ALP SERIES

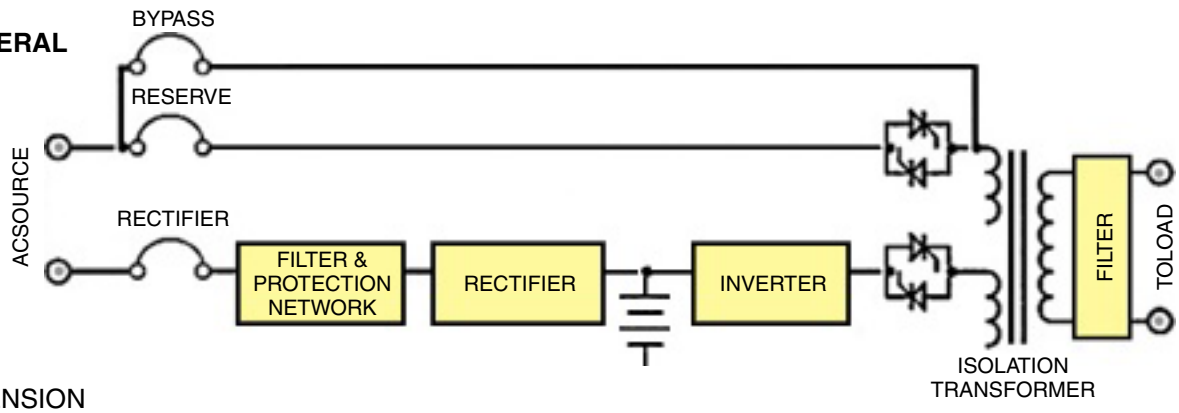
三相超隔離UPS
3-PHASE TRUE GALVANIC ISOLATED UPS
20KVA~320KVA

Safe
Stable
Smart

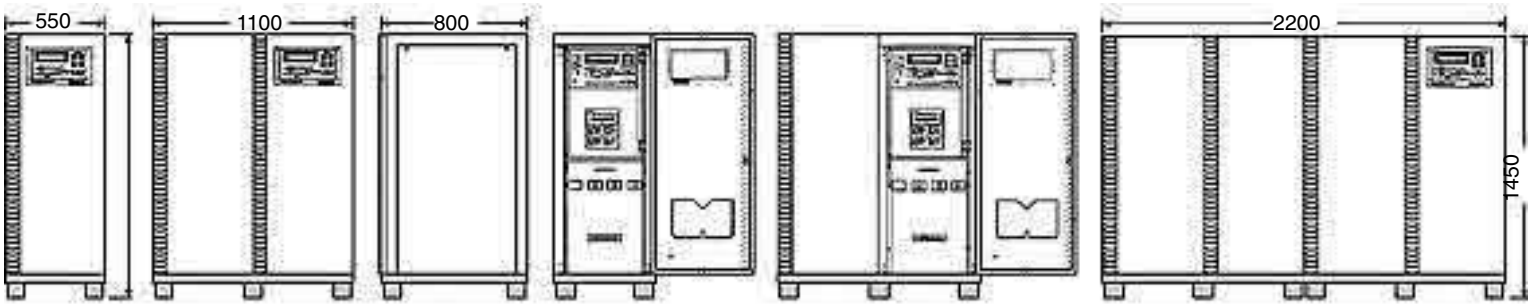
ALP FEATURES AND ADVANTAGES

- **Advanced technology DSP, IGBT and switching components**
  To increase the reliability and efficiency.
- **Multi-CPU design and software/ hardware cooperate control**
  To make the system extremely high reliable.
- **Plug & play modular design**
  To permit quick and convenient maintenance.
- **Each phase with individual inverter supporting**
  Characteristics will not e violated under 100% unbalance load.
- **True Galvanic isolation design**
  To solve ultimately the problem of power system.
- **Protection against detaching and floating of the neutral of input power supply**
  To ensure the safety and stability of the UPS power output.
- **User friendly control design**
  To enable easy operation, different from the strict operation procedure of other brands'.
- **Intelligent charger with temperature compensation**
  To prolong the battery life expectancy.
- **Huge charging power**
  To charge very big capacity, long back-up time battery bank.
- **Intelligent, safe battery test circuitry**
  To test the battery without the risk of output AC failure in case of battery bad.
- **Battery fluid leakage and improper grounding detect circuitry**
  To ensure safety of the battery bank.
- **Intelligent fan speed control**
  To increase the fan life expectancy and reduce audible noise.
- **Reasonable heat evacuation passage design**
  Control circuitry and power circuitry are physically separate. Therefore, the UPS system can operate under harsh environment.
- **Cool start function**
  Can be started without AC mains (with battery only) and no any large surge current being drawn.
- **Various interface options**
  Remote control panel, automatic call-service, automatic cell by cell battery tester, intelligent power distributor, and network monitoring software are available.
- **12-pulse full controlled rectifier (option)**
  To reduce input harmonic current of UPS.
- **Input harmonic Filter (option)**
  To lower T.H.D. (Total Harmonic Distortion) of input current.

