Product Transition Guide

J7 to J1000

Subject: Transition Guide	Product: J1000	Document: PL.J1000.01
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1.0 Applicable Drives

This document describes the substitution of the following drives:

Original Drive: CIMR-J7xMxxxx, CIMR-J7xUxxx, or JDxxxx
Spec: xxxx0 (IP20)
Software Version: Standard: 001x, 002x

Replacement: CIMR-JUxAxxxxBxx
Spec: CIMR-JUx**A**xxxxBxx (A-Standard model)
Software Version: PRG: 10xx
This replacement J1000 drive must be selected using the J1000 Heavy Duty rating.

The description is not valid for drives with other specifications or firmware installed.

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2.0 Drive Replacement Checklist

	Item	Checkpoints	Checked?
Hardware	Basic	**Digital Operator Panel** Does the digital operator panel need to be mounted in the same location as before? - If necessary, attempt to mount the operator panel at the same location as before. Was a remote operator connected to the old unit? - If so, do not attempt to connect the old remote operator panel to the J1000. Refer to part 6 of this document for option replacements.	
		Special Specifications Check the installed drive's specifications to make sure that it is compliant with the standard specifications (no special firmware, etc.).	
	Main and Control Terminals	**Wire Length** In the J7 drive, the main terminals are located at the top of the drive. The J1000 drive has all main terminals located at the bottom of the drive. Check to assure that all cables are long enough to be connected without tension to the new drive.	
		Main Circuit Wires and Terminal Specifications Compare the occupied terminals of the old drive to the new drive's terminals (shape, size, etc.). Check that all wires fit in the new drive's terminals, refer to part 4 of this document.	
Software	Software Version	**Check Software Version or for Special Software** Check the software number in the old drive to be sure that it can be replaced by the J1000 drive. Refer to part 7.3 of this document. **-** Ask your Yaskawa representative for help in identifying the software installed on the drive that must be replaced and for additional replacement information.	
	Parameter	**Check the Parameter Settings** Check the parameter settings of the J7 drive and perform a parameter transition to the new parameters following part 7 of this document. Contact your Yaskawa representative if there is special software installed or if a parameter is not mentioned in this document.	
Options, Others	Communi-cation Option	**Is an Option Card Installed?** Check if any communication card options are installed. - J7 options are NOT compatible with the J1000 drive and must be replaced. - Communication cable connectors from J7 options are compatible to the J1000 options without rewiring.	
	Reactors, Chokes	**Is an AC Reactor or DC Link Choke Installed?** AC Reactors or DC Link Chokes installed on a J7 drive are compatible with the J1000 drive.	
	Filters	**Is an EMC Filter Installed?** Some EMC Filters installed on a J7 drive are compatible with the J1000 drive. For details on filter replacements contact your Yaskawa representative.	
	Cables	**Extension Cables** The extension cables for remote operation used on a J7 drive are compatible with the J1000 drive. However, the remote operator and the remote operator interface are not compatible with the J1000 drive and must be replaced.	

- For questions on installation, parameter settings or detailed parameter/ function descriptions see the instruction manual. Other technical questions should be referred to your Yaskawa representative.

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3.0 Ratings Summary

<1>, <3>

Voltage Class	Maximum Motor Power (kW)	J7					J1000				
		Model No. J7xM□x	Output Power (kVA)	HP	Output Current (A)	Carrier Frequency (kHz)	Model No. JU□x	Output Power (kVA)	HP	Output Current (A)	Carrier Frequency (kHz)
Single Phase 200 V	0.1	B0P1	0.3	1/8	0.8	10	BA0001	0.3	1/8	0.8	10
	0.2	B0P2	0.6	1/4	1.6		BA0002	0.6	1/4	1.6	
	0.4	B0P4	1.1	1/2	3.0		BA0003	1.1	1/2	3.0	
	0.75	B0P7	1.9	3/4 & 1	5.0		BA0006	1.9	3/4 & 1	5.0	
	1.5	B1P5	3.0	2	8.0	7.5	BA0010	3.0	2	8.0	8
Three-Phase 200 V	0.1	20P1	0.3	1/8	0.8	10	2A0001	0.3	1/8	0.8	10
	0.2	20P2	0.6	1/4	1.6		2A0002	0.6	1/4	1.6	
	0.4	20P4	1.1	1/2	3.0		2A0004	1.1	1/2	3.0	
	0.75	20P7	1.9	3/4 & 1	5.0		2A0006	1.9	3/4 & 1	5.0	
	1.5	21P5	3.0	2	8.0	7.5	2A0010	3.0	2	8.0	8
	2.2	22P2	4.2	3	11.0		2A0012	4.2	3	11.0	
	3.7	23P7	6.7	5	17.5		2A0020	6.7	5	17.5	
Three-Phase 400 V	0.2	40P2	0.9	1/2	1.2	7.5	4A0001	0.9	1/2	1.2	8
	0.4	40P4	1.4	3/4	1.8		4A0002	1.4	3/4	1.8	
	0.75	40P7	2.6	1 & 2	3.4		4A0004	2.6	1 & 2	3.4	
	1.5	41P5	3.7	3	4.8		4A0005	3.7	3	4.8	
	2.2	42P2	4.2	3	5.5		4A0007	4.2	3	5.5	
	2.2	42P2	4,2	3	5,5		4A0009	5.5	4	7.2	
	3.7	43P7	6.6	5	8.6		4A0011	7.0	5	9.2	

