

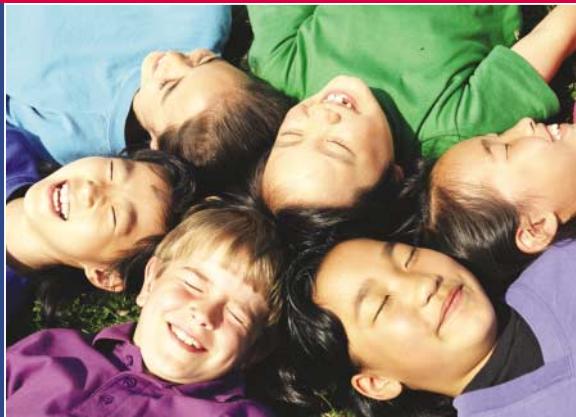
Leading Innovation, Creating Tomorrow 

Variable Frequency Drive LS Inverter Series

iE5 / iC5 / iG5A / iS5 / iS7 / iH / iP5A / iV5



Automation Equipment



LS Industrial Systems
www.lsis.biz



Take another look!

**Simplicity-Precision, Flexibility-Standardization and
Easy to use-Diversity are the inherent qualities of
LS Variable Frequency Drives.**

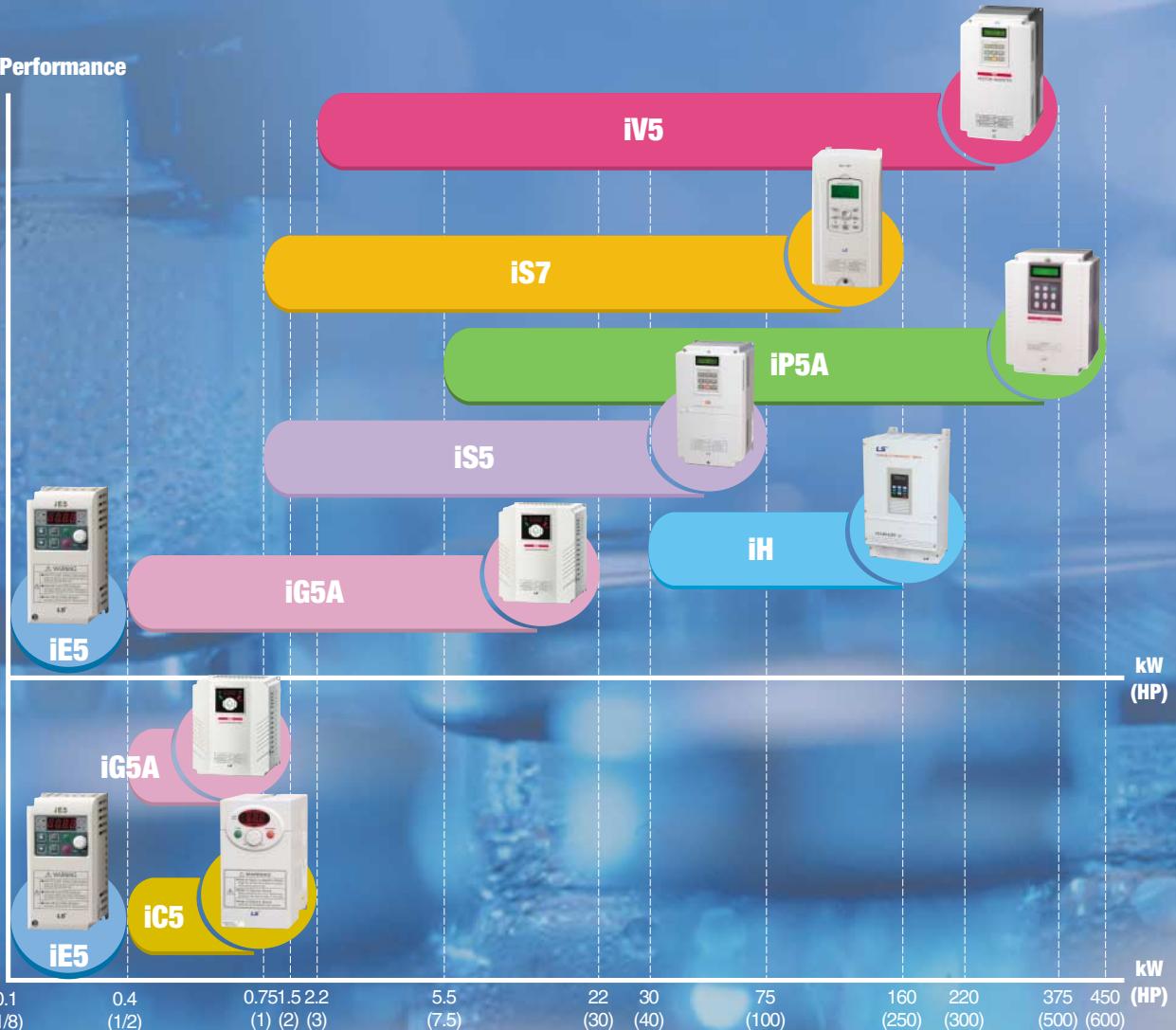
**As an one-stop drive solution provider,
LS is ready to offer its own competitive solutions
into the general power transmission industry.**





Performance

3 phase



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iE5

Variable Frequency Drive / Inverter

User friendly micro size slim VFD

1 phase 0.1~0.4kW(0.1~0.5HP), 200~230V

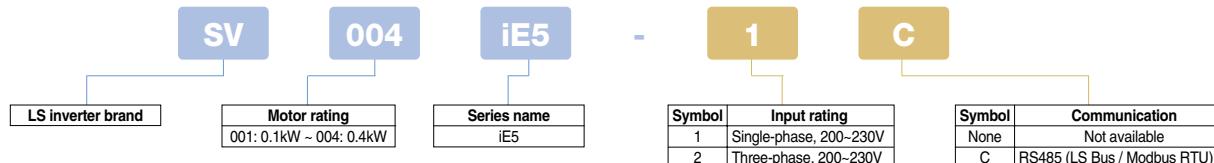
3 phase 0.1~0.4kW(0.1~0.5HP), 200~230V

- V/f control
- Compact size: 68 × 128 × 85mm (2.7 × 5 × 3.3 inch)
- 0.1 ~ 200Hz frequency output
- 1 ~ 10kHz carrier frequency
- Fault history: Last 3 faults
- IP20 enclosure
- RS485 (LS Bus / Modbus RTU) communication (Built-in option)
- DC Injection braking
- Selectable manual/automatic torque boost
- Selectable PNP/NPN input signal
- PI control
- Up-Down & 3-Wire operation
- Automatic restart after instantaneous power failure
- Built-in potentiometer
- Monitoring & commissioning PC based software tool (Drive View)
- Parameter copy unit



