

Frequency Inverter SN300

Selection Guide



WARNING

- Risk of electric shock
- Wait 10mins power down before removing cover
- Read the manual and follow the safety instructions before use



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SN300 Frequency Inverter

SN300 Series is a generally purposed frequency inverter. The voltage categories include single phase 220V, three phase 220V, three phase 380V and three phase 460V and it covers full power range. It is mainly applied to open loop vector of Asynchronous Motors(DTC),VF and closed-loop vector control. The frequency inverter SN300E series is derived from SN300, which combines the open-loop vector control and closed-loop vector control of permanent magnet synchronous motors.

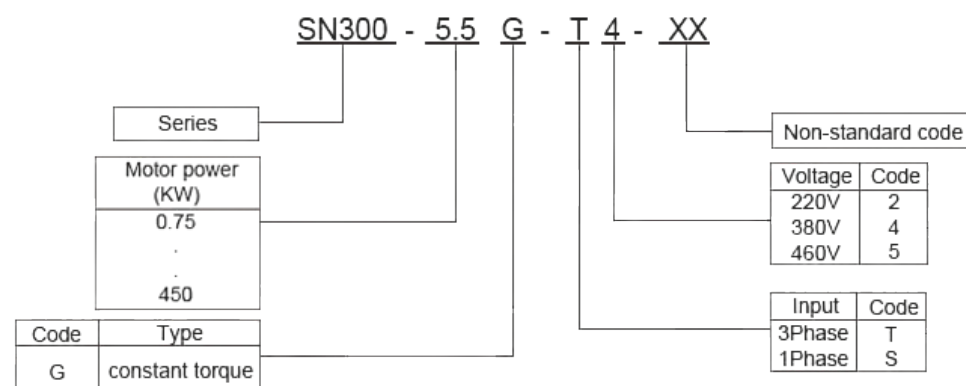


Items		Specifications
Basic Functions	The highest frequency	Vector control:0~300Hz VIF control:0~3200Hz
	Carrier wave frequency	0.5kHz~16kHzThe carrier frequency can be automatically adjusted according to the load characteristics.
	Input frequency resolution	Digital setting:0.01Hz Analog setting: maximum frequencyx0.025%
	Control mode	Open loop vector control(SVC) Closed loop vector control(FVC) V/F control
	Starting torque	0.5Hz/150%(SVC);0Hz/180%(FVC)
	Speed adjusting range	1:100(SVC) 1:1000(FVC)
	Accuracy of speed stability	±0.5%(SVC) ±0.02%(FVC)
	Accuracy of torque control	± 5%(FVC)
	Overload capability	60s at 150%the rated current ;3s at 180%the rated current
	Torque lifting	Automatic torque lifting: Manual torque lifting 0.1%~30.0%
	V/F curve	3 types: straight line, multipoint and N sub square (1.2power, 1.4 power, 1.6 power, 1.8 power and 2 power)
	V/Fseparation	2types: full separation and semi separation
	Acceleration and deceleration curve	straight line or S curve 4 kinds of acceleration and deceleration time:0.0-6500.0s
	DC brak	DC braking frequency:0.00Hz~maximum frequency Braking time:0.0s-36.0s braking action current value:0.0%~100.0%
	Jog brake	Jog frequencyrange:0.00Hz~50.00Hz Jog acceleration and deceleration time:0.0s~6500.0s.
	Simple PLC,multi speed	Up to 16 segments of speed operation through built-in PLC or control terminal
	Built-in PID	A closed loop control system for convenient realization of process control
	Automatic voltage regulation(AVR)	When the voltage of the power grid changes, the output voltage can still keep constant.
	Control of over-voltage, overflow and stall	Automatic current and voltage limit during the operation to prevent tripping off due to frequent overflowing or over-voltage
	Fast current limiting function	Minimize overcurrent failure and protect the normal operation of the device
Torque limit and control	Automatic torque limitation during operation to prevent frequent overcurrent and fault shutdown	
Special features	Outstanding performance	Implementing asynchronous and synchronous motor control with high performance current vector control technology
	Nonstop at transient poweroutage	Compensation for voltage reduction through load feedback energy during transient power outages to maintain the device to continue operating for a short period of time.
	Fast current limit	Avoiding frequent overcurrent faults in frequency converters
	Virtual IO	Five sets of virtual terminals for simple logical control

