HARS

Andy Sun

International Sales Department Manager

Phone: 86+15861598173 (WhatsApp/Wechat/Telegram ID)

Office Tel: 86+051068220580

Email: sales@vfdspread.com

Website: www.hars-vfd.com

TikTok: @bestvfd

HARS



COMPANY PROFILE

Wuxi Haishang Electric Co., Ltd was established in 2008 and is located at 18 Xiaoguo Avenue, Economic Development Zone, XiaoXian City, Anhui Province. It is a high-tech enterprise specialized in research, development, production, sales, and technical services of industrial inverters and hybrid inverter. The company currently has over 200 employees, including 2 Ph.D. holders and more than 10 master's degree holders. Over 50% of the workforce consists of professionals with expertise in variable frequency technology, contributing to its robust product research and development capabilities and technical support.

As a government-supported high-tech enterprise, we has obtained ISO9001:2015 quality management system certification and EU CE certification. It has been honored with awards such as the National Innovation Fund, High-tech Research Subsidy, Product Innovation Award, and Most Valuable Investment Award. With continuous research and development efforts, our products have evolved into three major series and over ten specialized models, earning five invention patents and more than thirty utility model patents. These products can meet the demands of various machinery applications, system integration, and industry-specific needs in sectors such as cement, papermaking, machine tools, textiles, metallurgy, lifting, oil fields, plastics, chemicals, and municipal services. They have been widely adopted in these industries.

We’re dedicated to the development of the frequency conversion drive field, with the goal of 'winning customer appreciation.' Upholding the belief of 'delivering value through service, and excellence through quality,' the company strives to create value for customers, opportunities for employees, and shoulder responsibility towards society, achieving harmonious and mutually beneficial growth for the company, society, employees, and customers. The core values of the company are pragmatic innovation, pursuing excellence, upholding integrity and virtue, and promoting the advancement of science and technology for the prosperity of the nation. These values inspire our staff to move forward with courage and continuously reach new heights.

HONOR & CERTIFICATES

Delivering value through service,

forging excellence through quality.

Becoming a leader in China's inverter industry































HARS

PRODUCTION CAPACITY

Our production base covers an area of over 30,000 square meters and is equipped with seven assembly lines for frequency inverters, three production lines for circuit boards and testing, three automated packaging lines, and three fully automated three-proof coating lines. Additionally, the base is equipped with automated devices such as automatic screw machines, automatic welding machines, and automatic unboxing machines. The SD320 assembly line, in particular, can produce one frequency inverter every 26 seconds, with a daily output of up to 3000 units. The advanced equipment ensures both the quality and productivity of our products.



Automatic Three-proof Coating Line



Palletizing Robot



Automatic Screw Machine



Plate Making and Semi-Finished Products Workshop



Assembly Production Workshop



Testing and packaging workshop



Constant Temperature and Humidity Warehouse



Circuit Board Storage



Finished Goods Warehouse

HS320/321 Series

Catalogue

HS320/321 Series Exquisite Open-Loop Single Transistor Vector Inverter						
The HS320/321 series inverter is a general-purpose inverter developed for various fields, including traditional agriculture, industry, and manufacturing. It is widely applicable in industries such as fans, pumps, printing and packaging, power materials, metallurgy, chemicals, and municipal fire protection. This series of inverters features outstanding performance, rich functionalities, compact structure, simple operation, safety and reliability, and excellent adaptability to different environments.						
Product Features	1.It equipped with open-loop vector drive function, capable of handling applications requiring low speed and high torque.					
	2.It features a completely sealed cooling air duct, providing strong environment resistance and excellent heat dissipation performance.					
	3.It includes V/F control It provides high torque output and strong ability for loaded start-up.					
	4.It's very User-friendly and suitable for multi-scenario applications (such as intelligent small water pumps, engraving machines, etc.);					
	5.It has comprehensive protection functions, including output phase loss protection, overcurrent protection, overvoltage protection, overload protection, and over-temperature protection.					
Type	Product Power	Input Voltage /Frequency	Output Voltage /Frequency	Output Current (A)	Product Dimensions (mm)	Installation Dimensions (mm)
0.75S1-220V	0.75KW	single phase 200V-240V 50Hz/60Hz	3 phases 0-240V 0-400Hz	3.80	170*79*127	160*60.5 M5
1.5S1-220V	1.5KW			7.00		
2.2S1-220V	2.2KW			9.00	187*86*144	173*68 M4
3.0S1-220V	3.0KW			13.00	216*101*151	204*83.5 M4
4.0S1-220V	4.0KW			15.00	237*111*168	216*88 M5
5.5S1-220V	5.5KW			20.00		
0.75S3-220V	0.75KW	3 phases 200V-240V 50Hz/60Hz	3 phases 0-240V 0-400Hz	3.80	170*79*127	160*60.5 M5
1.5S3-220V	1.5KW			7.00		
2.2S3-220V	2.2KW			9.00	187*86*144	173*68 M4
3.0S3-220V	3.0KW			13.00	216*101*151	204*83.5 M4
4.0S3-220V	4.0KW			15.00	237*111*168	216*88 M5
5.5S3-220V	5.5KW			20.00		
0.75G3-380V	0.75KW	3 phases 340V-440V 50Hz/60Hz	3 phases 0-440V 0-400Hz	2.10	170*79*127	160*60.5 M5
1.5G3-380V	1.5KW			3.80		
2.2G3-380V	2.2KW			5.10	187*86*144	173*68 M4
3.0G3-380V	3.0KW			7.10	216*101*151	204*83.5 M4
4.0G3-380V	4.0KW			9.00	237*111*168	204*83.5 M4
5.5G3-380V	5.5KW			12.60		
7.5G3-380V	7.5KW			16.10	237*111*168	216*88 M5
11.0G3-380V	11.0KW			25.00	249*143*172	237*130 M5
15.0G3-380V	15.0KW			32.00	324*209*192	188*305 M6
18.5G3-380V	18.5KW			37.00	324*209*192	188*305 M6
22.0G3-380V	22.0KW			45.00	324*209*192	188*305 M6









