PX ELECTRONICS

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DATASHEET

PX SERIES POWER PRODUCTS

BLS Series Rack Mounted Pure Sine Wave Inverter

PX ELECTRONICS

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About

PX Electronic specialise in the design of electrical power measuring instrumentation. Including power analysers, High Voltage Switching, HiPot Testing, ground bond testing and DC loads. Our product expertise and consultancy includes applications associated with electrical safety equipment, AC power analysis, energy instruments and current sensors and current probes. Applications include EV, wind turbines, green power, automation, military power systems, power electronics, power conversion, electric cars, generators, motors, fans and pumps.

Our range of Test & Measuring products includes power analysers, single & three phase watt meters measuring from DC to 2MHz along with HV related switching and IR measurement products.

PX offers PC based software solutions. This enables PX measuring instruments and transducers to be controlled via USB, Ethernet, RS232, RS485 and IEEE-488 interfaces. Various display and storage options are available to suit the customer's need. An "in house" software customisation service is available.

PX has a global support network, enabling us to distribute our products worldwide from a variety of distributors and representatives to meet the needs of our customers.

BLS Series Rack Mounted Pure Sine Wave 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

Description

Our Pure sine wave inverter is a new generation of Dual Input Inverters designed for communication applications. Highly reliable, these inverters complement any communication system. The system 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.

Features

- 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 Centre
4. SCADA Networks and Data Equipment
5. Phone/Cell Base
6. Radio Base Stations/ Cell Sites

7. Monitoring Centre Room
8. City WIFI Device
9. Emergency Communication Car
10. Railway & Metro
11. Distributed Antenna Systems
12. Marine & Offshore

INDUSTRY FIELD
MAXIMUM PROTECTION IN THE CORPORATED ENVIRONMENT

RAILWAY

13. Building Management Systems
14. Fire Alarm Systems
15. Power utilities System Control /field
16. Power Plant/Station
17. Power Monitoring System
18. Solar Power System
19. Wind Energy System

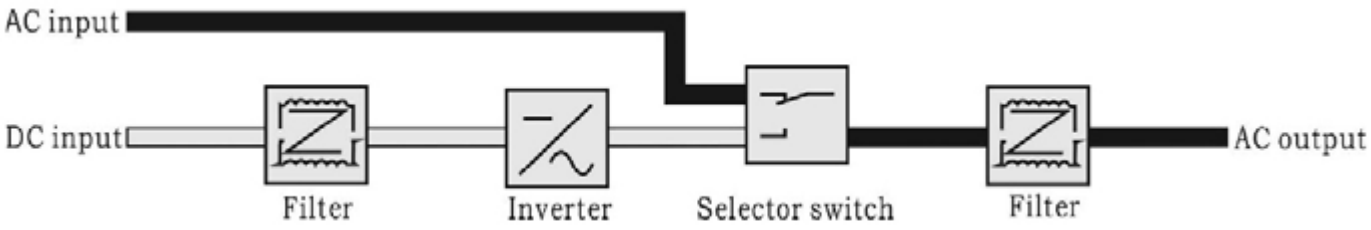
High Frequency Pure Sine Wave inverter 220Vac/110Vac series

Technical Parameters (Note: The below specs are subject to change without notice)									
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,							
	208Vdc—260Vdc	Rate Voltage 220Vdc, Power off voltage≤180Vdc, ≥275Vdc,							
	24Vdc input Max current	42A/42A	83A/83A	125A/125A	X	X	X	X	X
	48Vdc input Max current	21A/21A	42A/42A	63A/63A	83A/83A	104A/104A	125A/125A	167A/X	208A/X
	110Vdc input Max current	9A/9A	18A/18A	27A/27A	36A/36A	45A/45A	55A/55A	72A/X	90A/X
	220Vdc input Max current	4.5A/4.5A	9A/9A	13.5A/13.5A	18A/18A	22.5A/22.5A	27A/27A	36A/X	45A/X
	By-pass: Voltage Rage	180Vac~260VAC /90Vac~132Vac							
	By-pass: Current	4.5A/8.3A	9.1A/16.5A	13.6A/26A	18.2A/33A	22.7A/41A	27.2A/50A	36.3A/x	45.4A/x
	By-pass: By-pass Transient time	≤5ms							
	Frequency	50/60Hz							
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)/110V(±5V) ,Adjustable LCD display							
	Output Voltage precision (V)	220V±1.5%/110V±1.5%							
	Power factor	>0.8							
	Inversion efficiency(80%)	≥85% (80% liner Load)							
	Over load	100%-120% 60s ,121%-150% 10s							
	Dynamic response time	Dynamic response time: < 5% Vnom for load change 0% to 100%, transient time < 5ms							
	Waveform	Pure sine wave							
	By-pass Switch time	≤5ms							
	Output Frequency precision	50Hz/60Hz							
	Output Frequency	50-60Hz(auto sync with bypass input)							
	THD	≤3%							
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							
COMPLI-ANCE	LVD	EN 60950-1							
	EMC/EMI	EN 61000-6-3; EN 61000-6-1 ;IEC 61000-6-2 and IEC 61000-6-4							
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	
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 ,TCP/IP							
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							
	Dielectric strength	1500Vac.1 minutes (Input and output)							
Working Environ-ment	Noise(1m)	≤40dB							
	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							
	Humidity	5...95%, non condensing							

