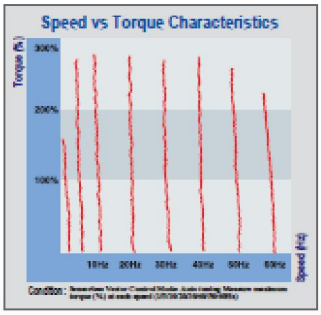
Powerful & Upgraded Performance

iG5A provides sensorless vector control, PID control,
and ground-fault protection through powerful built-in functions.

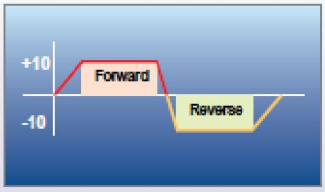
Sensorless vector control

The built-in sensorless vector control provides the superb speed control and powerful high torque.



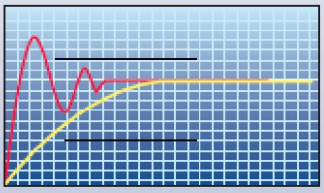
Analog control from -10V to 10V

Inputting analog signals from -10V to 10V provides user-friendly operation.



Built-in PID control

The built-in PID function enables to control flow-rate, oil-pressure, temperature, etc without any extra controller.



The IG5A range of single and three phase inverter drives which is very competitive in its price . User-friendly interface, superb torque performance and compact size make these the drive of choice.

Order Codes

Applicable motor ranges	1 Phase 200V	3 Phase 200V	3 Phase 400V
0.4kW (0.5HP)	SV004iG5A-1	SV004iG5A-2	SV004iG5A-4
0.75kW (1HP)	SV008iG5A-1	SV008iG5A-2	SV008iG5A-4
1.5kW (2HP)	SV015iG5A-1	SV015iG5A-2	SV015iG5A-4
2.2kW (3HP)		SV022iG5A-2	SV022iG5A-4
3.7kW (5HP)		SV037iG5A-2	SV037iG5A-4
4.0kW (5.4HP)		SV040iG5A-2	SV040iG5A-4
5.5kW (7.5HP)		SV055iG5A-2	SV055iG5A-4
7.5kW (10HP)		SV075iG5A-2	SV075iG5A-4
11.0kW (15HP)		SV110iG5A-2	SV110iG5A-4
15.0kW (20HP)		SV150iG5A-2	SV150iG5A-4
18.5kW (25HP)		SV185iG5A-2	SV185iG5A-4
22.0kW (30HP)		SV220iG5A-2	SV220iG5A-4

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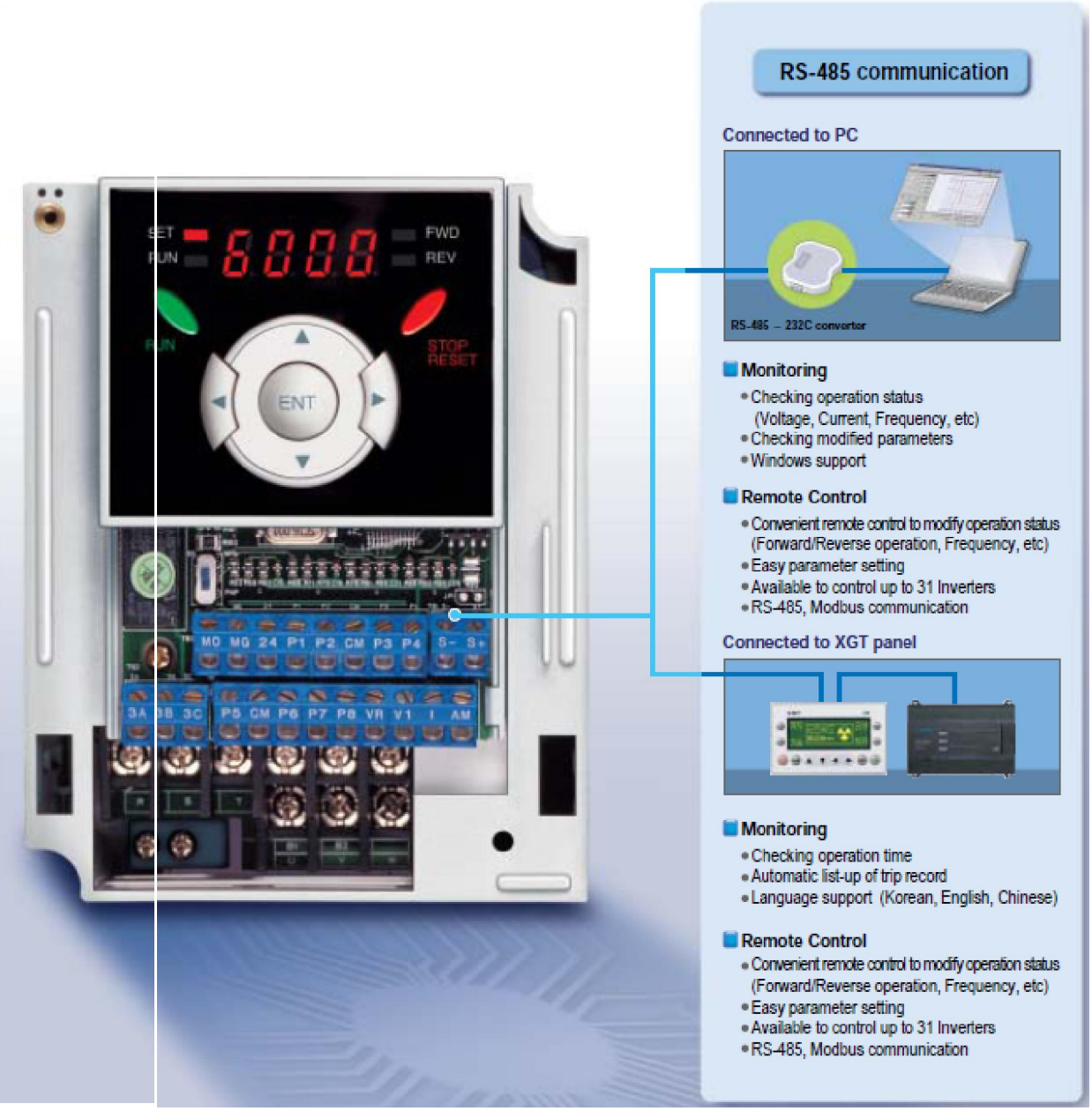

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Diagnosis of output module

Through easy parameter setting, iG5A can diagnose the status of output module.

Easy change of fan

iG5A is designed to be the fan changeable structure in preparation for a fan breakdown.

Cooling fan control

By controlling the cooling fan, iG5A provides a virtually quiet environment according to the status of operation.

User-friendly interface

The 4 directions key provides easy handling and monitoring.