CE cUL us ISO9001
ISO14000

Model Number



General specification

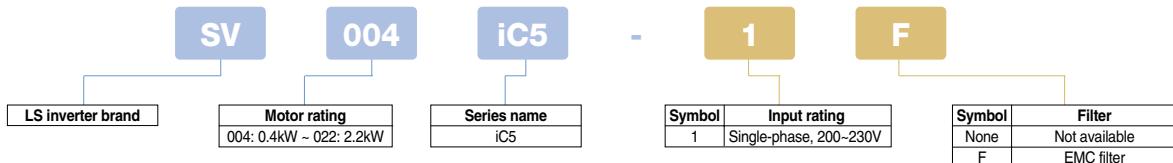
Model number: SV□□□iE5-□		001-1	002-1	004-1	001-2	002-2	004-2						
Motor rating	[HP]	0.13	0.25	0.5	0.13	0.25	0.5						
	[kW]	0.1	0.2	0.4	0.1	0.2	0.4						
Output rating	Capacity	[kVA]	0.3	0.6	0.95	0.3	0.6						
	Current	[A]	0.8	1.4	2.5	0.8	1.6						
	Voltage	[V]	Three-phase 200 ~ 230V										
	Frequency	[Hz]	0.1 ~ 200Hz										
Input rating	Voltage	[V]	Single-phase 200 ~ 230V (±10%)		Three-phase 200 ~ 230V (±10%)								
	Frequency	[Hz]	50 ~ 60Hz (±5%)										
	Current	[A]	2.0	3.5	5.5	1.2	2.0						
Weight	[kg]	0.44	0.46	1.68	0.43	0.45	0.67						
Control Spec	Control method	V/f, Slip compensation											
	Speed reference resolution	Digital command: 0.01Hz / Analog reference: 0.1Hz (Max freq., 60Hz)											
	Frequency accuracy	Digital command: 0.01% of Max output freq. / Analog signal command of 0.1% of Max output freq.											
	V/f curve	Linear, Squared V/f											
	Overload capacity	150% for 1 minute											
	Torque boost	Auto & manual torque boost											
Operation	Keypad Display	4 digit, 7 segment LED											
	Operation method	Keypad / Terminal / Communication											
	Frequency setting	Analog: 0 to 10V / 0 to 20mA / Potentiometer / Digital: Keypad											
	Operation function	PI control / Up-Down operation / 3-Wire operation											
Input signal	Multi-function terminal (P1 ~ P5)	PNP / NPN selectable 5 points (programmable)											
	Output signal	Fault output & inverter status output (N.O., N.C.) Less than AC 250V, 0.3A / Less than DC 30V 1A Analog output 0 to 10Vdc (less than 10mA): frequency / current / voltage / DC voltage selectable											
Protection	Inverter trip	Over voltage / Low voltage / Over current / Ground fault / Inverter overload / Overload trip / Inverter overheat / Condenser overload / Output phase open / Frequency command loss / Hardware fault / etc.											
	Inverter alarm	Stall prevention											
Enclosure	IP20												
Option	Communication, copy unit RS485(LS Bus / Modbus RTU), Parameter copy unit												



ISO9001 ISO14000

- EMC filter - class A (Built-in option)
- Selectable V/f, sensorless vector control
- Motor parameter Auto-tuning
- 150% torque at 0.5Hz
- 0.1 ~ 400Hz frequency output
- 1 ~ 15kHz carrier frequency
- 0 ~ 10Vdc analog input
- IP20 enclosure
- Selectable manual/automatic torque boost
- Built-in potentiometer
- Selectable PNP/NPN Input signal
- Fault history: Last 5 faults
- Enhanced process PID control
- Up-Down & 3-Wire operation
- Modbus RTU communication (optional)
- 8 programmable I/O
- Parameter copy unit
- Monitoring & commissioning PC based software tool (Drive View)

Model Number



General specification

Model number: SV□□□iC5-□		004-1	008-1	015-1	022-1
Motor rating	[HP]	0.5	1	2	3
	[kW]	0.4	0.75	1.5	2.2
Output rating	Capacity [kVA]	0.95	1.9	3	4.5
	Current [A]	2.5	5	8	12
	Voltage [V]	Three-phase 200 ~ 230V			
	Frequency [Hz]	0.1 ~ 400Hz			
Input rating	Voltage [V]	Single-phase 200 ~ 230V ($\pm 10\%$)			
	Frequency [Hz]	50 ~ 60Hz ($\pm 5\%$)			
	Current [A]	5.5	9.2	16	21.6
Weight	[kg]	0.87	0.89	1.79	1.85
Control Spec	Control method	V/f, Slip compensation, Sensorless vector			
	Speed reference resolution	Digital command: 0.01Hz / Analog reference: 0.06Hz (Max freq., 60Hz)			
	Frequency accuracy	Digital command: 0.01% of Max output freq. / Analog signal command of 0.1% of Max output freq.			
	V/f curve	Linear, Squared, User custom V/f			
	Overload capacity	150% for 1 minute, 200% for 30 seconds			
	Torque boost	Auto & manual torque boost			
Operation	Keypad Display	3 digit, 7 segment LED			
	Operation method	Keypad / Terminal / Communication			
	Frequency setting	Analog: 0 to 10V / 4 to 20mA / Potentiometer / Digital: Keypad			
	Operation function	PID control / Up-Down operation / 3-Wire operation			
Input signal	Multi-function terminal (P1 ~ P5)	PNP / NPN selectable 5 points (programmable)			
Output signal	Multi-function relay	Fault output & inverter status output (N.O., N.C.) Less than AC 250V, 0.3A / Less than DC 30V 1A			
	Multi-function open collector	DC24V (less than 50mA)			
	Analog output	0 to 10Vdc (less than 10mA): frequency / current / voltage / DC voltage selectable			
Protection	Inverter trip	Over voltage / Low voltage / Over current / Ground fault / Inverter overheat / Output phase open / Inverter overload Overload trip / Communication error / Frequency command loss / Hardware fault / Fan fault / etc.			
	Inverter alarm	Stall prevention, Overload			
Enclosure		IP20			
Option	Communication, copy unit	Modbus RTU, Parameter copy unit			



iG5A

Variable Frequency Drive / Inverter

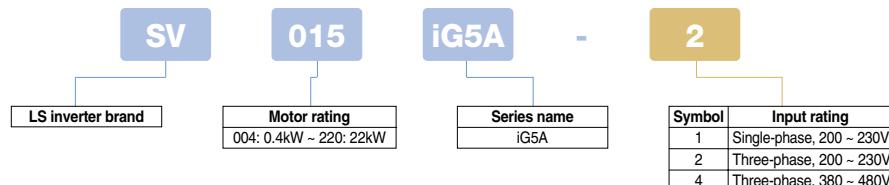
Powerful & compact sensorless vector control VFD