ALP SERIES GENERAL TOPOLOGY



ALP SERIES DIMENSION



20/60 KVA | 80/160 KVA | SIDE VIEW | 20/60 KVA INTERIOR DRAWING | 80/160 KVA INTERIOR DRAWING | 240/320 KVA

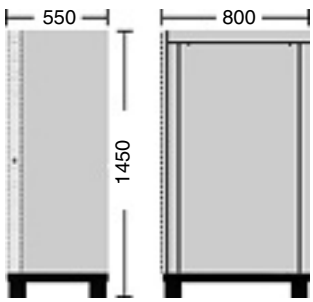
TECHNICAL SPECIFICATION

PHASE		3-Phase Input / 3-Phase Output											3-Phase Input / 1-Phase Output			
KVA		20	30	40	50	60	80	100	120	160	240	320	20	30	40	50
INPUT(RECTIFIER)																
Input Voltage		220V△ /380V△ /460V△ , 208VY/380VY/400VY/415VY														
Input Range		±20% (>±20% is available upon request)														
Input Frequency		50/60 Hz± 7%														
Power Walk In		0%-100% : 20 sec														
Efficiency		≒98%														
Voltage Regulation		±1%														
BATTERY																
Battery Type / Pcs		Maintenance free lead-acid batteries / 12V X 29pcs														
Maximum Charge Current Adc (Selectable)		10	15	20	25	30	40	50	60	80	120	160	10	15	20	25
Battery Start		Yes, UPS can be started without AC source														
INVERTER																
Output Voltage		220V△ /380V△ /460V△ , 208VY/380VY/400VY/415VY, ±1%											220/230/240V,1p 2w or 3w			
Wave Form		Sinewave														
Output Power Factor		0.8														
Frequency Lock Range		45-55Hz/ 55-65Hz														
Output Frequency (Free Running)		50-60Hz ±0.1Hz														
Phase Shift Under 100% Unbalance Load		<0.5														
THD (Linear Load)		<2%														
Overload	<110%	Continuous														
	110-125%	15 minutes														
	125-150%	10 minutes														
	>150%	1 minute														
Efficiency (100% Load)		93%	93%	93.5%	93.5%	94%	94.5%	94.5%	95%	95%	95%	95%	93%	93%	93.5%	93.5%
STATIC SWITCH																
Voltage Range		173-277VAC(L-N)(Different voltages are available upon reguest)														
Mains ⟷ Inverter		0ms														
OVERALL CHARACTERISTICS																
Overall Efficiency		91%	91%	91.5%	92%	92%	92.5%	92.5%	93%	93%	93%	93%	91%	91%	91.5%	92%
Maximum Heat Dissipation (Kw)		1.3	1.9	2.6	3	3.5	4.6	5.4	6.5	8.7	13	17.4	1.3	1.9	2.6	3
HXWXD (mm)		1450X550X800					80-160KVA: 1450X1100X800, 240-320KVA: 1450X2200X800						1450X550X800			
Weight (Kg, without battery)		300	400	480	550	680	820	950	1180	1450	1950	2450	300	400	480	550
Audible Noise		<65 dBA (at 1m)					<67 dBA(at 1m)						<65 dBA(at 1m)			
Temperature		0˚C~45˚C(32-104˚F)														
Humidity		0%-90% (non-condensing)														
Altitude		<1500m above sea level														
EN50091-1,-2		Yes														
Short Circuit Pretection		Yes														
Lightning / EMC Filter		MOV / Input & output (FCC CLASS A)														
Galvanic Isolation		Input & output true galvanic isolation														
LED,LCD, Buzzer		Yes														
Remote Control / Communication Interface		Monitoring 1~99 UPS simultaneously / Dry contact, RS232, RS485														

Different specifications required are available. All specification mentioned above are subject to change without prior notice.

BATTERY CABINET SPECIFICATION

- **Dimension HXWXD (mm)**
  1450X550X800
- **Weight:**
  26Ah/12VX29 pcsX1 set is about 360kgs.
  26Ah/12VX29 pcsX2 set is about 620kgs.



OPTION

- **Emergent stop switch**
  Be installed outside or nearby the UPS for stopping the UPS output in case of emergency.
- **Remote control panel - UPSCAN™**
  A hand held display module with LCD and LED can monitor 1-99 UPS with RS-485 connected in series from distance <1000M.
- **Software for PC monitoring - UPSCOM™**
  A software installed in a PC to monitor 1-99 UPS with RS-232 connected in series. It can also send E-mail through internet or call pager.
- **Auto-dialling module - UPSCALL™**
  In case of abnormal situation, the UPSCALL™ will automatically dial to specified service center for help. Multiple phone numbers can be set and no dedicated line is required.
- **Power management module - ACMAN™**
  An intelligent module communicating with UPS to manage, monitor and record UPS power and load condition.
- **Battery monitoring module - DCMAN™**
  An intelligent module to keep watching battery bank and can distinguish and repair the aged battery before it is seriously worn out.

BACK-UP TIME vs. AH TABLE

BACK-UP KVA / TIME KW	10 / 8	20 / 16	30 / 24	40 / 32	50 / 40	60 / 48	80 / 64	100 / 80	120 / 96	160 / 128	240 / 192	320 / 256
10 min.	8.5	17	26	34	42.5	52	68	83	104	136	208	272
15 min.	10.5	21	31.5	42	52.5	63	84	105	126	168	252	336
30 min.	19.5	39	58.5	78	97.5	117	156	195	234	312	468	624
1 hr.	33.5	67	100.5	134	167.5	201	268	335	402	536	804	1072
2 hr.	56.5	113	169.5	226	282.5	339	452	565	678	904	1356	1808
4 hr.	99.5	199	299	398	498	598	796	996	1196	1592	2392	3184
8 hr.	177.5	355	532	710	888	1064	1420	1776	2128	2840	4256	5680