

3 Phase True On-Line UPS

Double Conversion



Up Select Electronics Co., Ltd.



TECHNICAL SPECIFICATION

Model		3-Phase Input / 3-Phase Output												3-Phase Input / 1-Phase Output			
ALP		15	20	30	40	50	60	80	100	120	160	240	320	20	30	40	50
INPUT (RECTIFIER)		3 Wires + N															
Input Voltage		380Vac , 220Vac / 460Vac, 208Vac / 380Vac / 400Vac / 415Vac															
Input Range		304Vac - 456Vac (> +/- 20% is available upon request)															
Input Frequency		50Hz / 60 Hz + / - 8% (Auto Sensing)															
Power Walk In		0% - 100% : 20 sec															
Efficiency		≥99%															
BATTERY																	
Battery Type / Pcs		Sealed Lead-acid, Maintenance free VRLA/ 12V x 29pcs															
Maximum Charge Current Adc/(Optional)		8/(40)	10/(50)	15/(50)	20/(80)	25/(80)	30/(80)	40/(80)	50/(80)	60/(120)	80/(120)	120/(160)	160	10/(50)	15/(50)	20/(80)	25/(80)
Battery Start		Yes, UPS can be started without AC source.															
Recharger time		3 stages, 5hrs to 90% of full capacity, no battery drain after discharge															
OUTPUT (INVERTER)		3 Wires + N (or 1 Wire + N for 1 phase output series)															
Output Voltage		380Vac, 220Vac / 460Vac , 208Vac/ 380Vac/ 400Vac/ 415Vac +/- 1%												220Vac/230Vac/240Vac			
Wave Form		Sine Wave															
Output Power (KW)		13.5	18	27	36	45	54	72	90	108	144	216	288	18	27	36	45
Frequency Lock Range		50 / 60 Hz + / - 3Hz (Synchronize - Line Mode)															
Output Frequency (Free Running)		50 / 60 Hz + / - 0.1 Hz															
Phase Shift Under 100% Unbalance Load		< 0.5°															
THD (Non - Linear Load)		< 1.5%															
Crest Ratio		3:1															
Back-up time		From 10 minutes to 25 minutes depend on loads for standard UPS/ Extra Battery Bank for long back up (Optional).															
Overload	<110%	Continuous															
	110 – 125%	15 minutes															
	125 – 150%	10 minutes															
	> 150%	1 minute															
Efficiency (100% Load)		93%	93%	93%	93.5%	93.5%	94%	94.5%	94.5%	95%	95%	95%	95%	93%	93%	93.5%	93.5%
STATIC SWITCH																	
Bypass		Bypas Switch for Maintenance/ Automatic to Bypass active if UPS failure or overload															
Voltage Range		173-277 VAC (L-N)															
Mains↔→ Inverter		0 ms															
LCD DISPLAY		Display all the status of UPS such as: P/N; S/N; ID; Capacity; Input/Output Voltage; Input/Output Frequency; Time; Date; Status; Warn; Fault; Real Time Data; Historical Data; Parameter Set; Rectifier Data; Reserver Data; Output Data; Load % each phase; Battery capacity %; DC Voltage; Charge Current; Temperature....															
LED INDICATOR		24 LEDs:Inverter ON, Inverter SS,Short Circuit, Fuse/Over Temp SD, Inverter Fail Shutdown, Bypass ON shutdown, High DC Shutdown, 70% Load,110% Load, 125% Load,150% Load, Reserve AC Fail, Reserve Freq Fail, Battery low Shutdown, Rect AC Fail, Rotation Error, Rectifier Shutdown, High DC, Boost Charge, Battery Test, Emergency Stop , Data Line.															
OVERALL CHARACTERISTICS																	
Overall Efficiency		91%	91%	91%	91.5%	92%	92%	92.5%	92.5%	93%	93%	93%	93%	91%	91%	91.5%	92%
Maximum Heat Dissipation (Kw)		1.1	1.5	1.9	2.6	3	3.5	4.6	5.4	6.5	8.7	13	17.4	1.5	1.9	2.6	3
Height x Width x Depth(mm)		1600 x 550 x 800						80-160KVA: 1600 x 1100 x 800, 240-320KVA: 1600 x 2200 x 800						1600 x 550 x 800			
Weight (Kg, without battery)		300	350	400	480	550	680	820	950	1180	1450	1950	2450	350	400	480	550
Audible Noise		< 55 dBA (Exclusive of buzzer)						< 57 dBA (Exclusive of buzzer)						< 55 dBA (E xclusive of buzzer)			
Temperature		0 – 40°C (32 – 104°F)															
Humidity		0% - 90% (Non–Condensing)															
Altitude		<1500 M Above Sea Level															
EMS		IEC 61000-4-2 (ESD) - level 4; IEC 61000-4-3 (RS) - level 3; IEC 61000-4-4 (EFT) - level 4, IEC 61000-4-5 (Surge) - level 4.															
Parallel function (N+X)		Availability of up to 8 units parallel for power redundancy and load sharing															
Short Circuit Protection		YES															
Lightning / EMI		MOV / Input&Output (FCC CLASS A)															
Galvanic Isolation		Input&Output true Galvanic isolation															
LED,LCD,Buzzer		YES. Fault display or Alarm when Overload or UPS Failure... and automatic retransfer after clearing															
Communication Interface/ Monitoring software		RS232, RS485 with UPSCOM Software (Standard) / SNMP or Dry Contact with software (Optional)															

