



Built To Order 3 Phase UPS Systems



Features Of Built To Order 3 Phase Systems

• True Galvanic Isolation

Solves all major power problems including electrical noise, surges, brown outs, and leakage current.

• N+1 Parallel Operation (Optional)

- Full Redundancy

• Neutral Protection

Ensures the safety and stability of the UPS power output.

• User Friendly Design

Easy to setup and easy to operate design.

• Advanced Technology

DSP, IGBT, and advanced switching components increase reliability and efficiency.

• Plug & Play Modular Design

Allows for easy replacement, maintenance, and operation.

• Multiple CPUs

Ensures high reliability.

• Dedicated Inverter For Each Phase

Resolves potential issues with phase imbalances.

• Smart Charger

Maximizes battery life by monitoring battery health, temperature, and statistics while adjusting charge levels in real-time accordingly.

• Diagnostics/Testing Built In (Optional)

Tests the batteries to ensure that the system is in good operating health. Routine testing uncovers potential problems before they become serious.

• Intelligent Fan Speed Control

Increases the fan life expectancy and reduces audible noise.

• Efficient Heat Dissipation

Control circuitry and power circuitry are physically separated allowing the UPS system to operate in harsh environments.

• Cold Start Functionality (Optional)

Can be started without AC mains connected (battery power only).

• Multiple Optional Accessories

- Remote control panel
- 3 phase PC monitoring software
- Auto dialing module
- Battery monitoring module
- 3 phase SNMP card
- Emergency stop switch

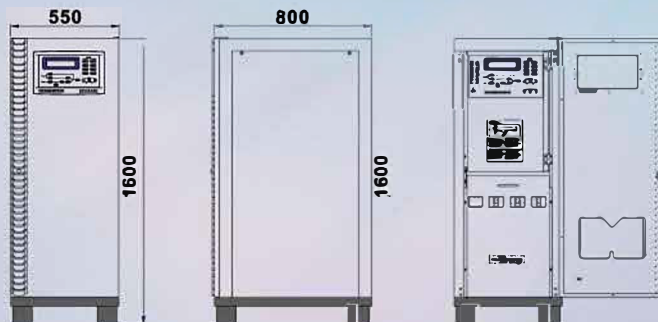
• 12-Pulse Fully Controlled Rectifier (Optional)

Reduces harmonic current.

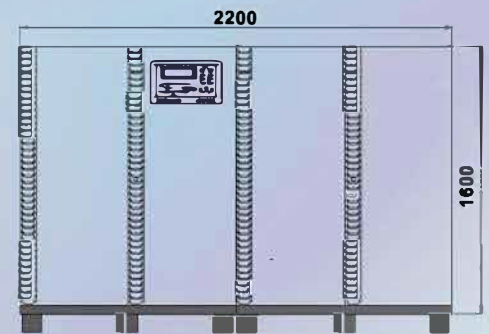
• Input Harmonic Filter (Optional)

Reduces T.H.D. (Total Harmonic Distortion) of the input current.

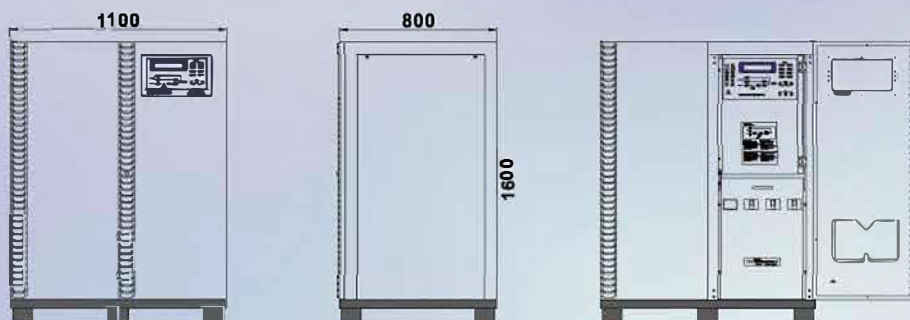
▶ 10-60 KVA



▶ 240-320 KVA



▶ 80-160 KVA



Note:
If you have installation space restrictions, cabinet dimensions can be modified to fit. Please contact us with special requirements.

Optional External Battery Cabinets

• Battery Cabinet Design:

The battery cabinet is designed to be the same size as the controlling UPS.