HS520/521 Series

Catalogue

HS520 Series Exquisite Open-Loop Single Transistor Vector Inverter		
The HS520 series inverter is a general-purpose inverter developed for various fields, including traditional agriculture, industry, and manufacturing. It is widely applicable in industries such as fans, pumps, printing and packaging, power materials, metallurgy, chemicals, and municipal fire protection. This series of inverters features outstanding performance, rich functionalities, compact structure, simple operation, safety and reliability, and excellent adaptability to different environments.		
Product Features	1.It equipped with open-loop vector drive function, capable of handling applications requiring low speed and high torque.	
	2.It features a completely sealed cooling air duct, providing strong environment resistance and excellent heat dissipation performance.	
	3.It includes V/F control It provides high torque output and strong ability for loaded start-up.	
	4.It's very User-friendly and suitable for multi-scenario applications (such as intelligent small water pumps, engraving machines, etc.);	
	5.It has comprehensive protection functions, including output phase loss protection, overcurrent protection, overvoltage protection, overload protection, and over-temperature protection.	
HS520 Functional Parameters		Description
Basic Functions	Frequency	0.00Hz-400.00Hz
	Carrier Frequency	2.0-16.0KHz
	Frequency Setting Resolution	Analog setting: 0.1% of the highest frequency, Digital setting: 0.01Hz
	Control Modes	V/F control, Open-loop vectro control
	Speed Stability	±0.5%
	Overload Capacity	G-type machine: With reverse-time-limit overload protection, 115% for 6 minutes, 150% for 1 minute
	V/F Curves	Three modes: Linear, Quadratic, 1.5th power, 1.2nd power, User-defined V/F curve, V/F Separation
	Acceleration Curve	Linear mode
	DC Braking	DC brake start frequency: 0.00% - upper limit frequency, Brake time: 0.0-60.0s; Brake current: 0.0-100% of motor's rated current.
	Jog Control	Jog frequency range: 0.0Hz - maximum frequency, Jog acceleration/deceleration time: 0.1-999.9s
	Simple PLC and Multi-segment Speed Running	Up to 7 segments of speed running
	Build-in PID	Capable of implementing closed-loop control system for process control
	Motor Parameter Identification	Static identification
	Overvoltage, Overcurrent, Stalling, and Over-Excitation Control	Automatically limits current and voltage during operation, preventing frequent overcurrent, overvoltage, and trips
	Torque Boost and Slip Compensation	Torque boost can be selected as automatic or manual, Slip compensation enhances low-speed loaded capacity and compensates for slip speed
	Communication Function	Not available; HS521 has RS485 communication
	Braking Function	Not available; HS521 has braking function
Customizable Functions	Oscillation Suppression	Enables oscillation suppression to eliminate oscillations and prevent overcurrent in the inverter
	PID Control	Built-in PID controller for process control
	Swing Frequency Function	Outputs frequency, oscillating up and down around the set frequency, suitable for industries like textiles and chemical fibers
	Operating Functions	Upper and lower frequency setting, frequency hopping operation, reverse operation limitation, frequency increment and decrement control, fault auto-recovery operation, and
	Constant Pressure Water Supply Function	Maintains constant water pressure and automatically sleeps and wakes up based on pressure
HS521 Series: In addition to the features of HS520, the HS521 series offers the following optional functions: braking, RS485 Modbus communication, and temperature protection.		

HS520/521 Series

Catalogue

HS520/521 Series	Product Power	Input Voltage /Frequency	Output Voltage /Frequency	Output Current (A)	Product Dimensions (mm)	Installation Dimensions (mm)
0.75S1-220V	0.75KW	single phase 200V-240V 50Hz/60Hz	3 phases 0-240V 0-400Hz	3.80	170*79*127	160*60.5 M5
1.5S1-220V	1.5KW			7.00		
2.2S1-220V	2.2KW			9.00	187*86*144	173*68 M4
3.0S1-220V	3.0KW			13.00	216*101*151	204*83.5 M4
4.0S1-220V	4.0KW			15.00	237*111*168	216*88 M5
5.5S1-220V	5.5KW			20.00		
0.75S3-220V	0.75KW	3 phases 200V-240V 50Hz/60Hz	3 phases 0-240V 0-400Hz	3.80	170*79*127	160*60.5 M5
1.5S3-220V	1.5KW			7.00		
2.2S3-220V	2.2KW			9.00	187*86*144	173*68 M4
3.0S3-220V	3.0KW			13.00	216*101*151	204*83.5 M4
4.0S3-220V	4.0KW			15.00	237*111*168	216*88 M5
5.5S3-220V	5.5KW			20.00		
0.75G3-380V	0.75KW	3 phases 340V-440V 50Hz/60Hz	3 phases 0-440V 0-400Hz	2.10	170*79*127	160*60.5 M5
1.5G3-380V	1.5KW			3.80		
2.2G3-380V	2.2KW			5.10	187*86*144	173*68 M4
3.0G3-380V	3.0KW			7.10	216*101*151	204*83.5 M4
4.0G3-380V	4.0KW			9.00	237*111*168	204*83.5 M4
5.5G3-380V	5.5KW			12.60		
7.5G3-380V	7.5KW			16.10	237*111*168	216*88 M5
11.0G3-380V	11.0KW			25.00	249*143*172	237*130 M5
15.0G3-380V	15.0KW			32.00	324*209*192	188*305 M6
18.5G3-380V	18.5KW			37.00	324*209*192	188*305 M6
22.0G3-380V	22.0KW			45.00	324*209*192	188*305 M6









HS720/720H Series

Catalogue

HS720/720H Series General High-Performance Vector Inverter		
The HS720/720H series inverter is a general-purpose vector inverter developed for various fields, including traditional agriculture, industry, and manufacturing. It is widely applicable in industries such as fans, pumps, printing and packaging, power materials, metallurgy, chemicals, and municipal fire protection. This series of inverters features outstanding performance, rich functionalities, compact structure, simple operation, safety and reliability, and excellent adaptability to different environments.		
Product features	1.It features a completely sealed cooling air duct, providing strong environment resistance and excellent heat dissipation performance.	
	2.It is equipped with functions such as braking, RS485 communication, and temperature protection.	
	3.It features current vector control algorithm, enabling high starting torque and stable low torque output.	
	4.It incorporates a wide range of industry-specific application software functions, making it easy to meet various on-site control requirements.	
	5.It has comprehensive protection functions, including output phase loss protection, overcurrent protection, overvoltage protection, overload protection, and over-temperature protection.	
	6.It includes three control modes such as IV/F control, SVC open-loop vector control and FVC closed-loop vector control. It provides high torque output and strong ability for loaded start-up.	
HS720/720H Functional Parameters		Description
Basic Functions	Output Frequency	Low frequency mode: 0.00Hz~500.00Hz;High frequency mode: 0.0Hz~3200.0Hz
	Carrier Frequency	0.8-16KHz
	Frequency Setting	Analog setting: 0.025% of the highest frequency; Digital setting: 0.01Hz
	Control Modes	V/F control, open-loop vector control (SVC), closed-loop vector control (FVC)
	Stable Speed Accuracy	±0.5% of maximum speed (SVC); ±0.02% of maximum speed (FVC)
	Overload Capacity:	110% continuous; 150% for 1 minute
	V/F Curves	Linear, Multi-point, V/F Separation, and V/F Semi-separation, a total of 4 types
	Acceleration/Deceleration Curves	Linear or S-curve Acceleration/Deceleration modes; 4 acceleration and deceleration times, ranging from 0.1s to 6500.0s
	DC Braking	DC braking frequency: 0.00Hz to maximum frequency; DC braking current: 0.0% to 100.0%; DC braking time: 0.0s to 100.0s
	Jog control	Jog frequency range: 0.00Hz to maximum frequency; Jog acceleration/deceleration time: 0.1s to 6500.0s
	Simple PLC and Multi-segment Speed Running	Built-in PLC function with support for up to 16 segments of speed running
	Built-in PID	Capable of implementing closed-loop control system for process control
	Motor Parameter Self-tuning	Static or rotational identification
	Overvoltage, Overcurrent, and Stall Control	Automatically limits current and voltage to prevent frequent overcurrent, overvoltage, and trips
	Wave-by-wave Current Limiting Function	Minimizes overcurrent faults and protects the inverter for normal operation
	Communication Function	Standard RS485 communication interface
	Braking Function	Available
Special Functions	Outstanding Performance	SVC open-loop vector control, strong low-frequency loaded capability
	PID Control	Built-in PID controller
	Automatic Voltage Regulation (AVR)	Select voltage regulation or non-voltage regulation control as needed
	Low Noise Operation	Carrier frequency continuously adjustable from 0.8 to 16KHz.
	Operating Functions	Upper and lower frequency setting, frequency hopping operation, reverse operation limitation, frequency increment and decrement control, fault auto-recovery operation, and more.

