SSInverter
High performance engineering vector

SSI1000

200V(Three-phase Power supply) 0.4 ~5.5KW
200V(Single-phase Power supply) 0.4 ~1.5KW
400V(Three-phase Power supply) 0.75~355KW

POWERFUL PRECISION HIGH PERFORMANCE

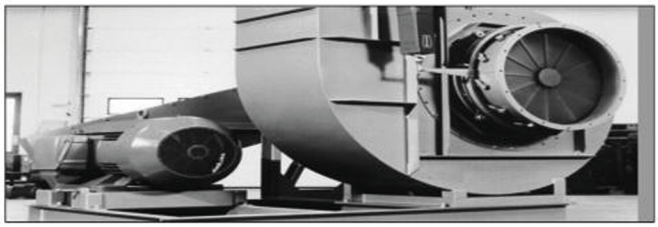
SSInverter A new gneration of the main model SSI1000

Powerful software function

Superior motor drive performance

Abundant hardware configuration

Changes in machanical industry the strongest performance level



BLOWER

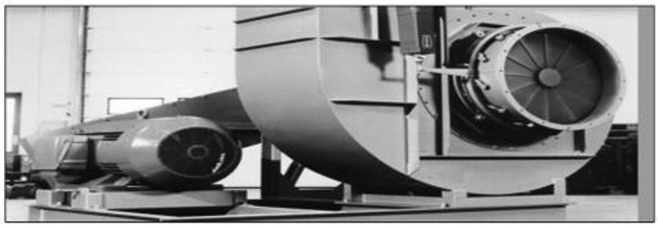
Water pump

Winding

Air-conditioning

Transmission

Machine tool



Fan

Water pump

Winding

Air-conditioning

Transmission

Machine tool

Trait

SSI1000

Advanced drive function

Advantest motor drive technology

All motor control come true

Both drive induction motor or synchronous motor (IPM motor, /SPM motor) can achieve high performance current vector Control.

Induction motor and synchronus motor can be used the same time with inverter

Through setting Parameters,switching of induc tion motor and synchronous motor

The flexible analog input/output

AI1-AI3 can be used as DI;

AO can be corrected or on-site calibration curve and gain,after correction precision can up to 20mV;

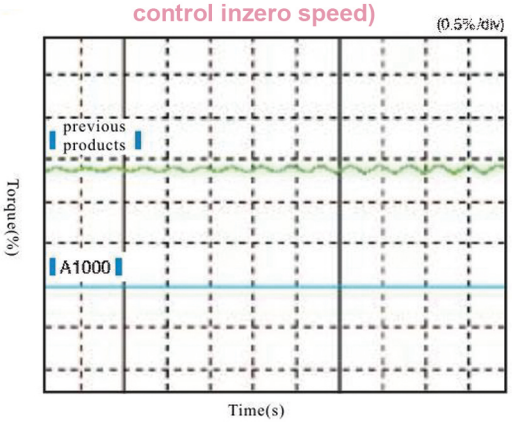
AI1-AI3 can be corrected or on -site calibra tion curve,after the correction precision of 20mA;

Each analog input (AI1~AI3) , respectively for 4 points of the curve,more flaxible when using

STABLE RUNNING

Compared with the previus products,reduced the torque ripple, achieve a more stable operation

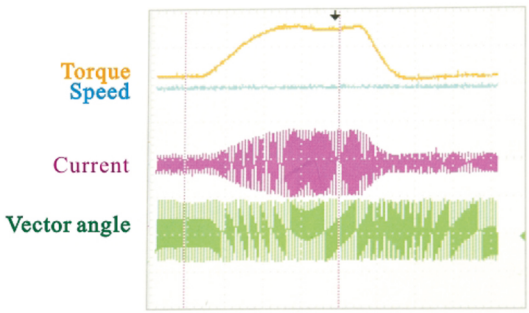
Torque ripple comparison (with PG vector control inzero speed)



Trait

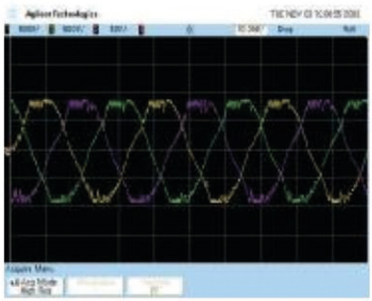
Swift variety

Sensor-less vector control, torque variety<20ms



Rapid current-limiting process

Fast current limiting function can avoid frequency over-current alarm of the inverter. When the current exceeds the current protection, fast current limiting function can limit the current under the protection point fastly ,so as to protect the aquipment safety ,avoid the over-curent alarm caused by sudden added load or disturbance.



The function of simple PLC

The function of simple PLC,can finish simple combination running of multiple section instruction

Trait

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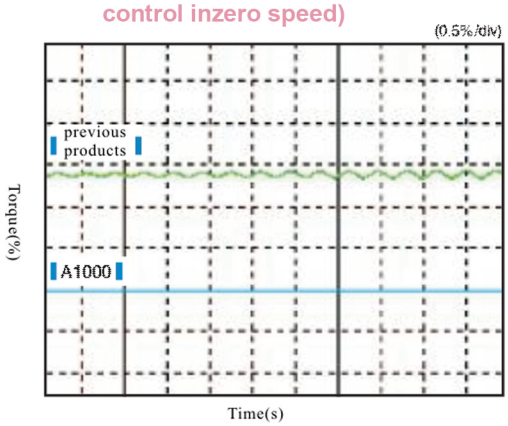
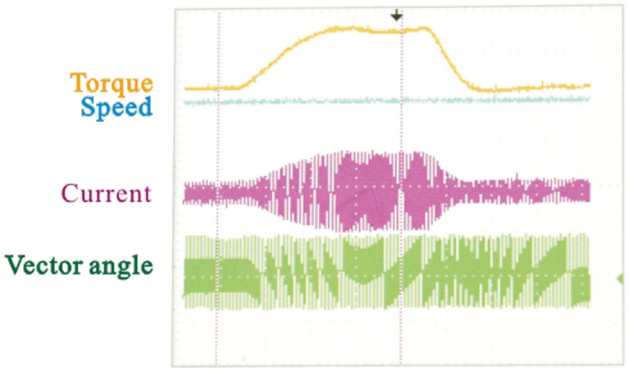


Trait
SSI1000

Swift variety

Non-sense vector control, torque variety<20ms



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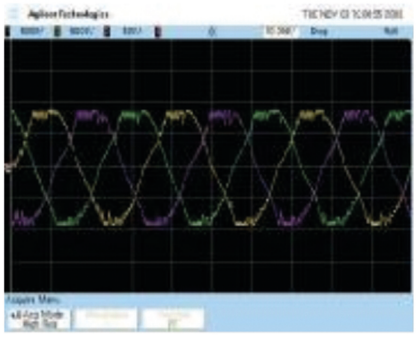