Product Technique Specifications

Items		Specifications
Special Features	Timing control	Timing control function: Set the time range from 0.0Min to 6500.0Min
	Multi motor switching	Two sets of motor parameters can achieve switching control between two motors
	Bus support	Support for fieldbus : RS-485
	Multi encoding support	Supports encoders such as differential, open collector, UVW, rotary transformer, sine cosine,etc
Operation	Command source	Operation panel setting, control terminal setting, and serial communication port setting, which are switchable by different means.
	Frequency source	10 types of frequency sources : digital setting, analog voltage setting, analog current setting, pulse setting and serial port setting, which are switchable.
	Auxiliary frequency source	10 auxiliary frequency sources. Flexible implementation of auxiliary frequency fine tuning and frequency synthesis.
	Input terminal	Standard: 6 digital input terminals, one of which supports high-speed pulse input up to 100kHz Two analog input terminals, both of which support 0-10V voltage input or 0-20mA current input
Display and Keyboard Operation	Output terminal	Standard: 1 high-speed pulse output terminal (optional open collector type) , Support square wave signal output from 0 to 100kHz 1 digital output terminal and 2 relay output terminals 2 analog output terminals, supporting 0-20mA current output or 0-10V voltage output
	LED display	Display parameter
	Key locking and function selection	Implement partial or complete locking of buttons, define the scope of action of some buttons to prevent misoperation
Using Environment	Protection function	Short circuit detection for powered on motors, input/output phase loss protection, overcurrent protection, overvoltage protection, undervoltage protection, overheating protection, overload protection, etc
	The place of use	Indoor, free from direct sunlight, dust, corrosive gases, flammable gases, oil mist, water vapor, dripping water or salt, etc
	Altitude	< 1000m
	Ambient temperature	-10°C~ + 40°C (if it is 40°C~50°C , please reduce the rating for use)
	Humidity	No condensation of water droplets when it is less than 95%RH.
	Vibration	< 5.9m/s ² (0.6g)
Storage temperature	-120°C~ + 60°C	

Model Name Example:

