



DSP CONTROLLED IGBT BASED **ONLINE UPS**

















SYSTEM OVERVIEW



- Use advanced dsp and full digital control technologies to realize higher system stability.
- Active rectifier design
- High input power factor
- Low current harmonic distortion of less than 3%
- Multi loop control inverter
- Extra wide input voltage and frequency range make it adapt to severe power grid environment.
- Extra strong capability to withstand output overload and short circuit, ensuring the system stability and system safety under extreme conditions.
- Handles 3:1 crest factor loads
- Dynamic static bypass
- Intelligent battery management maintains battery automatically to prolong the battery life. many kinds of system protection and alarming function.
- Parallel redundancy 1 + N available (optional)

RANGE OF APPLICATIONS



Industrial Automatic Control



Medical Equipment



Office Automation



Production Equipment









MAIN FEATURES



Digital Signal Processing

Uses the most advanced DSP technology which can precisely control the parameters of UPS and its full control, providing sufficient computing power, to ensure UPS always in top working condition.



IGBT Inverter with multi loop control

High speed IGBT inverter with multi loop control gives low output distortion and clean sinusoidal waveform for excellent performance and high reliability.



Battery Management

Proper testing, charging, discharging and management of the battery system is very important aspect of the UPS control system. In the UPS, the batteries are constantly monitored by an intelligent battery management algorithm. any fault detected in the batteries is immediately reported to the user.



High Efficiency ECO Mode (Optional)

In situation where the utility supply is relatively stable the ONLINE UPS can be set to energy saving ECO mode. an efficiency of greater than 97% can be achieved. The load is never in danger as the switching is done by high speed solid state devices.



Remote management

System can be managed and monitor via serial communication, LAN(SNMP), GPRS(SMS). user can monitor relative data on analog style meter along with digital meters, the graphical flow of system can seen realty. user can log data, can plot graphs, can schedule the operation system. If system is connected to the LAN via SNMP card the system can be manage remotely any where in the world. If GRPS modem is used, user can controlled the system and receive the SMS for critical condition, like power-failure, low battery, overload conditions.

SPECIFICATIONS

CAPACITY								
KVA	3 KVA	5 KVA	7.5 KVA	10 KVA	7.5 KVA	10 KVA	15 KVA	20 KVA
WATT	2.4 KW	4 KW	5.8 KW	8 KW	5.8 KW	8 KW	12 KW	16 KW
TYPE	Low Freugency Transformer Based True On Line_Double Conversion							
IN PUT								
Phase	single phase (P + N) three phase (3P + N)							
Input Voltage Range	230VAC ± 25 %				400 VAC ± 20 %			
Input Power Factor	≥ 0.85							
Input Frequency Range	50Hz ± 10 %							
Output Ripple	< 5 %							
Soft Start	0~100 % 5 sec							
OUT PUT								
Nominal Voltage	220VAC (230VAC or 240VAC), 1P + N							
Output Voltage Regulation	±1 % (linear load), ± 3% (non linear load)							
Output Frequency Range	50Hz ± 0.5%							
Crest Factor	> 3:1							
Distortion (THD)	linear load < 3%, non linear load<5%							
Dynamic Characteristics	instant voltage < ± 2% (from 0 to100%),instant recover time < 5 ms							
Overload Capacity	110% for 60 minutes 125% for 10						% for 60 se	conds
Inverter Efficiency	>92% (full load)							
BATTERY								
Nominal DC Voltage	96 Vdc	180 Vdc	180 Vdc	180 Vdc	240 Vdc	360 Vdc	360 Vdc	360 Vdc
Temp. Compensated Voltage	-3mV/°C/cell							
Charging Current	2-10 amp setable							
Low Voltage Alarm	alarm contineous when power supply by battery and without main power.							
Low Voltage Trip	battery low-voltage protection, alarm stop.							
BY PASS								
Phase	single phase (P+N)							
Manual	maintenance by pass switch provided							
Static	no break							
PROTECTION								
Input Protection	input voltage, frequency under, over limit protection							
Output Protection	over current, short circuit, over voltage, low voltage							
Battery Protection	over charge, over - discharge protection							
Temperature Protection	inverter over temperature protection							
GENERAL PARAMETERS								
Working Environment	temp: -10~40°C, relative humidity: 30%~90%							
Cooling Method	compulsive ventilation							
Communitation Interface	RS232/ RS485, optional dry contact, SNMP card (for remote control via internet)							
Parallel Operation	hot stand by or parallel redundant							
Protection Level	IP20							
Safety Performance	V in-n, V out-n 2000Vac, creepage<10mA , insulating resistance >2 MΩ (500VDC)							
Noise (dB)	45 - 50 50 - 60 55 - 65							
Dimension W X H X D (MM)	345 X 660 X 610 390 X 680 X 680 410 X 780 X 740							
Weight (Kg)	53	63	96	104	98	108	135	192

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