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Trait

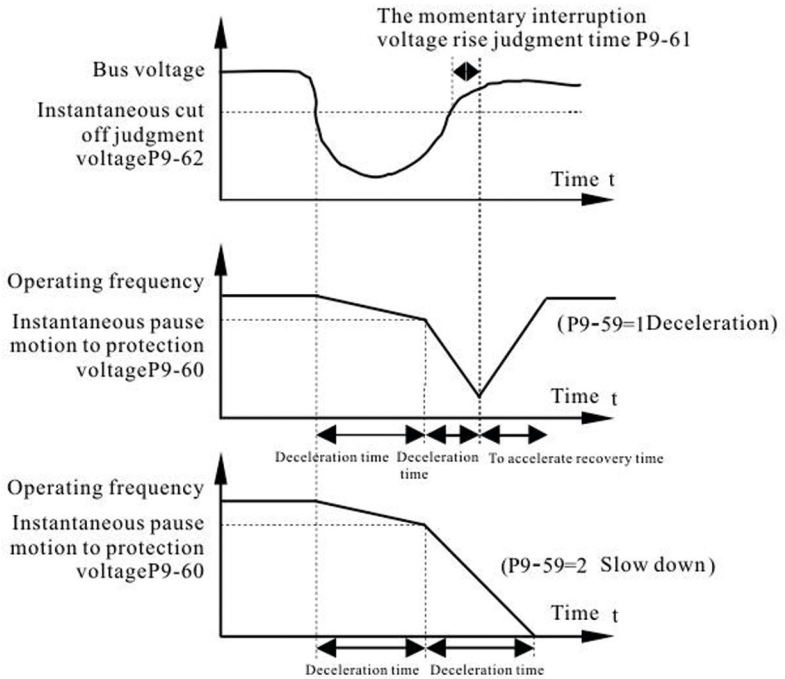
A new generation of the main model

Provide support for Multi-motor vector control

Support for three-phase AC asynchronous motor,three-phase AC vector control of synchronous motor support for permanent magnet synchronous motor vector control without absolute position feedback supports a variety of encoder

Continuous performance under load and power fluctuations, or even under momentary power interruption

With perfect stall prevention function, motor stall can be prevented effectively. without speed sensor can make the motor running state freely and Motor start easily,speed the search function and transient keep running function,can prevent the inverter from transient abnormal trip



The superior torque characteristics

Standard with the current vector control wich is the level of the first.High starting is achieved 150% /0.5Hz,can also limit torque. In order to maximize the capacity of the motor ,is also equipped with a self learning function.

SSInverter

A new genration of the main model

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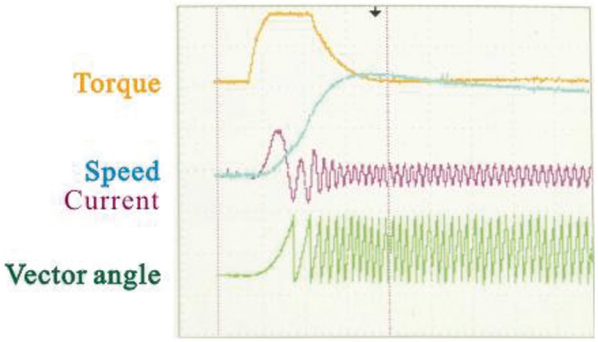
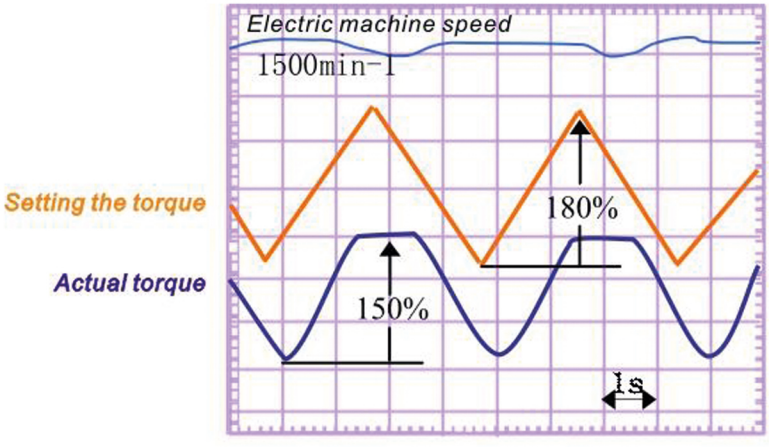


Torque limitatin of protecting machine

Providing torque limitation,when torque command more than than maximum torque machinery can bear, inverter can be more properly premise equipment safety protection torque limit play mechanical maximum efficency within the set of maximum torque.



Provide support for Multi-motor vector control

Support for three-phase AC asynchronous motor
three-phase AC vector control of synchronous motor support for permanent magnet synchronus motor vector control without absolute position feedback supports a variety of encoder

- Resolver encoder
- UVW encoder
- Open collector encoder
- Differential encoder

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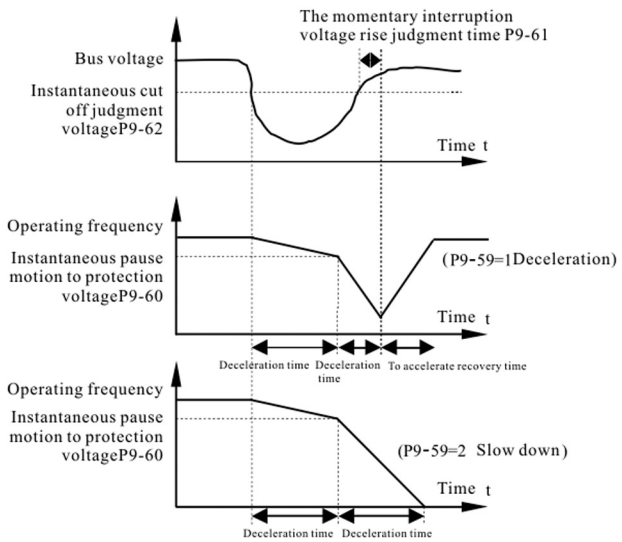

