Drive Parameter Settings Tables

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Introduction

This appendix lists the user-programmable parameters for the SJ100 series inverters and the default values for European and U.S. product types. The right-most column of the tables is blank, so you can record values you have changed from the default. This involves just a few parameters for most applications. This appendix presents the parameters in a format oriented toward the keypad on the inverter.

Parameter Settings for Keypad Entry

SJ100 series inverters provide many functions and parameters that can be configured by the user. We recommend that you record all parameters that have been edited, in order to help in troubleshooting or recovery from a loss of parameter data.

Inverter model SJ100 [ ]

MFG. No. [ ]

} This information is printed on the specification label located on the right side of the inverter.

Main Profile Parameters

"F" Group Parameters		Default Setting			User Setting
Func. Code	**Name**	**–FE (Europe)**	**–FU (USA)**	**–FR (Japan)**	
F_01	Output frequency setting	0.0	0.0	0.0	
F_02	Acceleration (1) time setting	10.0	10.0	10.0	
F202	Acceleration (1) time setting, 2nd motor	10.0	10.0	10.0	
F_03	Deceleration (1) time setting	10.0	10.0	10.0	
F203	Deceleration (1) time setting, 2nd motor	10.0	10.0	10.0	
F_04	Keypad Run key routing	00	00	00	

Standard Functions

"A" Group Parameters		Default Setting			User Setting
Func. Code	Name	-FE (Europe)	-FU (USA)	–FR (Japan)	
A_01	Frequency source setting	01	01	00	
A_02	Run command source setting	01	01	02	
A_03	Base frequency setting	50.0	60.0	60.0	
A203	Base frequency setting, 2nd motor	50.0	60.0	60.0	
A_04	Maximum frequency setting	50.0	60.0	60.0	
A204	Maximum frequency setting, 2nd motor	50.0	60.0	60.0	
A_11	O–L input active range start frequency	0	0	0	
A_12	O–L input active range end frequency	0	0	0	
A_13	O–L input active range start voltage	0	0	0	
A_14	O–L input active range end voltage	100	100	100	
A_15	O–L input start frequency enable	01	01	01	
A_16	External frequency filter time constant	8	8	8	
A_20	Multi-speed 0 setting	0	0	0	
A220	Multi-speed 0 setting, 2nd motor	0	0	0	
A_21	Multi-speed 1 setting	0	0	5	
A_22	Multi-speed 2 setting	0	0	10	
A_23	Multi-speed 3 setting	0	0	15	
A_24	Multi-speed 4 setting	0	0	20	
A_25	Multi-speed 5 setting	0	0	30	
A_26	Multi-speed 6 setting	0	0	40	
A_27	Multi-speed 7 setting	0	0	50	
A_28	Multi-speed 8 setting	0	0	60	
A_29	Multi-speed 9 setting	0	0	0	
A_30	Multi-speed 10 setting	0	0	0	
A_31	Multi-speed 11 setting	0	0	0	
A_32	Multi-speed 12 setting	0	0	0	

"A" Group Parameters		Default Setting			User Setting
Func. Code	Name	-FE (Europe)	-FU (USA)	–FR (Japan)	
A_33	Multi-speed 13 setting	0	0	0	
A_34	Multi-speed 14 setting	0	0	0	
A_35	Multi-speed 15 setting	0	0	0	
A_38	Jog frequency setting	1.0	1.0	1.0	
A_39	Jog stop mode	00	00	00	
A_41	Torque boost method selection	00	00	00	
A241	Torque boost method selection, 2nd motor	00	00	00	
A_42	Manual torque boost value	11	11	11	
A242	Manual torque boost value, 2nd motor	11	11	11	
A_43	Manual torque boost frequency adjustment	10.0	10.0	10.0	
A243	Manual torque boost frequency adjustment, 2nd motor	10.0	10.0	10.0	
A_44	V/f characteristic curve selection	02	02	02	
A244	V/f characteristic curve selection, 2nd motor	02	02	02	
A_45	V/f gain setting	100	100	100	
A_51	DC braking enable	00	00	00	
A_52	DC braking frequency setting	0.5	0.5	0.5	
A_53	DC braking wait time	0.0	0.0	0.0	
A_54	DC braking force during deceleration	0	0	0	
A_55	DC braking time for deceleration	0.0	0.0	0.0	
A_61	Frequency upper limit setting	0.0	0.0	0.0	
A_62	Frequency lower limit setting	0.0	0.0	0.0	
A_63, A_65, A_67	Jump (center) frequency setting	0.0	0.0	0.0	
A_64, A_66, A_68	Jump (hysteresis) frequency width setting	0.5	0.5	0.5	
A_71	PID Enable	00	00	00	
A_72	PID proportional gain	1.0	1.0	1.0	

