

Matrix^x

6 KVA / 10 KVA / 20 KVA
STAND ALONE UPS



Matrix-SA Series Online UPS Systems 6KVA/10KVA/20KVA



BENEFITS:-

- DSP based High frequency design using IGBT.
- Active Power Factor Correction with input power factor > 0.99 for 10% to 100% load.
- High efficiency in both Mains Mode & Battery Mode.
- Extra wide Input voltage Window.
- Noiseless operation.
- SMPS Based Charger.
- High-inrush current handling capacity.
- User friendly LCD display.

FEATURES:-

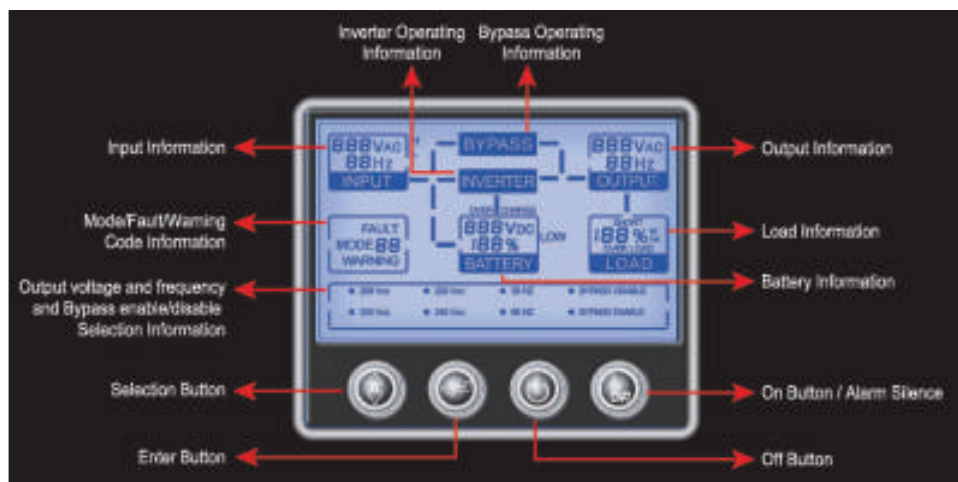
- Inbuilt static bypass.
- High crest factor handles all high-inrush current loads without need for power rating upgrade.
- DC-start function.
- Parallel redundancy is available.

MATRIX - SA SERIES, BUILT FOR RELIABILITY, PURITY AND POWER

Matrix – SA Series UPS make use of double conversion circuitry to detect the electricity current and voltage output of utility power supply. The current is via the high frequency PWM to maintain uniform wave form and phase in line with the voltage, so as to attain high input power factor over 95% and avoid generating comparatively significant harmonic interference on the power.

With the use of outstanding IGBT as the power conversation component, the operating frequency of the inverter of UPS is capable of reaching tens of KHz, due to the high frequency operating characteristics of IGBT. Higher working efficiency of the inverter also improves the overall efficiency of the UPS and higher inversion frequency reduces the noise of the inverter as well.

Trendy and Elegant LCD design for the real time UPS system information.



Microprocessor Control:

By mean of innovative software and control programs, the complicated hardware circuitry is inlaid in the powerful microprocessor. Apart from reduced size it also lowers the defective rate of UPS.

Communication Port:

Matrix SA Series offer three different communication ports for the user selection : RS-232, USB card, SNMP card and AS-400 card. Through either one of them, the user can control and monitor UPS status easily.

Extended Backup Time:

Long backup models are allowed to connect external batteries to get prolonged backup time. The feature is particularly suitable for the areas where power supply are consistently in shortage .

Auto Self- Testing System:

When turning on the Matrix SA Series UPS system, it immediately performs an inspection of the components such as the inverter, the battery, and the load. The system will also detect any problems in time to avoid causing any damage to the system.

N+X Parallel Redundancy:

The parallel redundancy feature is available for high level 6 KVA to 20 KVA models. Comparing to current 1 + 1 parallel redundancy architecture technology in the market, Su-Kam N+X parallel redundancy architecture technology can even achieve the saving of purchasing an extra UPS with corresponding backup rating. This feature benefits on the reducing the cost on your IT equipment investment.

User Selectable Output Voltage.

Matrix SA Series enables users to select corresponding output voltage to the local mains power without changing hardware. User can select output voltage by just pushing a button.