1 phase 0.4~1.5kW(0.5~2HP), 200~230V
3 phase 0.4~22kW(0.5~30HP), 200~230V
3 phase 0.4~22kW(0.5~30HP), 380~480V

- Selectable V/f, sensorless vector control
- Motor parameter Auto-tuning
- Powerful torque at overall speed range
- 0.1 ~ 400Hz frequency output
- 1 ~ 15kHz carrier frequency
- 15% ~ +10% input voltage margin
- Fault history: Last 5 faults
- 0~10Vdc / -10~+10Vdc analog input
- IP20 enclosure, UL Type 1 (Option)
- Selectable manual/automatic torque boost
- Selectable PNP/NPN input signal
- 2nd motor control and parameter setting
- Built-in Dynamic braking transistor as standard
- Enhanced process PID control
- Built-in RS485 (LS Bus / Modbus RTU) communication
- Cooling fan On/Off control & Easy change
- Remote control using external keypad * RJ45 cable(Optional)
- Upgraded functions: Sleep & Wake-up (Energy savings)
KEB (Kinetic Energy Buffering) protection
Low leakage PWM algorism
- Monitoring & commissioning PC based software tool (Drive View)



Model Number



General specification

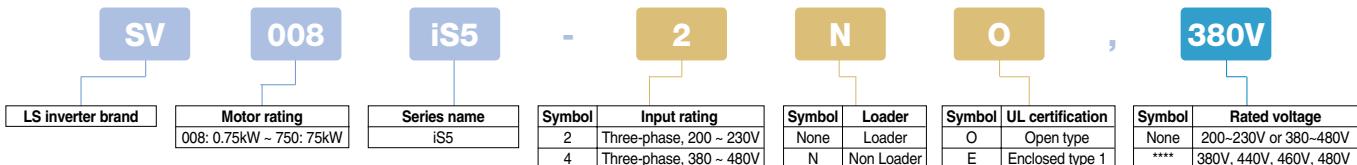
Model number: SV□□□iG5A-1□		004			008			015					
Motor rating	[HP]	0.5			1			2					
	[kW]	0.4			0.75			1.5					
Output rating	Capacity	[kVA]	0.95					1.9					
	Current	[A]	2.5					5					
	Voltage	[V]	Three-phase 200 ~ 230V										
	Frequency	[Hz]	0.1 ~ 400Hz										
Input rating	Voltage	[V]	Single-phase 200 ~ 230V (+10%, -15%)										
	Frequency	[Hz]	50 ~ 60Hz ($\pm 5\%$)										
Weight	[kg]	0.77			1.12			1.84					
Model number: SV□□□iG5A-2□		004	008	015	022	037	040	055	075	110	150	185	220
Motor rating	[HP]	0.5	1	2	3	5	5.4	7.5	10	15	20	25	30
	[kW]	0.4	0.75	1.5	2.2	3.7	4.0	5.5	7.5	11	15	18.5	22
Output rating	Capacity	[kVA]	0.95	1.9	3	4.5	6.1	6.5	9.1	12.2	17.5	22.9	33.5
	Current	[A]	2.5	5	8	12	16	17	24	32	46	60	74
	Voltage	[V]	Three-phase 200 ~ 230V										
	Frequency	[Hz]	0.1 ~ 400Hz										
Input rating	Voltage	[V]	Three-phase 200 ~ 230V (+10%, -15%)										
	Frequency	[Hz]	50 ~ 60Hz ($\pm 5\%$)										
Weight	[kg]	0.76	0.77	1.12	1.84	1.89	1.89	3.66	3.66	9.00	9.00	13.3	13.3
Model number: SV□□□iG5A-4□		004	008	015	022	037	040	055	075	110	150	185	220
Motor rating	[HP]	0.5	1	2	3	5	5.4	7.5	10	15	20	25	30
	[kW]	0.4	0.75	1.5	2.2	3.7	4.0	5.5	7.5	11	15	18.5	22
Output rating	Capacity	[kVA]	0.95	1.9	3	4.5	6.1	6.5	9.1	12.2	18.3	22.9	34.3
	Current	[A]	1.25	2.5	4	6	8	9	12	16	24	30	39
	Voltage	[V]	Three-phase 380 ~ 480V										
	Frequency	[Hz]	0.1 ~ 400Hz										
Input rating	Voltage	[V]	Three-phase 380 ~ 480V (+10%, -15%)										
	Frequency	[Hz]	50 ~ 60Hz ($\pm 5\%$)										
Weight	[kg]	0.76	0.77	1.12	1.84	1.89	1.89	3.66	3.66	9.00	9.00	13.3	13.3
Control Spec	Control method	V/f, Slip compensation, Sensorless vector											
	Speed reference resolution	Digital command: 0.01Hz / Analog reference: 0.06Hz (Max freq., 60Hz)											
	Frequency accuracy	Digital command: 0.01% of Max output freq. / Analog signal command of 0.1% of Max output freq.											
	V/f curve	Linear, Squared, User custom V/f											
	Overload capacity	150% for 1 minute											
	Torque boost	Auto & manual torque boost											
Operation	Keypad Display	4 digit, 7 segment LED											
	Operation method	Keypad / Terminal / Communication											
	Frequency setting	Analog: 0 to 10V / -10 to 10V / 0 to 20mA / Digital: Keypad											
	Operation function	PID control / Up-Down operation / 3-Wire operation											
Input signal	Multi-function terminal (P1 ~ P8)	PNP / NPN selectable 8 points (programmable)											
Output signal	Multi-function relay	(N.O., N.C.) Less than AC250V, 0.3A / Less than DC 30V 1A											
	Multi-function open collector	DC24V (less than 50mA)											
	Analog output	0 to 10Vdc (less than 10mA): frequency / current / voltage / DC voltage selectable											
Protection	Inverter trip	Over voltage / Low voltage / Over current / Over Current 2 / Ground fault / Inverter overheat / Output phase open /											
	Inverter alarm	Inverter overload / Overload trip / Communication error / Frequency command loss / Hardware fault / Fan fault / Brake error / etc.											
	Stall prevention, Overload	Stall prevention, Overload											
Enclosure Option	IP20, NEMA1 (Optional)												
Others	Cable, conduit kit	Remote cable(2M/3M/5M) plus external keypad, Conduit kit for NEMA 1											
		Built-in Dynamic braking transistor, Built-in RS485(LS Bus / Modbus RTU)											