"A" Group Parameters		Default Setting			User Setting
Func. Code	Name	-FE (Europe)	-FU (USA)	–FR (Japan)	
A_73	PID integral time constant	1.0	1.0	1.0	
A_74	PID derivative gain	0.0	0.0	0.0	
A_75	PV scale conversion	1.00	1.00	1.00	
A_76	PV source setting	00	00	00	
A_81	AVR function select	02	00	02	
A_82	AVR voltage select	230/400	230/460	200/400	
A_92	Acceleration (2) time setting	15.0	15.0	15.0	
A292	Acceleration (2) time setting, (2nd motor)	15.0	15.0	15.0	
A_93	Deceleration (2) time setting	15.0	15.0	15.0	
A293	Deceleration (2) time setting, (2nd motor)	15.0	15.0	15.0	
A_94	Select method to switch to Acc2/ Dec2 profile	00	00	00	
A294	Select method to switch to Acc2/ Dec2 profile, 2nd motor	00	00	00	
A_95	Acc1 to Acc2 frequency transition point	0.0	0.0	0.0	
A295	Acc1 to Acc2 frequency transition point, 2nd motor	0.0	0.0	0.0	
A_96	Dec1 to Dec2 frequency transition point	0.0	0.0	0.0	
A296	Dec1 to Dec2 frequency transition point, 2nd motor	0.0	0.0	0.0	
A_97	Acceleration curve selection	00	00	00	
A_98	Deceleration curve selection	00	00	00	

Fine Tuning Functions

"B" Group Parameters		Default Setting			User Setting
Func. Code	Name	-FE (Europe)	-FU (USA)	–FR (Japan)	
B_01	Selection of automatic restart mode	00	00	00	
B_02	Allowable under-voltage power failure time	1.0	1.0	1.0	
B_03	Retry wait time before motor restart	1.0	1.0	1.0	
B_12	Level of electronic thermal setting	Rated current for each inverter	Rated current for each inverter	Rated current for each inverter	
B212	Level of electronic thermal setting, 2nd motor	Rated current for each inverter	Rated current for each inverter	Rated current for each inverter	
B_13	Electronic thermal characteristic	01	01	00	
B213	Electronic thermal characteristic, 2nd motor	01	01	00	
B_21	Overload restriction operation mode	01	01	01	
B_22	Overload restriction setting	Rated current x 1.25	Rated current x 1.25	Rated current x 1.25	
B_23	Deceleration rate at overload restriction	1.0	1.0	1.0	
B_31	Software lock mode selection	01	01	01	
B_81	[FM] terminal analog meter adjustment	80	80	80	
B_82	Start frequency adjustment	0.5	0.5	0.5	
B_83	Carrier frequency setting	5.0	5.0	12.0	
B_84	Initialization mode (parameters or trip history)	00	00	00	
B_85	Country code for initialization	01	02	00	
B_86	Frequency scaling conversion factor	1.0	1.0	1.0	
B_87	STOP key enable	00	00	00	
B_88	Restart mode after FRS	00	00	00	

"B" Group Parameters		Default Setting			User Setting
Func. Code	Name	-FE (Europe)	-FU (USA)	–FR (Japan)	
B_89	Data select for digital op. OPE-J	01	01	01	
B_90	Dynamic braking usage ratio	0.0	0.0	0.0	
B_91	Stop mode selection	00	00	00	
B_92	Cooling fan control	00	00	00	

