

RACK MOUNT HIGH FREQUENCY INVERTER

-----Designed for Industrial Application



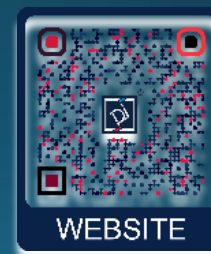
---Pure sine wave

---High Frequency inversion

---Rack-mount cabinet type, 2U 19 inch

---RS485/RS232/Dry Contact
Communication

----Double input & regulate AC-AC



Introduction

Description

Pure sine wave inverter is a new generation of dual input inverter solution designed for the field of communication applications, which is suitable for the high reliability of the communication system. The solution is equipped with a 96V/110V/220V/230V AC power supply and a 24V /48V/110V/220V DC power supply, which fills the gap between the traditional UPS power supply and common pure sine wave inverter solutions.

It uses a novel design structure that helps users to provide clean, stable and durable AC power for critical loads, and has the same high reliability as the DC power supply system. The design characteristics of the dedicated communication pure sine wave inverter ensure the seamless conversion between the AC and DC power supply, almost no conversion delay, and no need to use the static switch.

Feature

- True sine wave output (T.H.D < 3%)
- Large 128*64 digital Lcd display data information, 4 led display working;
- Standard 19" Rack mount case
- 5 Routes Dry contact for system (DC input fault, AC input fault, overload information, by-pass information and output fault)
- RS232 and RS485 & Optional SNMP communication Port
- Power-on self-test, Soft output start
- Auto switch function: DC to AC, AC bypass, less than 5ms;
- By-pass AC 220V input filtering;
- Real-time monitoring of the system operating status;
- Audible and visual alarm;
- Record the historical alarm message and can be queried;
- Start auto restart while Ac or Dc is recovering;
- Automatic start temperature control fan;
- Build in voltage regulator Stabilize AC voltage;
- Maintenance bypass /DC available;
- Protection :Short load protection, over load protection, battery over/under voltage protection, over current, over temperature
- Unattended operation: the system switches automatically to provide AC Power to the load between the DC input and AC input;

Application



COMMUNICATION FIELD POWER FROM 1-10KW

1. Telecom station/base/ Cable Equipment
2. Communication Station.
3. Computer data center
4. SCADA Networks and Data Equipment
5. Phone /cell base
6. Radio Base stations/ Cell Sites
7. Monitoring center room



RAILWAY

8. City WIFI device
9. Emergency communication car
10. Railway & metro
11. Distributed Antenna Systems
12. Marine & offshore
13. Building Management Systems
14. Fire Alarm Systems



INDUSTRY FIELD MAXIMUM PROTECTION IN THE CORPORATED ENVIRONMENT

15. power utilities System Control /field
16. power plant/station
17. Power monitoring system
18. Solar power system
19. Wind energy system

Technical Parameters

Technical Index(VA)			1KVA	2KVA	3KVA	4KVA	5KVA	6KVA	8KVA	10KVA
INPUT	22Vdc—28Vdc		Rate Voltage 24Vdc, Power off Voltage:≤20Vdc, ≥30Vdc,							
	45.5Vdc—57Vdc		Rate Voltage 48Vdc, Power off voltage≤40Vdc, ≥60Vdc							
	104Vdc—131Vdc		Rate Voltage 110Vdc, Power off voltage≤90Vdc, ≥135Vdc,							
	100Vdc-150Vdc		Rate Voltage 125Vdc, Power off voltage≤90Vdc, ≥155Vdc							
	208Vdc—260Vdc		Rate Voltage 220Vdc, Power off voltage≤180Vdc, ≥275Vdc,							
	24Vdc input Max current		42A	83A	125A	X	X	X	X	X
	48Vdc input Max current		21A	42A	63A	83A	104A	125A	167A	208A
	110Vdc input Max current		9A	18A	27A	36A	45A	55A	72A	90A
	220Vdc input Max current		4.5A	9A	13.5A	18A	22.5A	27A	36A	45A
	By-pass	Voltage Rage	170Vac~280VAC							
		Current	4.5A	9.1A	13.6A	18.2A	22.7A	27.2A	36.3A	45.4A
		By-pass Transient time	<10ms							
	frequency	50/60Hz								