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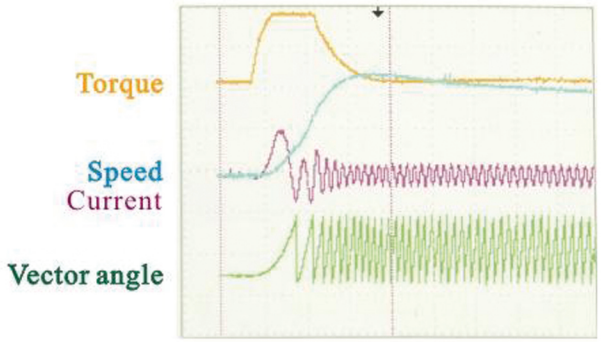

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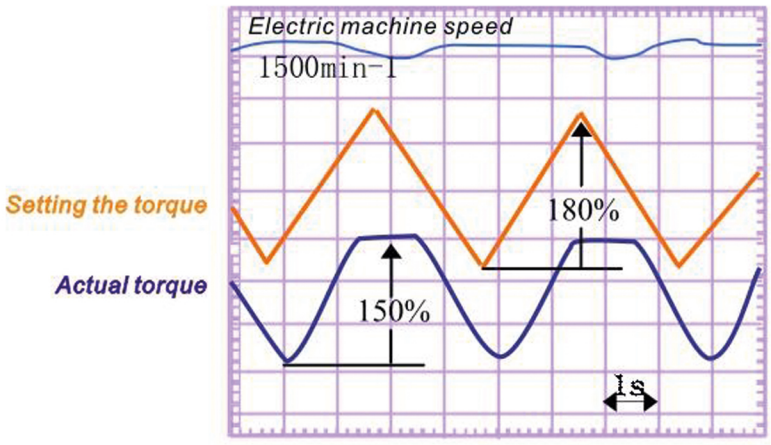

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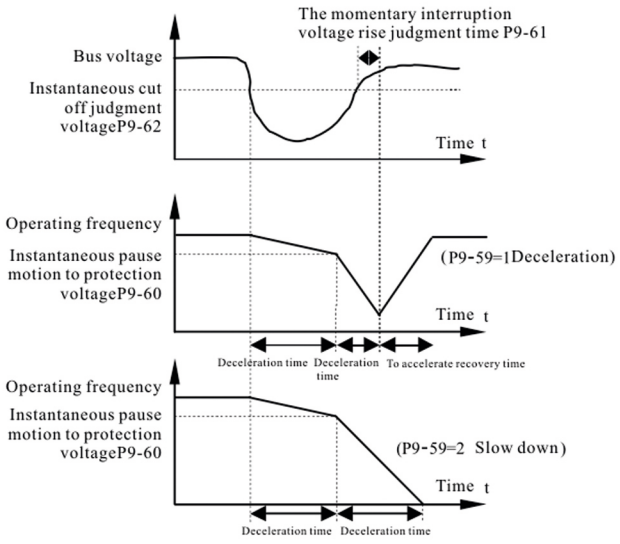


Many communication purchase card

- Standard with RS-485 communication function
- Installation of communication purchanical purchase card,can be used for
- PROFIBUS-DP,CANOPEN.
- Save wiring and space,mechanical disign,installatin,
- maintenance is convenient

Above 55kW standard DC reactor

Improve the power factor of input side
To improve the inverter efficiency and thermal stability
Eliminate theinfluence of higher harmonicsinput side to the the inverterffectively,reduce the external conduction and radiation interference

Environmental disign

- With three-paint treatment process about dust-proof, moisture-proof,anti-mildew
- Design of wide voltage range
- The whole series of independent design

Perfect protection function

High accuracy current detection,can finish protecting function precisly and swiftly,complete overload prote ction(0L/0L1/0L2) ,over voltage/current stall prevent functional,short circuit to graund protection,abnormal rest,momentary outages tracking function,improve the operation continuity.

Enviromental protection performance

Using SPW way, not only can suppress electromagnetic interference,also can reduce noise.

Restore user parameters

When debugging or misoperation resulting parameter confusing, can choose to restore default parameters,can also restore parameters that user conserve before, hard to cause the parameters of chaos