IS09001
IS014000

- Selectable V/f, Sensorless vector, Sensored vector control (Optional)
- Built-in process PID control
- Optimum acceleration & deceleration for a maximum torque
- APP parameter group for special operations:
Traverse, Multi Motor Control, DRAW
- Multi-function I/O terminal:
Input: 27 functions / Output: 21 functions
- Multi Motor Control (Up to 4 motors: Optional)
- Motor parameter Auto-tuning
- Parameter Read/Write function using a detachable LCD Keypad
- 8 Preset speeds
- Extension I/O boards (Optional) : Sub-A, Sub-B, Sub-C
- Communication options:
Modbus RTU, Profibus-DP, DeviceNet, RS485(LS Bus), Fnet(LS PLC link)
- Built-in Dynamic braking transistor (Up to 7.5kW[10HP])
- Monitoring & commissioning PC based software tool (Drive View)

Model Number



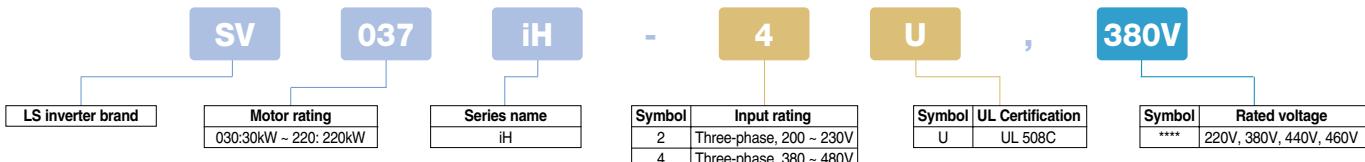
General specification

Model number: SV□□□iS5-2□	008	015	022	037	055	075	110	150	185	220	300	370	450	550
Motor rating	[HP]	1	2	3	5	7.5	10	15	20	25	30	40	50	60
	[kW]	0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37	45
Output rating	Capacity	[kVA]	1.9	3	4.5	6.1	9.1	12.2	17.5	22.9	28.5	33.5	46	55
	Current	[A]	5	8	12	16	24	32	46	60	74	88	122	146
	Voltage	[V]	Three-phase 200 ~ 230V											
Input rating	Frequency	[Hz]	0.1 ~ 400Hz (Sensorless control: 0.1~300Hz, Sensored control: 0.1~120Hz)											
Input rating	Voltage	[V]	Three-phase 200 ~ 230V (±10%)											
	Frequency	[Hz]	50 ~ 60Hz (±5%)											
Weight	[kg]	4.6	4.6	4.8	4.9	7.5	7.7	13.8	14.3	19.4	20.0	42.0	42.0	61
Model number: SV□□□iS5-4□	008	015	022	037	055	075	110	150	185	220	300	370	450	550
Motor rating	[HP]	1	2	3	5	7.5	10	15	20	25	30	40	50	60
	[kW]	0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37	45
Output rating	Capacity	[kVA]	1.9	3	4.5	6.1	9.1	12.2	17.5	22.9	29.7	34.3	45	56
	Current	[A]	2.5	4	6	8	12	16	24	30	39	45	61	75
	Voltage	[V]	Three-phase 380 ~ 480V											
Input rating	Frequency	[Hz]	0.1 ~ 400Hz (Sensorless control: 0.1~300Hz, Sensored control: 0.1~120Hz)											
Input rating	Voltage	[V]	Three-phase 380 ~ 480V (±10%)											
	Frequency	[Hz]	50 ~ 60Hz (±5%)											
Weight	[kg]	4.7	4.7	4.8	4.9	7.7	7.7	13.9	14.4	20	20	45	45	63
Control Spec	Control method	Sensorless vector, Sensored vector, V/f												
	Speed reference resolution	Digital command: 0.01Hz (less than 100Hz), 0.1Hz (greater than 100Hz) / Analog reference: 0.03Hz (Max freq., 60Hz)												
	Frequency accuracy	Digital command: 0.01% of Max output freq. / Analog signal command of 0.1% of Max output freq.												
	V/f curve	Linear, Squared, User custom V/f												
	Overload capacity	150% for 1 minute, 200% for 0.5 second												
	Torque boost	Auto & manual(0 ~ 15%) torque boost												
Operation	Keypad Display	32 characters LCD keypad / 4 digit, 7 segment LED keypad												
	Operation method	Keypad / Terminal / Communication												
	Frequency setting	Analog: 0 to 10V / 4 to 20mA / Additional port for Sub-board(0~10V) / Digital: Keypad												
	Operation function	DC braking / Frequency limit / Frequency jump / Second function / Second Function / Slip compensation / Reverse rotation prevention / Auto restart / Inverter By-pass / Auto-Tuning / PID control												
Input signal	Sart signal	Forward / Reverse												
	Multi-step	Up to 8 speeds can be set (Use Multi-function terminal)												
	Multi-step Accel/Decel time	0~6,000 sec, Up to 8 types can be set and selected for each setting (Use Multi-function terminal)												
	Emergency stop	Interrupts the Output from Inverter												
	JOG operation	JOG operation												
	Auto operation	Operates from Internal sequence by setting Multi-function terminal (5 way * 8 Step)												
	Fault reset	Trip status is removed when Protection function is active												
Output signal	Operating status	Frequency detection level / Overload alarm / Stalling / Over voltage / Low voltage / Inverter overheat / Run / Stop / Constant speed / Inverter By-pass / Speed search / Auto-operation step / Auto-operation sequence												
	Fault output	Contact output (30A, 30C, 30B) - AC250V 1A, DC30V 1A												
	Indicator	Output frequency / Output current / Output voltage(0~10V) / DC voltage / Output torque selectable												
Protection	Inverter trip	Over voltage / Low voltage / Over current 1, 2 / Fuse open / Ground fault / Inverter overheat / Electronic thermal / Output phase open / overload / External Fault A, B / Over speed / Communication Error / Frequency command loss / Hardware fault / M/C fail / etc												
	Inverter alarm	Stall prevention / Overload / Temperature sensor fault												
Enclosure Option	Board, cable, keypad Communication	IP20(0.75~7.5kW[1~10HP]), IP00(11~75kW[15~100HP]) LCD Keypad, Remote cable(2M/3M/5M), Sub-A board(Extension I/O), Sub-B board(Encoder I/O), Sub-C board(Extension I/O: current input), MMC board RS485(LS Bus), Modbus RTU, DeviceNet, Profibus-DP, Fnet												
Others		Built-in Dynamic braking transistor(0.75~7.5kW[1~10HP])												