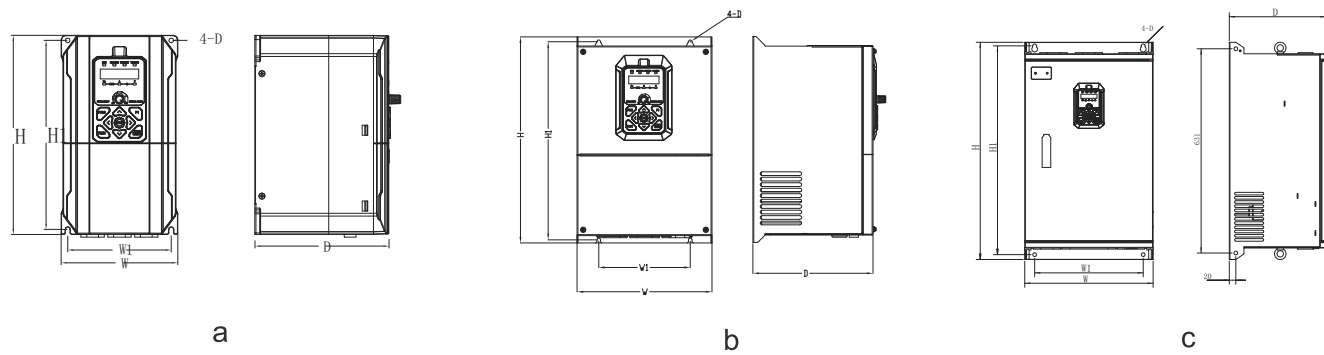


Models of SN300

Model	Rated input current(A)	Rated output current(A)	Adapted motor(kW)
2S: Single phase 220V; 2T: Three phase 220V; 4T: Three phase 380V			
SN300-0.75G-S2	8.3	4	0.75
SN300-1.5G-S2	16	7.5	1.5
SN300-2.2G-S2	20	10	2.2
SN300-4.0G-S2	33	17	4
SN300-5.5G-S2	51	25	5.5
SN300-7.5G-S2	62	32	7.5
SN300-11G-S2	92	45	11
SN300-15G-S2	100	55	15
SN300-0.75G-T2	5	4	0.75
SN300-1.5G-T2	10	7.5	1.5
SN300-2.2G-T2	12	10	2.2
SN300-4.0G-T2	19	17	4
SN300-5.5G-T2	28	25	5.5
SN300-7.5G-T2	35	32	7.5
SN300-11G-T2	48	45	11
SN300-15G-T2	58	55	15
SN300-0.75G-T4	3.4	2.3	0.75
SN300-1.5G-T4	5	3.7	1.5
SN300-2.2G-T4	5.8	5	2.2
SN300-4.0G-T4	10	9	4
SN300-5.5G-T4	15.5	13	5.5
SN300-7.5G-T4	20.5	17	7.5
SN300-11G-T4	26	25	11
SN300-15G-T4	35	32	15
SN300-18.5G-T4	38.5	37	18.5
SN300-22G-T4	46.5	45	22
SN300-30G-T4	62	60	30
SN300-37G-T4	76	75	37
SN300-45G-T4	92	90	45
SN300-55G-T4	113	110	55
SN300-75G-T4	157	152	75
SN300-90G-T4	180	176	90
SN300-110G-T4	214	210	110
SN300-132G-T4	256	253	132
SN300-160G-T4	307	304	160
SN300-200G-T4	385	380	200
SN300-220G-T4	430	426	220
SN300-250G-T4	488	470	250
SN300-280G-T4	525	520	280
SN300-315G-T4	605	590	315
SN300-355G-T4	667	650	355
SN300-400G-T4	745	725	400
SN300-450G-T4	789	820	450

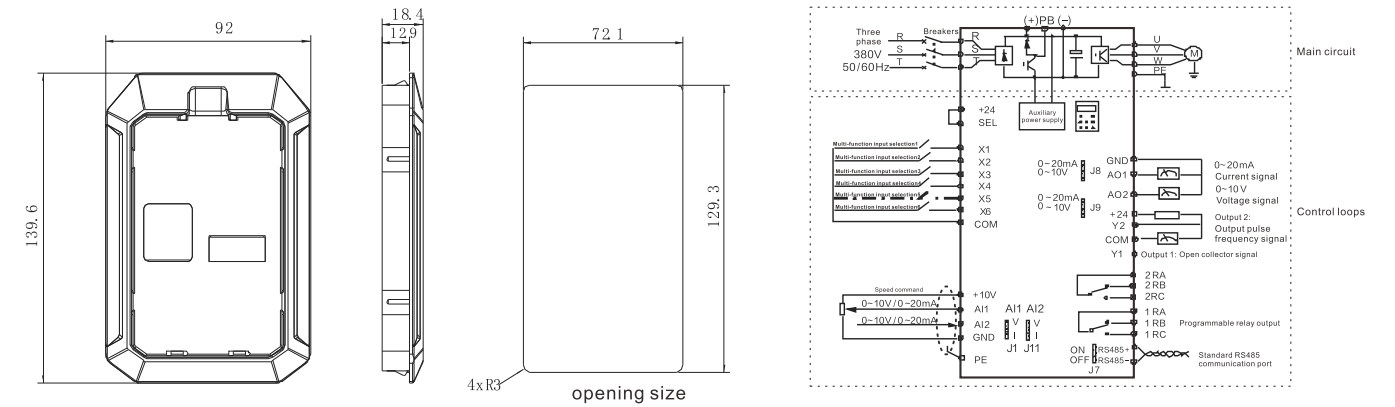
Installation Dimensions

Outline Drawing



VFD Models	D	W1	H1	H	W	Outline Drawing	aperture	Gw (kg)	Installation mode
SN300-0.75G-S2	157	115	171.5	186	126	a	4.5	2.1	Mounted
SN300-1.5G-S2									
SN300-2.2G-S2									
SN300-0.75G-T4									
SN300-1.5G-T4									
SN300-2.2G-T4	172	131	243	256	146	a	5.5	4.5	Mounted
SN300-4.0G-T4									
SN300-5.5G-S2									
SN300-7.5G-S2									
SN300-5.5G-T4									
SN300-7.5G-T4	192	190	304	322	208	b	6.5	8.5	Mounted
SN300-11G-T4									
SN300-15G-T4									
SN300-18.5G-T4									
SN300-22G-T4									
SN300-30G-T4	230	200	418	430	283	b	6.5	18	Mounted
SN300-37G-T4									
SN300-45G-T4									
SN300-55G-T4									
SN300-75G-T4									
SN300-90G-T4	297	334	645	671	395	c	12	65	Mounted
SN300-110G-T4									
SN300-132G-T4									
SN300-160G-T4-S									
SN300-160G-T4									
SN300-200G-T4	350	300	840	870	400	c	12	120	Mounted / Cabinet
SN300-220G-T4									
SN300-250G-T4									
SN300-280G-T4									
SN300-315G-T4									
SN300-355G-T4	375	250	932	966	569	c	12	160	Mounted / Cabinet
SN300-400G-T4				1684					
SN300-450G-T4				1620					
SN300-450G-T4	380	300	1130		720	c	14	240	Mounted