External loader (Optional)

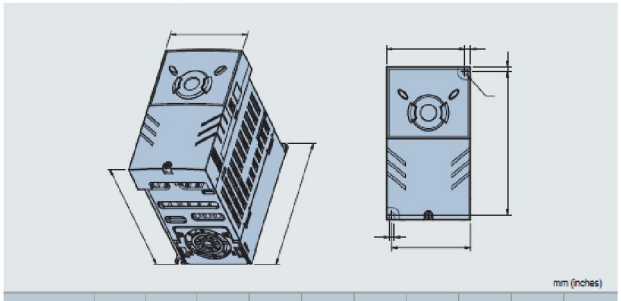
The external loader away from a panel enables to control and monitor conveniently. And the parameters made by external loader can be copied and applicable to other Inverters.

Model name	Remarks
INV, REMOTE KPD 2M (SV-iG5A)	2m
INV, REMOTE KPD 3M (SV-iG5A)	3m
INV, REMOTE KPD 5M (SV-iG5A)	5m

iG5A

Dimensions

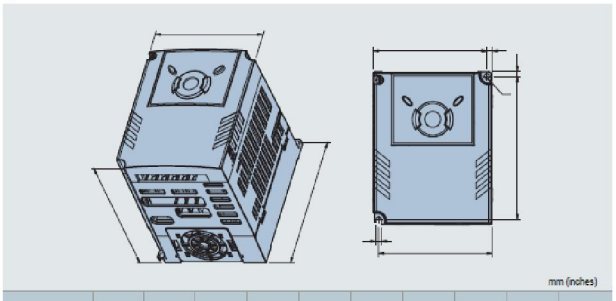
SV004iG5A-2 / SV008iG5A-2, SV004iG5A-4 / SV008iG5A-4



mm (inches)

SV004iG5A-2	0.4	70	65.5	128	119	130	4.0	4.5	4.0	0.76
SV008iG5A-2	0.75	70	65.5	128	119	130	4.0	4.5	4.0	0.77
SV004iG5A-4	0.4	70	65.5	128	119	130	4.0	4.5	4.0	0.76
SV008iG5A-4	0.75	70	65.5	128	119	130	4.0	4.5	4.0	0.77

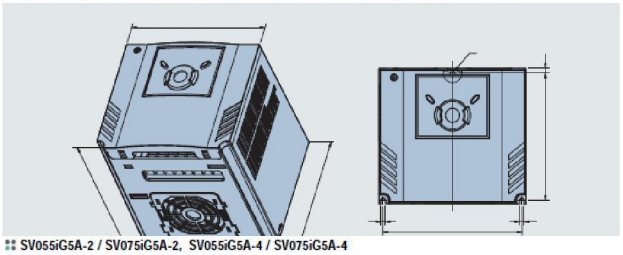
SV015iG5A-2 / SV015iG5A-4



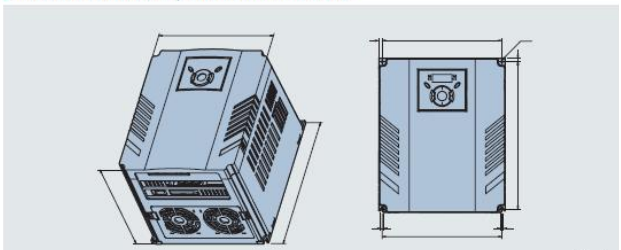
mm (inches)

SV015iG5A-2	1.5	100	95.5	128	120	130	4.5	4.5	4.5	1.12
SV015iG5A-4	1.5	100	95.5	128	120	130	4.5	4.5	4.5	1.12

SV022iG5A-2 / SV037iG5A-2 / SV040iG5A-2, SV022iG5A-4 / SV037iG5A-4 / SV040iG5A-4



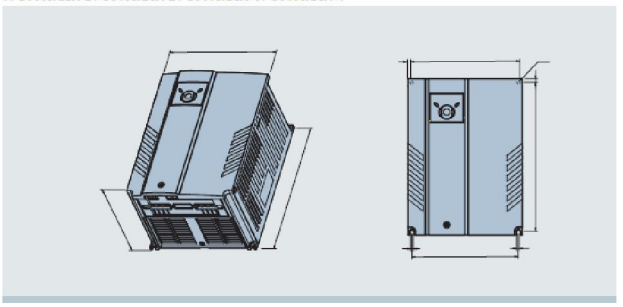
SV055iG5A-2 / SV075iG5A-2, SV055iG5A-4 / SV075iG5A-4



mm (inches)

SV004iG5A-2	5.5	180	170	220	210	170	4.5	5	4.5	3.66
SV008iG5A-2	7.5	180	170	220	210	170	4.5	5	4.5	3.66
SV004iG5A-4	5.5	180	170	220	210	170	4.5	5	4.5	3.66
SV008iG5A-4	7.5	180	170	220	210	170	4.5	5	4.5	3.66

SV110iG5A-2 / SV150iG5A-2 / SV110iG5A-4 / SV150iG5A-4



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Braking Resistors and Peripheral Devices

Braking resistors

Voltage	Inverter	100% braking		150% braking	
		Resistor [Ω]	Watt [W] 1)	Resistor [Ω]	Watt [W] 1)
200V Series	0.4	400	50	300	100
	0.75	200	100	150	150
	1.5	100	200	60	300
	2.2	60	300	50	400
	3.7	40	500	33	600
	5.5	30	700	20	800
	7.5	20	1,000	15	1,200
	11.0	15	1,400	10	2,400
	15.0	11	2,000	8	2,400
	18.5	9	2,400	5	3,600
	22.0	8	2,800	5	3,600
400V Series	0.4	1,800	50	1,200	100
	0.75	900	100	600	150
	1.5	450	200	300	300
	2.2	300	300	200	400
	3.7	200	500	130	600
	5.5	120	700	85	1,000
	7.5	90	1,000	60	1,200
	11.0	60	1,400	40	2,000
	15.0	45	2,000	30	2,400
	18.5	35	2,400	20	3,600
	22.0	30	2,800	20	3,600

1) The wattage is based on Enable Duty (%ED) with continuous braking time 15sec.

Breakers

Model	Breaker	
	Current [A]	Voltage [V]
004iG5A-1	ABS33b,EBs33	GMC-12
008iG5A-1	ABS33b,EBs33	GMC-12
015iG5A-1	ABS33b,EBs33	GMC-12
004iG5A-2	ABS33b,EBs33	GMC-12
004iG5A-2	ABS33b,EBs33	GMC-12
008iG5A-2	ABS33b,EBs33	GMC-12
015iG5A-2	ABS33b,EBs33	GMC-12
022iG5A-2	ABS33b,EBs33	GMC-18
037iG5A-2	ABS33b,EBs33	GMC-22
040iG5A-2	ABS33b,EBs33	GMC-22
055iG5A-2	ABS53b,EBs53	GMC-22
075iG5A-2	ABS103b,EBs53	GMC-32
110iG5A-2	ABS103b,EBs53	GMC-50
150iG5A-2	ABS203b,EBs53	GMC-65

