

MODEL	SES 210		SES 220	SES 230
INPUT				
Power (kVA)	1	2	3	
Voltage Range	110VAC - 300VAC (@ 0% to 25% Load)			
	140VAC - 300VAC (@ 25% to 50% Load)			
	160VAC - 300VAC (@ 50% to 100% Load)			
Frequency	45Hz - 65Hz			
Power Factor	=>0.99 (@full linear load)			
OUTPUT				
Output Power Factor	0.7			
Voltage	220VAC / 230VAC / 240VAC			
Voltage Regulation	<±1% (till low battery warning signal)			
Frequency (Synchronized range)	3Hz or 1Hz (selectable)			
Frequency (Battery Mode)	50 / 60Hz±0.1%			
Harmonic Distortion	<3% (@full linear load), <6% (@full non-linear load)			
Crest Factor	03:01			
Output Waveform	Sinusoidal			
Overload Capacity	100% to 105% : Continuous / 106%-120% : 30 seconds / 121%-150% : 10 seconds / >150% : transfer to bypass			
Line Mode efficiency	±>86%	±>87%	±>88%	
Battery Mode efficiency	±>85%	±>86%	±>87%	
Transfer Time (AC to DC)	0ms			
Outlets	3pcs IEC and 1pc Schuko	3pcs IEC and 2pcs Schuko	6pcs IEC and 2pcs Schuko	
BATTERY				
Type	Maintenance-free lead acid batteries			
Recharge time (up to 80 %)	5hours			
Voltage	24VDC	48VDC	72VDC	
Quantity	2 pcs 12V 7ah	4 pcs 12V 7ah	6 pcs 12V 9ah	
Back Up Time Full Load	3 min			
Half Load	10 min			
Cold Start	YES			
DISPLAY				
LED Display	Normal Mode, Battery Mode, Bypass Mode, Self-Test, Weak-Bad Batery, Site Wiring Fault, Fault, Overlaod, Load/Battery Level			
ALARMS				
Battery	Buzzer Sound once every 1.5 secods			
Low Battery	Buzzer Sound once every 0.2 secods			
Overload	Buzzer Sound once every 3 secods			
Normal alarm	Buzzer Sound once every 3 secods			
Fault	Countinous Buzzer Sound			

PROTECTION			
Short Circuit	Bypass Mode: Fuse, Normal Mode: Output Breaker / Electronic Circuit, Battery Mode: Output Breaker / Electronic Circuit		
Battery	Battery Discharge Management		
EPO	UPS shuts down immidiately		
Over Temperature	Normal Mode: Transfers to Bypass Mode, Battery Mode: UPS shuts down immidiately		
COMMUNICATION			
Interface	RS-232		
(Communication Port)			
Monitoring and Management Software	standard		
Options	Dry Contact Board, USB Board, SNMP Card		
ENVIRONMENT			
Temparature	0°C - 40°C		
Humidity	0% - 90% (without condensation)		
Noise Level(1m Distance)	<50dBA		
Protection Class	IP20		
PHYSICAL SPECIFICATIONS			
Tower Type			
Net Weight(kg)	12	22	27
Dimensions (mm) WxDxH	144x360x220	152x438x322	190x438x322
STANDARDS			
Standards	EN 62040-1-1 (safety), EN 62040-2(EMC)		