HS720/720H Series

Catalogue

HS720 Models	Product Power	Input Voltage /Frequency	Output Voltage /Frequency	Output Current (A)	Product Dimensions (mm)	Installation Dimensions (mm)
0.75S1-220V	0.75KW	Single Phase 220-240V 50Hz/60Hz	Three Phases 0-240V 0-500Hz	3.80	166*109*146	99*154 M4
1.5S1-220V	1.5KW			7.00		
2.2S1-220V	2.2KW			9.60		
4.0S1-220V	4.0KW			17.00	249*143*181	130*237 M5
5.5S1-220V	5.5KW			25.00		
0.75S3-220V	0.75KW	Three Phases 220V ±15% 50Hz/60Hz	Three Phases 0-253V 0-500Hz	3.80	166*109*146	99*154 M4
1.5S3-220V	1.5KW			7.00		
2.2S3-220V	2.2KW			9.60		
4.0S3-220V	4.0KW			17.00	249*143*181	130*237 M5
5.5S3-220V	5.5KW			25.00		
7.5S3-220V	7.5KW			32.00	324*209*192	188*305 M6
11S3-220V	11KW			45.00		
15S3-220V	15KW			60.00	408*288*209	264*388 M7
18.5S3-220V	18.5KW			75.00	408*288*209	264*388 M7
22S3-220V	22KW			80.00		
30S3-220V	30KW			110.00	510*320*248	235*485 M8
37S3-220V	37KW			152.00	655*377*267	240*635.5 M8
45S3-220V	45KW			176.00		
55S3-220V	55KW			210.00		
0.75G3-380V	0.75KW	Three Phases 380V ±15% 50Hz/60Hz	Three Phases 0-437V 0-500Hz	2.10	166*109*146	99*154 M4
1.5G3-380V	1.5KW			3.80		
2.2G3-380V	2.2KW			5.10		
4.0G3-380V	4.0KW			9.00	215*131*174	119*201 M5
5.5G3-380V	5.5KW			13.00		
7.5G3-380V	7.5KW			17.00	249*143*181	130*237 M5
11.0G3-380V	11KW			25.00		
15.0G3-380V	15KW			32.00	324*209*192	188*305 M6
18.5G3-380V	18.5KW			37.00		
22.0G3-380V	22KW			45.00		
30.0G3-380V	30KW			60.00	408*288*209	264*388 M7
37.0G3-380V	37KW			75.00		
45.0G3-380V	45KW			90.00	510*320*248	235*485 M8
55.0G3-380V	55KW			110.00		
75.0G3-380V	75KW			152.00	655*377*267	240*635.5 M8
90.0G3-380V	90KW			176.00		
110.0G3-380V	110KW			210.00		
132.0G3-380V	132KW			253.00	750*495*325	320*730 M13
160.0G3-380V	160KW			304.00		
185.0G3-380V	185KW			340.00		
200.0G3-380V	200KW			380.00	1005*632*440	460*980 M13/16
220.0G3-380V	220KW			426.00		
250.0G3-380V	250KW			465.00		
280.0G3-380V	280KW			520.00		
315.0-500.0 G3-380V	315KW-500KW			585-900	1250*800*450	600*1210 M13/16






HS930A Series

Catalogue

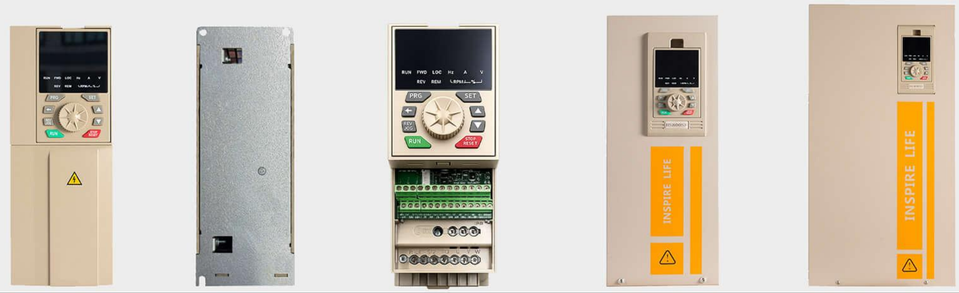
Technical specifications of HS930A series		
Performance specifications	Maximum Frequency	Vector Control: 0-500.00Hz V/fControl: 0.00-500.00Hz
	Carrier Frequency	Carrier Frequency: 0.8kHz-8kHz, automatically adjustable based on load characteristics
	Control Mode	Control Mode: 0: Open-loop Vector Control (SVC) 1:V/F Control 2: Closed-loop Vector Control (FVC)
	Starting Torque	Starting Torque (G type): 0.25Hz/150% (SVC) 0.00Hz/180% (FVC)
	Overload Capacity	Overload Capacity (G type): 150% of rated current for 60 seconds
	Speed Setting Resolution	Digital setting: 0.01Hz Analog setting: Max frequency × 0.25%
	Control Command Source	Operator panel, digital terminals, communication setting
	Frequency Reference	Frequency Reference Source: Operator panel, analog input, pulse input, communication command
	V/F Torque Boost	Automatic or manual torque boost
	V/F Curve	Four modes -Linear, Multi-point V/F, Full separation, Semi-separation
	Acceleration/Deceleration	Upports linear and S-curve acceleration/deceleration Time range: 0.0s-6500.0s
	Jog Frequency	Jog Frequency Range: 0.00-50.00Hz Jog Accel/Decel Time: 0.0s-6500.0s
	Multi-step Speed Operation	Up to 16 speed steps can be set via terminals
	Built-in PID Control	Convenient for implementing closed-loop PID process control
	StallPrevention for Overvoltage/Overcurrent	Limits current and voltage during operation to prevent frequent overvoltage and overcurrent.Effectively reduces overcurrent faults and ensures reliable operation of the inverter.
	Fast Current Limiting Function	
	Input Terminals	Equipped with 5 standard digital input terminals. Two analog input terminals support either 0-10V or 0-20mA current signals.
	Output Terminals	One high-speed pulse output terminal,supporting 0~100kHz square wave output. Two relay output terminals. Two analog output terminals:AO1supports 0-10Vvoltage signal or 0-20mA current signal;AO2 supports 0-20mA current signal.
	Operation Panel	LED operation panel with 5-digit,8-segment display.
Customizable Functions	Momentary Power Loss Ride-Through	In the event of a momentary power loss, the inverter utilizes regenerative energy from the load to compensate for voltage dips, allowing continued operation for a short duration.
	Virtual I/O Ports	5 sets of virtual DI/DO ports allow simple logic control.
	Speed Search Restart	Suitable for high-inertia loads. The inverter automatically detects the motor's rotation and performs a smooth restart, minimizing the risk of overcurrent upon power restoration.
Protection Functions	Protection Functions	Startup short-circuit detection, input/output phase loss protection, overcurrent, overvoltage, undervoltage, overtemperature, and overload protection.
Environmental Specifications	Installation Site	Indoor use only. Avoid exposure to direct sunlight, dust, corrosive gases, flammable gases, oil mist, steam, dripping water, or salt spray.
	Protection Rating	IP20
	Operating Temperature	-10℃ to +50℃ (Derating required for operation above 40℃)
	Operating Humidity	5%-85% RH (up to 95% RH, non-condensing)
	Storage Temperature	-20℃ to +60℃
	Vibration	≤5.9 m/s^2 (0.6 g)
	Altitude	No derating is required below 1000 m. For altitudes above 1000 m, derate by 1% per 100 m. Maximum operating altitude is 3000 m (For use above 2000 m, please consult the manufacturer).