SN300 Diagrams



Unique Feature of SN300 Series

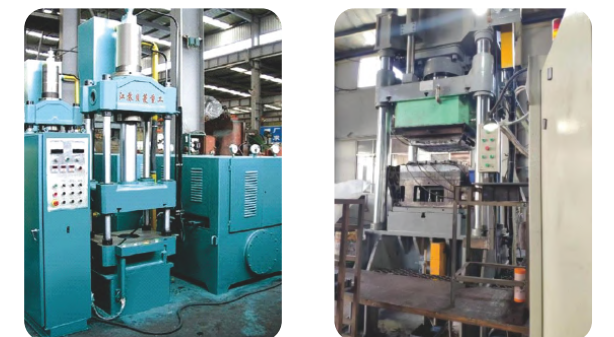
The unique dual keyboard control with two keyboard debugging will not be interfered by each other when one is used for display and the other for operation. The front and rear part of the long cable can be fine tuned as needed and observe the status of the frequency converter.

Application of SN300 series

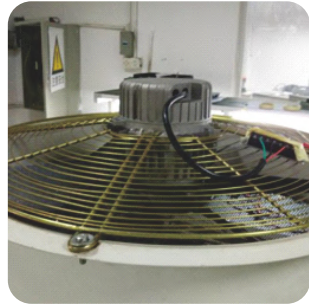
Magnetic Material Pressor (Charging and demagnetizing equipment)

FEATURES

- Can be given any current and acceleration/deceleration current time through the panel or communication;
- Stable output current, fast response speed, no overshoot, and high qualification rate of magnetic materials;
- Low noise and low heat generation
Easy installation and easy debugging;
- Low coil power consumption and high energy-saving rate;
- High reliability, with powerful protection functions: overcurrent overvoltage, overload, over temperature, undervoltage phase loss



Application



EC Ventilator



Tool Magazine
Integrated Machine



Engraving Machine



Brick Machine



Industrial Fan



Water Pump



Stone Frame Saw



Industrial Washing
Machine



CNC



Crusher

Application



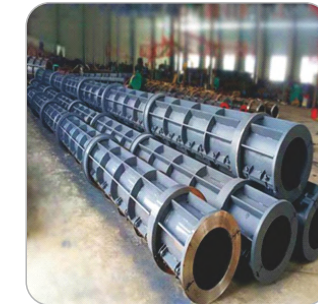
Power Pay-off Rack



Blender



Kowtow Machine



Pipe Pile Centrifuge



Nonwovens



Tension Winder

Cold Chain Freezer Compressor Unit Technical Characteristics

- Support single machine and parallel machine modes:
- Support pressure feedback and exhaust temperature collection, with dual feedback of pressure and temperature, ensuring higher energy efficiency of the system while ensuring the target pressure:
- Dedicated cold chain compressor control logic, including high pressure alarm, low pressure alarm, high temperature alarm, and low temperature alarm to ensure stable operation of the compressor unit system;
- Dedicated valve control logic: pressure relief valve, spray valve, bypass valve:
- Superior motor control algorithm, low control current, stable speed, and low noise.