 CE cUL us ISO9001
 ISO14000

- Space Vector PWM technology
- Constant torque / Variable torque dual rating
- Low noise level (high performance DSP & IGBT)
- Precise torque calculation through current control (high torque performance)
- 4 ~ 20mA Analog output
- 2 line 32 characters LCD display as standard
- Built-in Process PI control
- 150% starting torque
- 2 ~ 10kHz carrier frequency
- Slip compensation
- Recovery from momentary power failure (Flying start)
- Monitoring & commissioning PC based software tool (Drive View)

Model Number



General specification

Model number: SV□□□iH-□□			030-2U	037-2U	045-2U	055-2U	030-4U	037-4U	045-4U	055-4U	075-4U	090-4U	110-4U	132-4U	160-4U	220-4U
Motor rating	Constant Torque	[HP]	40	50	60	75	40	50	60	75	100	125	150	175	215	300
	Constant Torque	[kW]	30	37	45	55	30	37	45	55	75	90	110	132	160	220
	Variable Torque	[HP]				50	60	75	100	125	150	175	215	250	350	
	Variable Torque	[kW]				37	45	55	75	90	110	132	160	185	280	
Output ratings (380V based)	Constant Torque FLA	[A]	122	146	180	220	61	75	91	110	152	183	223	264	325	432
	Constant Torque	[kVA]	46	55	68	83	40	50	60	70	100	120	145	170	200	280
	Variable Torque FLA	[A]				80	96	115	125	160	228	264	330	361	477	
	Variable Torque	[kVA]				52	62	74	80	103	147	170	213	233	307	
	Voltage	[V]	Three-phase, 200 ~ 230V				Three-phase, 380 ~ 460V									
	Frequency	[Hz]	0.5 ~ 400Hz				0.5 ~ 400Hz									
Input ratings	Voltage	[V]	Three-phase, 200 ~ 230V ($\pm 10\%$)				Three-phase, 380 ~ 460V ($\pm 10\%$)									
	Frequency	[Hz]	50 ~ 60Hz ($\pm 5\%$)				50 ~ 60Hz ($\pm 5\%$)									
Weight	[kg]	42	42	56	56		45	45	63	63	68	98	98	122	122	175

Control method	V/f (Space Vector PWM)														
Speed reference resolution	Digital command: 0.01Hz (below 99Hz) & 0.1Hz (100Hz and over) / Analog command: 0.03Hz at 60Hz														
Frequency accuracy	Digital: 0.01% of Maximum output frequency / Analog: 0.1 % of Maximum output frequency														
V/f curve	Linear / Squared, User custom V/f														
Overload capacity	Constant Torque 150% for 1 minute, 200% for 0.5 second Variable Torque 110% for 1 minute, 150% for 0.5 second														

Torque boost	Auto & Manual(0 ~ 20%) torque boost														
Multi-function input terminal	6 points (programmable)														
Multi-function output	5 points (Programmable): 2 form A contact (N.O.) / Fault contact output (A,B,C)-AC 250V 1A, DC 30V 1A / 3 Open collect Output: 24V 25mA														
Analog output	4 ~ 20mA														
Input signal	Operation method Keypad / Terminal / Communication Frequency setting Analog: 0 ~ 10V, 4 ~ 20mA / Digital : Keypad Start signal Forward / Reverse Multi-step operation Up to 8 speeds can be set (Use Multi-function terminal) Multi-step Accel/Decel time 0.1~6,000 sec, Up to 8 types can be set and selected for each setting (Use Multi-function terminal) Operation function DC braking / Frequency limit / Frequency jump / Slip compensation / PI control / Stall prevention Emergency stop Interrupts the Output from Inverter JOG JOG operation Fault reset Trip status is removed when Protection function is active														

Output signal	Operating status	Frequency detection level / Overload alarm / Stalling / Over voltage / Low voltage / Inverter overheat/ Run / Stop / Constant speed / Speed search													
	Indicator	RPM, Output frequency / Output current / Output voltage(Voltage: 0~10V, Pulse : 500Hz)													

Protection	Inverter trip	Over voltage / Low voltage / Over current / Inverter overheating / Fuse open / Ground fault / Overload / M/C fail / etc.													
	Inverter alarm	Stall prevention / Overload													
Enclosure Option	IP00														



ISO9001
ISO14000

- Ultimate performance solution for System Drive
- Advanced Speed & Torque control (200% instantaneous torque: Max. 250%)
- Precious Speed & Position synchronization operation
- Static motor parameter Auto-tuning
- Draw / Droop / Process PID control
- Highly precious control through optional Sincos Encoder
- Synchronous motor sensorless control (SPM & IPM motors)
- Specialized functions for various applications
 - Load balance function
 - Diameter calculation / Taper function
 - Splicing / Inertia compensation function
 - Quick stop function

- Built-in Dynamic braking transistor (2.2~22kW[3~30HP])
- User-friendly LCD keypad (Detachable)
- Plug-in type control terminals
- Extension I/O boards (Optional):
 - EL I/O (for Elevator application)
 - Encoder division (open collector)
 - Synchronization option (Speed/Position control)
 - Sincos encoder
- Communication boards (Optional)
 - RS485(LS Bus / Modbus RTU)
 - Profibus-DP
 - DeviceNet
- Monitoring & commissioning PC based software tool (Drive View)

Model Number

SV	022	iV5	-	2	DB	(MD)	,	380V
LS inverter brand	Motor rating	Series name	Symbol	Input rating	Symbol	Dynamic Brake	Symbol	Cover type

022: 2.2kW ~ 3750: 370kW iV5 2 Three-phase, 200 ~ 230V None Not available None Metallic cover
 4 Three-phase, 380 ~ 480V DB Dynamic Braking (MD) Mold cover* None 200~230V or 380~480V
 **** 380V, 460V, 480V*