HS800SF Series

Catalogue

Technical specifications of HS800SF series		
Product Features	The book-style structure saves installation space and improves cabinet integration.	
	Two installation methods are available, including guide rail mounting and hole-position fixing.	
	An independent air duct design ensures excellent heat dissipation and stable operation.	
	European-style power supply terminals provide safe, easy, and reliable wiring.	
	A double-row digital tube display shows both set value and feedback value simultaneously.	
	The shuttle switch supports one-key parameter setting and allows external keyboard operation.	
	Conductive rubber keys and network cable connectivity enable flexible and efficient control.	
	A built-in brake unit is standard for 22 kW and below, and optional for higher power ratings.	
Electrical specifications	Input voltage	Single/three-phase 200~240V, three-phase 380V~440V; Fluctuation: within ±10%; Unbalance rate <3%
	Input frequency	50/60Hz±5%
	Output voltage	0~input voltage
	Output frequency	0~500.0Hz
Performance specifications	Control mode	V/F control, open-loop vector control, closed-loop vector control
	Overload capacity	G-type: 150% rated output current: 60s; 180% rated output current: 3s; P-type: 120% rated output current: 60s; 150% rated output current: 3s;
	Speed resolution	Digital setting: 0.01Hz; Analog setting: 0.1% × max. frequency
	Speed control accuracy	SVC:±0.5%; FVC:±0.02%; speed control range: 1:100(SVC); 1:1000 (FVC) torque control response: <200ms; Starting torque: G-type: 150% rated torque/0.5HZ(SVC); 180% rated torque/0.0HZ(FVC); P-type:100% rated torque/0.5HZ
Input and output	Operating temp.	-10~+50°C; derated operation allowed for higher than 40°C
	Storage temp.	-40~+70°C
	Operating environment	Indoor, without direct sunlight, dust, corrosive and flammable gases, oil stains, water vapor, dripping water and salt, etc.
	Altitude	No derating required if within 1000m; Derating operation required if exceeding 1000m
	Temp.	Less than 95% RH, without droplets and condensation
	Vibration resistance	3.5m/s² at 2~9Hz; 10m/s² at 9~200Hz
Environmental characteristics	Operating temp.	-10~+50°C; derated operation allowed for higher than 40°C
	Storage temp.	-40~+70°C
	Operating environment	Indoor, without direct sunlight, dust, corrosive and flammable gases, oil stains, water vapor, dripping water and salt, etc.
	Altitude	No derating required if within 1000m; Derating operation required if exceeding 1000m
	Temp.	Less than 95% RH, without droplets and condensation
	Vibration resistance	3.5m/s² at 2~9Hz; 10m/s² at 9~200Hz



HS300A Series - 400–600V IN → 660V OUT

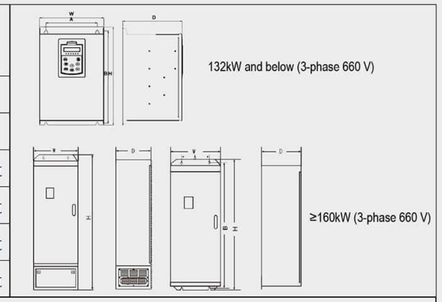
Catalogue

Technical specifications of HS300A series		
Product Features	Three-Phase 400–600V Input → 660V Output. Designed for Reliable High-Voltage Motor Control.	
	Advanced Sensorless Vector Control (SVC)	
	High Starting Torque & Precise Speed Regulation	
	150% Overload Capacity for 60s, 180% for 10s	
	Wide Speed Control Range up to 1:100	
	Output Frequency up to 400Hz	
	Built-in PID, 16-Step PLC & Multi-Speed Control	
	Automatic Voltage Regulation (AVR)	
	Smooth Flying Start & Speed Tracking Function	
	Comprehensive Motor and Drive Protection	
	Power Range up to 900kw	
Electrical specifications	Input voltage	Single/three-phase 200~240V, three-phase 380V~440V; Fluctuation: within ±10%; Unbalance rate <3%
	Input frequency	50/60Hz±5%
	Output voltage	0~input voltage
	Output frequency	0~500.0Hz
Performance specifications	Control mode	V/F control, open-loop vector control, closed-loop vector control
	Overload capacity	G-type: 150% rated output current: 60s; 180% rated output current: 3s; P-type: 120% rated output current: 60s; 150% rated output current: 3s;
	Speed resolution	Digital setting: 0.01Hz; Analog setting: 0.1% × max. frequency
	Speed control accuracy	SVC:±0.5%; FVC:±0.02%; speed control range: 1:100(SVC); 1:1000 (FVC) torque control response: <200ms; Starting torque: G-type: 150% rated torque/0.5HZ(SVC); 180% rated torque/0.0HZ(FVC); P-type:100% rated torque/0.5HZ
Input and output	Analog power supply	+10V, load capacity 10mA
	Digital power supply	+24v, load capacity 100mA
	Analog input	AI1:0~+10V; AI2: (selectable voltage/current) 0~+10V/0~40mA;
	Analog output	AO1-AO2: (selectable voltage/current) 0~10v/0~20mA
	Digital input	DI1~DI8, optocoupler isolation input; D15 can be used as a high-speed pulse input;
	Digital output	FM open collector output
	Relay output	TA/TB/TC; PA/PB/PC contact capacity: 250VAC/3A or 30VDC/1A
Environmental characteristics	Operating temp.	-10~+50°C; derated operation allowed for higher than 40°C
	Storage temp.	-40~+70°C
	Operating environment	Indoor, without direct sunlight, dust, corrosive and flammable gases, oil stains, water vapor, dripping water and salt, etc.
	Altitude	No derating required if within 1000m; Derating operation required if exceeding 1000m
	Temp.	Less than 95% RH, without droplets and condensation
	Vibration resistance	3.5m/s² at 2~9Hz; 10m/s² at 9~200Hz

HS300A Series - 400–600V IN → 660V OUT

Catalogue

Power (kW)	A(mm)	B(mm)	H(mm)	W(mm)	D(mm)	Installation Hole(mm)	Note
	Installation Dimension		External Dimension				
55	165	509	527	260	314	6	——
75~132	120*2	540.5	557	410	395	6	——
160~280	—	——	1220	500	380	——	Cabinet
315~400	——	——	1442	680	390	——	Cabinet
450~630	——	——	1501	620	610	——	Cabinet
710~900	——	——	1792	739	730	——	Cabinet