4.0 Terminals

4.1 Main Circuit Terminals

Note: The J7 and J1000 drives may have different terminal sizes (depending on capacity); therefore, the terminals must be carefully checked before replacement. The main terminal functionality has not been changed.

J7 Main Terminals	J1000 Main Terminals	Note
R / L 1	R / L 1	Power supply connection. Note: In the J7 drive the power supply terminals are located at the top of the drive. In the J1000 the power supply terminals are located at the bottom of the drive. Cables must fit without tension (replace or extend if needed).
S / L2	S / L2	
T / L 3	T / L 3	
U / T1	U / T1	Drive Output
V / T2	V / T2	
W / T3	W / T3	
-	B1	Braking resistor or external braking chopper connection.
-	B2	Braking resistor connection.
+1	+1	DC Link Choke connection, DC Power Supply input.
+2	+2	
+1	+1	DC Power Supply input, external braking transistor module connection.
—	—	
⏚	⏚	Grounding Terminal: For 200 V class: 100 Ω or less For 400 V class: 10 Ω or less

4.2 Control Terminals, Signal Levels

Terminal		Function	Signal Level	
J7	J1000		J7	J1000
S1		Multi-function input 1 (1: Run forward, 0: Stop)	Photo coupler isolation +24 Vdc, 8 mA	Photo coupler isolation +24 Vdc, 8 mA
S2		Multi-function input 2 (1: Run reverse, 0: Stop)		
S3		Multi-function input 3 (J7: Fault Reset / J1000: Ext. Fault)		
S4		Multi-function input 4 (J7: Ext. Fault / J1000: Fault Reset)		
S5		Multi-function input 5 (Multi speed 1)		
SC		Multi-function input common.	—	—
FS	+V	Analog input power supply.	+12 Vdc, max. 20 mA	+10.5 Vdc, max. 20 mA
FR	A1	Analog input 1 (Frequency Reference)	0 ~ +10 Vdc (20 kΩ) 0 or 4-20 mA (250 Ω)	0 ~ +10 Vdc (20 kΩ) 0 or 4-20 mA (250 Ω)
FC	AC	Analog input common.	0 V	
MA		Change over contact output (NO). (Fault)	Maximum Load 250 Vac , 10 mA ~ 1A 30 Vdc, 10 mA ~ 1 A	Maximum Load 250 Vac , 10 mA ~ 1A 30 Vdc, 10 mA ~ 1 A
MB		Change over contact output (NC). (Fault)		
MC		Change over contact output common.		
AM		Analog output.	0 ~ +10 Vdc, Maximum 2 mA Resolution 8 Bit	0 ~ +10 Vdc, maximum 2 mA Resolution 8 Bit
AC		Analog output GND		

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4.3 DIP Switches

Note: When replacing a J7 drive with a J1000 drive, verify that DIP Switches (S1 and S3) are set properly.

Function	J7		J1000	
	Switch	Default	Switch	Default
NPN / PNP Selection	SW7	NPN	S3	SINK (NPN)
Analog input 1 level selection	SW8	Voltage	S1	Voltage

4.4 Main Terminal Size / Electric Wire Differences

Note: The J7 drive has main terminals at the top and bottom, while the J1000 drive has all main terminals at the bottom. Ensure that all wires fit without tension.