Model	Breaker	
	Current [A]	Voltage [V]
185iG5A-2	ABS203b,EBs53	GMC-85
220iG5A-2	ABS203b,EBs53	GMC-100
004iG5A-4	ABS33b,EBs33	GMC-12
008iG5A-4	ABS33b,EBs33	GMC-12
015iG5A-4	ABS33b,EBs33	GMC-12
022iG5A-4	ABS33b,EBs33	GMC-22
037iG5A-4	ABS33b,EBs33	GMC-22
040iG5A-4	ABS33b,EBs33	GMC-22
055iG5A-4	ABS33b,EBs33	GMC-22
075iG5A-4	ABS33b,EBs33	GMC-22
110iG5A-4	ABS53b,EBs53	GMC-22
150iG5A-4	ABS103b,EBs53	GMC-25
185iG5A-4	ABS103b,EBs53	GMC-40
220iG5A-4	ABS103b,EBs53	GMC-50

Fuses & AC reactors

Model	AC external fuse		AC reactor	DC reactor
	Current [A]	Voltage [V]		
004iG5A-1	10 A	500V	4.20 mH, 3.5 A	-
008iG5A-1	10 A	500V	2.13 mH, 5.7 A	-
015iG5A-1	15 A	500V	1.20 mH, 10 A	-
004iG5A-2	10 A	500V	4.20 mH, 3.5 A	-
008iG5A-2	10 A	500V	2.13 mH, 5.7 A	-
015iG5A-2	15 A	500V	1.20 mH, 10 A	-
022iG5A-2	25 A	500V	0.88 mH, 14 A	-
037iG5A-2	30 A	500V	0.56 mH, 20 A	-
040iG5A-2	30 A	500V	0.56 mH, 20 A	-
055iG5A-2	30 A	500V	0.39 mH, 30 A	-
075iG5A-2	50 A	500V	0.28 mH, 40 A	-
110iG5A-2	70 A	500V	0.20 mH, 59 A	0.74 mH, 56 A
150iG5A-2	100 A	500V	0.15 mH, 75 A	0.57 mH, 71 A
185iG5A-2	100 A	500V	0.12 mH, 96 A	0.49 mH, 91 A
220iG5A-2	125 A	500V	0.10 mH, 112 A	0.42 mH, 107 A
004iG5A-4	5 A	500V	18.0 mH, 1.3 A	-
008iG5A-4	10 A	500V	8.63 mH, 2.8 A	-
015iG5A-4	10 A	500V	4.81 mH, 4.8 A	-
022iG5A-4	10 A	500V	3.23 mH, 7.5 A	-
037iG5A-4	20 A	500V	2.34 mH, 10 A	-
040iG5A-4	20 A	500V	2.34 mH, 10 A	-
055iG5A-4	20 A	500V	1.22 mH, 15 A	-
075iG5A-4	30 A	500V	1.14 mH, 20 A	-
110iG5A-4	35 A	500V	0.81 mH, 30 A	2.76 mH, 29 A
150iG5A-4	45 A	500V	0.61 mH, 38 A	2.18 mH, 36 A
185iG5A-4	60 A	500V	0.45 mH, 50 A	1.79 mH, 48 A
220iG5A-4	70 A	500V	0.39 mH, 58 A	1.54 mH, 55 A

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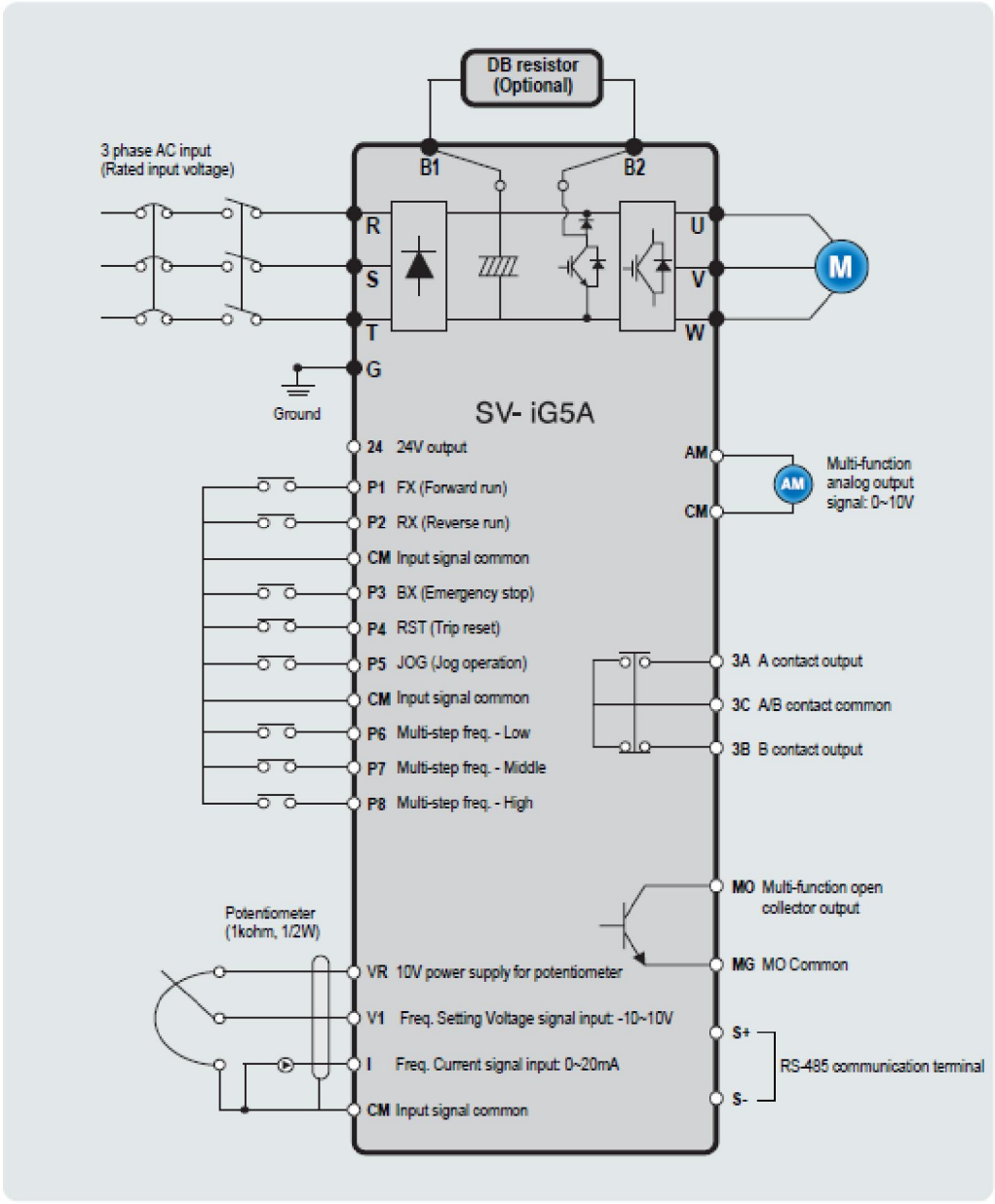
Wiring