HS290/291 Series

Catalogue

HS290/291 Series Inverter							
HS290/291 series inverters, applications with single-phase input of 220V and three-phase output of 380V.							
HS290/291 Series	Product Power	Input Voltage/Frequency	Output Voltage/Frequency	Output Current	Net Weight (kg)	Product Dimensions (mm)	Installation Dimensions (mm)
290-1.5G2	1.5KW	single phase AC 220-240V 50-60HZ	3 phases AC 0-440V 0-999HZ	4.1A	1.10	156*101*141	90*146*150
290-2.2G2	2.2KW			5.8A			
290-3.0G2	3.0KW			7.9A	2.30	218*125*169	114*208*210
290-4.0G2	4.0KW			9.4A			
291-5.5G2	5.5KW	single phase AC 220-240V 50-60HZ	3 phases AC 0-440V 0-3000HZ	13A	3.00	130*237	249*143*177
291-7.5G2	7.5KW			16A	5.80		
291-11G2	11KW			24A			



HS350 Series

Catalogue

HS350 Series	Product Power	Input Voltage/Frequency	Output Voltage/Frequency	Output Current (A)	Net Weight (kg)	Product Dimensions (mm)
HS350-0.75G1	0.75KW	single phase AC 220-240V, 50-60HZ	three phases AC 0-240V, 0-999HZ	4.0A	1.00	170*135*170
HS350-1.5G1	1.5KW			7.0A	1.00	170*135*170
HS350-2.2G1	2.2KW			9.5A	1.00	175*135*175
HS350-3G1	3KW			13A	1.00	175*135*175
HS350-0.75G3	0.75KW	three phases AC 380-440V, 50-60HZ	three phases AC 0-440V, 0-999HZ	2.5A	1.10	175*135*175
HS350-1.5G3	1.5KW			4.1A	1.10	175*135*175
HS350-2.2G3	2.2KW			5.8A	1.10	175*135*175
HS350-3G3	3KW			7.9A	1.10	175*135*175
HS350-4G3	4KW			9.4A	2.30	265*175*230
HS350-5.5G3	5.5KW			12.6A	2.40	265*175*230
HS350-7.5G3	7.5KW			16.1A	2.40	270*175*235



HS800 Series

Catalogue

HS800 Series Inverter							
HS800 series inverter is single-phase capacitor motor dedicated inverter							
HS800 Models	Product Power	Input Voltage/Frequency	Output Voltage/Frequency	Output Current	Net Weight (kg)	Product Dimensions	Installation Dimensions
800-0.4S1	0.4KW	Single-phase 220-240V 50-60HZ	Single-phase 220-240V 50-60HZ	3.0A	0.85	160*115*110	105*152
800-0.75S1	0.75KW			5.0A	1.05	180*123*135	
800-1.5S1	1.5KW			8.0A	1.05		



Accessories

Catalogue

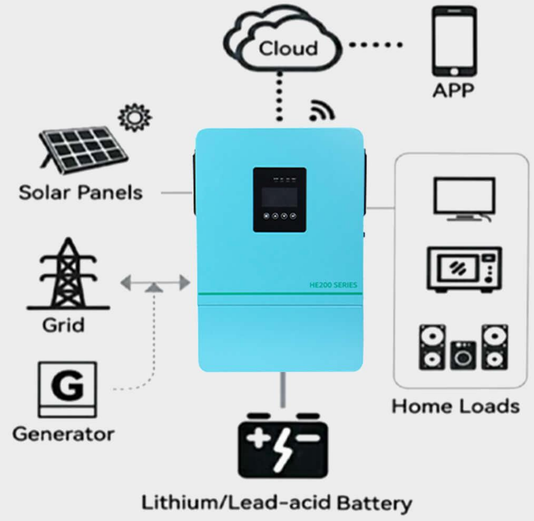


Extension Cable	Panel Tray	Breaking Resister	Potentiometer	Input/output Electric Reactor	Resistor Box	Soft Starter	Breaking Unit

Hybrid Inverter - HE200/HE300 Series

Catalogue





The HE200/HE300 series is a versatile hybrid grid-tied inverter and controller combo (high-frequency unit) that outputs single-phase pure sine wave. It integrates the functionalities of an inverter, a solar charger, and a battery charger, all within a portable form factor. It supports uninterruptible power supply (UPS) switching and features an LCD display that offers user-configurable and easily accessible button operations. It allows for setting battery charging voltage and current, multiple power input and output priority configurations, and adjustable output AC voltage and frequency, making it suitable for various grid environments. Additionally, it supports online data monitoring via a mobile app.

Safe and reliable

Easy to install

Independent maintenance

Excellent heat dissipation

HE200-4200-T/I5 Series

Catalogue

HE200-4200-T Hybrid Inverter		
Hybrid grid-tied design, providing AC power in environments without grid access.		
High-frequency design reduces overall weight, offers high power density, high efficiency utilization, and low no-load loss.		
Configurable charging/discharging voltage parameters via buttons, enabling flexible battery capacity settings.		
Adjustable working modes (Grid Priority, PV Priority, PBG Priority).		
Configurable output AC voltage and frequency via buttons, adaptable to different grid environments.		
Online data monitoring via mobile app to track the operating status of the inverter-controller combo.		
Equipped with CAN/RS485 for BMS communication.		
Single AC output.		
Model	HE200-4200-T	HE200-4200-T-I5
Maximum Output Power	3600W	3600W
Maximum Output Voltage	240Vac±5%（Single Phase）	240Vac±5%（Single Phase）
Maximum Output Current	15.7A	15.7A
Maximum Output Frequency	50/60Hz	50/60Hz
Output Waveform	Pure Sine Wave	Pure Sine Wave
Output Topology	L+N+PE	L+N+PE
Battery Type	Lead-acid/Lithium Battery	Lead-acid/Lithium Battery
Rated Battery Voltage	24Vdc	24Vdc
Maximum Hybrid PV Charging	100A	100A
Charging Modes	Dual-path/Tri-path/Auto	Dual-path/Tri-path/Auto
MPPT Channels	1	1
Maximum Input Power	5000W	5000W
Maximum Open Circuit Voltage	500Vdc	500Vdc
Maximum Input Short Circuit	18A	18A
Input Operating Voltage Range	40~450Vdc	40~450Vdc
Maximum PV Charging Efficiency	99.50%	99.50%
Input Voltage Range	90~280Vac	90~280Vac
Rated Input Voltage	220Vac	220Vac
Input Frequency	50/60Hz	50/60Hz
Maximum Current	20A	20A
Dimensions	420*298*106mm	500*359*126mm
Net Weight	6.46kg	11kg
Gross Weight	7.80kg	12.5kg
Protection Rating	IP21	IP54
Operating Temperature	-10℃~50℃	-10℃~50℃
Cooling Method	Intelligent Air Cooling	Intelligent Air Cooling
Humidity	5%~95%	5%~95%