⏚ = Ground Terminal

Voltage Class	Drive	CIMR-JU□	Terminal Symbol	Screw Size	Tightening Torque N.m (lb - in.)	Wire Size mm^2 (AWG)	Recommended Wire Size mm^2 (AWG)
Three – Phase 200 V	J7	20P1 20P2 20P4 20P7	R / L1, S / L2, T / L3, —, +1, +2, ⏚	M3.5	0.8 ~ 1.0 (7.1 to 8.9)	0.75 ~ 2.0 (18 to 14)	2 (14)
			U / T1, V / T2, W / T3		1.24 (11.0)		
	J1000	2A0001 2A0002 2A0004 2A0006	R / L1, S / L 2, T / L3, U / T1, V / T2, W / T3, —, +1, +2, B1, B2, ⏚ (2 terminals)		0.8 ~ 1.0 (7.1 to 8.9)		
	J7	21P5	R / L1, S / L 2, T / L3, U / T1, V / T2, W / T3, —, +1, +2	M3.5	0.8 ~ 1.0 (7.1 to 8.9)	2.0 ~ 5.5 (14 to 10)	2 (14)
			⏚				
	J1000	2A0010	R / L1, S / L 2, T / L3, U / T1, V / T2, W / T3, —, +1, +2, B1, B2	M4	1.2 ~ 1.5 (10.6 to 13.3)	2.0 ~ 5.5 (14 to 10)	2 (14)
			⏚ (2 terminals)				3.5 (12)
	J7	22P2	R / L1, S / L 2, T / L3, U / T1, V / T2, W / T3, —, +1, +2, ⏚	M3.5	0.8 ~ 1.0 (7.1 to 8.9)	2.0 ~ 5.5 (14 to 10)	3.5 (12)
	J1000	2A0012	R / L1, S / L 2, T / L3, U / T1, V / T2, W / T3, —, +1, +2, B1, B2, ⏚ (2 terminals)	M4	1.2 ~ 1.5 (10.6 to 13.3)		
	J7	23P7	R / L1, S / L 2, T / L3, U / T1, V / T2, W / T3, —, +1, +2, ⏚	M4	1.2 ~ 1.5 (10.6 to 13.3)	2.0 ~ 5.5 (14 to 10)	5.5 (10)
	J1000	2A0020	R / L1, S / L 2, T / l3, U / T1, V / T2, W / T3, —, +1, +2, B1, B2, ⏚ (2 terminals)				

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Voltage Class	Drive	CIMR-JU□	Terminal Symbol	Screw Size	Tightening Torque N.m (lb - in.)	Wire Size mm^2 (AWG)	Recommended Wire Size mm^2 (AWG)
Single – Phase 200 V	J7	B0P1 B0P2 B0P4	R / L1, S / L 2, —, +1, +2, ⏚	M3.5	0.8 ~ 1.0 (7.1 to 8.9)	0.75 ~ 2.0 (18 to 14)	2 (14)
			U / T1, V / T2, W / T3		1.24 (11.0)		
	J1000	BA0001 BA0002 BA0003	R / L1, S / L 2, U / T1, V / T2, W / T3,—, +1, +2, B1, B2, ⏚ (2 terminals)		0.8 ~ 1.0 (7.1 to 8.9)		
	J7	B0P7	R / L1, S / L 2, U / T1, V / T2, W / T3, —, +1, +2	M3.5	0.8 ~ 1.0 (7.1 to 8.9)	2.0 ~ 5.5 (14 to 10)	3.5 (12)
			⏚				2 (14)
	J1000	BA0006	R / L1, S / L 2, U / T1, V / T2, W / T3, —, +1, +2, B1, B2, ⏚ (2 terminals)	M4	1.2 ~ 1.5 (10.6 to 13.3)		2 (14)
	J7	B1P5	R / L1, S / L 2, U / T1, V / T2, W / T3, —, +1, +2	M3.5	0.8 ~ 1.0 (7.1 to 8.9)	2.0 ~ 5.5 (14 to 10)	5.5 (10)
			⏚				2 (14)
	J1000	BA0010	R / L1, S / L 2, U / T1, V / T2, W / T3, ⏚ (2 terminals)	M4	1.2 ~ 1.5 (10.6 to 13.3)		3.5 (12)
			—, +1, +2, B1, B2,				5.5 (10)
Three – Phase 400 V	J7	40P2 40P4 40P7 41P5	R / L1, S / L 2, T / L3, U / T1, V / T2, W / T3, —, +1, +2, ⏚	M3.5	0.8 ~ 1.0 (7.1 to 8.9)	2.0 ~ 5.5 (14 to 10)	2 (14)
	J1000	4A0001 4A0002 4A0004 4A0005	R / L1, S / L 2, T / L3, U / T1, V / T2, W / T3, —, +1, +2, B1, B2, ⏚ (2 terminals)	M4	1.2 ~ 1.5 (10.6 to 13.3)		
	J7	42P2	R / L1, S / L 2, T / L3, U / T1, V / T2, W / T3, —, +1, +2, ⏚	M4	1.2 ~ 1.5 (10.6 to 13.3)	2.0 ~ 5.5 (14 to 10)	2 (14)
	J1000	4A0007	R / L1, S / L 2, T / L3, U / T1, V / T2, W / T3, —, +1, +2, B1, B2, ⏚ (2 terminals)				
	J7	43P0 43P7	R / L1, S / L 2, T / L3, U / T1, V / T2, W / T3, —, +1, +2	M4	1.2 ~ 1.5 (10.6 to 13.3)	2.0 ~ 5.5 (14 to 10)	2 (14)
			⏚				3.5 (12)
	J1000	4A0009 4A0011	R / L1, S / L 2, T / L3, U / T1, V / T2, W / T3, —, +1, +2, B1, B2	M4	1.2 ~ 1.5 (10.6 to 13.3)	2.0 ~ 5.5 (14 to 10)	2 (14)
			⏚ (2 terminals)				3.5 (12)