Intelligent Terminal Functions

"C" Group Parameters		Default Setting			User Setting
Func. Code	Name	-FE (Europe)	-FU (USA)	–FR (Japan)	
C_01	Terminal [1] function	00	00	00	
C_02	Terminal [2] function	01	01	01	
C_03	Terminal [3] function	02	16	02	
C_04	Terminal [4] function	03	13	03	
C_05	Terminal [5] function	18	09	09	
C_06	Terminal [6] function	09	18	18	
C_11	Terminal [1] active state	00	00	00	
C_12	Terminal [2] active state	00	00	00	
C_13	Terminal [3] active state	00	00	00	
C_14	Terminal [4] active state	00	01	00	
C_15	Terminal [5] active state	00	00	00	
C_16	Terminal [6] active state	00	00	00	
C_21	Terminal [11] function	01	01	01	
C_22	Terminal [12] function	00	00	00	
C_23	[FM] signal selection	00	00	00	
C_24	Alarm relay terminal function	05	05	05	
C_31	Terminal [11] active state (–FU)	—	00	—	
	Reserved (–FE / FR)	00	—	00	
C_32	Terminal [12] active state (–FU)	—	00	—	
	Terminal [11] active state (–FE / FR)	00	—	00	
C_33	Alarm relay terminal active state	01	01	01	
C_41	Overload level setting	Inverter rated current	Inverter rated current	Inverter rated current	
C_42	Frequency arrival setting for accel	0.0	0.0	0.0	
C_43	Arrival frequency setting for decel	0.0	0.0	0.0	
C_44	PID deviation level setting	3.0	3.0	3.0	
C_81	O input span calibration	Factory-set	Factory-set	Factory-set	
C_82	OI input span calibration	Factory-set	Factory-set	Factory-set	

"C" Group Parameters		Default Setting			User Setting
Func. Code	Name	-FE (Europe)	-FU (USA)	–FR (Japan)	
C_91	Debug mode enable	00	00	00	Do not edit
C_92	Core monitor address	0000	0000	0000	Do not edit
C_93	Core monitor date	—	—	—	Do not edit
C_94	Core set address	d001	d001	d001	Do not edit
C_95	Core set date	00	00	00	Do not edit

Motor Constants Functions

"H" Group Parameters		Default Setting			User Setting
Func. Code	Name	-FE (Europe)	-FU (USA)	–FR (Japan)	
H_01	Auto-tuning Setting	00	00	00	
H_02	Motor data selection	00	00	00	
H202	Motor data selection, 2nd motor	00	00	00	
H_03	Motor capacity	Specified by the inverter capacity	Specified by the inverter capacity	Specified by the inverter capacity	
H203	Motor capacity, 2nd setting	Specified by the inverter capacity	Specified by the inverter capacity	Specified by the inverter capacity	
H_04	Motor poles setting	4	4	4	
H204	Motor poles setting, 2nd motor	4	4	4	
H_05	Motor constant Kp	20	20	20	
H205	Motor constant Kp, 2nd motor	20	20	20	
H_06	Motor stabilization constant	100	100	100	
H206	Motor stabilization constant, 2nd motor	100	100	100	
H_20	Motor constant R1	Factory set	Factory set	Factory set	
H220	Motor constant R1, 2nd motor	Factory set	Factory set	Factory set	
H_21	Motor constant R2	Factory set	Factory set	Factory set	
H221	Motor constant R2, 2nd motor	Factory set	Factory set	Factory set	

"H" Group Parameters		Default Setting			User Setting
Func. Code	Name	-FE (Europe)	-FU (USA)	–FR (Japan)	
H_22	Motor constant L	Factory set	Factory set	Factory set	
H222	Motor constant L, 2nd motor	Factory set	Factory set	Factory set	
H_23	Motor constant Io	Factory set	Factory set	Factory set	
H223	Motor constant Io, 2nd motor	Factory set	Factory set	Factory set	
H_24	Motor Constant J	Factory set	Factory set	Factory set	
H224	Motor constant J, 2nd motor	Factory set	Factory set	Factory set	
H_30	Auto-tuned motor constant R1	Factory set	Factory set	Factory set	
H230	Auto-tuned motor constant R1, 2nd motor	Factory set	Factory set	Factory set	
H_31	Auto-tuned motor constant R2	Factory set	Factory set	Factory set	
H231	Auto-tuned motor constant R2, 2nd motor	Factory set	Factory set	Factory set	
H_32	Auto-tuned motor constant L	Factory set	Factory set	Factory set	
H232	Auto-tuned motor constant L, 2nd motor	Factory set	Factory set	Factory set	
H_33	Auto-tuned motor constant Io	Factory set	Factory set	Factory set	
H233	Auto-tuned motor constant Io, 2nd motor	Factory set	Factory set	Factory set	
H_34	Auto-tuned motor constant J	Factory set	Factory set	Factory set	
H234	Auto-tuned motor constant J, 2nd motor	Factory set	Factory set	Factory set	