Power Management Software :

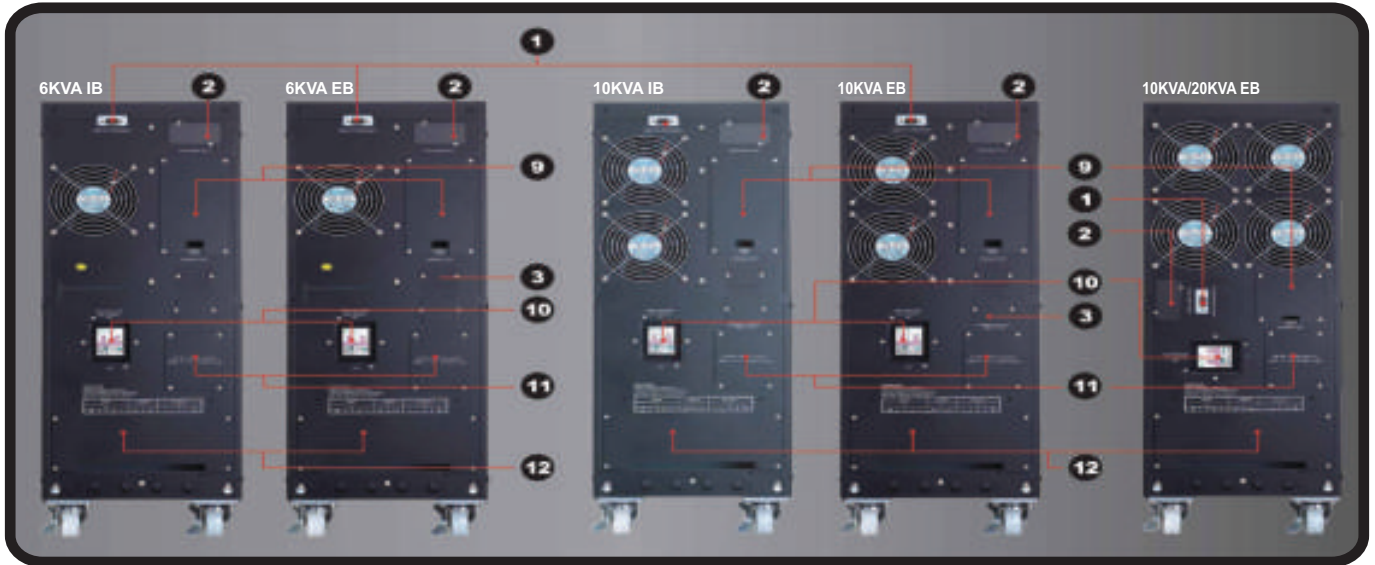
To provide the battery control of the Matrix SA Series UPS system, we developed a free download software, Winpower, available online for you to monitor and manage UPS working status easily and in real time.

Model		6KVA IB	6KVA EB	10KVA IB	10KVA EB
CAPACITY	KVA / W	6KVA/5400W		10KVA/9000W	
INPUT	Adjustable Input Voltage	110 ~ 276VAC			
	Adjustable By Pass Voltage	110 ~ 276VAC			
	Frequency Range	45Hz ~ 55Hz / 54Hz ~ 66Hz			
	Phase	Single phase with ground			
	THDI	< 5% @ R Full Load			
	Power Factor	0.99			
OUTPUT	Voltage	208/220/230/240VAC			
	Voltage Regulation	< 1%			
	Current Crest Ratio	3:1			
	Frequency (Synchronized Range)	45Hz ~ 55Hz / 54Hz ~ 66Hz			
	Frequency (Battery Mode)	50/60 +/- 0.05 Hz			
	Harmonic Distortion	2% @ Linear Load 5% @ Non-Linear Load			
	Output Waveform	Pure Sine Wave			
	Over Load Capacity line mode	2 min @ 105% ~ 125%			
	Over Load Capacity BAT mode	30 sec @ 125% ~ 150% 1 sec @ 150% ~ 150% load			
	Parallel	upto 4			
EFFICIENCY	Line Mode	> 92% @ Full Load and Battery Fully Charged			
	BAT Mode	> 92% @ Full Load and 12Vdc/Battery			
	ECO Mode	> 96% @ Full Load and Battery Fully Charged			
BATTERY	Numbers of Batteries	20	Depending upon the capacity of external Batteries	20	Depending upon the capacity of external Batteries
	Battery Type	12V/7Ah		12V/9Ah	
	Backup Time (Full Load)	> 5 minutes		> 9 minutes	
	Recharge Time	5 hours to 90%		5 hours to 90%	
	Charging Current	1.2A	4.0A	1.2A	4.0A
	Rated Battery Voltage	240VDC			
TRANSFER TIME	BAT <--> LINE	0ms			
	INV <--> BYPASS	0ms			
	ECO --> INV	< 10ms			
INDICATOR	LCD	Load Level / Battery Level / Battery Mode / AC Mode / Bypass Mode / Fault			
AUDIBLE ALARM	Battery Mode	Sounding every 4 seconds			
	Low Battery	Sounding every second			
	Fault	Continuously Sounding			
	Overload	Sounding twice every second			
DIMENSION	Tower Case (WxHxD)mm	260 x 708 x 550			
ENVIRONMENT	Operating Environment	0-40° C			
	Relative Humidity	0-95% (NON-CONDENSING)			
	Noise Level	< 50dB @ 1 Meter			
INTERFACE	USB/RS232	Software supports Windows Family, Linux, Sun Solaris, IBM Aix, Compaq True64, SGI IRIX, FreeBSD, HP-UX, and MAC			
	External Slot	SNMP/AS400/Relay Card			
	EPO	Emergency Power Off			