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- 4.5 Control Terminal and Wire Sizes

Voltage Class	Drive	Terminal Symbol	Screw Size	Tightening Torque N.m (lb - in.)	Wire Size mm^2 (AWG)	Recommended Wire Size mm^2 (AWG)
All	J7	S1 - S5, SC, FS, FR, FC, AM, AC	M2	0.22 ~ 0.25 (1.9 to 2.2)	Flexible: 0.5 ~ 0.75 (20 to 18) Solid: 0.5 ~ 1.25 (20 to 18)	0.75 (18)
	J1000	S1 - S5, SC, V+, A1, AC, AM, AC			Flexible: 0.25 ~ 1.0 (24 to 18) Solid: 0.25 ~ 1.5 (24 to 16)	
	J7	MA, MB, MC	M3	0.5 ~ 0.6 (4.4 to 5.3)	Flexible: 0.5 ~ 0.75 (20 to 18) Solid: 0.5 ~ 1.25 (20 to 18)	0.75 (18)
	J1000				Flexible: 0.25 ~ 1.0 (24 to 18) Solid: 0.25 ~ 1.5 (24 to 16)	

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5.0 Dimensions

Note: The tables below show dimension differences between the J7 and the J1000 (in mm and in) and the required parts for the drive replacement (J7 dimensions are without potentiometer knob).

Voltage Class	J7 CIMR-J7xM☐	J7 W (mm)	J7 H (mm)	J7 D (mm)	J1000 CIMR-JU☐	J1000 W (mm)	J1000 H (mm)	J1000 D (mm)
Single Phase 200 V	B0P10	68	128	70	BA0001B	68	128	76
	B0P20				BA0002B			
	B0P40			112	B10003B			118
	B0P70	108		129	BA0006B	108		137.5
	B1P50			154	BA0010B			154
Three Phase 200 V	20P10	68	128	70	2A0001B	68	128	76
	20P20				2A0002B			
	20P40			102	2A0004B			108
	20P70			122	2A0006B			128
	21P50	108		129	2A0010B	108		129
	21P20			154	2A0012B			137.5
	23P70	140		161	2A0020B	140		143
Three Phase 400 V	40P20	108	128	81	4A0001B	108	128	81
	40P40			99	4A0002B			99
	40P70			129	4A0004B			137.5
	41P50			154	4A0005B			154
	42P20				4A0007B			
	43P70	140		161	4A0011B	140		143

Voltage Class	J7 CIMR-J7xM☐	J7 W (in)	J7 H (in)	J7 D (in)	J1000 CIMR-JU☐	J1000 W (in)	J1000 H (in)	J1000 D (in)
Single Phase 200 V	B0P10	2.68	5.04	2.76	BA0001B	2.68	5.04	2.99
	B0P20				BA0002B			
	B0P40			4.41	B10003B			4.65
	B0P70	4.25		5.08	BA0006B	4.25		5.41
	B1P50			6.06	BA0010B			6.06
Three Phase 200 V	20P10	2.68	5.04	2.76	2A0001B	2.68	5.04	2.99
	20P20				2A0002B			
	20P40			4.02	2A0004B			4.25
	20P70			4.80	2A0006B			5.04
	21P50	4.25		5.08	2A0010B	4.25		5.08
	21P20			6.06	2A0012B			5.41
	23P70	5.51		6.34	2A0020B	5.51		5.63
Three Phase 400 V	40P20	4.25	5.04	3.19	4A0001B	4.25	5.04	3.19
	40P40			3.90	4A0002B			3.90
	40P70			5.08	4A0004B			5.41
	41P50			6.06	4A0005B			6.06
	42P20				4A0007B			
	43P70	5.51		6.34	4A0011B	5.51		5.63

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6.0 Option Replacements

The table below indicates potential option replacements.

Note: J7 options are not compatible with the J1000 drive.