- Restore default parameters
- Restore users parameters

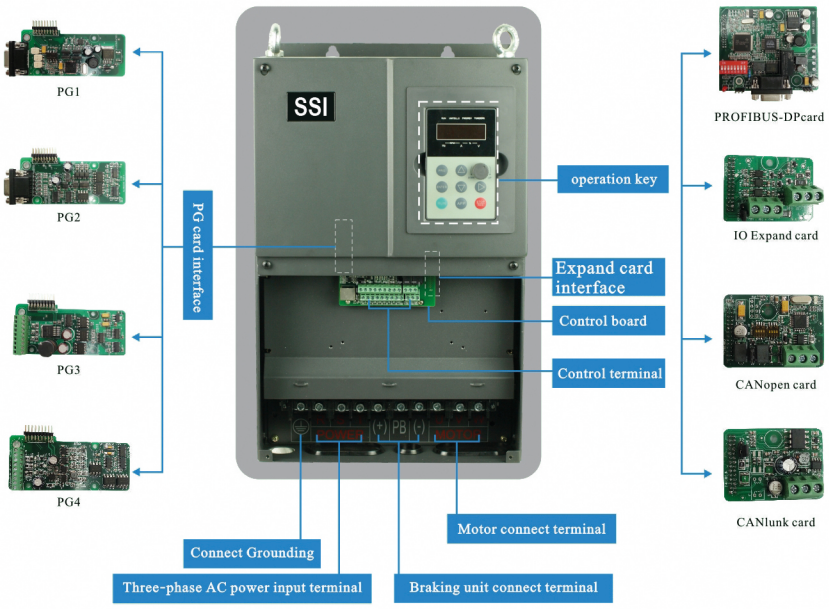
Ultra low noise

Overload frequency 1KHz~16KHz

SSI1000

A new generation of the main model

Rich expand capacity



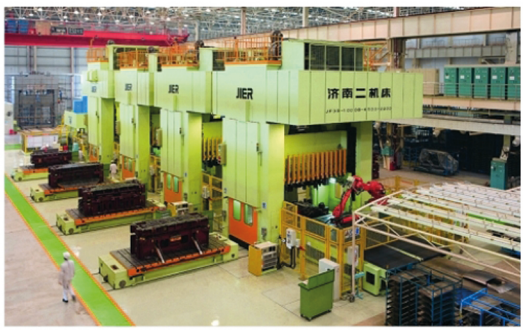
Picture	Type	Description	Picture	Type	Description
	I1000-PG1	Rotary transformer card 1.10KHz,7V Rms excitation output 2.resolution:12bit 3.DB9 interface 4.no frequency dividing outputting		I1000-DP	PROFIBUS-DR Communication card 1.Own CANlink 2.Own PROFIBUS-DP communication function 3.11KW and above power choosing
	I1000-PG2	UVW difference PG card 1.External 5V power supply 2.Support A,B,Z,U,V,W six difference input signal, A, B input 500Hz inputting signal canreach 3.DB15 interface 4.no frequency dividing outputting		I1000-IO	Expanding IO card 1.DI x 3 2.11KW and above power choosing
	I1000-PG3	Difference PG card 1.External 5V power supply 2.Support A,B,Z, three difference input signal A,B input signal can reach 500KHzinputting 3.Encoder connector is terminal		I1000-CANopen	CANopen communication choosing card 1.Support CANopen agreement 2.11KW and above power choosing
	I1000-PG4	Collection of collector PG card 1.External 15V Power supply 2.Support A, B ,Z, three open collector input ,A , B input signal can reach 100KHzinputting 3.frequency dividing outputting frequency 1:1) dividing output collection collector) opening signal		I1000-CANlunk	CANopen communication card 1.Support CANopen agreement 2.11KW and above power choosing

Typical applications

Wire drawing machanics

Machane tool

Stamping machanics



Spinning

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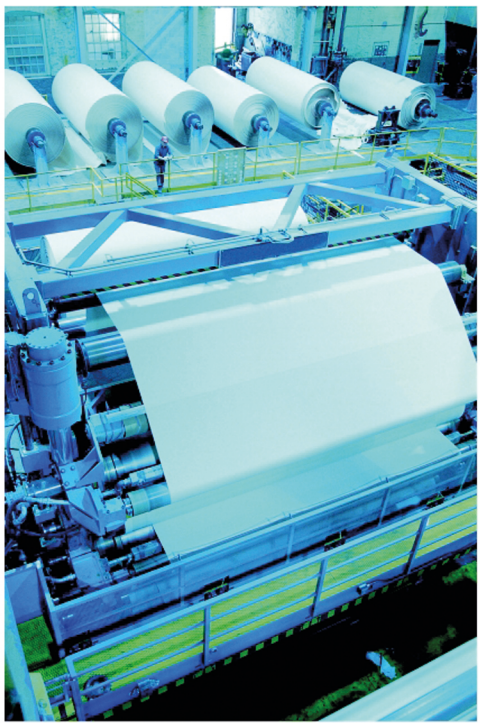
Typical applications

Starter,winch

Screw machanics

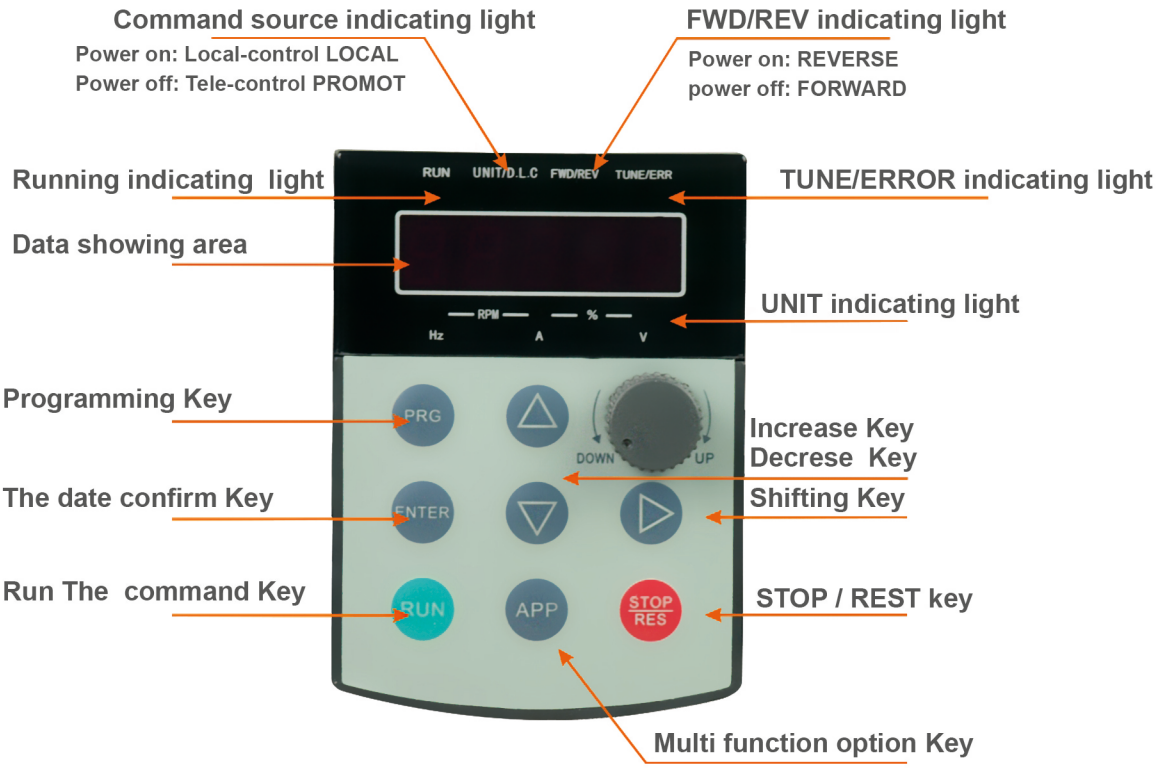
Papermaking machanics



Method of operation

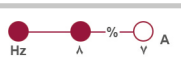
Excellent of operating performance
Fast setting

All parts of name and function



KEY BOARD MENU

LED instructions:

Indicator light	Light instctions
Run	Running status indicating lighter: Power off indicates inverter is at stop; Power on indicates inverter is running;
TUNE/ERR	TUNE/TORQUE CONTROL/ERR indicating lighter Power on indicatestorque control, lighter slow flash indicates TUNE,lighter qick flash indicates ERROR
FWD/REV	Power off indicates FORWARD operation Power on indicates REVERSE operation
UNIT/D.L.C	Power off indicates KEY CONROL Power on indicates TERMINAL CONTROL Lighter flash indicates serial communication operation
Hz	a unit of frequency UNIT:Hz
A	Current indicating Lighter,Unit:A
V	Votage indicating lighter:Unit:V
RPM	Both lighter of Hz and A are on is ROLLING SPEED indicating lighter,UNIT:RPM
%	 Both lighter of A and on is PERCENT UNIT %