It can accommodate the following configurations:

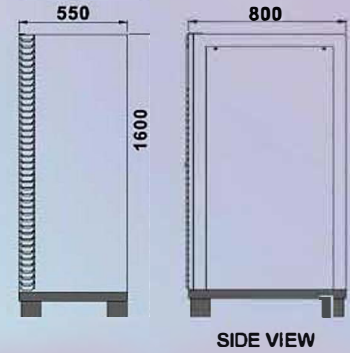
- 29x 12 Volt 26 Amp Hour Batteries (1 Set)
- 58x 12 Volt 26 Amp Hour Batteries (2 Sets)

• Dimension (H x W x D mm):

- 1600 x 550 x 800 : 12V 26AH x 29 pcs, or 12V 26AH x 58 pcs (2 strings)
- 1600 x 1100 x 800 : 12V 75AH x 29 pcs, or 12V 88AH x 29 pcs, or 12V 100AH x 29 pcs

• Weight:

- 26Ah / 12V x 29 pcs x 1 set is about 360 Kgs 12V 75AH x 29 pcs x 1 set is about 1,075 Kgs
- 26Ah / 12V x 29 pcs x 2 sets is about 620 Kgs 12V 88AH x 20 pcs x 1 set is about 1,185 Kgs 12V 100AH x 29 pcs x 1 set is about 1,325 Kgs



Backup Time	KVA	10	20	30	40	50	60	80	100	120	160	240	320
	KW	8	16	24	32	40	48	64	80	96	128	192	256
10 Minutes		10.2	20.4	31.2	40.8	51	62	82	100	125	163	250	326
15 Minutes		12.6	25.2	37.8	50.4	63	76	101	126	151	202	302	403
30 Minutes		23.4	46.8	70.2	93.6	117	140	187	234	281	374	562	749
1 Hour		40.2	80.4	120.6	160.8	201	241	322	402	482	643	965	1071
2 Hours		67.8	135.6	203.4	271.2	339	407	542	678	814	1085	1627	2169
4 Hours		119.4	238.8	358.8	477.6	597.6	718	955	1195	1435	1910	2870	3820
8 Hours		213	426	638.4	852	1065.6	1277	1704	2131	2554	3408	5107	6816

Peripheral Options

• Remote Control Panel

A hand held LCD display module that can monitor 1-99 UPS' with RS-485. Up to 1,000 meters distance.



• Auto Dialing Module

This system will automatically dial a specified phone number or phone numbers if a power event is detected.

• 3 Phase Monitoring Software

Provides real-time information on all 3 phases of the UPS.

• Battery Monitoring Module

Monitors each battery in the UPS. Allows for any bad battery to be located and replaced before it fails.

• SNMP Card For IP Networks

Allows for communication with the UPS via a standard network cable.

• Emergency Stop Switch

Allows immediate emergency stopping of the UPS output with a single button.

Technical Specifications

International Power Systems

PHASE	3 Phase or 1 phase Input, 3 Phase or 1 phase Output													
KVA	10	20	30	40	50	60	80	100	120	160	240	320	400	
INPUT (RECTIFIER)														
Input Voltage (Either one of these Voltages)	380V / 400V / 415V, 3P4W OR 3P3W (Other Voltage systems also available)													
Input Voltage Range	+/- 20% (Wider than +/- 20% is available upon request)													
Input Frequency	50/60 Hz +/- 5Hz													
Power Walk In	0% ~100% : 20 sec													
Efficiency, Approximate	~ 98%													
BATTERY (OPTIONAL)														
Battery Type / Pcs	Maintenance free lead acid batteries / 12V x 29pcs per String													
Maximum Charge Current Adc (Selectable)	5	10	15	20	25	30	40	50	60	80	120	160	200	
Battery Start	If equipped with Optional Battery Bank. SFC can be started without Input AC Source,													
INVERTER														
Output Voltage (Either one of these Voltages)	190V / 208V / 220V / 380V / 400V / 415V / 440V / 460V / 480V / 600V, 3P4W OR 3P3W (Other Voltage systems also available)													
Output Voltage Regulation	+/-1%													
Wave Form	Sine Wave													
Output Power Factor	0.8													
Frequency Lock Range	50 / 60 Hz +/- 3 Hz													
Output Frequency (Free Running)	50 / 60 Hz +/- 0.1 Hz													
Phase Shift Under 100% Unbalance Load	< 0.5°													
THD (Linear Load) Approximate	~ 2.5 %						~ 3.0 %							
Overload	<110%		Continuous											
	110% ~ 124%		15 Minutes											
	125% ~ 149%		10 Minutes											
	>=150%		60 Seconds											
Efficiency (100% Load), Approximate	91%	91.5%	92%	92.5%	93%									
OVERALL CHARACTERISTICS														
Over Efficiency, Approximate	89%	89.5%	90%	90.5%	91%									
Width x Height x Depth (mm)	550 x 1600 x 800						1100 x 1600 x 800				2240 x 1600 x 800			
	3380 x 1600 x 800 (400K)													
Weight (Kg, without battery)	270	300	400	480	550	680	820	950	1180	1450	2900	3100	3500	
Audible Noise	< 65 dBA (At 1M)						< 67 dBA (At 1M)				< 70 dBA (At 1M)			
Temperature / Humidity	0~40 Degree C, 32~104 Degree F; 0% ~ 90% (Non- Condensing)													
Altitude	<1500 M Above Sea Level													
FCC CLASS A, EN50091-1,2	YES													
Short Circuit Protection	Rectifier, Reserve, and Bypass													
Lightning / EMC Filter	MOV / Input & Output													
Galvanic Isolation	Input & Output True Galvanic Isolation													
Indicator & Alarm	LCD, LED, Mimic Display, Buzzer													
Remote Control / Communication Interface	Monitoring 1-99 UPS simultaneously / Dry contact, RS232, RS485													

* Custom specifications are available and can easily be modified to your application requirements.