HE200-6500-T/I5 Series

Catalogue

Product model: HE200-6500-T/I5 hybrid grid inverter		
Inverter output		
Maximum output power	5500W	
Maximum output voltage	240Vac ± 5% (single phase)	
Maximum output current	23.9A	
Maximum Output Frequency	50/60Hz	
Output waveform	Sine wave	
Output topology	L1+N1+L2+N2+PE	
Maximum number of parallel machines		
Battery		
Type	Lead acid/lithium batteries	
Rated battery voltage	24Vdc	
Maximum photovoltaic hybridcharging current	160A	
Charging method	Two way/three way/automatic setting	
Photovoltaic input		
MPPT channels	1	
Maximum Input Power	9000w	
Maximum open circuit voltage	500Vdc	
Maximum input short-circuit current	27A	
Input operating voltage range	60~450Vdc	
Maximum photovoltaic charging efficiency	99.5%	
Municipal power/generator input		
Input Voltage	90~280Vac	
Rated input voltage	220Vac	
Input frequency	50/60Hz	
Maximum current	40A	
General parameters		
Product Size	397*332*118mm	523*360*123mm
Packaging Size	478*410*205mm	605*435*205mm
Net weight	8.6kg	11.7kg
Gross weight	9.7kg	13.4kg
Protection grade	IP21	IP54
Operation temperature	-10°C~50°C	
Cooling method	Intelligent air cooling	
Humidity	5%~95%	

HE200-7200-F/I5 Series

Catalogue

HE200-7200-F/I5 Hybrid Inverter		
Inverter output		
Maximum Output Power	6200W	6200W
Maximum Output Voltage	240Vac±5%（Single Phase）	240Vac±5%（Single Phase）
Maximum Output Current	27A	27A
Maximum Output Frequency	50/60Hz	50/60Hz
Output Waveform	Sine Wave	Sine Wave
Output Topology	L1+N1+L2+N2+PE	L1+N1+L2+N2+PE
Battery		
Battery Type	Lead-acid/Lithium Battery	Lead-acid/Lithium Battery
Rated Battery Voltage	48Vdc	48Vdc
Maximum PV Hybrid Charging Current	120A	120A
Charging Method	Two way/three	Two way/three
Photovoltaic input		
MPPT Channels	1	1
Maximum Input Power	9000W	9000W
Maximum Open Circuit Voltage	500Vdc	500Vdc
Maximum Input Short Circuit Current	27A	27A
Input Open Circuit Voltage Range	60~450Vdc	60~450Vdc
Maximum PV Charging Efficiency	99.50%	99.50%
Municipal power/generator input		
Input Voltage Range	90~280Vac	90~280Vac
Rated Input Voltage	220Vac	220Vac
Input Frequency	50/60Hz	50/60Hz
Maximum Current	40A	40A
General parameters		
Size	395*332.4*116.2mm	500*359*126mm
Net Weight	8.20kg	11.70kg
Gross Weight	9.60kg	13.35kg
Protection Level	IP21	IP54
Operating Temperature	-10℃~50℃	-10℃~50℃
Cooling Method	Intelligent Air Cooling	Intelligent Air Cooling
Humidity	5%~95%	5%~95%







HE200-7200-FP Series

Catalogue

Product model: HE200-7200-FP hybrid grid inverter		
Inverter output		
Maximum output power	58500W（Capacity expansion of 9 parallel units）	58500W (9 parallel split phase generators)
Maximum output voltage	240Vac ± 5% (single phase)	415Vac ± 5% (three phase)
Maximum output current	265.9A	153.95A
Maximum Output Frequency	50/60Hz	
Output waveform	Pure sine wave	
Output topology	L1+N1+L2+N2+PE	
Battery		
Type	AGM/LIB	
Rated battery voltage	48Vdc	
Maximum photovoltaic hybrid charging current	120A	
Photovoltaic input		
MPPT channels	1 unit with 1 channel; 9 units in parallel with 9 channels	
Maximum Input Power	1-way 9000W	
Maximum open circuit voltage	500Vdc	
Maximum input short-circuit current	27A	
Input operating voltage range	60~450Vdc	
Maximum photovoltaic charging efficiency	99.5%	
AC input		
Input Voltage	90~280Vac	
Rated input voltage	220Vac	
Input frequency	50/60Hz	
Maximum current	40A	
General parameters		
Product Size	397*332*118mm	
Packaging Size	478*410*205mm	
Net weight	8.7kg	
Gross weight	9.8kg	
Protection grade	IP21	
Operation temperature	-10°C~60°C	
Cooling method	Intelligent air-cooling	
Humidity	5%~95%	

HE300-7200-F / FP-I5 Series

Catalogue

HE300-7200-F / FP-I5 Hybrid Inverter			
TYPE	HE300-7200-F	HE300-7200-FP-I5	
Inverter output			
Maximum Output Power	6200W	55800W(Capacity expansion of 9 parallel units)	55800W(9 parallel split phase generators)
Maximum Output Voltage	240Vac±5% (Single	240Vac±5% (Single	415Vac ± 5% (three
Maximum Output Current	28.2A	27A	146.8A
Maximum Output Frequency	50/60Hz	50/60Hz	
Output Waveform	Sine Wave	Pure sine wave	
Output Topology	L+N+PE	L1+N1+L2+N2+PE	
Battery			
Battery Type	Lead-acid/Lithium	AGM/LIB	
Rated Battery Voltage	48Vdc	48Vdc	
Maximum PV Hybrid Charging Current	120A	120A	
Charging Method	Two way/three way/lautomatic setting	Two way/three way/lautomatic setting	
Photovoltaic input			
MPPT Channels	1	1 machine 1 ways, 9 machines 9 ways	
Maximum Input Power	8500W	8500W	
Maximum Open Circuit Voltage	500Vdc	500Vdc	
Maximum Input Short Circuit Current	27A	27A	
Input Open Circuit Voltage Range	60~450Vdc	60~450Vdc	
Maximum PV Charging Efficiency	98.00%	98%	
Municipal power/generator input			
Input Voltage Range	90-280VAC ± 3V(APL Mode) 170-280VAC ± 3V(UPS Mode)	90-280VAC ± 3V(APL Mode) 170-280VAC ± 3V(UPS Mode)	
Rated Input Voltage	230Vac	230Vac	
Input Frequency	50/60Hz	50/60Hz	
Maximum Current	100A	120A	
General parameters			
Size	420*315*120mm	527.5*355*140mm	
Net Weight	9.70kg	14.75kg	
Gross Weight	11.20kg	16.85kg	
Protection Level	IP21	IP54	
Operating Temperature	-10℃~60℃	-10℃~50℃	
Cooling Method	Intelligent Air Cooling	Intelligent Air Cooling	
Humidity	5%~95%	20%~95%	