SSInverter

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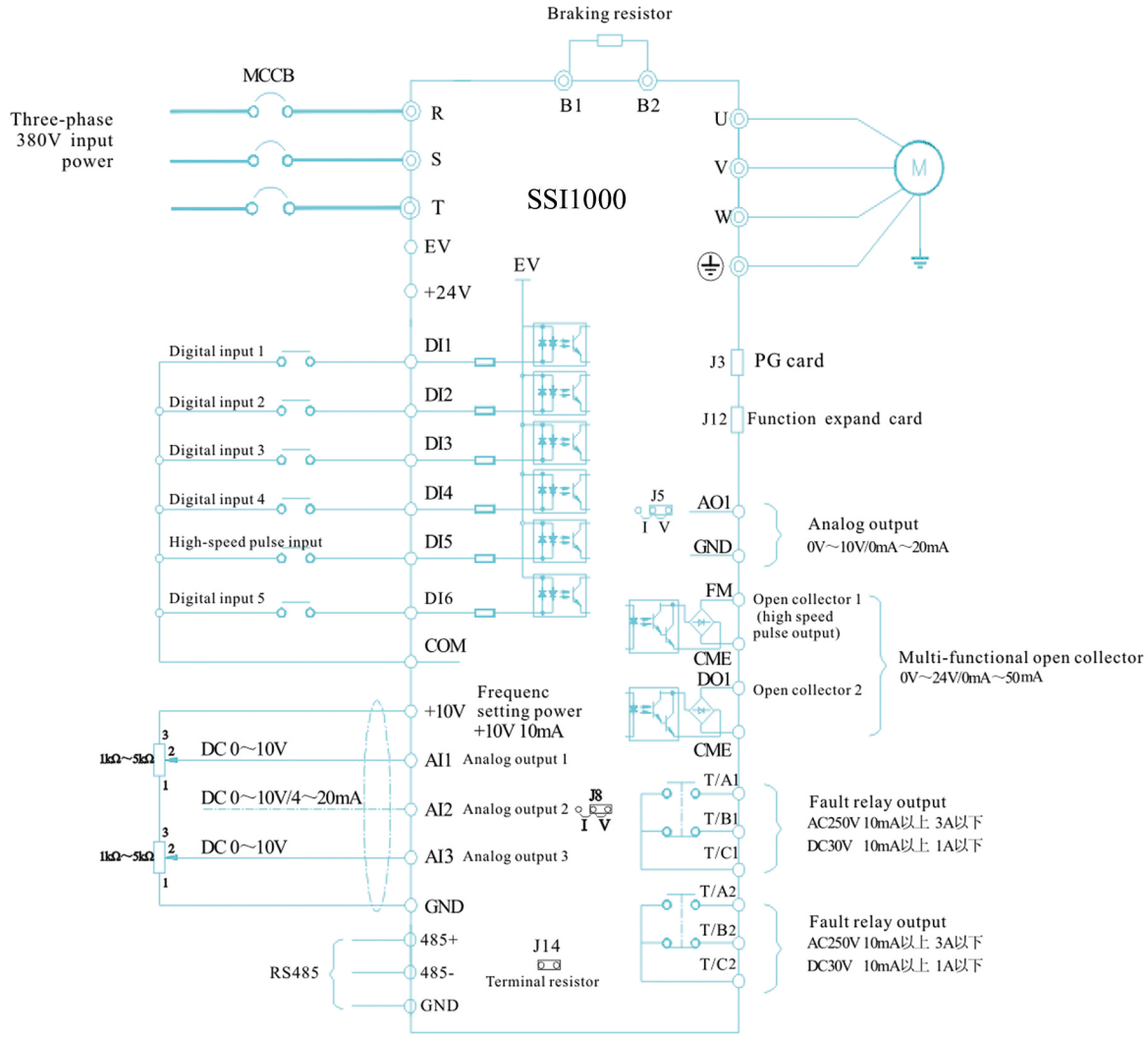
DIAGRAM OF THREE-PASE INVERTER WIRING:



Three-phase inverter wiring schematic

Note:

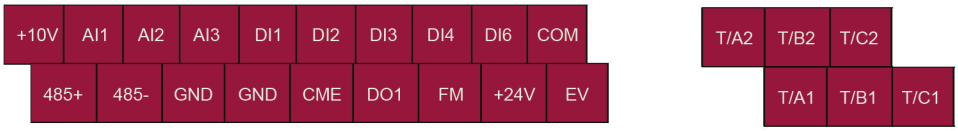
1. Terminal◎means main circuit terminal,○means control circuit terminal
2. Bracking resistor according to the needs of users,detail see the braking resistor selection guide.

Terminal wiring diagram

Main circuit terminal marking instructions

Purpose	Terminal	Type I1000
Main circuit power input	R,S,T	0.4Kw~355Kw
Inverter output	U,V,,W	0.4Kw~355Kw
Braking resistor wiring	B1,B2(PB,+)	0.4Kw~30Kw
DC reactor wiring	P1, ⊕	132Kw~355Kw
Braking wiring	⊕, ⊖	18.5Kw~355Kw
Grounding	⏚	0.4Kw~355Kw

Control terminal marking instuctions



Control terminal marking instructions

Type	Terminal mark	Terminal name	Function instructions
Power	+10V-GND	External power supply +10V	The external power+10V,the maximum output current:10mA,generally used for external potentiometer power,potentiometer resistance range:1KΩ~5KΩ
	+24V+COM	External power supply +24V	The external power+24,Generally using for inputting and outputting terminals working power & External sensor power maximum output power:200mA
	EV	External power input terminal	Default connecting with+24 ,when using external voltage signal drive DI1~DI5, Evneed to connect wit external power, also unpin the connector EV and +24.
Analog input	AI1-GND	Analog input terminals 1	1.Input voltage range:DC0V~10V 2.input impedance;22kΩ
	AI2-GND	Analog input terminals 2	1. Input range:DC0+10v/4Ma~20Ma,control board J8 jumper selection 2. input impedance:input voltage,22KΩ input current500Ω
Digital input	DI1 DI2 DI3 DI4	Digital input 1 Digital input 2 Digital input 3 Digital input 4	1.Optocoupler isolation,Compatible bipolar input 2.Input impedance 2.4KΩ 3.voltage range when inputting electrical level:9V~30V
	DI5	High-speed pulse input terminal	naddition to a DI1~DI4 function ,can also be used as a high-speed pulse input,the maximum input frequency:100KHz
Analog output	AO1-GND	Digital output terminal 1	Selected by the control board J5 jumpers, output voltage range:0V~10V; output current range:0mA~20mA
Digital output	DO1-CME	Digital output 1	Optocupler isolation bipolar open-collector outputs output voltage range:0V~24V output current range:0mA~50mA
	FM-CME	High pulse output	By the restrict of function code P5-00" FM terminal output style choice.as the high speed pulse output,the highest frequency to 50KHz; when used as open-collector output and same to DO1 function
Relay output	T/A1-T/C1	Normally open terminal	Contact driveing ability: AC250V, 3A COS∅=0.4 DC 30V, 1A
	T/B1-T/C1	Normally closed terminal	
	T/A2-T/C2	Normally open terminal	Contact driveing ability: AC250V, 3A COS∅=0.4 DC 30V, 1A
	T/B2-T/C2	Normally closed terminal	