General specification

Model number: SV□□□iV5-2□		022	037	055	075	110	150	185	220	300	370
Motor rating	[HP]	3	5	7.5	10	15	20	25	30	40	50
	[kW]	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37
Output rating	Capacity	[kVA]	4.5	6.1	9.1	12.2	17.5	22.5	28.2	33.1	46
	Current	[A]	12	16	24	32	46	59	74	88	146
	Voltage	[V]	Three-phase 200 ~ 230V 0 ~ 3600 [RPM]								
Input rating	Voltage	[V]	Three-phase 200 ~ 230V (+10%, -10%) 50 ~ 60Hz (±5%)								
Weight	Mold cover type	[kg]	6	6	7.7	7.7	13.7	13.7	20.3	20.3	42
	Metallic cover type	[kg]			14	14	28	28	28	28	42
Model number: SV□□□iV5-4□		022	037	055	075	110	150	185	220	300	370
Motor rating	[HP]	3	5	7.5	10	15	20	25	30	40	50
	[kW]	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37
Output rating	Capacity	[kVA]	4.5	6.1	9.1	12.2	18.3	22.9	29.7	34.3	46
	Current	[A]	6	8	12	16	24	30	39	45	61
	Voltage	[V]	Three-phase 380 ~ 480V 0 ~ 3600 [RPM]								
Input rating	Voltage	[V]	Three-phase 380 ~ 480V (+10%, -10%) 50 ~ 60Hz (±5%)								
Weight	Mold cover type	[kg]	6	6	7.7	7.7	13.7	13.7	20.3	20.3	42
	Metallic cover type	[kg]			14	14	28	28	28	28	42
Control Spec	Control method	Sensored Vector (speed sensor) Digital command: 0.1rpm / Analog reference: ± 0.0005% of Max output freq.									
	Speed reference resolution	Digital command: ± 0.01(0~40°C) of Max output freq. / Analog signal reference: ± 0.02(25±10°C) of Max output freq.									
	Speed accuracy	50Hz									
	Cut-off frequency of ASR	3%									
	Torque control accuracy	0.00~6000.0 sec									
	Accel/Decel time	4 combinations of Accel/Decel time									
	Accel/Decel combination	Linear / S curve									
	Accel/Decel curve	Analog: -10 to 10V / 4 to 20mA / Digital: Keypad									
	Frequency setting	3 channels (A11, A12, A13); Extention I/O 2 channels (A14, A15) -10 to 10V / 0 to 10V / 0 to 20V / 20 to 40mA / A13, A15[Extention I/O]: Motor NTC/PTC selectable Selectable among 15 different Multi-function analog inputs									
Input signal	Analog input	AI3, AI5: NTC is available only with LG-OTIS motors (both of NTC and PTC are available in case of SV2800iV5-SV3750iV5)									
	Contact input	Selectable among 40 different Multi-function analog inputs									
Output signal	Analog output	2 channels (AO1, AO2) -10 to 10V / 10 to -10V / 0 to 10V / 0 to 0V									
	Contact output	Selectable among 40 different Multi-function analog outputs Multi-function contact output: 2 channels (1A-1B, 2A-2B) Fault contact output: 1 channel (30A-30C, 30B-30C)									
	Open collector	1 channel (OC1/EG)									
Protection	Over voltage / Over current / Low voltage / Inverter overheating / Inverter thermal malfunction / Motor overheating / Motor thermal malfunction / Overspeed / BX(Instantaneous IGBT gate block) / Fuse open / External fault / Encoder error / Electronic thermal / Overload / IGBT short / Communication error / etc.										
Enclosure Option	Board Communication	IP20 (2.2~22kW[3~30HP]: Mold cover* / 30~37kW[40~50HP]: Metallic cover), IP20 (2.2~22kW[3~30HP]: Metallic cover) EL I/O (for Elevator application), Encoder division(open collector), Synchronization option(Speed/Position control), Sincos encoder RS485(LS Bus / Modbus RTU), Profibus-DP, DeviceNet									

*Available soon



Comparison

Variable Frequency Drive / Inverter

Model Series	iE5		iC5	iG5A			iS5	
Input Phase	Single-phase	Three-phase	Single-phase	Single-phase	Three-phase		Three-phase	
Voltage Range	200~230V		200~230V	200~230V		380~480V	200~230V	380~480V
Motor rating	0.1~0.4kW 0.13~0.5HP	0.1~0.4kW 0.13~0.5HP	0.4~2.2V 0.5~3HP	0.4~1.5kW 0.5~2HP	0.4~22kW 0.5~30HP	0.4~22kW 0.5~30HP	0.75~55kW 1~75HP	0.75~75kW 1~100HP
Constant Torque	Standard		Standard	Standard			Standard	
Variable Torque								
Control method	V/f	Standard		Standard			Standard	
	Sensorless Vector	Standard		Standard			Standard	
	Sensored Vector						Option	
Enclosure	IP00						Standard	Standard
							11~22kW	11~75kW
							15~30HP	15~100HP
	IP20	Standard		Standard	Standard			Standard
		0.1~0.4kW		0.4~2.2kW	0.4~22kW			0.75~7.5kW
		0.13~0.5HP		0.5~3HP	0.5~30HP			1~10HP
	IP21							
	IP54							
					Option			
					0.4~22kW			
					0.5~30HP			
Keypad	Type	Fixed type	Fixed type	Fixed type	Fixed type			Detachable type
	Built-in	0.1~0.4kW	0.4~2.2kW	0.4~22kW	0.75~22kW			
		0.13~0.5HP	0.5~3HP	0.5~30HP	1~30HP			
	Option				0.75~22kW			
					1~30HP			
Remote cable	2 meters				Option			Option
	3 meters				Option			Option
	5 meters				Option			Option
Braking transistor					Standard			Standard
					0.4~22kW			0.75~7.5kW
					0.5~30HP			1~10HP
EMC Filter				Built-in Option				
				0.4~2.2kW				
				0.5~3HP				
DC Reactor								
RS485(LS Bus)		Standard			Standard			Option
Modbus RTU		Standard		Option	Standard			Option
Modbus TCP								
DeviceNet								Option
Profibus-DP								Option
Fnet(LS PLC link)								Option
Rnet								
LonWorks								
CANopen								
BACnet								
EtherNet/IP								
CC-Link								
MMC(Mulit Motor Control)								Option
Encoder								Option
Sincos encoder								
PLC								
Extension I/O								Option
Elevator I/O								
Synchronization I/O								