0.4~7.5kW



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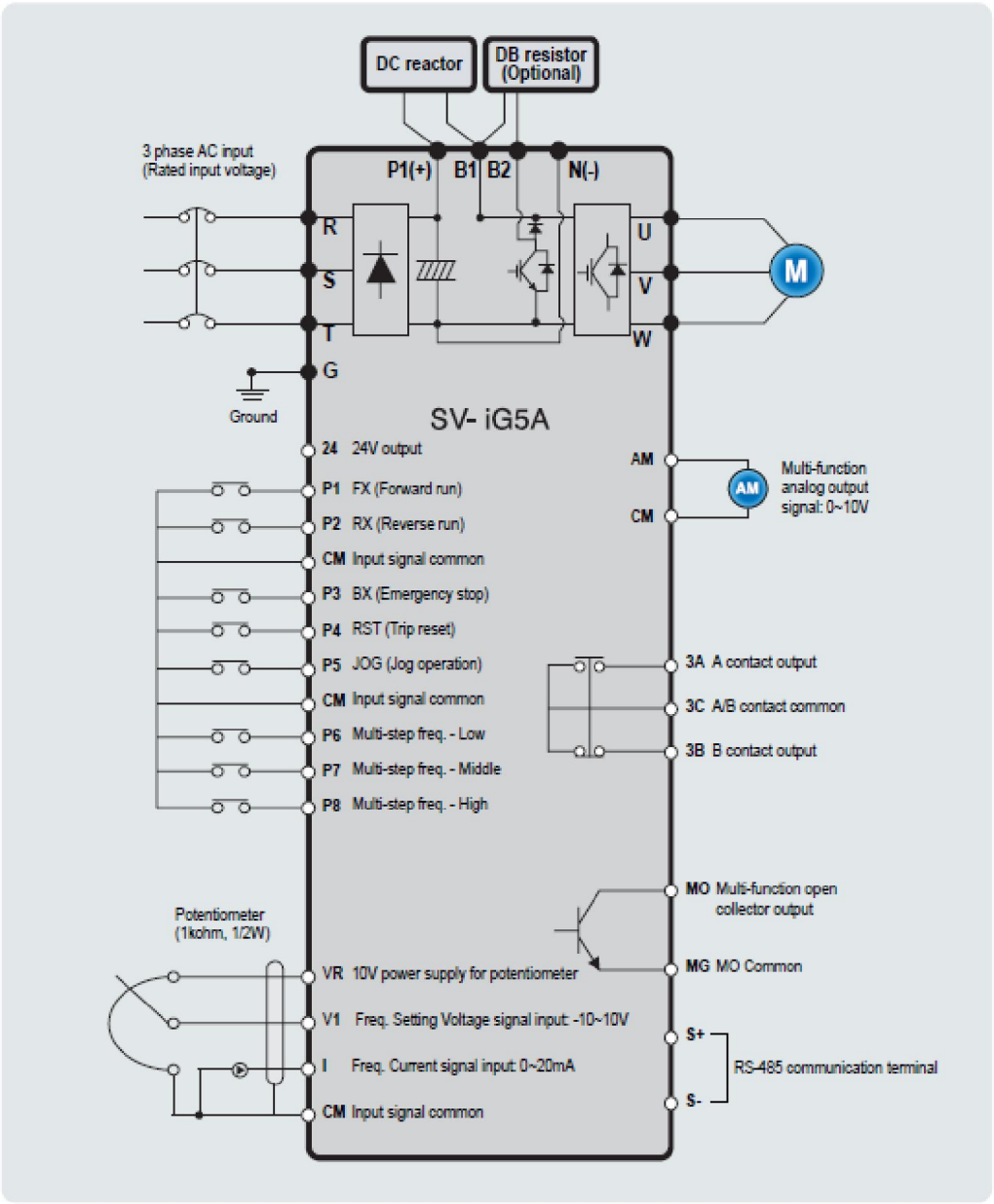
11.0~22.0kW



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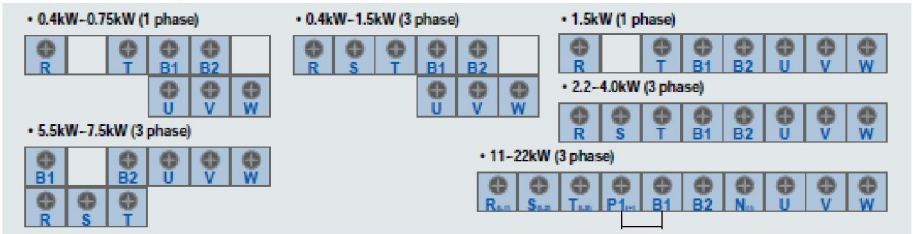
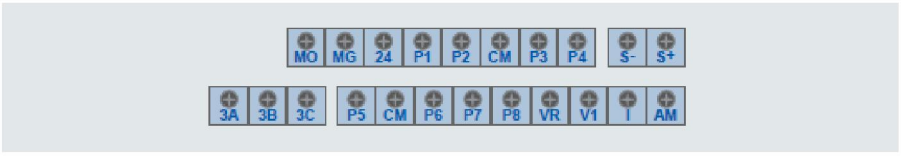
Terminal Configuration

Specifications for power terminal block wiring



	R, S, T wire		U, V, W wire		Ground wire		Terminal Screw Size	Screw Torque (kgf.cm) / lb-in
	mm²	AWG	mm²	AWG	mm²	AWG		
SV004iG5A-1	2	14	2	14	3.5	12	M3.5	10/8.7
SV008iG5A-1	2	14	2	14	3.5	12	M3.5	10/8.7
SV015iG5A-1	2	14	2	14	3.5	12	M4	15/13
SV004iG5A-2	2	14	2	14	3.5	12	M3.5	10/8.7
SV008iG5A-2	2	14	2	14	3.5	12	M3.5	10/8.7
SV015iG5A-2	2	14	2	14	3.5	12	M3.5	10/8.7
SV022iG5A-2	2	14	2	14	3.5	12	M4	15/13
SV037iG5A-2	3.5	12	3.5	12	3.5	12	M4	15/13
SV040iG5A-2	3.5	12	3.5	12	3.5	12	M4	15/13
SV055iG5A-2	5.5	10	5.5	10	5.5	10	M5	32/28
SV075iG5A-2	8	8	8	8	5.5	10	M5	32/28
SV110iG5A-2	14	6	14	6	14	6	M6	30.7/26.6
SV150iG5A-2	22	4	22	4	14	6	M6	30.7/26.6
SV185iG5A-2	30	2	30	2	22	4	M8	30.5/26.5
SV220iG5A-2	38	2	30	2	22	4	M8	30.5/26.5
SV004iG5A-4	2	14	2	14	2	14	M3.5	10/8.7
SV008iG5A-4	2	14	2	14	2	14	M3.5	10/8.7
SV015iG5A-4	2	14	2	14	2	14	M4	15/13
SV022iG5A-4	2	14	2	14	2	14	M4	15/13
SV037iG5A-4	2	14	2	14	2	14	M4	15/13
SV040iG5A-4	2	14	2	14	2	14	M4	15/13
SV055iG5A-4	3.5	12	2	14	3.5	12	M5	32/28
SV075iG5A-4	3.5	12	3.5	12	3.5	12	M5	32/28
SV110iG5A-4	5.5	10	5.5	10	8	8	M5	30.7/26.6
SV150iG5A-4	14	6	8	8	8	8	M5	30.7/26.6
SV185iG5A-4	14	6	8	8	14	6	M6	30.5/26.5
SV220iG5A-4	22	4	14	6	14	6	M6	30.5/26.5