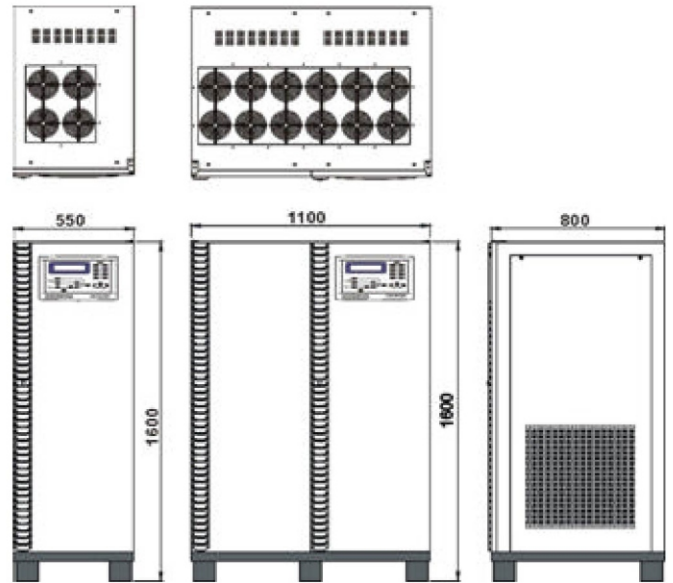
★ Different specifications required are available.

★ All specifications mentioned above are subject to change without prior notice.

FEATURES & ADVANTAGES

- **True Galvanic isolation design**
Solve ultimately the problem of power system, including noise, lightning, and leakage current etc.
- **Protection against detaching and floating of the neutral of input power supply**
Ensure the safety and stability of the UPS power output.
- **No harms if incorrect operation**
With friendly design, different from the strict operation procedure of other brands', UPS will not be damaged by any incorrect operation.
- **Advanced technology DSP, IGBT and switching components**
Increase the reliability and efficiency.
- **Multi-CPU design and software/hardware cooperate control**
Make the system extremely high reliable.
- **Plug & play modular design**
Permit quick and convenient maintenance.
- **Each phase with individual inverter supporting**
Characteristics will not be violated under 100% unbalance load.
- **Intelligent charger with temperature compensation**
Prolong the battery life expectancy. And with huge charging power (selectable), can charge very big capacity, long back-up time battery bank.
- **Intelligent, safe battery test circuitry**
Test the battery without the risk of output AC failure in case of battery bad. And with battery fluid leakage and improper grounding detect circuitry, can ensure safety of the battery bank.
- **Intelligent fan speed control**
Increase the fan life expectancy and reduce audible noise.
- **Reasonable heat evacuation passage design**
Control circuitry and power circuitry are physically separated. 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.
- **Variety of accessory (options)**
Remote control panel, 3 phases software for PC monitoring, auto dialing module, battery monitoring module, 3 phases SNMP card, and emergent stop switch are available.
- **12-Pulse Full Controlled Rectifier (option)**
Reduce harmonic current for 80KVA and above UPS.
- **Input Harmonic Filter (option)**
Reduce T.H.D.(Total Harmonic Distortion) of input current.
- **Parallel Operation (option)**
Connect up to 8 units to increase the capacity.