Model Series	iS7		iH		iP5A		iV5	
Input Phase	Three-phase		Three-phase		Three-phase		Three-phase	
Voltage Range	200~230V	380~480V	200~230V	380~480V	200~230V	380~480V	200~230V	380~480V
Motor rating	0.75~22kW	0.75~160kW	30~55kW	30~220kW	5.5~30kW	5.5~450kW	2.2~37kW	2.2~375kW
	1~30HP	1~215HP	40~75HP	40~300HP	7.5~40HP	7.5~600HP	3~50HP	3~500HP
Constant Torque	Standard		Standard		Standard			
Variable Torque	Standard		Standard		Standard			
Control method	V/f	Standard	Standard		Standard			
	Sensorless Vector	Standard	Standard		Standard			
	Sensored Vector	Option						Standard
Enclosure	IP00					Standard	Standard	Standard
						15~30kW	15~450kW	2.2~22kW
						20~40HP	20~600HP	3~30HP
	IP20			Standard	Standard	Standard		Standard
				90~160kW	30~55kW	5.5~11kW		5.5~22kW
				125~215HP	40~75HP	7.5~15HP		7.5~30HP
	IP21	Standard	Standard					
		0.75~22kW	0.75~75kW					
		1~30HP	1~100HP					
	IP54	Built-in Option						
		0.75~22kW						
		1~30HP						
	UL Type 1	Option				Standard	Standard	
		0.75~75kW				5.5~11kW	5.5~11kW	
		1~100HP				7.5~15HP	7.5~15HP	
Keypad	Type	Detachable type		Detachable type		Detachable type		Detachable type
	Built-in			30~220kW		5.5~30kW		2.2~370kW
				40~300HP		7.5~40HP		3~500HP
	Option	0.75~160kW				37~450kW		
		1~215HP				50~600HP		
Remote cable	2 meters	Option		Option		Option		
	3 meters	Option		Option		Option		
	5 meters			Option		Option		
Braking transistor	Standard						Standard	
		0.75~22kW						2.2~22kW
		1~30HP						3~30HP
EMC Filter	Built-in Option							
		0.75~22kW						
		1~30HP						
DC Reactor	Built-in Option	Built-in Option					Built-in Option	
	0.75~22kW	0.75~160kW					15~280kW	
	1~30HP	1~215HP					20~350HP	
RS485(LS Bus)	Standard		Option		Standard / Option		Option	
Modbus RTU	Standard				Option		Option	
Modbus TCP	Option				Option*			
DeviceNet	Option				Option		Option	
Profibus-DP	Option				Option		Option	
Fnet(LS PLC link)								
Rnet	Option							
LonWorks	Option				Option			
CANopen	Option							
BACnet					Option			
EtherNet/IP	Option*							
CC-Link	Option*							
MMC(Mulit Motor Control)	Standard				Standard			
Encoder	Option						Standard	
Sincos encoder							Option	
PLC	Option							
Extension I/O	Option							
Elevator I/O							Option	
Synchronization I/O							Option	

* Available soon



Option list

Variable Frequency Drive / Inverter

Series	Option	Description
iC5	SV-iC5 Modbus RTU	iC5 Modbus communication card
	SV-iC5 Copy Unit	iC5 Copy Unit
iG5A	SV-iG5A REMOTE CABLE 2M	2 meter connection cable between inverter and keypad plus fixture
	SV-iG5A REMOTE CABLE 3M	3 meter connection cable between inverter and keypad plus fixture
	SV-iG5A REMOTE CABLE 5M	5 meter connection cable between inverter and keypad plus fixture
	NEMA OPTION 1 (SV004/008iG5A-2/4)	Conduit Kit for NEMA 1 (iG5A 0.4~0.75kW)
	NEMA OPTION 2 (SV015iG5A-2/4)	Conduit Kit for NEMA 1 (iG5A 1.5kW)
	NEMA OPTION 3 (SV022~040iG5A-2/4)	Conduit Kit for NEMA 1 (iG5A 2.2~4kW)
	NEMA OPTION 4 (SV055/075iG5A-2/4)	Conduit Kit for NEMA 1 (iG5A 5.5~7.5kW)
	NEMA OPTION 5 (SV110/150iG5A-2/4)	Conduit Kit for NEMA 1 (iG5A 11~15kW)
	NEMA OPTION 6 (SV185/220iG5A-2/4)	Conduit Kit for NEMA 1 (iG5A 18.5~22kW)
	SV-iS5 LCD KEYPAD	LCD display keypad for iS5
iS5	SV-iS5/iP5A REMOTE CABLE(2M)	2 meter connection cable between inverter and keypad
	SV-iS5/iP5A REMOTE CABLE(3M)	3 meter connection cable between inverter and keypad
	SV-iS5/iP5A REMOTE CABLE(5M)	5 meter connection cable between inverter and keypad
	SV-iS5 SUB BOARD A	Extension I/O module, 3 multi-functional inputs and 3 outputs
	SV-iS5 SUB BOARD B	Encoder pulse input and output module
	SV-iS5 SUB BOARD C	Extension I/O module, 3 inputs, 1 output and 2 analog meter outputs
	SV-iS5/iH RS485	Current output board (Only available in case that the dedicated O/S is installed)
	SV-iS5 MMC	Multi Motor Control board
	SV-iS5/iH MODBUS	RS485(LS Bus) communication board
	SV-iS5/iP5A/I5 DEVICENET	Modbus RTU communication board
iS7	SV-iS5 F-NET	DeviceNet communication board
	SV-iS5/I5 PROFIBUS	LS PLC link board
	SV-iS5/I5 CANOPEN	ProfiBus DP communication board
	SV-iS7 LCD KEYPAD	Graphic LCD display keypad for iS7 (128x64 COG, 11 Rubber Key, 3 LED, IP21)- Multi Languages (English, Italian, Spanish, Russian, Turkish, Arabic)*
	SV-iS7 REMOTE CABLE(2M)*	2 meter connection cable between inverter and keypad
	SV-iS7 REMOTE CABLE(3M)*	3 meter connection cable between inverter and keypad
	SV-iS7 ISOLATION I/O	Insulated I/O module, 8 multi-functional inputs and 2 output
	SV-iS7 EXTENSION I/O	Extension I/O module, 3 multi-functional inputs and 3 output
	SV-iS7 ENCODER	Encoder board for closed loop control
	SV-iS7 PROFIBUS-DP	Profibus-DP communication board
iH	SV-iS7 PLC	PLC card (MK120S Platform)
	SV-iS7 R-net	Rnet communication board
	SV-iS7 Modbus TCP	100M BASE-TX, 10M BASE-T support
	SV-iS7 DEVICENET*	DeviceNet Communication board
	SV-iS7 LONWORKS*	LonWork Communication board
	SV-iS7 CANopen*	CanOpen communication board
	SV-iH LOADER CABLE 2M	2 meter connection cable between inverter and keypad
	SV-iH LOADER CABLE 3M	3 meter connection cable between inverter and keypad
	SV-iH LOADER CABLE 5M	5 meter connection cable between inverter and keypad
	SV-iS5/iH RS485	RS485(LS Bus) communication board
iP5A	SV-iP5A LCD KEYPAD	LCD display keypad for iP5A
	SV-iP5A LonWork Extension	LonWorks communication board
	SV-iP5A BACNet	BACnet communication board
	SV-iP5A/I5 RS485/Modbus-RTU	RS485(LS Bus / Modbus RTU) communication board
	SV-iS5/iP5A/I5 DEVICENET	DeviceNet communication board
	SV-iS5/iP5A/I5 PROFIBUS	ProfiBus-DP communication board
	SV-iS5/iP5A SUB BOARD E	PLC card (MK120S Platform)
	SV-iS5/iP5A REMOTE CABLE(2M)	2 meter connection cable between inverter and keypad
	SV-iS5/iP5A REMOTE CABLE(3M)	3 meter connection cable between inverter and keypad
	SV-iS5/iP5A REMOTE CABLE(5M)	5 meter connection cable between inverter and keypad
iV5	SV-iP5A MODBUS TCP*	Modbus TCP communication card
	SV-iV5 EL I/O	I/O interface board for Elevator application
	SV-iV5 ENC_DIV(OC)	Encoder division board (Open collector)
	SV-iV5 SYNC I/O	Synchronization operation board (Speed/Positioning control)
	SV-iS5/iP5A/I5 PROFIBUS	ProfiBus-DP communication board
	SV-iS5/iP5A/I5 DEVICENET	DeviceNet communication board
SV-iV5	SV-iP5A/I5 RS485/Modbus-RTU	RS485(LS Bus / Modbus RTU) communication board
	SV-iV5 Sincos Encoder	Sincos encoder signal input board

