



SANKEN SAMCO-NS SERIES

Best ratio of price and performance; Economic and Compact Inverter



Standard Specification:

NS Specification(4A003~4A038)



POWER RANGE:

400V 3 Phase 0.75kw~18.5kw

220V Single Phase 0.75KW~2.2KW

ITEM NO.			Descriptions								
Model No. (NS-4A□□□-XX)			003	004	006	009	013	017	024	032	038
Output	Mode B	Standard Applicable Motor[kW]	0.75	1.5	2.2	4	5.5	7.5	11	15	18.5
		Rated Capacity[kVA] ※1	2.2	2.8	3.8	6.2	8.7	11.8	16.6	22.2	26.3
		Rated Current[A] ※2	3.2	4	5.5	9	12.6	17	24	32	38
		Overload Current Rating ※3	120%-1min								
		Output Frequency Range ※4	0.05～240Hz (Startup Frequency 0.05～60Hz Variable)								
	Mode A	Standard Applicable Motor[kW]	0.4	0.75	1.5	2.2	4	5.5	7.5	11	15
		Rated Capacity[kVA] ※1	1.3	2.2	3.3	3.8	6.2	9.4	13.2	17.3	22.2
		Rated Current[A] ※2	2.6	3.2	4.8	5.5	9	13.6	19	25	32
		Overload Current Rating ※3	150%-1min								
		Output Frequency Range ※4	0.05～400Hz (Startup Frequency 0.05～60Hz Variable)								
Rated Output Voltage ※5		3Φ 380V～460V									
Input	Voltage、Frequency		3Φ 380V～460V、50/60Hz								
	Allowed Fluctuation		Voltage: -15%、+10% Frequency: ±5% Voltage Unbalance: within 3%								
	Source Impedance		1% and above (Less than 1%, use reactor option)								
Protection Structure			Encapsulated (IP20)								
Cooling Measure			Force Air Cooling								
Approximate Weight ※6			1kg			3.5kg			5kg		
Carrier Frequency			Sine Wave PWM (Carrier Frequency 1k～8kHz) ※7								
DC Reactor			Option								

- ※1 Rated Capacity is base on output voltage is 400V
- ※2 While the output voltage is above 400V, decrease the rated current in accordance with output frequency
- ※3 Allowed overload 1 min. for every 10 Min.
- ※4 Output frequency range will be decreased under Vector Control Mode (Ref. Normal Spec.)
- ※5 Output Voltage should not be larger than source voltage.
- ※6 Gross Weight included the outside packing
- ※7 Carrer Frequency vary according to the Inverter's capacity and loading status

Common Specification:

NS Inverter Common Spec.

Control Method			Sensorless Vector Control / V/F Control
Drive Performance ※1	Control Range	Without PG Sensor	0.25Hz~240Hz (1: 200/50Hz Reference) ※2
	response/accuracy	Without PG Sensor	Response Characteristic: 100rad/sec Accuracy : ±0.5%
Control Specification	Frequency	Digital Setting	0.01Hz
	Setting resolution	Analog Setting	0.2% (10bit 0~10V, 4~20mA) 、 0.1% (9bit 0~5V) Refer to max. output frequency
	Frequency Accuracy	Digital Setting	Output Frequency±0.01% (Within-10~40℃)
		Analog Setting	Max. Output Frequency ±0.2% (Within25℃±10℃) ※3
	DC Brake		Startup (0.05~20Hz) 、 Action Time (Setting Any Time) 、 Brake Force (1~10 Level)
Operational Specification	Accessory Function		Instantaneous re-start, Speed tracking re-start, Multi-Speed operation, Frequency Avoidance 、 Alarm automatic recovery 、 PID control 、 simple graphic operation 、 energy-saving operation and others functions.
	Drive/Stop Setting		Operation Panel, Serial Communication (RS485, Mod-bus) 、 Control Circuit Terminal
	Frequency	Digital Setting	Operation Panel, Serial Communication (RS485, Mod-bus) 、 Terminal Block Stepping
	Command Setting	Analog Setting	2 Chanel, 0~5V, 0~10V, 4~20mA, Potentiometer (5k Ohm , 0.3W and Above)
	Input Signal	Control Signal	Frequency Command, Forward Command, Reverse Command, Acceleration/Deceleration Time Setting, Idling Stop/Alarm reset, Emergency Stop, Inching Selection, Stepping Frequency Setting, Operation Signal Holding and etc. [Analog Input : Voltage 1 channel, Current-Voltage share 1 channel]
		Digital Setting	5 channels can be set and assigned discretationarily DII Supported 50Khz pulse input
		Analog Setting	Analog Input : Voltage 1 channel, Current-Voltage share 1 channel
	Output Signal	Contact Output	1 channel for various alarm signal and multi-functions contact output (2C contact, AC250V, 0.3A)
		Monitoring Signal	On Operation , Frequency Consistency, Overload Alarm, Undervoltage, Frequency Arriving and etc.
		Digital Output	1 channel for open collector electrode can be set and assigned discretationarily, Max. 50KHz Pulse Input support
		Analog Output	2 channels for Analog Output, 1 channel for 0~10V, and 1 channel for 4~20mA
	LCD Display		Frequency, Output Current, Rotating Speed, load ratio, without unit : (Output Voltage, Power and so on) 、 On Operation, Alarm.
	Communication I/F		RS485; Sanken Protocol; Mod-bus-RTU
	External Power Supply Output		DC24V, 150mA (Control Terminal Block)
	Protection Function		Current Limitation, Overcurrent Cut-off, Motor Overload, External Thermistor, Undervoltage, Overvoltage, Transient Power Outage, Radiator In Overheat, Phase failure
	Alarm Function		Alarm in overvoltage prevention, Current limitation under acceleration/deceleration, Brake Resistance overheat alarm, overloading alarm, Radiator in Overheat alarm
Environment	Ambient Temperature		(-10℃~+50℃ (without frost) ; Heavy Load) 、 (-10℃~+40℃ (without frost) ; Light Load)
	Storage Temperature		(-20℃~+65℃ (short-term storage during transportation))※4
	Relative Humidity		95%RH 以下 (without dew)
	Alitude		2000m and below (decrease the current while the altitude is over 1000m)
	Virbation		5.9m/s ² (0.6G) 以下 (JIS C 60068-2-6 Standard; IEC60068-2-6)
	Gas Medium		Indoor (without corrosive gas, flammable gas, oil mist, dust and etc)

※1 Varied in accordance with environment; condition and applied motor.

※2 Setting as 2nd level Motor, frequency setting range (Max.120Hz)

※3 Max. output frequency is actually the frequency at 5V; 10V; 20mA

※4 Suitable for short-term storage temperature on transportation



SANKEN SAMCO-NS

Higher Reliability

- Strictly choose component
- Special Protective Coating For Baseboard
- Internal Anti-Dust Design
- Independent Cooling Duct

Easily Control

- Standard LCD Operational Panel
- Parameters Shown on Dual LCD Monitor
- Improving traditional Input Method
- Selectable Second Panel
- Easily executing copy of parameters
- Simple and Fast line connection

Best Performance and Cost Ratio

- Drive Synchronous Motor
- Standard Braking Unit

The most suitable for Small Mechanism

- Sanken Feature's built-in Function
- Variable PID Function
- Random PWM Wave
- Continuously DC Braking
- Terminal Stepping Function