HE300-12000-F/I5 Series

Catalogue

HE300-12000-F/I5 hybrid inverter		
Inverter output	HE300-12000-F	HE300-12000-F-I5
Maximum output power	11000W	11000W
Maximum output voltage	240Vac±5% (single phase)	240Vac±5% (single phase)
Maximum output current	50A	50A
Maximum Output Frequency	50/60Hz±0.1%	50/60Hz±0.1%
Output waveform	Pure sine wave	Pure sine wave
Output topology	L1+N1+L2+N2+PE	L1+N1+L2+N2+PE
Battery		
Battery type	AGM/LIB	AGM/LIB
Rated battery voltage	48Vdc	48Vdc
Maximum photovoltaic hybrid charging current	150A	150A
Photovoltaic input		
MPPT channels	2	2
Maximum Input Power	2*7500W	2*7500W
Maximum open circuit voltage	500Vdc	500Vdc
Maximum input short-circuit current	27A	27A
Input open circuit voltage range	90~500Vdc	90~500Vdc
Max. conversion efficiency (DC/AC)	98%	98%
AC input		
Input voltage range	90-280VAC±3V (APL mode) 170-280VAC C± 3V (UPS mode)	90-280VAC±3V (APL mode) 170-280VAC C ± 3V (UPS mode)
Rated input voltage	230Vac	230Vac
input frequency	50/60Hz	50/60Hz
General parameters		
Product Size	550*466*144	600*505*245
Packing Size	633*550*235	705*604*255
Net weight	20.95kg	22.9kg
Gross weight	30.98kg	26.45kg
Protection grade	IP21	IP54
Operation temperature	-10°C~50°C	-10°C~50°C
Noise	≤50db	≤50db
Humidity	20%~95%	20%~95%

HE300-12000-FP/I5 Series

Catalogue

Product model: HE300-12000-FP/I5 hybrid grid inverter		
Inverter output		
	HE300-12000-FP	HE300-12000-FP-I5
Maximum output power	99000W(Capacity expansion of 9 parallel units)	99000W(9 parallel split phase generators)
Maximum output voltage	240Vac ± 5% (single phase)	415Vac ± 5% (three phase)
Maximum output current	450A(9 parallel expansion)	260A(9 parallel split phase generators)
Maximum Output Frequency	50/60Hz±0.1%	
Output waveform	Pure sine wave	
Output topology	L1+N1+L2+N2+PE	
Maximum number of parallel machines	9 units	
Battery		
Type	AGM/LIB	
Rated battery voltage	48Vdc	
Maximum photovoltaic hybrid charging current	150A	
Photovoltaic input		
MPPT channels	1 machine 2 ways, 9 machines 18 ways	
Maximum Input Power	1-way maximum 7500W	
Maximum open circuit voltage	500Vdc	
Maximum input short-circuit current	2*27A	
Input operating voltage range	90~450Vdc	
Maximum photovoltaic charging efficiency	98%	
AC input		
Input Voltage	90-280VAC ± 3V（APL mode） 170-280VAC ± 3V（UPS mode）	
Rated input voltage	230Vac	
Input frequency	50/60Hz	
General parameters		
Product Size	550*466*144mm	600*505*145mm
Packaging Size	633*550*235mm	705*604*255mm
Net weight	21.3kg	23.15kg
Gross weight	24.8kg	27kg
Protection grade	IP21	IP54
Operation temperature	-10°C~50°C	
Noise	≤50db	
Humidity	20%~95%	

Accessories

Catalogue

AC Input Reactor/AC Output Reactor	
Input reactors orrer overload to line power supply and reduce harmonic distortion arising from frequency inverters, also improve the input supply,reduce ultraharmonic and suppress the surge caused by frequency inverters to the power supply units.	
The output reactor is mounted at the output of the frequency inverter.It is used for limiting the capactive charging current of the connection cable between the frequency inverter and the moto, and passivating the ovltage buildup rate of PWM form the frequency inveter and the motor.	
Product Application-AC Input Reactor:	
1.Multiple frequency inverters in close parallel connection	
2.Other devices produce interference to line power supply,(disturbance,over voltage)	
3.Nonbalance among phases of line power supply,1.8% over than of the rated voltage	
4.Massive frequency inverters installed on the same line	
5.Reduce cos ϕ and correct the overload of capacitor,in case the power factor correction devices are installed in system	
Product Application-AC Output Reactor:	
1.Limit dv/dt to 500V/us	
2.Limit the overvoltage of motor terminal to :1000V to 400V~(rms)	
3.The interference occurred form the contalled between the motor and the filter	
4.Reduce the earth leakage current of motor	
Technical Specifications:	
1.Work voltage:220VAC-3300VAC	
2.Work frequency:50/60Hz	
3.Work current:3A-1600A	
4.Carrier frequency:2-8KHz	
5.Insulation class:class F,H	
6.Operation Environment:-10℃+45℃， rated value wont't lower,when higer than 45℃,and every 1℃,the current will step down 2%	
7.Protction class:IP00-ip22	
8.Voltage drop: < 4% higher than the range will cause the loss of torque	
9.Max Current:1.5×Rated current ,continuous 60S	
10.Noise:≤65dB	
11.Temperature Rise:≤85K	
12.Dielectric strength:Core Coil 3000VAC/50Hz/5mA/10s no electric arcing puncture(factory test)	
13.Insulation Resistor:1000VDC insulation resistance value≥100MΩ	
14.Under seal level 2000m	
15.Runing ambient temperature-25℃~+45℃， comparative moisture not over 90%	
16.No hazardous gas,no inflammables and explosives	
17.With well-Ventilated condition,ventilation devices shall be mounted if installation in panels	

Accessories

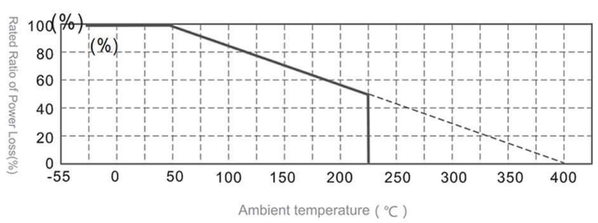
Catalogue

Wire Wound Resistor	
	RXHG coatings type winding resistor is a kind of power mode,the product use the wave resistance olloy in the form of side winding on the ceramin matrix. The surface coating insulation resistance to high temperature coating,is conducive to heat dissipation,and is equipped with a mounting bracket,a resistor has large power,strong overload capacity resistance,convenient installation and other feature.

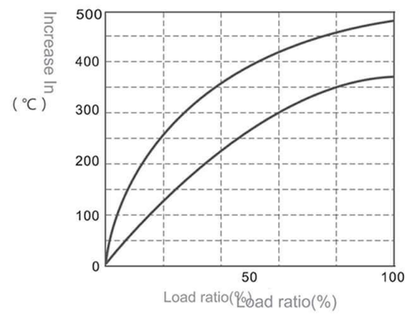
Product Application:
1.As a braking resistor to protect the inverters,servos,etc,from danmage by regenerative energy of the motor;
2.As a resistive load in power electronic load tests;
3.As a sampling resister,limiting resistor,starting resistor,or protective resistor in power electronic equipment.
Technical Specifications:
1.Resistance value and the change range:1Ω≤R±5%（J）, 1Ω＞R±10%（K）
2.Rated load:The maximum surface temperature,50~200W≤275℃, ＞200W≤350℃
3.Short-time overload:No visible damage △R≤±（5%R+0.05Ω）10 times 5s
4.Insulation resistance:R≥100MΩ 1min DC 1000V
5.Withstanding voltage :No visible damge,no arcing breakdown △R≤±（0.1%R+0.05）AC 3000V 5S
6.Resistance-temperature characteristic:±260PPM/℃（less than 5Ωdon't test)
7.Terminial strength No looseness or mechanical damage 45N 30s
8.Resistance strength No visible damage 200N 30S
9.Withstanding vibration:No visible damage △R≤±（0.1%R+0.05Ω）f:5-200Hz a=1gX.Y.Z/2h
10.Heart resistance:In addition to the terminal no pbvious discoloration and damage,marked clearly 350℃ 2hours
11.Heat shock No visible mechanical damage,after 30minute rated overload
12.Wateriogging resistance:No visible mechanical damage,marked clearly △R≤±（5%R+0.05Ω）Insulation resistance≥10MΩDC100 40℃ 95%RH 500hours
13.Durability(rated overload):No visible damage,marked clearly △R≤±（5%R+0.05Ω）load100%