Type	Description	J7	J1000
Serial Communications	Interface for Remote Operator	SI-232 / J7	SI-232 / J
	Interface for RS-232 PC communication (MEMOBUS / Modbus)	SI-232 / J7C	SI-232 / JC
	Interface for RS-422 / 485 communication (MEMOBUS / Modbus)	SI-485 / J7	SI-485 / J
Operator Panel	Remote operator without potentiometer	JVOP-146	JVOP-182
	Remote operator with potentiometer	JVOP-144	Not Available
	Extension Cable 1 meter	UWR0051	UWR0051
	Extension Cable 3 meter	UWR0052	UWR0052
Potentiometer Option	To use a potentiometer on the drive for settings up the frequency reference.	Built-in	AI-V3 / J
DIN Rail Mounting	Used to mount the drive on a DIN Rail.	EZZ08122x	EZZ08122x
AC Reactor	3% or 5% AC Line Reactor	05P00620-xxxx	05P00620-xxxx
DC Link Choke	3% DC Link Choke	05P00620-xxxx	05P00620-xxxx
Copy Unit	Copy unit or keypads used to upload / download drive parameters from one drive to another.	JV0P-140 or JV0P-142 and • SI-232 / J7 or / J7C and • UWR0051 (1 m) or • UWR0052 (3 m)	JV0P-182 (LED operator) or JV0P-181 (USB Copy Unit) and • SI-232 / J or / J7C and • Same cables as J7

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7.0 Parameter Settings

7.1 Parameter Correspondence for Drive Replacement

Note:

1. Before setting up other parameters, verify that C6-01 is set to "0" (HD). Refer to the Technical Manual for details on the Normal and Heavy Duty selection.
2. Voltage values are valid for a 200 V drive. Voltage values double for the 400 V drive.

Drive / Function / Parameter	J7 Parameter No.	J7 Initial Value	J1000 Parameter No.	J1000 Initial Value	Comments
Parameter Access Level Initialization RUN command in Programming Mode Fault History U2 Initialization	n01	1	A1-01 A1-03 b1-08 o4-11	2 0 0 0	J7 → J1000 n01 → 0 : A1-01 → 0 n01 → 1 : A1-01 → 2 n01 → 5 : A1-01 → 2, b1-08 → 1 n01 → 6 : o4-11 → 1 n01 → 10 : A1-03 → 2220 n01 → 11 : A1-03 → 3330
RUN Command Source Selection	n02	1	b1-02	1	J7 → J1000 n02 → 0 : b1-02 → 0 n02 → 1 : b1-02 → 1 n02 → 2 : b1-02 → 2
Frequency Reference Source Selection	n03	2	b1-01	1	J7 → J1000 n03 → 0 : b1-01 → 0 (A1-V3 / J option required) n03 → 1 : b1-01 → 0 n03 → 2 : b1-01 → 1 & H3-01 → 0 n03 → 3 : b1-01 → 1 & H3-01 → 2 n03 →4 : b1-01 → 1 & H3-01 → 3 n03 → 6 : b1-01 → 2 (SI – 485 / J option required) When using A1 as frequency reference input, make sure to set DIP switch S1 properly (voltage or current input).
Stop Method Selection	n04	0	b1-03	0	J7 → J1000 n04 → 0 : b1-03 → 0 n04 → 1 : b1-03 → 1
Reverse Run Prohibit Selection	n05	0	b1-04	0	J7 → J1000 n05 → 0 : b1-04 → 0 n05 → 1 : b1-04 → 1
Digital Operator STOP Key Function	n06	0	o2-02	1	J7 → J1000 n06 → 0 : o2-02 → 1 n06 → 1 : o2-02 → 0
Frequency Reference in Local Mode	n07	0	—	—	(No operator panel potentiometer)

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Drive / Function / Parameter	J7 Parameter No.	J7 Initial Value	J1000 Parameter No.	J1000 Initial Value	Comments
Frequency Reference from Operator ENTER Key Selection	n08	0	o2-05	0	J7: n08 → 0; n08 → 1 / J1000: o2-05 → 0; o2-05 → 1
Maximum Output Frequency	n09	60.0 Hz	E1-04	60.0 Hz	—
Maximum Output Voltage	n10	200.0V*	E1-05	200 V*	* Values for a 400 V class drive are double.
Base Frequency	n11	60.0 Hz	E1-06	60.0 Hz	—
Middle Output Frequency	n12	1.5 Hz	E1-07	3.0 Hz	—
Middle Output Voltage	n13	12.0 V*	E1-08	16.0 V*	* Values for a 400 V class drive are double.
Minimum Output Frequency	n14	1.5 Hz	E1-09	1.5 Hz	—
Minimum Output Voltage	n15	12.0 V*	E1-10	12.0 V*	* Values for a 400 V class drive are double.
Acceleration Time 1	n16	10.0 s	C1-01	10.0 s	—
Deceleration Time 1	n17	10.0 s	C1-02	10.0 s	—
Acceleration Time 2	n18	10.0 s	C1-03	10.0 s	—
Deceleration Time 2	n19	10.0 s	C1-04	10.0 s	—
S –Curve at Acceleration Start	n20	0 (0 s)	C2-01	0.2 s	J7: Selection parameter (setting 0, 1, 2 and 3). Same setting for all conditions. J1000: Numerical parameter (time must be set in seconds). The S-Curve is set separately for each accel / decel profile selection.
S-Curve at Acceleration End			C2-02		
S-Curve at Deceleration Start			C2-03		
S-Curve at Deceleration End			C2-04	0.0 s	
Multiple Speed Ref. 1	n21	6.00 Hz	d1-01	0.00 Hz	—
Multiple Speed Ref. 2	n22	0.00 Hz	d1-02	0.00 Hz	—
Multiple Speed Ref. 3	n23	0.00 Hz	d1-03	0.00 Hz	—
Multiple Speed Ref. 4	n24	0.00 Hz	d1-04	0.00 Hz	—
Multiple Speed Ref. 5	n25	0.00 Hz	d1-05	0.00 Hz	—
Multiple Speed Ref. 6	n26	0.00 Hz	d1-06	0.00 Hz	—
Multiple Speed Ref. 7	n27	0.00 Hz	d1-07	0.00 Hz	—
Multiple Speed Ref. 8	n28	0.00 Hz	d1-08	0.00 Hz	—
Jog Frequency	n29	6.00 Hz	d1-17	6.00 Hz	—
Frequency Reference Upper Limit	n30	100%	d2-01	100%	—
Frequency Reference Lower Limit	n31	0%	d2-02	0.0%	—
Motor Rated Current	n32	—	E2-01	—	Depends on the drive capacity.
Motor Overheat Protection	n33	0	L1-01	1	J7: n33 → 0; n33 → 1; n33 → 2 / J1000: L1-01 → 1; L1-01 → 2; L1-01 → 0