SSInverter

A new generation of the main model

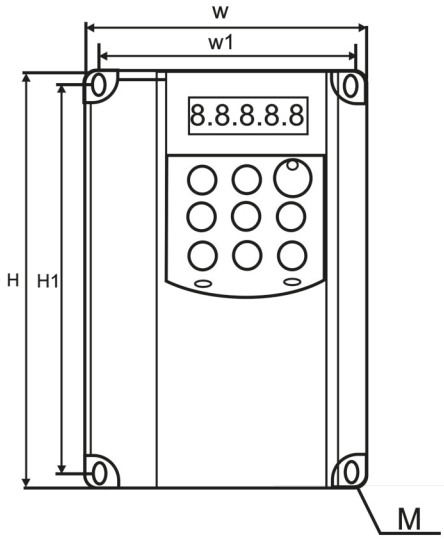
Standard Specification

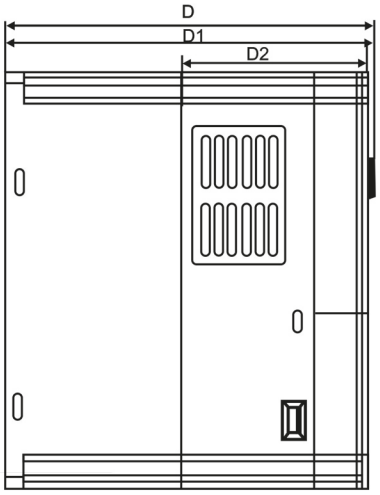
TYPE		SPECIFICATIONS																						
220V		0.5	1	2	3	5	7.5	10	15	20	25	30	40	50	60	75								
	Horsepower capacity (HP)	0.4	0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55								
	Rated power (KW)	1.5	3.0	4.0	5.9	8.9	17	21	30	40	57	69	85	114	134	160								
	Rated capacity (KVA)	2.1	3.8	5.1	9.0	13	25	32	45	60	75	91	112	150	176	210								
380V	Horsepower capacity (HP)		1	2	3	5	7.5	10	15	20	25	30	40	50	60	75	120	150	180	200	170	300	340	380	428
	Rated power (KW)		0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55	90	110	132	160	200	220	250	280	315
	Rated capacity (KVA)		1.5	3.0	4.0	5.9	8.9	11	17	21	24	30	40	57	69	85	134	160	192	250	250	280	355	396	445
	Rated current (A)		2.1	3.8	5.1	9.0	13	17	25	32	37	45	60	75	91	112	176	210	253	377	377	426	510	520	585

Personalized function	The highest frequency	V/F control :0~3200Hz ,vector control:0~320Hz
	Carrier frequency	0.5KHz~16KHz;according to the load characteristics,can be adjusted carrier frequency automatically.
	The input frequency resolution	Digital setting:0.01Hz;simulation setting:the highest frequency*0.025%
	Control mode	Open loop vector control(SVC),V/F control
	Starting torque	0.5Hz/150% (SVC)
	Speed range	1:100 (SVC)
	The steady speed precision	+/-0.5%(SVC)
	Overload capacity	150%rated current 60s;180% rated current 3s;
	Torque boost	Automatic torque boost:manual torque boost0.1%~30.0%
	V/F curve	In three ways:straight,multi-point type ,square type,
	Acceleration and deceleration curve	lincear or S cure acceleration and deceration mode: four Kinds of acceleration and deceleration time; acceleration and deceleration time range 0.0~6500.0s
	DC brake	DC braking frequency:0.00Hz~the maximum frequency;the braking time :0.0s~36.0s, braking action current value:0.0%~100..0%
	Motor-driven control	Dynamic frequency range:0.00Hz~50.00Hz;motor-driven acceleration and deceleration time:0.0s~6500.0s
	Simple PLC,multi-speed operation	Through the built-in PLC or control terminal to achieve 16 speed at most
	Built-in PID	Can be convenient to realize closed-loop control of process control system)
	Automatic voltage regulator(AVR)	When the power voltage changes,automatically keep the output voltage constant
	Overvoltage and overcurrent stall control	Current and voltage automatically limit during the operation,prevent frequent over-voltage and over-current trip
	Fast current Limiting function	Maximum limit reduce overcurrent faults,protect the inverter operation
	Torque limit and control	``excavator``characteristic,the automatic torque limit during the operation,pravent freqency over-current trip
	Power on peripheral equip ment safety self-inspection	can be realized on the peripheral devices safety inspection,such as grounding,short
	Common DC bus function	can realized multiple inverters of common DC bus function
	Textile swing frequency control	multiple delta frequency control
	Timing control	timing control function:set the time range 0h~65535h
Run	Run the command channel	three channels:Operation panel given,control terminal given,seial communication port terminals are given. Through a variety of mode switching
	The frequency of the source	total of 10 Kinds of frequency source:given digital,analog voltage given,analog current given,pulse given, serial port given.through a variety of mode switching)
	Auxiliary frequency source	10kind of auxiliary frequency source.Flexible to realize the frequency tuning,frequency synthesis
	The input terminal	five digital input,one may make the high speed pulse input,up to a maximum of 100KHz; two analog input terminals,one can only be used as voltage input,another can be used as a voltage or current input
	The output terminal	a high-speed pulse output terminal (optional for open collector type), 0KHz~100KHz square wave signal output, can realiz output frequency setting,the output freqency and other physical quantity; an analog output terminals,respectively; the optional 0.4mA~20m Ahuo 0/2V~10V,the output can be set frequency, the output freqency and other physical quantity,
Environment	The use of occasions	indoor,not direct sunlight,no dust , corrosive gas,flammable gas,oil mist,water vapor,water or salt etc.
	Altitude	below 1000m
	The environment temperature	-10C~+40C(The environment temperature At 40C~50C ambient tempera,amunt to use)
	Humidity	below 95%RH,no beads of condensation
	Vibration	below 5.9m/s2(0.6g)
	Storage temperature	-20℃~+60℃