	Description	Single wire	Stranded	Screw size	Torque (Nm)	Specification
P1~P8	Multi-function input T/M 1-8					
CM	Common terminal					
VR	Power supply for external potentiometer					
V1	Input terminal for voltage operation					
I	Input terminal for current operation					
AM	Multi-function analog output terminal					
MO	Multi-function terminal for open collector					
MG	Ground terminal for external power supply					
24	24V external power supply					
3A	Multi-function relay output A contact					
3B	Multi-function relay output B contact					
3C	Common for multi-function relays					

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iG5A

Trial Run

Operation condition

Operation command:	Frequency command:	Max. frequency change:
Run/Stop via FX/RX	Multi-step operation [Low (20), Middle (30), High (80)]	From 60Hz to 80Hz

P1 (Forward)

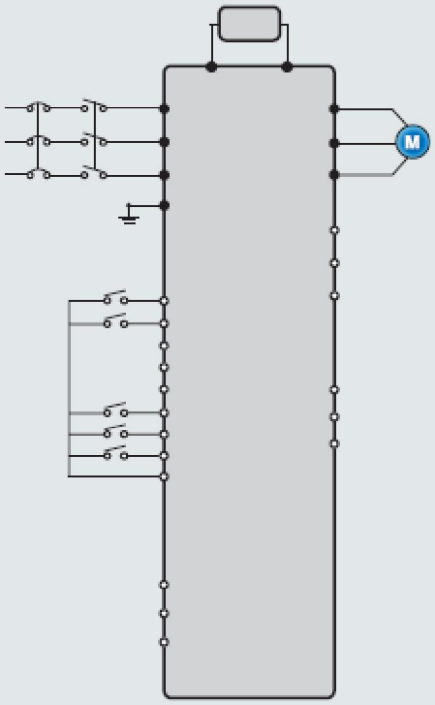
P2 (Reverse)

P6 (Low)

P7 (Middle)

P8 (High)

CM



1. Please make sure that R, S, T are connected to 3 phase AC input, and U, V, W are also motor connection terminals.
2. After supplying the power, please set the frequency of multi-step among Low, Middle, and High.
3. If P1 (FX) turns on, the motor operates in forward. And after turning off, it stops according to the deceleration time.
4. If P2 (RX) turns on, the motor operates in reverse. And after turning off, it stops according to the deceleration time.

Step	Command	Code	Description	Default	After change
1		F21			
2		st1			
3		st2			
4					
5					
6					

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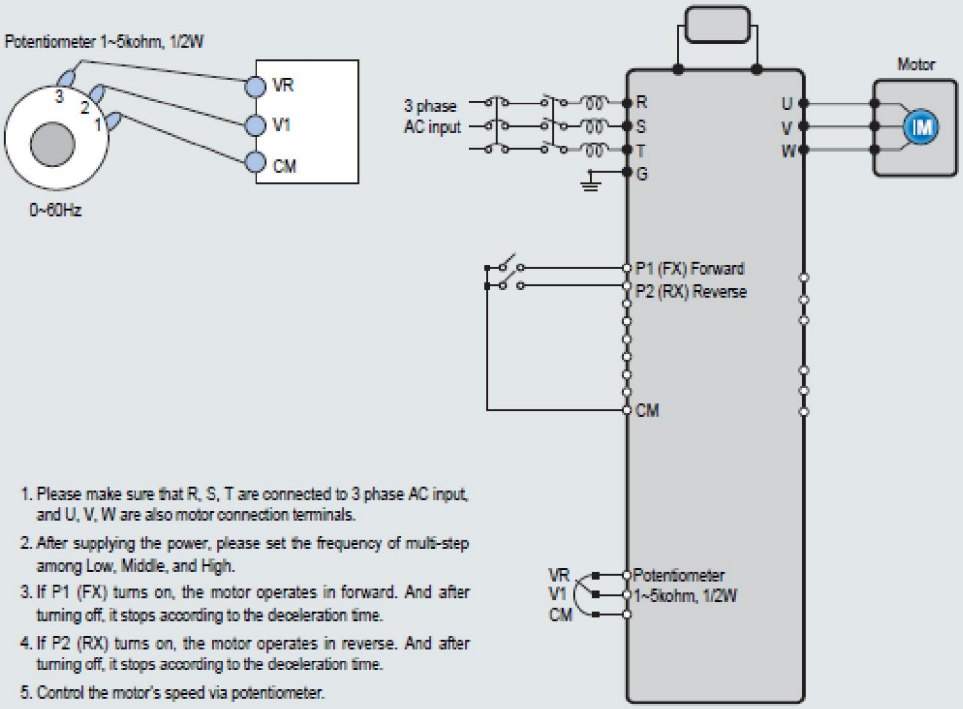
Potentiometer (Volume) + Run/Stop via FX/RX + Accel/Decel time change

Operation condition

Operation command:	Frequency command:	Accel/Decel time:
Run/Stop via FX/RX	0~60Hz analog input via potentiometer	Accel-10sec, Decel-20sec

Wiring



1. Please make sure that R, S, T are connected to 3 phase AC input, and U, V, W are also motor connection terminals.
2. After supplying the power, please set the frequency of multi-step among Low, Middle, and High.
3. If P1 (FX) turns on, the motor operates in forward. And after turning off, it stops according to the deceleration time.
4. If P2 (RX) turns on, the motor operates in reverse. And after turning off, it stops according to the deceleration time.
5. Control the motor's speed via potentiometer.

Parameter setting

Step	Command	Code	Description	Default	After change
1	Operation command (DRV group)	Drv	Turn on/off motor via terminal.	1 (FX/RX-1)	1 (FX/RX-1)
2	Analog input (DRV group)	Frq	Change keypad command to analog voltage command.	0 (Keypad-1)	3 (V1: 0~10V)
3	Accel/Decel time (DRV group)	ACC dEC	Set Accel time to 10sec in ACC Set Decel time to 20sec in dEC.	5sec (Accel) 10sec (Decel)	10sec (Accel) 20sec (Decel)
4	Forward run (P1: FX)	I17	The default is FX. This value may change	FX	FX
5	Reverse run (P2: RX)	I18	The default is RX. This value may change.	RX	RX