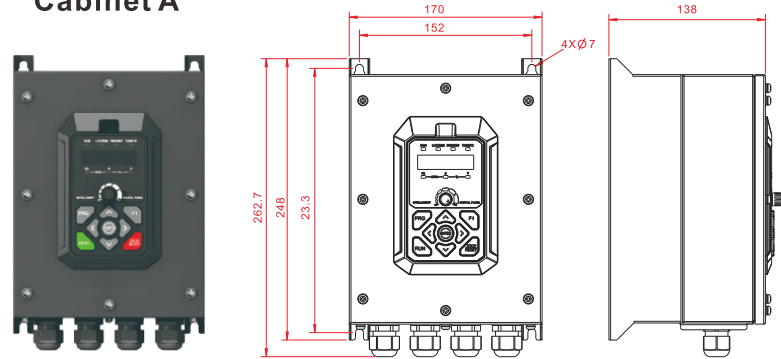


High-protection level VFD SN300-SL

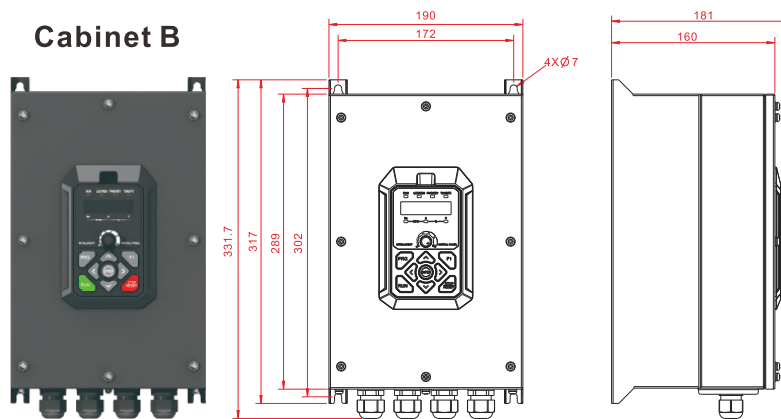
SN300-SL series frequency converter is an IP55 high protection level fully sealed frequency converter, using an IP67 high protection level fan. The entire series uses waterproof PG heads as wire holes, designed for harsh environments, and is resistant to conductive dust, metal shavings, oil stains, etc. Supports asynchronous synchronous motor control, mainly used in high-frequency grinding machines, graphite crucible automatic filling machines, water jet weaving machines, etc.

SN300 E -SL series is applied to the permanent magnet synchronous machines.

Cabinet A



Cabinet B



SN300-0.75G-SL-T2

VFD Models	Rated input current(A)	Rated output Current(A)	Adapted motor(kW)	Cabinet drawing(mm)
2S: Single phase 220V ; 2T : Three phase 220V ; 4T : Three phase 380V				
SN300-0.75G-S2-SL	8.3	4	0.75	A
SN300-1.5G-S2-SL	16	7.5	1.5	
SN300-2.2G-S2-SL	20	10	2.2	
SN300-4.0G-S2-SL	33	17	4	B
SN300-5.5G-S2-SL	51	25	5.5	
SN300-7.5G-S2-SL	62	32	7.5	
SN300-0.75G-T2-SL	5	4	0.75	A
SN300-1.5G-T2-SL	10	7.5	1.5	
SN300-2.2G-T2-SL	12	10	2.2	
SN300-4.0G-T2-SL	19	17	4	B
SN300-5.5G-T2-SL	28	25	5.5	
SN300-7.5G-T2-SL	35	32	7.5	
SN300-0.75G-T4-SL	3.4	2.3	0.75	A
SN300-1.5G-T4-SL	5	3.7	1.5	
SN300-2.2G-T4-SL	5.8	5	2.2	
SN300-4.0G-T4-SL	10	9	4	B
SN300-5.5G-T4-SL	15.5	13	5.5	
SN300-7.5G-T4-SL	20.5	17	7.5	
SN300-11G-T4-SL	26	25	11	B
SN300-15G-T4-SL	35	32	15	

Advantages

Quality assurance of genuine materials

Brands of Main Parts



Customization for Dedicated Machine

- ◆ Customization of specialized industry functions according to industry requirements, customization of functional parameters, simple debugging, and fast maintenance;
- ◆ Complete performance optimization according to industry requirements, shorten processing time, and improve efficiency;
- ◆ The hardware design is highly customized, with full utilization of hardware port resources and compact installation space, greatly reducing costs;
- ◆ Improve product recognition and strong uniqueness.

Our Advantages

- ◆ Rich industry experience and mastery of overall solutions across multiple industries
- ◆ Capable of quickly responding to the needs of the industry's specialized motors and completing high-quality development and design tasks for specialized motors.