Installation size

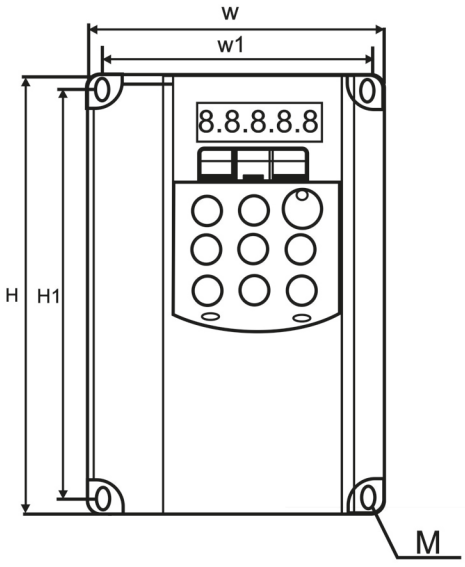
0.4Kw~3Kw Machine size(mm)

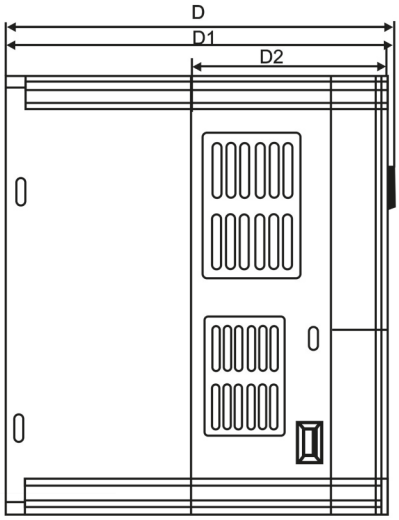




Specification type		votage	H	H1	W	W1	D	D1	D2	M
SSI1000-0R4	SSI1000-0R7	AC220V	185	173.5	125	115	163.5	160.5	81.5	M4
SSI1000-0R5										
SSI1000-0R7	SSI1000-1R5	AC440V								
SSI1000-2R2	SSI1000-3R7									

5.5Kw~7.56Kw 机型尺寸(mm)





Specification type		votage	H	H1	W	W1	D	D1	D2	M
SSI1000-2R2	SSI1000-3R7	AC220V	245	231	150	136	179	176	83	M5
SSI1000-5R5										
SSI1000-5R5	SSI1000-7R5	AC440V								

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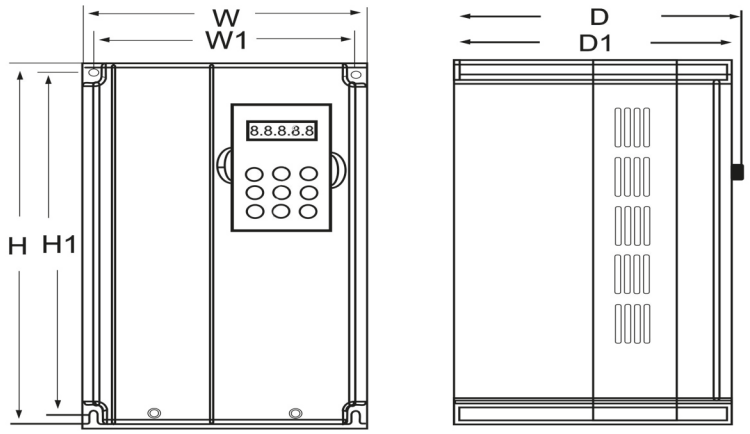
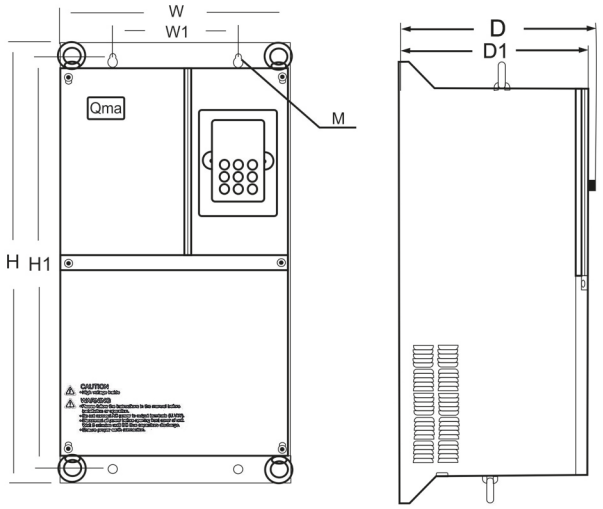
11Kw~15Kw Machine saize(mm)

Size 2:



Specific type	votage	H	H1	W	W1	D	D1	D2	M
SSI1000-7R5 SSI1000-011 SSI1000-015	AC220V	245	231	150	136	179	176	83	M5
	AC440V								

18.5Kw~132Kw Machine size (mm)

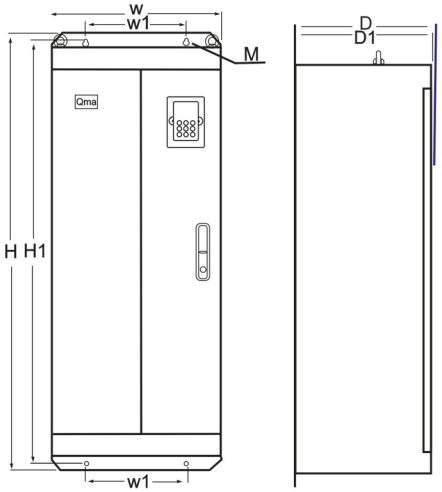


Specific type	votage	H	H1	W	W1	D	D1	M
SSI1000-018 SSI1000-022 SSI1000-030	AC440V	463	447	285	225	232	223	M8
SSI1000-037 SSI1000-045 SSI1000-055		692	689	329.5	179.5	276.5	205.5	M8
SSI1000-075		727	687	375	225	307	297	M8
SSI1000-090 SSI1000-110 SSI1000-132		782	742	460	310	340	330	M8

