowed Selection	177	0	--	--													

5-2 Differences between setting value and parameter numbers in V7 and V1000

Setting Range Differences

Carrier Frequency (V7: n080, V1000: C6-02)

V7 can be set up to 10 kHz,

V1000 can be set up 15 kHz

COPY Function

Using the COPY function in V1000 requires the optional USB Copy Unit.

Appendix: Default Differences in Rated Output Capacity, Rated Current, Carrier Frequency

Voltage	Max Applicable Motor Capacity (kW)	V7 CIMR-V7AA	V1000 CIMR-VA	V7			V1000		
				Rated Output Capacity (kVA)	Rated Output Current (A)	Carrier Frequency (kHz)	Rated Output Capacity (kVA)	Rated Output Current (A)	Carrier Frequency (kHz)
3-Phase 200 V	0.1	20P1	2A0001	0.3	0.8	10	0.3	0.8	10
	0.2	20P2	2A0002	0.6	1.6		0.6	1.6	
	0.4	20P4	2A0004	1.1	3.0		1.1	3.0	
	0.75	20P7	2A0006	1.9	5.0		1.9	5.0	
	1.5	21P5	2A0010	3.0	8.0	7.5	3.0	8.0	8
	2.2	22P2	2A0012	4.2	11.0		4.2	11.0	
	3.7	23P7	2A0020	6.7	17.5		6.7	17.5	
	5.5	25P5	2A0030	9.5	25.0	7.5	9.5	25.0	8
	7.5	27P5	2A0040	13.0	33.0		12.6	33.0	
Single- Phase 200 V	0.1	B0P1	BA0001	0.3	0.8	10	0.3	0.8	10
	0.2	B0P2	BA0002	0.6	1.6		0.6	1.6	
	0.4	B0P4	BA0003	1.1	3.0		1.1	3.0	
	0.75	B0P7	BA0006	1.9	5.0		1.9	5.0	
	1.5	B1P5	BA0010	3.0	8.0	7.5	3.0	8.0	8
	2.2	B2P2	BA0012	4.2	11.0		4.2	11.0	
	3.7	B3P7	BA0018	6.7	17.5	7.5	6.7	17.5	8
3-Phase 400 V	0.2	40P2	4A0001	0.9	1.2	7.5	0.9	1.2	8
	0.4	40P4	4A0002	1.4	1.8		1.4	1.8	
	0.75	40P7	4A0004	2.6	3.4		2.6	3.4	
	1.5	41P5	4A0005	3.7	4.8		3.7	4.8	
	2.2	42P2	4A0007	4.2	5.5		4.2	5.5	
	3.0	43P0	4A0009	5.5	7.2		5.5	7.2	
	3.7	43P7	4A0011	6.6	8.6		7.0	9.2	
	5.5	45P5	4A0018	11.0	14.8	7.5	11.3	14.8	8
	7.5	47P5	4A0023	14.0	18.0		13.7	18.0	

Revision History

[illegible]

For any questions regarding material described in this document, please contact:

Yaskawa Electric Corporation

Drives Marketing Section

TEL: 0930-25-2548, FAX: 0930-25-3431