Technical Parameters

AC OUTPUT	Output Capacity(VA)	1KVA	2KVA	3KVA	4KVA	5KVA	6KVA	8KVA	10KVA
	Rated output Power(W)	0.8KW	1.6KW	2.4KW	3.2KW	4KW	4.8KW	6.4KW	8KW
	Rated Output current	3.6A	7.3A	11A	14.5A	18.2A	21.8A	29A	36.3A
	Output Voltage	220Vac(±10V) ,Adjustable LCD display							
	Output Voltage precision (V)	220V±1.5%							
	Power factor	>0.8							
	Inversion efficiency (80%)	≥85% (80% liner Load)							
	Over load	@loading 100%-120% ,Contiune working 60s ,@loading 121%-150% ,Continue working 10s							
	Dynamic response time	Dynamic response time: < 5% Vnom for load change 0% to 100%, transient time < 5ms							
	Waveform	Pure sine wave							
	Output Frequency precision	50Hz/60Hz							
	Output Frequency	50-60Hz(auto sync with bypass input)							
	THD	<3% for linear load							
Indication	LCD display	Input and output Voltage, Frequency ,Output Current,Temperaturer,Percentage,LOGO etc.							
	Inverter Status	Normal Mains, Normal Inversion, Battery Under-voltage and output overload							
COMPLIANC E	LVD	EN 60950-1							
	EMC/EMI	EN 61000-6-3; EN 61000-6-1 ;IEC 61000-6-2 and IEC 61000-6-4							
	Rohs	IEC 62321-4 , IEC 62321-5,IEC 62321-6,IEC 62321-7,IEC 62321-8							
Cooling	Temperature control	2 Fans		4 Fans	6 Fans			4 Fans	
Color	Black /Customizable								
Dimensions		482mm/347mm/88mm W/D/H 2U			482mm/430mm/88mm W/D/H 2U			482mm/470mm/176mm 4U	