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Function List

Drive Group

LED display	Parameter name	Description	Factory default	Adj. during run
0.00	During stop: Frequency command During run: Output frequency	0~400Hz	0.00	Yes
ACC	Accel time	0~6000sec	5.0	Yes
dEC	Decel time		10.0	Yes
drv	Drive mode	0 (Keypad), 1 (FX/RX-1), 2 (FX/RX-2), 3 (RS-485)	1	No
Frq	Frequency setting method	0 (Keypad-1), 1 (Keypad-2), 2 (V1S: -10~10V), 3 (V1: 0~10V) 4 (I: 0~20mA), 5 (V1S+1), 6 (V1+I), 7 (RS-485), 8 (Digital volume)	0	No
St1	Multi-Step frequency 1	0~400Hz	10.00	Yes
St2	Multi-Step frequency 2		20.00	Yes
St3	Multi-Step frequency 3		30.00	Yes
CUr	Output current	A	–	–
rPM	Motor RPM	rpm	–	–
dCL	Inverter DC link voltage	V	–	–
vOL	User display select	vOL, Por, tOr	vOL	–
nOn	Fault display	-	nOn	–
drC	Direction of motor rotation select	F (Forward), R (Reverse)	F	Yes
Drv2	Drive mode 2	0 (Keypad), 1 (FX/RX-1), 2 (FX/RX-2)	1	No
Frq2	Frequency setting method 2	0 (Keypad-1), 1 (Keypad-2), 2 (V1S-: 10~10V), 3 (V: 0~10V) 4 (I: 0~20mA), 5 (V1S+I), 6 (V1+I), 7 (RS-485)	0	No
rEF	Reference value for PID	0 ~ 400 [Hz] or 0 ~ 100 [%]	0.00	Yes
Fbk	Feedback value for PID	-	-	-

Function group 1

LED display	Parameter name	Description	Factory default	Adj. during run
F0	Jump code	0~71	1	Yes
F1	Forward/Reverse run disable	0 (Fwd and rev run enable), 1 (Forward run disable), 2 (Reverse run disable)	0	No
F2	Accel pattern	0 (Linear), 1 (S-curve)	0	No
F3	Decel pattern		0	
F4	Stop mode select	0 (Decelerate to stop), 1 (DC brake to stop), 2 (Free run to stop), 3 (Power braking)	0	No
F8 [1]	DC brake start frequency	Start frequency, 0~60Hz	5.00	No
F9	DC brake wait time	0.1~60sec	0.1	No
F10	DC brake voltage	0~200%	50	No
F11	DC brake time	0~60sec	1.0	No
F12	DC brake start voltage	0~200%	50	No
F13	DC brake start time	0~60sec	0	No
F14	Time for magnetizing a motor	0~60sec	1.0	No
F20	Jog frequency	0~400Hz	10.00	Yes
F21 [2]	Max. frequency	40~400Hz	60.00	No
F22	Base frequency	30~400Hz	60.00	No
F23	Start frequency	0.1~10Hz	0.50	No
F24	Frequency high/low limit select	0 (NO),1 (YES)	0 (No)	No
F25 [3]	Frequency high limit	Frequency low limit~frequency high limit	60.00	No
F26	Frequency low limit	0~frequency high limit	0.50	No

1) Only displayed when F4 is set to 1 (DC brake to stop).
2) If H40 is set to 3 (Sensorless vector), Max. frequency is settable up to 300Hz.
3) Only displayed when F24 (Frequency high/low limit select) is set to 1.

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Function group 1

LED display	Parameter name	Description	Factory default	Adj. during run
F27	Torque Boost select	0 (Manual torque boost), 1 (Auto torque boost)	0	No
F28	Torque boost in forward direction	0~15%	5	No
F29	Torque boost in reverse direction		5	No
F30	V/F pattern	0 (Linear), 1 (Square), 2 (User V/F)	0	No
F31 1)	User V/F frequency 1	0~User V/F frequency2 [Hz]	15.00	No
F32	User V/F voltage 1	0~100%	25	No
F33	User V/F frequency 2	User V/F frequency1~User V/F frequency3 [Hz]	30.00	No
F34	User V/F voltage 2	0~100%	50	No
F35	User V/F frequency 3	User V/F frequency2~User V/F frequency4 [Hz]	45.00	No
F36	User V/F voltage 3	0~100%	75	No
F37	User V/F frequency 4	User V/F frequency3~Max. frequency [Hz]	60.00	No
F38	User V/F voltage 4	0~100%	100	No
F39	Output voltage adjustment	40~110%	100	No
F40	Energy-saving level	0~30%	0	Yes
F50	Electronic thermal select	0 (NO), 1 (YES)	0	Yes
F51 2)	Electronic thermal level for 1 minute	50~200%	150	Yes
F52	Electronic thermal level for continuous	50~200%	100	Yes
F53	Motor cooling method	0 (Self-cooling), 1 (Post-cooling)	0	Yes
F54	Overload warning level	30~150%	150	Yes
F55	Overload warning time	0~30sec	10	Yes
F56	Overload trip select	0 (NO), 1 (YES)	1	Yes
F57	Overload trip level	30~200%	180	Yes
F58	Overload trip time	0~60sec	60	Yes
F59	Stall prevention select	0: Stall prevention disabled 1: During Accel 2: During constant run 3: During Accel, During constant run 4: During Decel 5: During Accel, During Decel 6: During Decel, During constant run 7: During Accel, During constant run, During Decel	0	No
F60	Stall prevention level	30~200%	150	No
F61	When Stall prevention during deceleration, voltage limit select	0 ~ 1	0	No
F63	Save up/down frequency select	0 ~ 1	0	No
F64	Save up/down frequency		0.00	No
F65	Up down mode select	0: Increases goal frequency as a standard of Max. frequency/Min.frequency 1: Increases as many as step frequency according to edge input 2: Available to combine 1 and 2	0	No
F66	Up-down step frequency	0 ~ 400 [Hz]	0.00	No
F70	Draw run mode select	0: Inverter doesn't run as a draw mode 1: V1(0~10V) input draw run 2: I(0~20mA) input draw run 3: V1(-10~10V) input draw run	0	No
F71	Draw rate	0 ~ 100 [%]	0.0	Yes

1) Set F30 to 2 (User V/F) to display this parameter.
2) Set F50 to 1 to display this parameter.