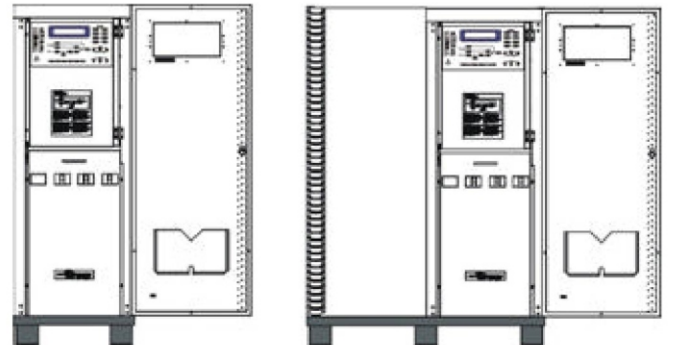
SERIES DIMENSION (mm)



20~60KVA

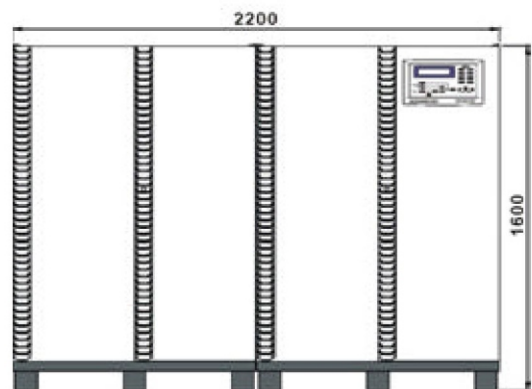
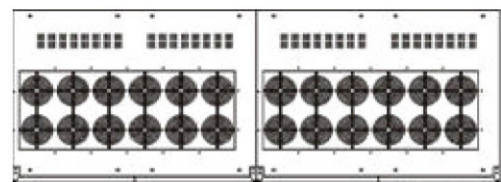
80~160KVA

Side View



20~60KVA Interior View

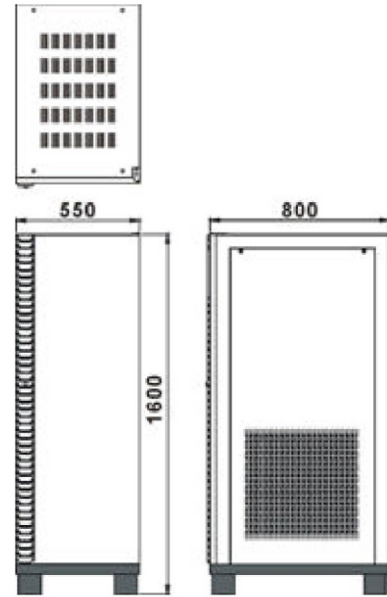
80~160KVA Interior View



240~320 KVA

BATTERY CABINET SPECIFICATION

- **Environment Control:**
Sensor for UPS working environment control (EMD)
- **Battery Cabinet Design:**
The battery cabinet is designed with the same size and outlook as the UPS for convenience of installation when several cabinets of UPS and battery are aligned together. It can accommodate Lead Acid maintenance free battery 26Ah/12V*29pcs (1set) or 58pcs(2sets).
- **Dimension (H × W × Dmm):**
1600 × 550 × 800
- **Weight:**
26Ah/12V × 29pcs × 1set is about 360kgs.
26Ah/12V × 29pcs × 2sets is about 620kgs.



OPTIONS

- **UPSCAN™ - Remote Control Panel**
A hand held display module with LCD and LED can monitor 1 – 99 UPSs with RS-485 connected in series from distance < 1000M.
- **UPSCALL™ - Auto Service Call**
In case of abnormal situation, it will automatically dial to specified service center for help. Multiple phone numbers can be set and no dedicated line is required.
- **UPSCOM™ - PC Monitoring Software**
Can provide real-time three phases information of UPS connected on the line and monitor several UPSs with one PC.
- **DCMAN™ – Battery Monitoring Module**
An intelligent module to keep watching each battery in a battery bank connected in series and can distinguish and repair the aged battery before it is seriously worn out.
- **SNMP/HTTP agent**
Can monitor and manage the UPS through Web browser and Java applet, providing simultaneously three phases data acquisition.
- **Emergency Power Off: EPO**
- **Environment Control:** Sensor for UPS working environment control (EMD)

Up Select Electronics Co., Ltd.

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