* Please contact us for details on systems from 400 kVA to 2,000 kVA.

* The above specifications are based on 6 pulse rectifier.

* Specifications are subject to change without prior notice.

Technical Specifications

North America Power Systems

PHASE	3 Phase or 1 phase Input, 3 Phase or 1 phase Output												
KVA	10	20	30	40	50	60	80	100	120	160	240	320	400
INPUT (RECTIFIER)													
Input Voltage (Either one of these Voltages)	190V / 208V / 220V / 440V/ 480V / 600V, 3P4W OR 3P3W (Other Voltages also available)												
Input Voltage Range	+/- 15% (Wider than +/-15% is available upon request)												
Input Frequency	50/60 Hz +/- 5Hz												
Power Walk In	0% ~ 100% : 20 sec												
Efficiency, Approximate	~ 98%												
BATTERY (OPTIONAL)													
Battery Type / Pcs	Maintenance free lead acid batteries / 12V x 29pcs per String												
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Battery Start	If equipped with Optional Battery Bank. SFC can be started without Input AC Source,												
INVERTER													
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Output Voltage Regulation	+/-1%												
Wave Form	Sine Wave												
Output Power Factor	0.8												
Frequency Lock Range	50 / 60 Hz +/- 3 Hz												
Output Frequency (Free Running)	50 / 60 Hz +/- 0.1 Hz												
Phase Shift Under 100% Unbalance Load	< 0.5°												
THD (Linear Load), Approximate	~ 2.5 %						~ 3.0 %						
Overload	<110%	Continuous											
	110% ~ 124%	15 Minutes											
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OVERALL CHARACTERISTICS													
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Width x Height x Depth (mm)	550 x 1600 x 800						1100 x 1600 x 800				2240 x 1600 x 800		
	3380 x 1600 x 800 (400K)												
Weight (Kg, without battery)	270	300	400	480	550	680	820	950	1180	1450	2900	3100	3500
Audible Noise	< 65 dBA (At 1M)						< 67 dBA (At 1M)				< 70 dBA (At 1M)		
Temperature / Humidity	0~40 Degree C, 32~104 Degree F; 0% ~ 90% (Non- Condensing)												
Altitude	<1500 M Above Sea Level												
FCC CLASS A, EN50091-1,2	YES												
Short Circuit Protection	Rectifier, Reserve, and Bypass												
Lightning / EMC Filter	MOVE/ Input & Output												
Galvanic Isolation	Input & Output true Galvanic isolation												
Indicator & Alarm	LCD, LED, Mimic Display, Buzzer												
Remote Control / Communication Interface	Monitoring 1-99 UPS simultaneously / Dry contact, RS232, RS485												

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400Hz Frequency Converter Technical Specifications

International Power Systems

PHASE	3 Phase or 1 phase Input, 3 Phase or 1 phase Output													
KVA	10	20	30	40	50	60	80	100	120	160	240	320	400	
INPUT (RECTIFIER)														
Input Voltage (Either one of these Voltages)	380V / 400V / 415V / 440V, 3P4W OR 3P3W (Other Voltage systems also available)													
Input Voltage Range	+/- 15% (Wider than +/- 20% is available upon request)													
Input Frequency	50/60 Hz +/- 5Hz													
Power Walk In	0% -100% : 20 sec													
Rectifier Efficiency	>98%													
BATTERY (OPTIONAL)														
Battery Type / Pcs	Maintenance free lead acid batteries / 12V x 29pcs													
Maximum Charge Current Adc (Selectable)	5	10	15	20	25	30	40	50	60	80	120	160	200	
Battery Start	If equipped with Optional Battery Bank. SFC can be started without Input AC Source,													
INVERTER														
Output Voltage (Either one of these Voltages)	3P 200/115V, 3P 208/120V, 3P 575/332V (Other Voltage systems also available Upon Request)													
Output Voltage Regulation	+/-1%													
Wave Form	Sine Wave													
Output Power Factor	0.8													
Output Frequency (Free Running)	400Hz +/- 0.1 Hz													
Phase Shift Under 100% Unbalance Load	< 0.5°													
THD (Linear Load)	~ 3.0 %													
Overload	<110%	Continuous												
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