Model		10KVA EB (3P-1P)	20KVA EB (3P-1P)
CAPACITY	KVA / W	10KVA/9000W	20KVA/18000W
INPUT	Adjustable Input Voltage	190VAC-478VAC Depends on Load Level	110VAC-276VAC Depends on Load Level For Single Phase Input 190VAC-478VAC Depends on Load Level For Three Phase Input
	Adjustable By Pass Voltage	110 ~ 276VAC	
	Frequency Range	45Hz ~ 55Hz/ 54Hz ~ 66Hz	
	Phase	Three phase with ground	
	THDI	< 5% with R Full load	
	Power Factor	0.99 @ R Full load	
OUTPUT	Voltage	200/208/220/230/240VAC	
	Voltage Regulation	< 1%	
	Current Crest Ratio	3:1	
	Frequency (Synchronized Range)	45Hz ~ 55Hz/ 54Hz ~ 66Hz	
	Frequency (Battery Mode)	50/60 ± 0.05 Hz	
	Harmonic Distortion	2% @ Linear Load 5% @ Non-Linear Load	
	Output Waveform	Pure Sine Wave	
	Over Load Capacity line mode	5min @ 100% ~ 110% load 1min @ 110% ~ 130% load	
	Over Load Capacity BAT mode	10s @ 130% ~ 150% load 2s @ > 150% load	
	Parallel	upto 4	
EFFICIENCY	Line Mode	> 93% @ Full Load and Battery Fully Charged	
	BAT Mode	> 93% @ Full Load and 12Vdc/Battery	
	ECO Mode	> 97% @ Full Load and Battery Fully Charged	
BATTERY	Numbers of Batteries	20 pcs	24 pcs
	Battery Type	12V	12V
	Charging Current	4A (Expandable)	4A (Expandable)
	Rated Battery Voltage	240VDC	288VDC
TRANSFER TIME	BAT <--> LINE	0ms	
	INV <--> BYPASS	0ms	
	ECO --> INV	< 10ms	
INDICATOR	LCD	Load Level / Battery Level / Battery Mode / AC Mode / Bypass Mode	
AUDIBLE ALARM	Battery Mode	Sounding every 4 seconds	
	Low Battery	Sounding every second	
	Fault	Continuously Sounding	
	Overload	Sounding twice every second	
DIMENSION	Tower Case (WxHxD)mm	350 x 890 x 650	
ENVIRONMENT	Operating Environment	0-45° C	
	Relative Humidity	0-95% (NON-CONDENSING)	
	Noise Level	< 50dB @ 1 Meter	
INTERFACE	USB/RS232	Software supports Windows Family, Linux, Sun Solaris, IBM Aix, Compaq True64, SGI IRIX, FreeBSD, HP-UX, and MAC	
	External Slot	SNMP/AS400/Relay Card	
	EPO	Emergency Power Off	

BACK PANEL FOR ALL MODEL:

- | | | |
|--|---------------------------------------|------------------------|
| 1. Communication Port. | 5. Output Socket | 9. Parallel port |
| 2. Intelligent Slot. | 6. Network/Fax/Modem/Surge Protector. | 10. Input breaker |
| 3. External Battery Socket (For XL models only). | 7. Input Socket | 11. Maintenance Switch |
| 4. Breaker | 8. Output Terminal block | 12. Terminal Block |
| | | 13. Fuse |



APPLICATIONS



Workstations & Lan Servers



Security Systems/Control Rooms



Plotters



IT Solutions & Offices



Point of Sale (POS) Systems



Air Traffic Control Systems



Su-Kam Power Systems Ltd.