SSInverter

Installation size

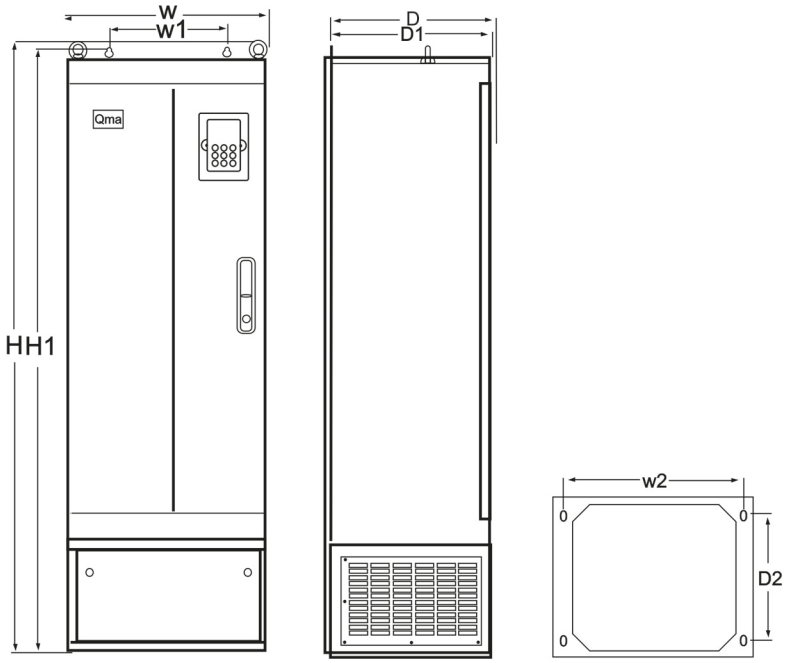
160Kw~185Kw Machine size (Wall hanging type) (mm)



Remark:DC reactor external wall hanging installion

Specific type	votage	H	H1	W	W1	D	D1	D2	M
SSI1000-160 SSI1000-185	AC440V	1278	1251	1235.5	490	270	330	390	M12

160Kw~185Kw Machine size (Cabinet) (mm)



Specific type	votage	H	H1	W	W1	D	D1	D2	M
SSI1000-160 SSI1000-185	AC440V	1490	1463	490	270	440	390	310	M10

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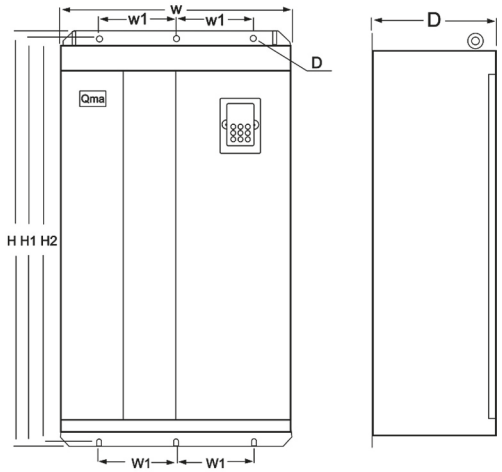
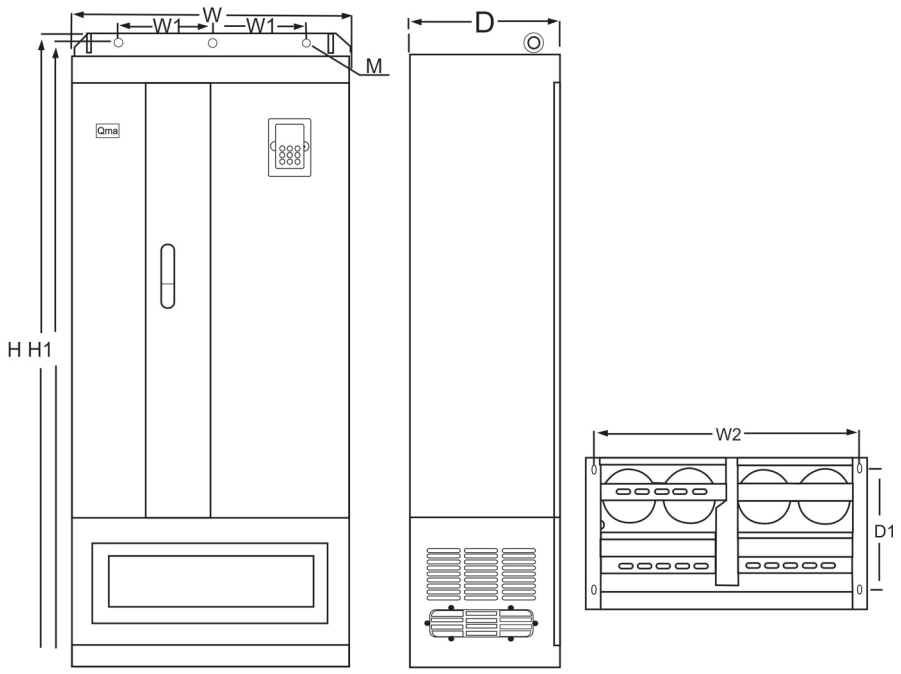
160Kw~185Kw Machine size (Wall hanging type) (mm)



Remark:DC reactor external

Specific type	votage	H	H1	W	W1	D	D1	D2	M
SSI1000-200 SSI1000-220 SSI1000-250 SSI1000-280 SSI1000-315 SSI1000-355	AC440V	1338.5	1317	1303.5	750	270	250	403	M12

160Kw~185Kw Machine size (Cabinet) (mm)



Specific type	votage	H	H1	W	W1	D	D1	D2	M
SSI1000-200 SSI1000-220 SSI1000-250 SSI1000-280 SSI1000-315 SSI1000-355	AC440V	1680	1665.5	750	250	710	403	322	M12

Product assurance

Warranty

Solemn promise:

Starting from the date of the users to purchase the products of our compony (vendor), Customer can enjoy the following after sale service:

1. Starting from the date of the users to purchase the products of our company, customer can enjoy one year of free equipment warranty(except exports sold abroad and nonstandad product)
2. Starting from the date of the users to purchase the products of our company, if any quality problems in one months, we promise returned or replacement,repair Kits
3. Starting from the date of the users to purchase the products of our company, if any quality problems in three months,we promise replacement,repair Kits
4. Starting from the date of the users to purchase the products of our company,custumer can enjoy a pay-needed maintenance service for life
5. Escape clause:product failures due to the following causes are of range of free equipment warranty (one year):
   1) The breakdown caused by the manipulation that has not follow the request of product manual
   2) Failures caused by repair the product and modify the product without authorization
   3) Failures caused by using beyond the stand range
   4) Failures cause by bad environment conditions
   5) Failures caused by earthquake,fire hazard,lightning stroke,other natural disasters.
   6) Failures damaged in the course of transportation(transportation selection by the customer,our company can provide the service of transportation)

6. In the following situations,our company have the right to provide support services:
   1) The trademark demaged or cannot be recognized
   2) Failed to meet the payment requirement
   3) Failures caused by repair the product and modify the product without authorization

Beyond the Line of Duty

Because of the fault of the company`s products, bring your company or the customer of your company the opporatunity loss,
and the damage cause by your company `s products, whether in the guarantee period, are not belong to scope of the guarantee.

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