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Function group 2

LED display	Parameter name	Description	Factory default	Adj. during run
H0	Jump code	0~95	1	Yes
H1	Fault history 1		nOn	–
H2	Fault history 2		nOn	–
H3	Fault history 3		nOn	–
H4	Fault history 4		nOn	–
H5	Fault history 5		nOn	–
H6	Reset fault history	0 (No), 1 (Yes)	0 (NO)	Yes
H7	Dwell frequency	0~400Hz	5.00	No
H8	Dwell time	0~10sec	0.0	No
H10	Skip frequency select	0 (No), 1 (Yes)	0 (NO)	No
H11 1)	Skip frequency low limit 1	0~frequency high limit 1 [Hz]	10Hz	No
H12	Skip frequency high limit 1	Frequency high limit 1 [Hz]~Max. frequency [Hz]	15Hz	No
H13	Skip frequency low limit 2	0~frequency high limit 2 [Hz]	20Hz	No
H14	Skip frequency high limit 2	Frequency low limit 2 [Hz]~Max. frequency [Hz]	25Hz	No
H15	Skip frequency low limit 3	0~frequency high limit 3 [Hz]	30Hz	No
H16	Skip frequency high limit 3	Frequency low limit 3 [Hz]~Max. frequency [Hz]	35Hz	No
H17	S-Curve accel/decel start side	1~100%	40%	No
H18	S-Curve accel/decel end side	1~100%	40%	No
H19	Input/output phase loss protection select	0 (Disabled), 1 (Output phase protection), 2 (Input phase protection, 3 (Input/output phase protection)	0	Yes
H20	Power On Start select	0 (NO), 1 (YES)	0 (NO)	Yes
H21	Restart after fault reset selection	0 (NO), 1 (YES)	0 (NO)	
H22 2)	Speed search select	0: Speed search disabled 1: Normal accel 2: Operation after fault 3: Normal accel, Operation after fault 4: Restart after instant power failure 5: Normal accel, Restart after instant power failure 6: Operation after fault, Restart after instant power failure 7: Normal accel, Operation after fault, Restart after instant power failure 8: Power On start 9: Normal accel, Power On start 10: Operation after fault, Power On start 11: Normal accel, Operation after fault, Power On start 12: Restart after instant power failure, Power On start 13: Normal accel, Restart after instant power failure, Power On start 14: Operation after fault, Restart after instant power failure, Power On start 15: Normal accel, Operation after fault, Restart after instant power failure, Power On start	0	Yes
H23	Current level during speed search	80~200%	100	Yes
H24	P gain during speed search	0~9999	100	Yes
H25	I gain during speed search	0~9999	1000	Yes
H26	Number of auto restart try	0~10	0	Yes
H27	Auto restart time	0~60sec	1sec	Yes
H30	Motor type select	0.2~22 [KW]	7.5 3)	No
H31	Number of motor poles	2~12	4	No

1) Only displayed when H10 is set to 1. # H17, H18 are used when F2, F3 are set to 1 (S-curve).
2) Normal acceleration has first priority. Even though #4 is selected along with other bits, Inverter performs Speed search #4.
3) H30 is preset based on Inverter rating.

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Function group 2

LED display	Parameter name	Description	Factory default	Adj. during run
	Rated slip frequency		1)	
	Motor rated current			
	No load motor current			
	Motor efficiency			
	Load inertia rate			
	Carrier frequency select			
	Control mode select			
	Auto tuning			
	Stator resistance (Rs)			
	Leakage inductance (Ls)			
2)	Sensorless P gain			
	Sensorless I gain			
	Sensorless torque limit			
	PWM mode select			
	PID control select			
	PID Feedback select			
	P gain for PID controller			
	Integral time for PID controller (I gain)			
	Differential time for PID controller (D gain)			
	F gain for PID controller			
	PID output frequency limit			
	PID output frequency low limit			
	PID standard value select			
	PID control unit select			
	Diagnosis select			
	Sleep delay time			
	Sleep frequency			
	Wake up level			
	KEB drive select			
	KEB action start level			
	KEB action stop level			
	KEB action gain			
	Frequency reference for accel/decel			
	Accel/Decel time scale			
	Power on display			
	Monitoring item select			
	Gain for motor rpm display			
	DB resistor operating rate limit select			
	DB resistor operating rate			

1) H32~H36 factory default values are set based on L3 motor.
2) Set H40 to 3 (Sensorless vector control) to display this parameter.
3) Set H40 to 2 (PID control) to display this parameter.

Function group 2

LED display	Parameter name	Description			Factory default	Adj. during run
H77 1)	Cooling fan control	0 (Always ON), 1 (Keep ON when its Temp. is higher than Inverter protection limit Temp.)			0	Yes
H78	Operating method select when cooling fan malfunctions	0 (Run when cooling fan malfunctions), 1 (Stop when cooling fan malfunctions)			0	Yes
H79	S/W version	0~10.0			1.0	No
H81	2nd motor Accel time	0~6000sec			5.0	Yes
H82	2nd motor Decel time				10.0	Yes
H83	2nd motor base frequency	30~400Hz			60.00	No
H84	2nd motor V/F pattern	0 (Linear),1 (Square), 2 (User V/F)			0	No
H85	2nd motor forward torque boost	0~15%			5	No
H86	2nd motor reverse torque boost				5	No
H87	2nd motor stall prevention level	30~150%			150%	No
H88	2nd motor Electronic thermal level for 1 min	50~200%			150%	Yes
H89	2nd motor Electronic thermal level for continuous	50~150%			100%	Yes
H90	2nd motor rated current	0.1~100 [A]			26.3	No
H91	Parameter read	0~1			0	No
H92	Parameter write	0~1			0	No
H93	Parameter initialize	0~5			0	No
H94	Password register	0~FFFF			0	Yes
H95	Parameter lock	0~FFFF	UL (Unlock)	Parameter change enable	0	Yes
			L (Lock)	Parameter change disable		

1) Exception: SV004IG5A-2/SV004IG5A-4 adopt self-cooling type, so this code is hidden.

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Input/output group

LED display	Parameter name	Description	Factory default	Adj. during run
I0	Jump code	0~87	1	Yes
I1	Filter time constant for NV input	0~9999	10	Yes
I2	NV input Min. voltage	0~10V	0.00	Yes
I3	Frequency corresponding to I2	0~Max. frequency [Hz]	0.00	Yes
I4	NV input Max. voltage	0~10V	10.0	Yes
I5	Frequency corresponding to I4	0~Max. frequency [Hz]	60.00	Yes
I6	Filter time constant for V1 input	0~9999	10	Yes
I7	V1 input Min. voltage	0~10V	0	Yes
I8	Frequency corresponding to I7	0~Max. frequency [Hz]	0.00	Yes
I9	V1 input Max. voltage	0~10V	10	Yes
I10	Frequency corresponding to I9	0~Max. frequency [Hz]	60.00	Yes
I11	Filter time constant for I input	0~9999	10	Yes
I12	I input Min. current	0~20mA	4.00	Yes
I13	Frequency corresponding to I12	0~Max. frequency [Hz]	0.00	Yes
I14	I input Max. current	0~20mA	20.00	Yes
I15	Frequency corresponding to I14	0~Max. frequency [Hz]	60.00	Yes