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Helpline No. : 1800-102-7555 (Toll Free)



Su-Kam®

Intelli UPS

DSP based TRUE ONLINE

DOUBLE CONVERSION VFI TECHNOLOGY



Audit your Power Quality through Power Manager Software



SALIENT FEATURES

- Wide Input Voltage & Frequency Window
- Built-in Galvanic Isolation Transformer
- Auto-self Test on LCD Panel
- Fuzzy Logic Controlled battery charging
- Intelligent Battery Management
- Scalable Runtime
- Cold Start

APPLICATIONS

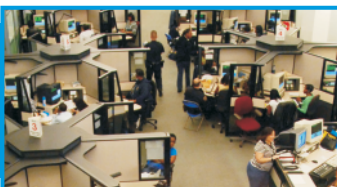
- Workstations/Servers
- Networking Equipment
- Telecom
- Color Labs
- ATM Machines/POS Systems
- Gold Analyser Machines
- Security Systems
- Textile Industry

1 Phase Input - 1 Phase Output

TECHNICAL SPECIFICATIONS

Type	1 Phase Input - 1 Phase Output					
Series	IntelliQ Online UPS					
Technology	DSP based Double Conversion Online UPS system with true galvanic isolation					
Ratings	1 KVA	2 KVA	3 KVA	5 KVA	7.5 KVA	10 KVA
Model	IQ111K	IQ112K	IQ113K	IQ115K	IQ117.5K	IQ1110K
Capacity	1 KVA	2 KVA	3 KVA	5 KVA	7.5 KVA	10 KVA
INPUT						
No. of Phases	1Phase-3Wire P,N,E					
Voltage Range	170 V - 280 Volts AC					
Input Frequency Range	47 to 53Hz.					
OUTPUT						
Power	700 W	1600 W	2400 W	4000 W	6000 W	8000 W
Load PF Range	0.8 lagging					
Phase	1 Phase -2 Wire (P,N)					
Output Waveform	Pure Sine Wave					
Voltage	230 V +/-1%					
Frequency	50Hz +/-0.1%					
Load Crest Factor	> 3:1					
Output Voltage THD	< =3% on Linear Load					
Loading Capacity	110% for 2 Minutes					
BY-PASS						
Maintenance By-Pass	Available					
BATTERIES						
No. of 12V Batteries	4	15	15	15	16	16
Voltage	48 VDC	180 VDC	180 VDC	180 VDC	192 VDC	192 VDC
Battery Charging current	0.8 Amp to 8 Amp	1 Amp to 10 Amp				
Battery Recommendation	From 7.2 Ah to 200 Ah					
Battery Self Test	Automatic & Manual					
User Interface						
Communication port	RS-232 Server and Client					
Operating System	Windows95/98/NT/2000/XP					
GENERAL						
Indication	LCD panel					
Alarm	Mains Failure, Battery Low, Over Load Short Circuit					
Protection	Short Circuit , Over Voltage & Under Voltage Protection.					
Cooling	Forced Air Cooling					
UPS Efficiency	> 85%					
Operating Temperature	0-45DegC					
Operating Humidity	95% Condensing					
Monitoring Software	Additional Software available for remote monitoring					
Acoustic Noise	<45 Db at 1 meter					
Protection Class	Ip20					
UPS Weight	32Kg (Without Batteries)	40Kg (Without Batteries)	57.5Kg (Without Batteries)	71.5 Kg (Without Batteries)	93Kg (Without Batteries)	108Kg (Without Batteries)
Dimension (L X W X H)	(490 X 225 x 350)MM	(550 X 350 X 325)MM	(475 X 350 X 610)MM	(475 X 350 X 610)MM	(550 X 350 X 660)MM	(550 X 350 X 660)MM

Specifications are subject to change without prior notice.