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Drive / Function / Parameter	J7 Parameter No.	J7 Initial Value	J1000 Parameter No.	J1000 Initial Value	Comments
Motor Protection Time Constant	n34	8 min	L1-02	1 min	Set L1-02 = n34 / 8.
Drive Cooling Fan Operation Selection	n35	0	L8-10	0	J7: n35 → 0 / J1000: L8-10 → 0 J7: n35 → 1 / J1000: L8-10 → 1
Terminal S1 Function Selection	—	—	H1-01	40	The function of S1 is fixed to Fwd Run in the J7. The equivalent setting in the J1000 is H1-01 = 40 (default).
Terminal S2 Function Selection	n36	2	H1-02	41	J7: n36 ~ 39 → 2 / J1000: H1-02 ~ 05 → 41 J7: n36 ~ 39 → 3 / J1000: H1-02 ~ 05 → 24 J7: n36 ~ 39 → 4 / J1000: H1-02 ~ 05 → 25 J7: n36 ~ 39 → 5 / J1000: H1-02 ~ 05 → 14 J7: n36 ~ 39 → 6 / J1000: H1-02 ~ 05 → 3 J7: n36 ~ 39 → 7 / J1000: H1-02 ~ 05 → 4 J7: n36 ~ 39 → 8 / J1000: H1-02 ~ 05 → 5 J7: n36 ~ 39 → 10 / J1000: H1-02 ~ 05 → 6 J7: n36 ~ 39 → 11 / J1000: H1-02 ~ 05 → 7 J7: n36 ~ 39 → 12 / J1000: H1-02 ~ 05 → 8 J7: n36 ~ 39 → 13 / J1000: H1-02 ~ 05 → 9 J7: n36 ~ 39 → 14 / J1000: H1-02 ~ 05 → 61 J7: n36 ~ 39 → 15 / J1000: H1-02 ~ 05 → 62 J7: n36 ~ 39 → 16 / J1000: H1-02 ~ 05 → A J7: n36 ~ 39 → 17 / J1000: H1-02 ~ 05 → 1 J7: n36 ~ 39 → 18 / J1000: H1-02 ~ 05 → 2 J7: n36 ~ 39 → 19, n04 → 0 / J1000: H1-02 ~ 05 → 28, Set the stop time C1-09 J7: n36 ~ 39 → 19, n04 → 1 / J1000: H1-02 ~ 05 → 24 J7: n36 ~ 39 → 20, n04 → 0 / J1000: H1-02 ~ 05 → 15, Set stop time C1-09, no alarm message. J7: n36 ~ 39 → 20, n04 → 1 / J1000: Can not be set. J7: n36 ~ 39 → 21, n04 → 0 / J1000: H1-02 ~ 05 → 29, Set the stop time C1-09 J7: n36 ~ 39 → 21, n04 → 1 / J1000: H1-02 ~ 05 → 25 J7: n36 ~ 39 → 22, n04 → 0 / J1000: H1-02 ~ 05 → 17, Set stop time C1-09, no alarm message. J7: n36 ~ 39 → 22, n04 → 1 / J1000: Can not be set.
Terminal S3 Function Selection	n37	5	H1-03	24	
Terminal S4 Function Selection	n38	3	H1-04	14	