Inverter Management Software

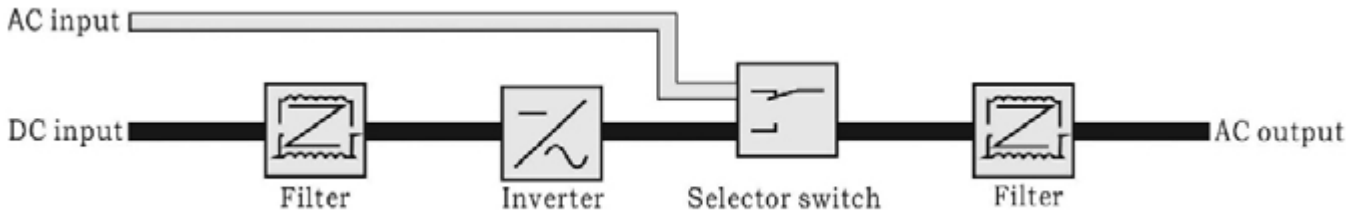
AC power supply mode

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.

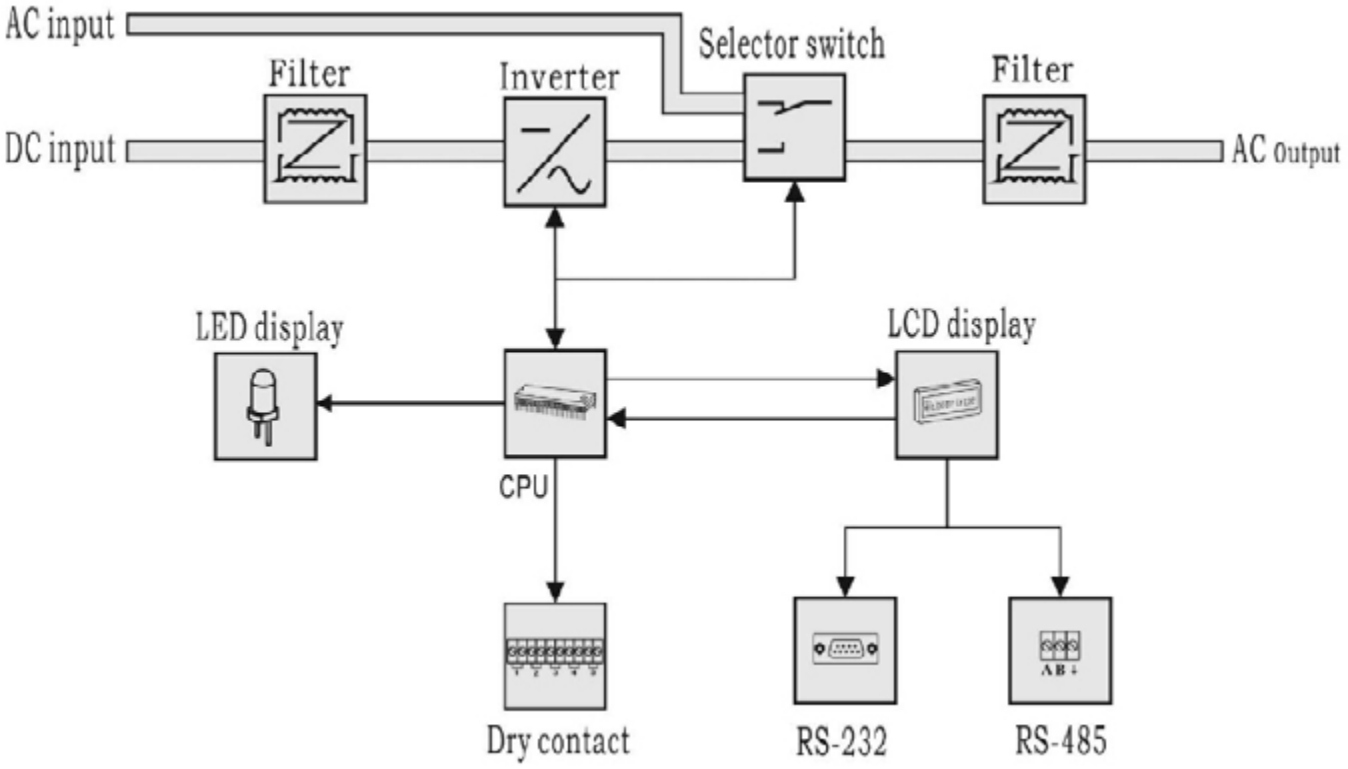


DC power supply mode

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.