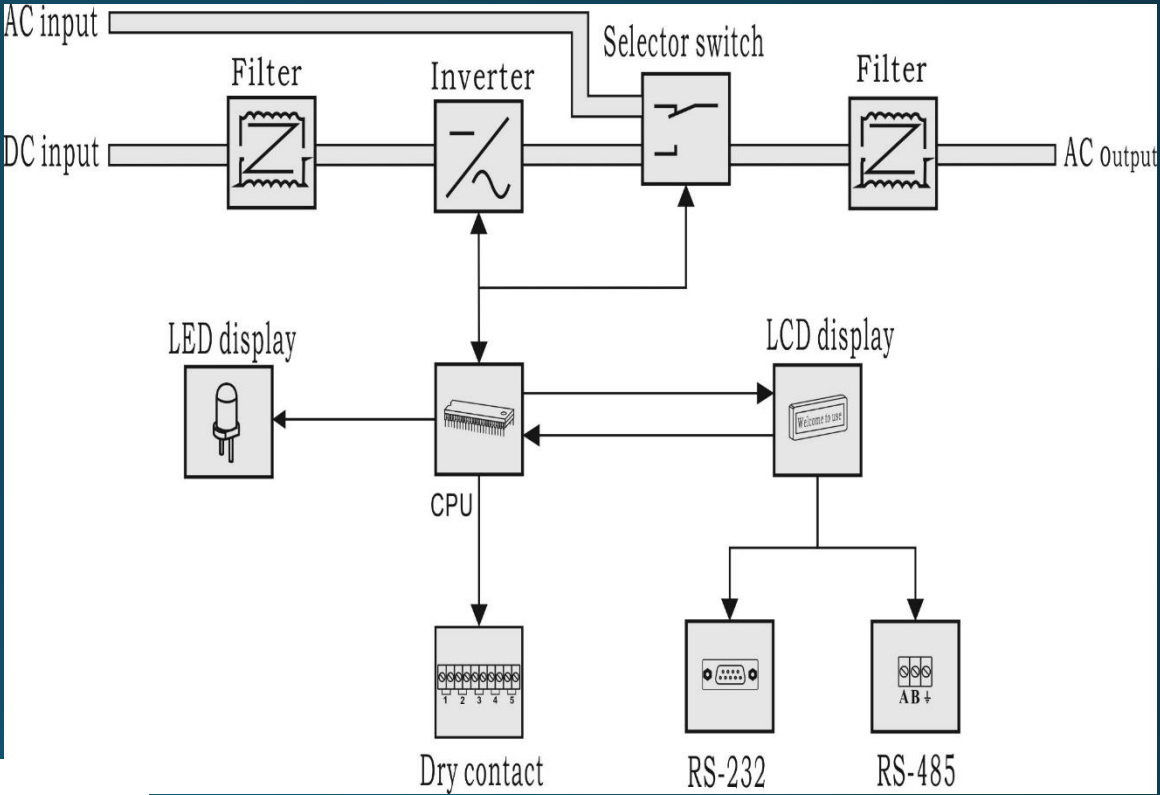
Technical Parameters

Protection	Internal Protection	Overload Protection, Over temperature protection, Short circuit protection, Input ac voltage limit protection ,Reverse polarity on dc input side
	Input DC Voltage Alarm	Battery Under-voltage,
	LCD Audible and visual alarm	false Red LED light and Beebe
	Temperature	Temperature control fan
	Alarm record	standard is 1000 events (alarms), minimum is 100
Interface	5 Routes Dry relay contact	For remote indication of alarm / shut down conditions
	RS232& RS485	Both of available, For remote operation and monitoring
	Option	SNMP
	2 Routes Temp. sensor	Working Temp. /Inner Temp.
Dielectric strength	between output and input	3500Vdc/10mA//1min . No flashover, no breakdown
	between input and chassis	3500Vdc/10mA//1min . No flashover, no breakdown
	between output and chassis	750Vdc/10mA//1min. No flashover, no breakdown
Working Environment	Noise(1m)	≤55dB
	Operating Environment Temperature	-20~+50°C
	Humidity	0~90%, No moisture condensation
	Operating Altitude (m)	Altitude Full power up to 2000m.derating -2% / 100m, max altitude 5000m