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Drive / Function / Parameter	J7 Parameter No.	J7 Initial Value	J1000 Parameter No.	J1000 Initial Value	Comments
Terminal S5 Function Selection	n39	6	H1-05	3	J7 → J1000 n37 → 0 → H1-03 → 0 n39 → 34 → H1-04 → 10, H1-05 → 11 (b1-01 must be set to 0 or 1 and b1-02 must be set to 1) n39 → 35 → H1-05 → 67
Terminal MA, MB, MC Function Selection	n40	1	H2-01	E	J7 → J1000 n40 → 0 → H2-01 → E n40 → 1 → H2-01 → 0 n40 → 2 → H2-01 → 2 n40 → 3 → H2-01 → 1 n40 → 4 → H2-01 → 5 n40 → 5 → H2-01 → 4 n40 → 6 → H2-01 → B n40 → 7 → H2-01 → 17 n40 → 10 → H2-01 → 10 n40 → 11 → H2-01 → 8 n40 → 12 → H2-01 → 3C n40 → 13 → H2-01 → 6 n40 → 14 → H2-01 → 1E n40 → 15 → H2-01 → 7 n40 → 16 → H2-01 → 1A n40 → 17 → H2-01 → 3D n40 → 18 → F (Through Mode)
Analog Input FR (A1) Gain	n41	100%	H3-03	100%	—
Analog Input FR (A2) Bias	n42	0%	H3-04	0%	—
Analog Input Filter Time Constant	n43	0.10 s	H3-13	0.03 s	—
Analog Output AM Function Selection	n44	0	H4-01	102	J7 → J1000 n44 → 0 → H4-01 → 102 n44 → 1 → H4-01 → 103
Analog Output AM Gain	n45	1.00	H4-02	100.0%	Set H4-02 = n45* 100

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Drive / Function / Parameter	J7 Parameter No.	J7 Initial Value	J1000 Parameter No.	J1000 Initial Value	Comments
Carrier Frequency Selection	n46	4 Depends on drive capacity.	C6-02	o2-04 dep.	J7 → J1000: n46 → 1: C6-02 → 1 (2 kHz); n46 → 2: C6-02 → 2 (5 kHz); n46 → 3: C6-02 → 3 (8 kHz); n46 → 4: C6-02 → 4(10 kHz); n46 → 7: C6-03 = 2.5, C6-04 = 1.0, C6-05 = 12; n46 → 8: C6-03 = 2.5, C6-04 = 1.0, C6-05 = 24; n46 → 9: C6-03 = 2.5, C6-04 = 1.0, C6-05 = 36
Carrier Frequency Upper Limit			C6-03	C6-02 dep.	
Carrier Frequency Lower Limit			C6-04	C6-02 dep.	
Carrier Frequency Proportional Gain			C6-05	0	
Momentary Power Loss Detection Selection	n47	0	L2-01	0	—
Automatic Fault Reset Attempts	n48	0	L5-01	0	—
Jump Frequency 1	n49	0.0 Hz	d3-01	0.0 Hz	—
Jump Frequency 2	n50	0.0 Hz	d3-02	0.0 Hz	—
Jump Frequency Bandwidth	n51	0.0 Hz	d3-04	1.0 Hz	—
DC Injection Braking Current	n52	50%	b2-02	50%	—
DC Injection Time at Stop	n53	0.0 s	b2-04	0.50 s	—
DC Injection Time at Start	n54	0.0 s	b2-03	0.00 s	—
Stall Prevention During Deceleration	n55	0	L3-04	1	J7 → J1000: n55 → 0: L3-04 → 1; n55 → 1: L3-04 → 0
Stall Prevention During Acceleration	n56	170%	L3-02	—	Initial value of J1000 depends on Duty Mode Selection (C6-01).
Stall Prevention Level During Run	n57	160%	L3-06	—	Initial value of J1000 depends on Duty Mode Selection (C6-01).
Output Frequency Detection Level (DO)	n58	0.00 Hz	L4-01	0.0 Hz	—
Over Torque Detection	n59	0	L6-01	0	J7 → J1000: n59 → 0: L6-01 → 0; n59 → 1: L6-01 → 1; n59 → 2: L6-01 → 2; n59 → 3: L6-01 → 3; n59 → 4: L6-01 → 4