3 Phase Input - 1 Phase Output

TECHNICAL SPECIFICATIONS

Type	3 Phase Input – 1 Phase Output			
Series	IntelliQ Online UPS			
Technology	DSP based Double Conversion Online UPS with true Galvanic Isolation			
Ratings	10 KVA	15 KVA	20 KVA	25 KVA
Model	IQ3110K	IQ3115K	IQ3120K	IQ3125K
Capacity	10 KVA	15 KVA	20 KVA	25 KVA
INPUT				
No. of Phases	3 Phase- 4 Wire			
Voltage Range	310 V – 480 Volt AC			
Input Frequency Range	47 - 53 Hz			
OUTPUT				
Power	8000 W	12000 W	16000W	20000 W
Load PF Range	0.8 lagging			
Phase	1 Phase -2 Wire (P,N)			
Output Waveform	Pure Sine Wave			
Voltage	230V ± 1%			
Frequency	50Hz +/-0.1%			
Load Crest Factor	> 3:1			
Output Voltage THD	<=3% on Linear Load			
Loading Capacity	110% for 5 Minutes/ 125% for 1 Min/ 150% for 10 Sec			
BY-PASS				
Capacity	125% continues			
Maintenance By-Pass	Available			
BATTERIES				
No. of 12V Batteries	30			
Voltage	360 V DC			
Battery Charging current	0.8 Amp to 8 Amp			
Battery Recommendation	From 7.2 Ah to 200 Ah			
Battery Self Test	Automatic & Manual			
USER INTERFACE				
Communication port	RS-232 Server and Client			
Operating System	Windows95/98/NT/2000/XP			
GENERAL				
Indication	LCD pannel			
Alarm	Mains Failure, Battery Low, Over Load Short Circuit			
Protection	Short Circuit , Over Voltage & Under Voltage Protection.			
Cooling	Forced Air Cooling			
UPS Efficiency	> 90%			
Operating Temperature	0-45DegC			
Operating Humidity	95% Condensing			
Monitoring Software	Additional Software available for remote monitoring			
Accoustic Noise	<45 Db at 1 meter			
Protection Class	Ip20			
UPS Weight	131 Kg (without Batteries)	156 Kg (without Batteries)	170 Kg (without Batteries)	170 Kg (without Batteries)
Dimension (H X W X D)	450MM X 650MM X 700MM	450MM X 650MM X 700MM	450MM X 700MM 730MM	450MM X 700MM X 730MM

Specifications are subject to change without prior notice.



3 phase input - 3 phase output

TECHNICAL SPECIFICATIONS

Type	3 phase input - 3 phase output									
Series	IntelliQ Online UPS									
Technology	DSP based Double Conversion Online UPS system with True Galvanic Isolation									
Ratings	5 KVA	7.5 KVA	10 KVA	15 KVA	20 KVA	25 KVA	30 KVA	40 KVA	50 KVA	65 KVA
Model	IQ335K	IQ337.5K	IQ3310K	IQ3315K	IQ3320K	IQ3325K	IQ3330K	IQ3340K	IQ3350K	IQ3365K
Capacity	5 KVA	7.5 KVA	10 KVA	15 KVA	20 KVA	25 KVA	30 KVA	40 KVA	50 KVA	65 KVA
INPUT										
No. of Phases	3 Phase – 4 Wire									
Voltage Range	310 V – 480 Volt AC									
Input Frequency Range	47 – 53 Hz									
OUTPUT										
Power	4000 W	6000 W	8000 W	12000 W	16000 W	20000 W	24000 W	32000 W	40000 W	52000 W
Load PF Range	0.8 lagging									
Phase	3 Phase- 4 Wire									
Output Waveform	Pure Sine Wave									
Voltage	400V ± 2% (P-P), 380V & 415V user selection also available									
Frequency	50Hz +/-0.1Hz									
Load Crest Factor	> 3:1									
Output Voltage THD	<=3% on Linear Load									
Loading Capacity	110% for 8 Minutes/ 125% for 1 Min/ 150% for 13 Sec									
BY-PASS										
Capacity	125% continues									
Maintenance By-Pass	Available									
BATTERIES										
No. of 12V Batteries	30									
Voltage	360 V DC									
Battery Charging current	10 Amp									
Battery Recommendation	From 7.2 Ah to 200 Ah									
Battery Self Test	Automatic & Manual									
USER INTERFACE										
Communication port	RS-232 Server and Client									
Operating System	Windows95/98/NT/2000/XP									
GENERAL										
Indication	LCD pannel									
Alarm	Mains Failure, Battery Low, Over Load Short Circuit									
Protection	Short Circuit , Over Voltage & Under Voltage Protection.									
Cooling	Forced Air Cooling									
UPS Efficiency	> 90%									
Operating Temperature	0-45DegC									
Operating Humidity	95% Condensing									
Monitoring Software	Additional Software available for remote monitoring									
Accoustic Noise	<45 Db at 1 meter									
Protection Class	Ip20									
UPS Weight (Without Batteries)	105Kg	125Kg	155Kg	198Kg	210Kg	223Kg	240Kg	423.5Kg	500Kg	582Kg
Dimension (L x W x H) (In mm)	(450x700 x700)	(450 x 700 x 700)	(450 x 700 x 700)	(450 x 700 x 700)	(450 x 750 x 700)	(500 x 800 x 750)	(500 x 800 x 750)	(810 x 755 x 1460)	(810 x 755 x 1460)	(810 x 755 x 1460)

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How to Install this Product?

Watch our step-by-step installation video for these products on our Youtube Channel. We have made many interesting videos to help you understand various features in our products.



Got Questions About this Product?

Please call our toll-free number (**1800 102 4423 - for India only**) or message us on our Facebook Page and we will answer all your questions.