Inverter Management software

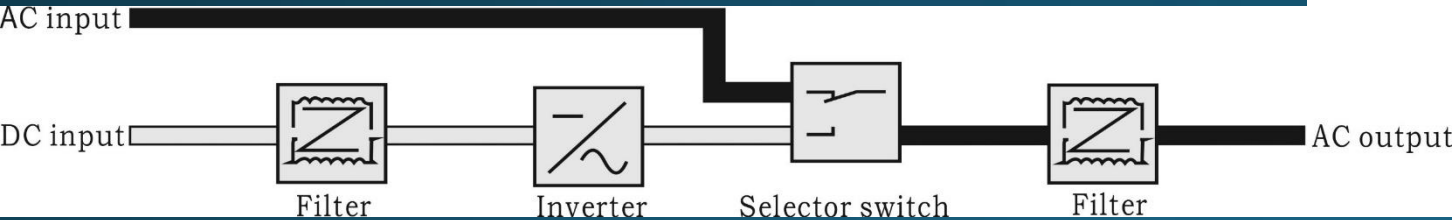


Hardware structure and working principle



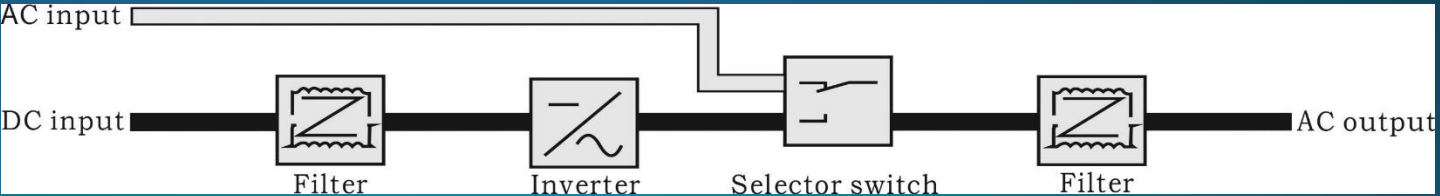
AC power supply mode

Namely AC inverter working mode: the inverter employs mains for load when there is mains and switches to inverter working mode when the mains is abnormal.



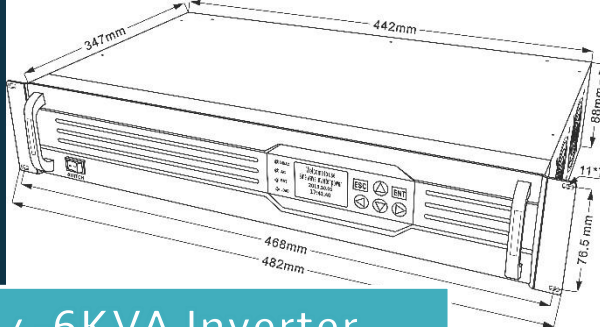
DC power supply mode

Namely DC-dominated inverter working mode: under normal condition, DC-dominated inverter is under inverter output status all the time; in case of DC fault, it switches to mains by-pass.