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Drive / Function / Parameter	J7 Parameter No.	J7 Initial Value	J1000 Parameter No.	J1000 Initial Value	Comments
Over Torque Detection Level	n60	160%	L6-02	150%	—
Over Torque Detection Time	n61	0.1 s	L6-03	0.1 s	—
Frequency Reference Hole Selection (Up / Down Function)	n62	0	d4-01	0	J7: n62 → 0 / J1000: d4-01 → 0 J7: n62 → 1 / J1000: d4-01 → 1
Torque Compensation Gain	n63	1.0	C4-01	1.00	—
Motor Rated Slip	n64	—	E2-02	—	Default value depends on the drive capacity.
Motor No-Load Current	n65	—	E2-03	—	Default value depends on the drive capacity. Set E2-03 = n32* n65 / 100%
Slip Compensation Gain	n66	0.0	C3-01	0.0	—
Slip Compensation Time Constant	n67	2.0 s	C3-02	2000 ms	J7: Setting unit is 1.0 s J1000: Setting unit is 1 ms
MEMOBUS / Modbus Communication Error Behavior Selection	n68	0	H5-04 H5-05	3	—
MEMOBUS / Modbus Communication Error Detection	—	—	H5-05	1	J7: n68 → 0 / J1000: H5-04: 1, H5-05: 1 J7: n68 → 1 / J1000: H5-04: 0 (C1-02) J7: n68 → 2 / J1000: H5-04: 2 (C1-09) J7: n68 → 3 / J1000: H5-04: 3 J7: n68 → 4 / J1000: H5-04: No effect, H5-05: 0
MEMOBUS / Modbus Frequency Reference and Monitor Units	n69	0	H5-13	0	J7: n69 → 0 / J1000: H5-13 → 0 J7: n69 → 1 / J1000: H5-13 → 1 and o1-03 → 0 J7: n69 → 2 / J1000: H5-13 → 2 J7: n69 → 3 / J1000: H5-13 → 3
MEMOBUS / Modbus Slave Address	n70	0	H5-01	1F	J7: Set as decimal value. J1000: Set as hexadecimal value.
MEMOBUS / Modbus Communication Speed Selection	n71	2	H5-02	3	J7: n71 → 0 / J1000: H5-02 → 1 J7: n71 → 1 / J1000: H5-02 → 2 J7: n71 → 2 / J1000: H5-02 → 3 J7: n71 → 3 / J1000: H5-02 → 4
MEMOBUS / Modbus Parity Selection	n72	0	H5-03	0	J7: n72 → 0 / J1000: H5-03 → 1 J7: n72 → 1 / J1000: H5-03 → 2 J7: n72 → 2 / J1000: H5-03 → 0
Transmission Wait Time	n73	10 ms	H5-06	10 ms	—

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Drive / Function / Parameter	J7 Parameter No.	J7 Initial Value	J1000 Parameter No.	J1000 Initial Value	Comments
RTS Flow Control On / Off	n74	0	H5-07	1	J7: n74 → 0 / J1000: H5-07 → 1 J7: n74 → 1 / J1000: H5-07 → 0
Low Speed Carrier Frequency Reduction	n75	0	L8-38	Depends on drive capacity	J7: n75 → 0 / J1000: L8-38 → 0 J7: n75 → 1 / J1000: L8-38 → 1
COPY Function Selection	n76	Ready	o3-01	0	Possible with copy unit or remote operator.
READ Prohibit Selection	n77	0	o3-02	0	
Fault History	n78	—	U2-01 / 02	—	In the J1000, the last current fault and the last fault can be seen in parameter U2-01 and U2-02.
Software Version	n79	—	U1-25 / 26	—	—

7.2 Parameter Differences

- Maximum Carrier Frequency -
  - — J7: n46, maximum 10 kHz.
  - — J1000: C6-02, maximum 15 kHz.
- S-Curve Setting -
  - — J7: Fixed settings.
  - — J1000: Set in seconds.
- Stall Prevention Level -
  The stall prevention level during acceleration and constant speed run depends on the duty mode setting.
  - — J7: The maximum setting of n56 / 57 is 200%.
  - — J1000: Heavy Duty, The maximum setting of L3-02 and L3-06 is 150%.
    Normal Duty, The maximum setting of L3-02 and L3-06 is 120%.

7.3 Special Software Replacement

The table below indicates replacement information for J7 drives with standard or special software.

Note: Software ID numbers are printed on the nameplate.

J7 Software Number	J7 Description	J1000
001x, 002x	J7 Standard Drive Software	Covered by standard software functionality.
Others	—	Contact your Yaskawa sales representative.

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8.0 Revision History

Version	Comment / Modification	Date	Accepted By
—	Original	12/21/2007	—
<1>	Parameter list corrections (n01, n36 ~ n39, n40, n53)	01/09/2008	—
<2>	Modified version of VAN-V07007E	01/11/2008	—
<3>	Modified version of VAN-V07007E	07/18/2008	T. Ammerman

9.0 References

Document No.	Document Title	Author
TOEPC71060626	J1000 Quick Start Guide for Yaskawa America	YEC
TOBPC73060032	J1000 RS-232C Technical Manual	YEC
TOBPC73060033	J1000 RS-485 MEMOBUS / Modbus Interface	YEC
TOBPC73060034	J1000 Potentiometer Option	YEC