Input/output group

LED display	Parameter name	Description	Factory default	Adj. during run
I16	Criteria for analog input signal loss	0: Disabled 1: activated below half of set value. 2: activated below set value.	0	Yes
I17	Multi-function input terminal P1 define	0: Forward run command 1: Reverse run command 2: Emergency stop trip 3: Reset when a fault occurs {RST} 4: Jog operation command 5: Multi-step freq - Low 6: Multi-step freq - Mid 7: Multi-step freq - High 8: Multi Accel/Decel - Low 9: Multi Accel/Decel - Mid 10: Multi Accel/Decel - High 11: DC brake during stop 12: 2nd motor select 13: -Reserved- 14: -Reserved- 15: Up-down Frequency increase (UP)command 16: Up-down Frequency decrease command (DOWN) 17: 3-wire operation 18: External trip A contact (EtA) 19: External trip B contact (EtB) 20: - 21: Exchange between PID operation and V/F operation 22: Exchange between option and Inverter 23: Analog hold 24: Accel/Decel disable 25: Up/Down save freq. Initialization 26: JOG-FX 8-3 27: JOG-RX	0	Yes
I18	Multi-function input terminal P2 define		1	Yes
I19	Multi-function input terminal P3 define		2	Yes
I20	Multi-function input terminal P4 define		3	Yes
I21	Multi-function input terminal P5 define		4	Yes
I22	Multi-function input terminal P6 define		5	Yes
I23	Multi-function input terminal P7 define		6	Yes
I24	Multi-function input terminal P8 define		7	Yes
I25	Input terminal status display	BIT7 BIT6 BIT5 BIT4 BIT3 BIT2 BIT1 BIT0 P8 P7 P6 P5 P4 P3 P2 P1	-	-
I26	Output terminal status display	BIT1 BIT0 3AC MO	-	-
I27	Filtering time constant for multi-function input terminal	2~50	15	Yes
I30	Multi-step frequency 4	0~Max. frequency [Hz]	30.00	Yes
I31	Multi-step frequency 5		25.00	Yes
I32	Multi-step frequency 6		20.00	Yes
I33	Multi-step frequency 7		15.00	Yes
I34	Multi-Accel time 1	0~6000sec	3.0	Yes
I35	Multi-Decel time 1		3.0	Yes
I36	Multi-Accel time 2		4.0	Yes
I37	Multi-Decel time 2		4.0	Yes
I38	Multi-Accel time 3		5.0	Yes
I39	Multi-Decel time 3		5.0	Yes
I40	Multi-Accel time 4		6.0	Yes
I41	Multi-Decel time 4		6.0	Yes
I42	Multi-Accel time 5		7.0	Yes
I43	Multi-Decel time 5		7.0	Yes
I44	Multi-Accel time 6		8.0	Yes
I45	Multi-Decel time 6		8.0	Yes
I46	Multi-Accel time 7		9.0	Yes
I47	Multi-Decel time 7		9.0	Yes
I50	Analog output item select	0 (Output freq.), 1 (Output current) 2 (Output voltage), 3 (Inverter DC link voltage)	-	Yes

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Input/output group

LED display	Parameter name	Description	Factory default	Adj. during run
I51	Analog output level adjustment	10~200%	100	Yes
I52	Frequency detection level	0~400Hz	30.00	Yes
I53	Frequency detection bandwidth		10.00	Yes
I54	Multi-function output terminal select	0: FDT-1	12	Yes
I55	Fault relay select	1: FDT-2 2: FDT-3 3: FDT-4 4: FDT-5 5: Overload (OL) 6: Inverter overload (IOL) 7: Motor stall (STALL) 8: Over voltage trip (OV) 9: Low voltage trip (LV) 10: Inverter overheat (OH) 11: Command loss 12: During run 13: During stop 14: During constant run 15: During speed searching 16: Wait time for run signal input 17: Fault relay select 18: Warning for cooling fan trip 19: Brake signal select	17	Yes
I56	Fault relay output	0: - 1: When the low voltage trip occurs 2: When the trip other than low voltage trip occurs 3: When the low voltage trip occurs, When the trip other than low voltage trip occurs 4: When setting the H26 (Number of auto restart try) 5: When the low voltage trip occurs, When setting the H26 (Number of auto restart try) 6: When the trip other than low voltage trip occurs, When setting the H26 (Number of auto restart try) 7: When the low voltage trip occurs, When the trip other than low voltage trip occurs, When setting the H26 (Number of auto restart try)	2	Yes
I57	Output terminal select when communication error occurs	0: - 1: Multi-function output terminal 2: Multi-function relay 3: Multi-function output terminal, Multi-function relay	0	Yes
I59	Communication protocol select	0 (Modbus RTU), 1 (LS BUS)	0	No
I60	Inverter number	1~Max. frequency [Hz]	1	Yes
I61	Baud rate	0: 1200bps 1: 2400bps 2: 4800bps 3: 9600bps 4: 19200bps	3	Yes
I62	Drive mode select after loss of frequency command	0: Continuous operation at the frequency before its command is lost. 1: Free run stop (Coast to stop) 2: Decel to stop	0	Yes
I63	Wait time after loss of frequency command	0.1~120 sec	1.0	Yes
I64	Communication time setting	2~100msec	5	Yes

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iG5A

Protective Functions

Keypad display	Protective functions	Descriptions
OCt	Overcurrent	The inverter turns off its output when the output current of the inverter flows more than 200% of the inverter rated current.
GFt	Ground fault current	The inverter turns off its output when a ground fault occurs and the ground fault current is more than the internal setting value of the inverter.
IOL	Inverter Overload	The inverter turns off its output when the output current of the inverter flows more than the rated level (150% for 1 minute).
OLt	Overload trip	The inverter turns off its output if the output current of the inverter flows at 150% of the inverter rated current for more than the current limit time (1min).
OHt	Heat sink overheat	The inverter turns off its output if the heat sink overheats due to a damaged cooling fan or an alien substance in the cooling fan by detecting the temperature of the heat sink.
POt	Output Phase loss	The inverter turns off its output when the one or more of the output (U, V, W) phase is open. The inverter detects the output current to check the phase loss of the output.
Ovt	Over voltage	The inverter turns off its output if the DC voltage of the main circuit increases higher than 400V when the motor decelerates. This fault can also occur due to a surge voltage generated at the power supply system.
Lvt	Low voltage	The inverter turns off its output if the DC voltage is below 180V because insufficient torque or overheating of the motor can occur when the input voltage of the inverter drops.
EtH	Electronic Thermal	The internal electronic thermal of the inverter determines the overheating of the motor. If the motor is overloaded, the inverter turns off the output. The inverter cannot protect the motor when driving a motor having more than 4 poles or multi motors.
COL	Input phase loss	Inverter output is blocked when one of R, S, T is open or the electrolytic capacitor needs to be replaced.
FLtL	Self-diagnostic malfunction	Displayed when IGBT damage, output phase short, output phase ground fault or output phase open occurs.
EEP	Parameter save error	Displayed when user-setting parameters fails to be entered into memory.
H/Wt	Inverter hardware fault	Displayed when an error occurs in the control circuitry of the inverter.
Err	Communication Error	Displayed when the inverter cannot communicate with the keypad.
rErr	Remote keypad communication error	Displayed when the inverter and the remote keypad do not communicate with each other. It does not stop inverter operation.
COM	Keypad error	Displayed after the inverter resets the keypad when a keypad error occurs and this ....
FAn	Cooling fan fault	Displayed when a fault condition occurs in the inverter cooling fan.
EST	Instant cut off	Used for the emergency stop of the inverter. The inverter instantly turns off the output when the EST terminal is turned on. Caution: The inverter starts to regular operation when turning off the EST terminal while FX or RX terminal is ON.
EtA	External fault A contact input	When multi-function input terminal (I20-I24) is set to 19 {External fault signal input A: (Normal Open Contact)}, the inverter turns off the output.
Etb	External fault B contact input	When multi-function input terminal (I20-I24) is set to 19 {External fault signal input B: (Normal Close Contact)}, the inverter turns off the output.
-.-L	Operating method when the frequency command is lost	When inverter operation is set via analog input (0-10V or 0-20mA input) or option (RS-485) and no signal is applied, operation is done according to the method set in I62 (Operating method when the frequency reference is lost).

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