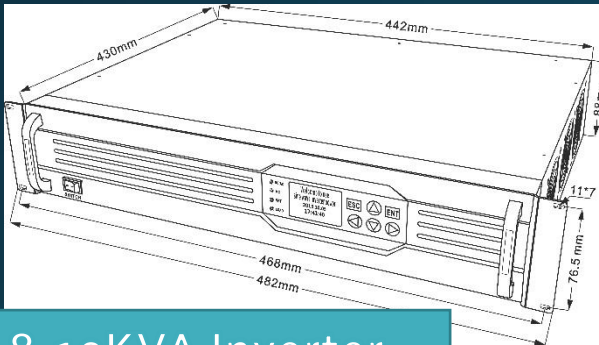


Appearance

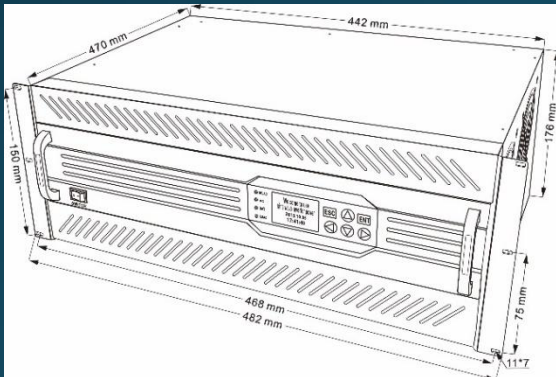
1-3KVA Inverter



4-6KVA Inverter

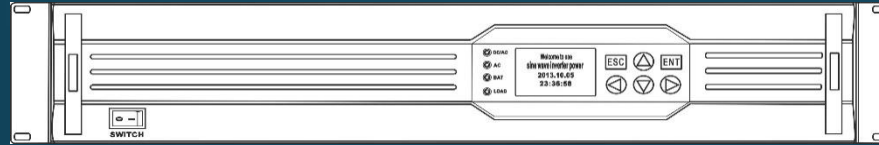


8-10KVA Inverter

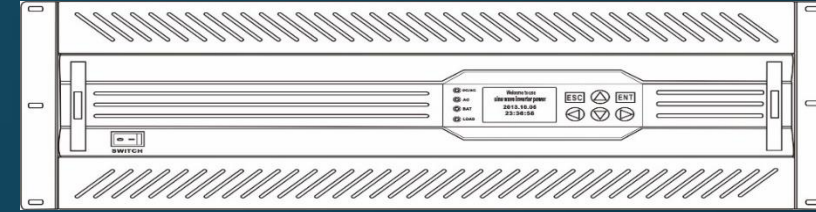


Front Panel

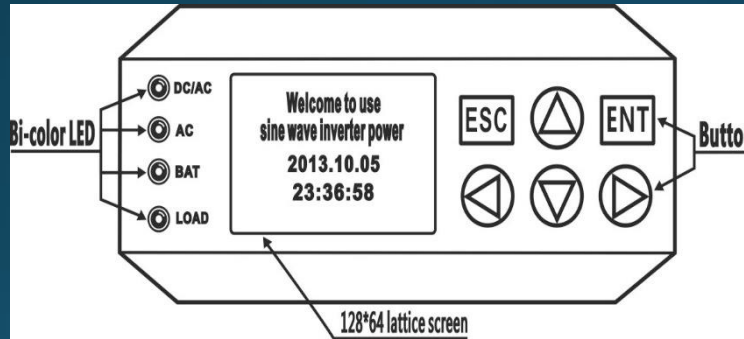
1-6KVA



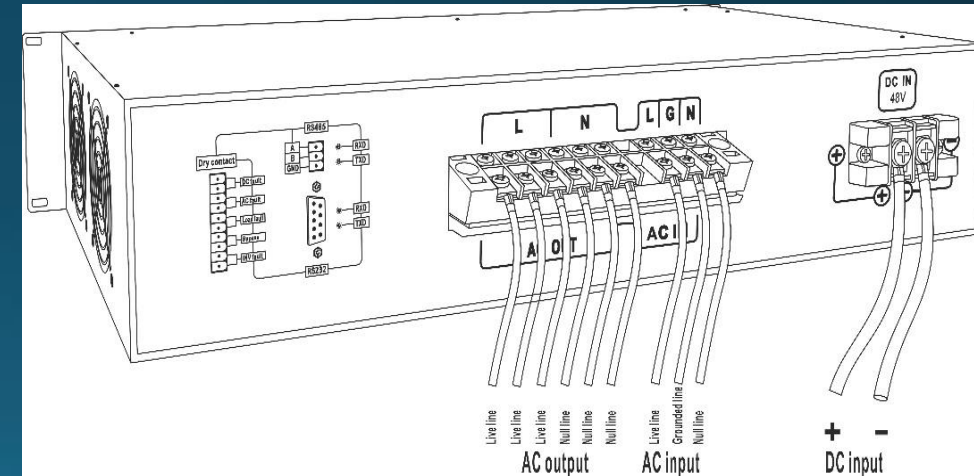
8-10KVA



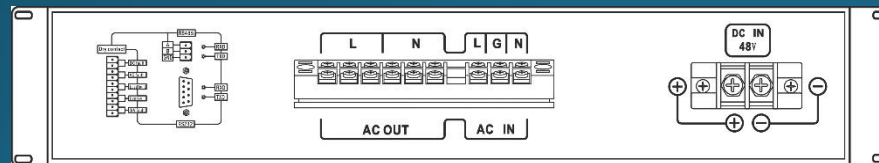
LCD Display



Connecting cable



Back Panel



Photos InverterTelecom



PASSIVE SIGNAL DRY CONTACT

RS485 INTERFACE

AC INPUT TERMINAL

BATTERY INPUT TERMINAL

AC OUTPUT TERMINAL

RS232 INTERFACE

OUTPUT LIVE WIRE

OUTPUT ZERO LIVE

INPUT ZERO LIVE

GROUND WIRE

INPUT LIVE WIRE

BATTERY POSITIVE

BATTERY NEGATIVE