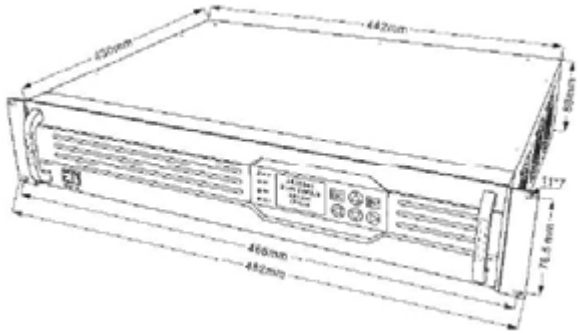


Hardware structure and working principle

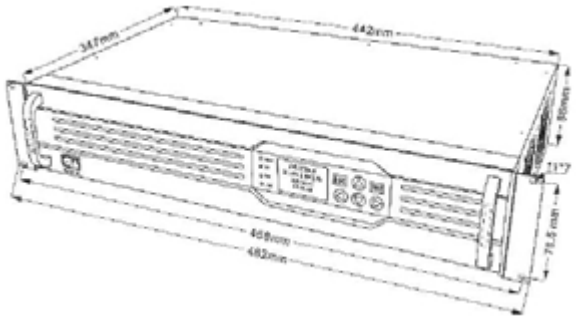


Product Photos

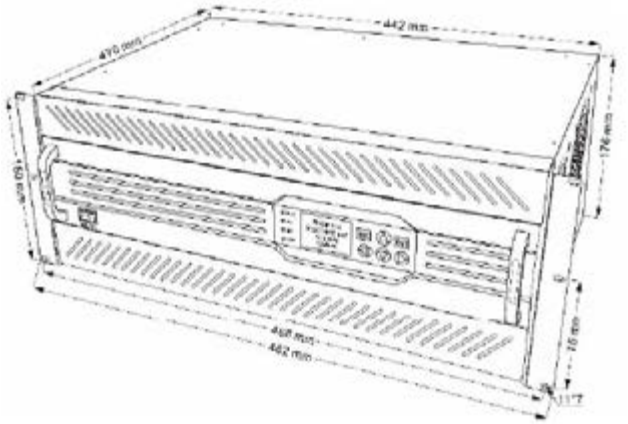
Appearance



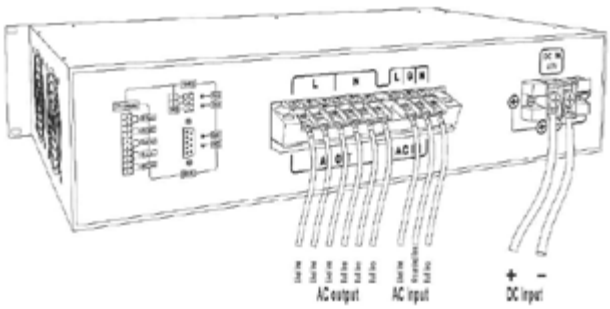
1-3 KVA Inverter



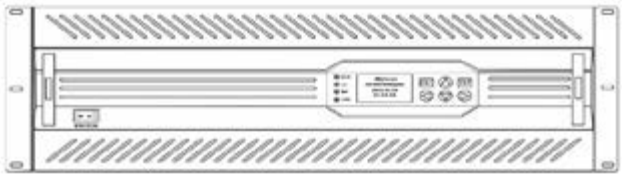
4-6 KVA Inverter



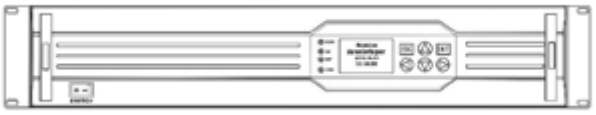
8-10 KVA Inverter



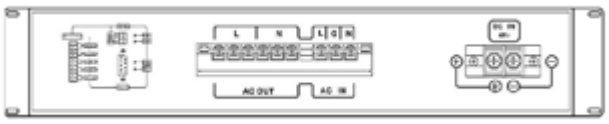
Connecting Cable



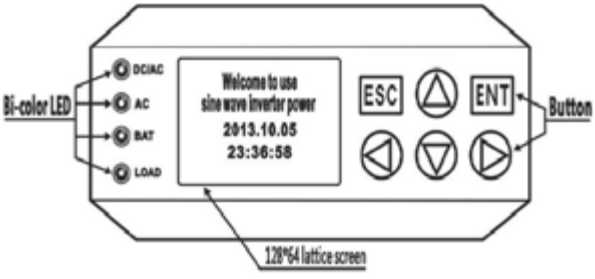
Front Panel 8-10KVA



Front Panel 1-6KVA



Back Panel



LCD Display

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