* Available soon

Dynamic Braking Unit list

Variable Frequency Drive / Inverter

Model name	Specifications
Dynamic Braking Unit	: Based on 150% torque for 100 seconds
SV150DBU-2	Brake unit for 11 to 15kW, 230V / 10%ED
SV220DBU-2	Brake unit for 18.5 to 22kW, 230V / 10%ED
SV037DBH-2(NEW)	Brake unit for 30 to 37kW, 230V / 10%ED
SV150DBU-4	Brake unit for 11 to 15kW, 400V / 10%ED
SV220DBU-4	Brake unit for 18.5 to 22kW, 400V / 10%ED
SV037DBH-4(NEW)	Brake unit for 30 to 37kW, 400V / 10%ED
SV075DBH-4(NEW)	Brake unit for 45 to 75kW, 400V / 10%ED
SV150DBU-2U	Brake unit for 11 to 15kW, 230V / 10%ED (UL, cUL listed)
SV220DBU-2U	Brake unit for 18.5 to 22kW, 230V / 10%ED (UL, cUL listed)
SV370DBU-2U	Brake unit for 30 to 37kW, 230V / 10%ED (UL, cUL listed)
SV550DBU-2U	Brake unit for 45 to 55kW, 230V / 10%ED (UL, cUL listed)
SV150DBU-4U	Brake unit for 11 to 15kW, 400V / 10%ED (UL, cUL listed)
SV220DBU-4U	Brake unit for 18.5 to 22kW, 400V / 10%ED (UL, cUL listed)
SV370DBU-4U	Brake unit for 30 to 37kW, 400V / 10%ED (UL, cUL listed)
SV550DBU-4U	Brake unit for 45 to 55kW, 400V / 10%ED (UL, cUL listed)
SV750DBU-4U	Brake unit for 75kW, 400V / 10%ED (UL, cUL listed)
SV750DB-4*	Brake unit for 45 to 75kW, 400V / 100%ED (CE marked)
SV2200DB-4*	Brake unit for 160 to 220kW, 400V / 100%ED (CE marked)

* Available soon

External resistor list

Variable Frequency Drive / Inverter

Model name	Specifications
External brake resistors	: Based on 5% ED (Enable duty)
MCRA 120 W 100 OHM J	120 watt, 100 ohm resistor
MCRA 120 W 50 OHM J	120 watt, 50 ohm resistor
MCRA 120 W 40 OHM J	120 watt, 40 ohm resistor
MCRA 200 W 100 OHM J	200 watt, 100 ohm resistor
MCRA 200 W 160 OHM J	200 watt, 160 ohm resistor
MCRA 200 W 200 OHM J	200 watt, 200 ohm resistor
MCRB 300 W 100 OHM J	300 watt, 100 ohm resistor
MCRB 400 W 200 OHM J	400 watt, 200 ohm resistor
MCRB 400 W 160 OHM J	400 watt, 160 ohm resistor
MCRB 400 W 100 OHM J	400 watt, 100 ohm resistor
MCRB 400 W 50 OHM J	400 watt, 50 ohm resistor
MCRB 400 W 40 OHM J	400 watt, 40 ohm resistor
MCRB-ST 0.6 KW 130 OHM J	600 watt, 130 ohm resistor
MCRB-ST 0.6 KW 33 OHM J	600 watt, 33 ohm resistor
MCRM-ST 0.8 KW 20 OHM J	800 watt, 20 ohm resistor
MCRM-ST 1.0 KW 85 OHM J	1 kW, 85 ohm resistor
MCRM-ST 1.2 KW 60 OHM J	1.2 kW, 60 ohm resistor
MCRM-ST 1.2 KW 15 OHM J	1.2 kW, 15 ohm resistor
MCRM-ST 2.0 KW 40 OHM J	2 kW, 40 ohm resistor
MCRM-ST 2.4 KW 30 OHM J	2.4 kW, 30 ohm resistor
MCRM-ST 2.4 KW 10 OHM J	2.4 kW, 10 ohm resistor
MCRM-ST 2.4 KW 8 OHM J	2.4 kW, 8 ohm resistor
MCRM-ST 3.6 KW 20 OHM J	3.6 kW, 30 ohm resistor
MCRM-ST 3.6 KW 5 OHM J	3.6 kW, 5 ohm resistor

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- For your safety, please read user's manual thoroughly before operating.
- Contact the nearest authorized service facility for examination, repair, or adjustment.
- Please contact qualified service technician when you need maintenance.
Do not disassemble or repair by yourself!
- Any maintenance and inspection shall be performed by the personnel having expertise concerned.

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Specifications in this catalog are subject to change without notice due to
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