Rundown Curve

Ambient temperature	0–20℃	＞20℃
Power loss	100%	See figure



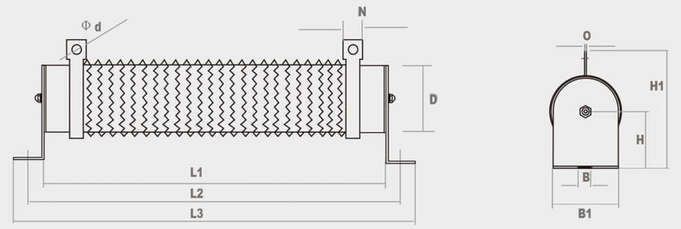
Surface Temperature Rise



Accessories

Catalogue

Wire Wound Resistor-Product Size



POWER（W）	L1（±2）	L2（±5）	L3（±3）	D（±2）	B	B1	H1（±3）
50	102	124	146	28	6.5	28	62
60	102	124	146	28	6.5	28	62
80	152	174	196	28	6.5	28	62
100	182	204	226	28	6.5	28	62
120	182	204	226	28	6.5	28	62
150	195	217	239	40	8	40	87
200	195	217	239	40	8	40	87
300	282	304	326	40	8	40	87
400	282	304	326	40	8	40	87
500	316	338	360	50	8	50	99
800	316	338	360	60	8	50	99
1000	300	325	350	60	8.5	60	119
1200	300	325	350	60	8.5	60	119
1500	415	440	465	60	8.5	60	119
2000	510	535	560	60	8.5	60	119
2500	600	625	650	60	8.5	60	119
3000	600	635	660	68	8.5	68	130
4000	600	635	660	68	8.5	68	130
5000	500	535	560	100	8.5	100	160
6000	600	635	660	100	8.5	100	160

Input Filter/Output Filter

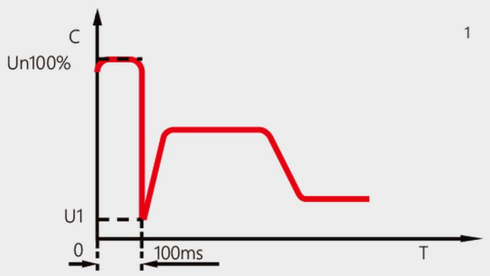
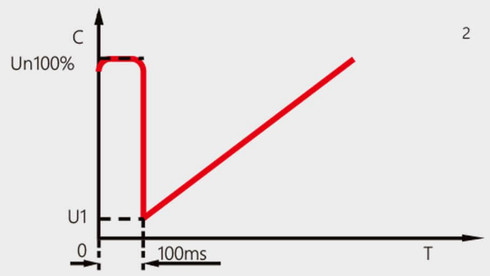
Input Filter: Frequency converter has been widely used in modern industry, causing serious harmonic pollution to power grid and serious electromagnetic interference to the surrounding electrical equipment. After the inverter is equipped with input filter, it can effectively suppress the conduction interference of the inverter to the power grid and load, and reduce the external radiation interference of the input/output wire.

Output Filter: Inverter in the rectification and inverter process will produce a lot of harmon-ics, these electromagnetic harmonics will make the load end heat, serious will lead to motor burn. The output filter has a certain DV/DT harmonic suppression effect and can effectively reduce the electromagnetic interference of the inverter output measurement.

1.Rated voltage:440/250 VAC	
2.Operating frequency:50Hz	
3.Rated current:5A~1000A	
4.Temperature range:-25℃~100℃（25/100/21）	
5.Temperature range:IEC/EN 60939	
6.Typical work frequency:150KHz~30MHz	

Accessories

Catalogue

Soft Starter	
HS-6000 chin starter has 6 starting modes, 12 protection functions and two vehicle modes。MCU as the core, intelligent digital control, suitable for various loads of the mouse asynchronous motor starting; Can make the motor under any conditions can smooth starting, is female of protection drag system, reduce the starting current impact on power grid, to ensure reliable motor self-starting: smooth and stop, can eliminate the drag system of the inertial impact.	
Main loop operating voltage：AC380V(+10%~- 25%);	
Main loop operating current：22A ~ 560A;	
Main loop frequency：50Hz/60Hz(±2%);	
Soft start rise time：2 ~ 60s;	
Soft stop time：0 ~ 60s;	
Current limiting factor：1.5 ~ 5.0Ie;	
Start voltage：30%~70%Ue;	
Cooling mode：The fan cooling;	
Conmunication：RS485 serial communications;	
Technical Feature:	
Start-up time：≤20/hour	
six starting parameters are optional to facilitate one motor soft starter to start different motor loads;	
Dynamic fault memory function, easy to find the cause of fault;	
Comprehensive motor protection functions ;	
LED or LED display;	
Profibus/Modbus Two communication protocols are available;	
1 compact structure design, easy to install, easy to use;	
Menu tree is grouped by function, which is easy to operate.	
Snap action mode:	
Output waveform of jump start mode.This starting mode can be selected when the motor cannot be started under some heavy load due to the influence of static friction force.When starting, first apply a high fixed voltage to the motor for a limited period of time to overcome the static friction force of the motor load to make the motor rotate, and then start in the way of limiting current (figure 1) or voltage slope (figure 2).	
	

Accessories

Catalogue

Braking Resistor Unit	
BRU series products are resistance boxes composed of brake resistors, suitable for high-power, high-current braking equipment, experimental testing equipment, elevators, cranes and other inverter energy consumption braking loop.	
Power range: 0.5KW-25KW	
Voltage range: 0.5KV-3kV	
Protection level: IP20-IP43	
Vibration: 0.5 G	

Prower Resistor Unit	
PRU series products are resistance cabinets composed of brake resistors, which are suit-able for high-power and high-current braking equipment, experimental testing equipment, elevator, crane and other inverter energy consumption braking loop.	
Power range: 20KW-1000KW	
Voltage range: 0.5KV-3kV	
Protection level: IP20-IP44	
Vibration: 0.5G	

DC Braking Unit	
	The function of the braking unit is to divert into a brake resistor the re-generative energy produced in the process of deceleroting the motor, converting that energy into heat. Regenerative energy flows form the motor into the inverter DC bus, manifested as increased bus votge.
When the inverter slows down, the motor is in the state of power generation because of the large inertia of the dragging system, and the mechanical energy quickly feeds back to the DC bus, making the DC bus voltage rise rapidly, thus endangering the safety of the converter. Therefore, the feedback energy must be consumed quickly, otherwise the converter will be overvoltage protection or fault. General inertia is large, or need to slow down sharply, braking occasions can use this braking unit. For example: centrifuge, elevator, crane, drawing machine, port machinery and so on can be used.	