

ELS-31 SERIES (10-20kVA)

- ✓ High Frequency True Double Conversion
- ✓ DSP (Digital Signal Processors) Technology
- ✓ Input Power Factor Correction (PFC)
- ✓ Wide Input Voltage Range (110~300V)
- ✓ Output Power Factor = 0.9
- ✓ Cold Start (Start from Battery without Mains)
- ✓ Selectable Input / Output Voltage via LCD
- ✓ ECO Mode for Efficient Operation
- ✓ Load-Based Smart Fan Control
- ✓ Short Circuit and Overload Protection



Buildings



Server Systems



Medical Facilities



Industrial Factories



Transportation Systems



Emergency Systems

TECHNICAL SPECIFICATIONS

MODEL		ELS-3110	ELS-3120	
Power (kVA)		10kVA	20kVA	
Power (kW)		9kW	18kW	
INPUT				
Phase Configuration		3P + N + PE		
Nominal Voltage		380V/400V/415V (AC)		
Min. Voltage (Half load)		277V		
Min. Voltage (Full load)		312V		
Maximum Voltage		485V		
Frequency		45-65 Hz		
Power Factor		0.95		
OUTPUT				
Output Power Factor		0.9		
Phase Configuration		1P + N + PE		
Nominal Voltage		220V / 230V / 240 V		
Nominal Current (220V)		45.5A	68A	91A
Waveform		Pure Sine Wave		
THD (Linear Load)		<%3		
THD (Non-Linear Load)		<%5		
Crest Factor		3:1		
Frequency		50Hz/60Hz (adjustable)		
Overload		10 min. 100–120%; 1 min. 120–150%; >150% bypass transfer occurs.		
Outlets		External Socket Box: 2 x Schuko, 4 x IEC C13 Outputs (Optional)		
Efficiency (Normal/Eco)		>%93 / >%97		
BATTERY				
Model		Maintenance-Free Sealed Lead Acid Batteries		
Internal Battery		20 pieces 7Ah / 9 Ah		
Recharge Time		4–6 hours to 90% capacity		
Cold Start		Available		
DC Voltage		240VDC (20 Pieces 12V Batteries)	192VDC (16 Pieces), 240VDC (20 Pieces)	
DISPLAY & PROTECTION				
LED + LCD Display		Mains Mode, Battery Mode, Eco Mode, Bypass Supply, Low Battery, Bad/Disconnected Battery, Overload, UPS Fault, during transfer		
LCD Displayed Parameters		Input Voltage, Input Frequency, Output Voltage, Output Frequency, Output Current, Load percentage, Battery Voltage, Internal Temperature		
Internal Diagnostics		During operation, front panel settings and software control, 24-hour routine checks		
Audible and Visual Warnings		Mains Failure, Low Battery, Bypass Transfer, System Error Conditions		
Overload Protection		Calculated by temperature simulation of the bypass transfer period fuse model		
Short Circuit Protection		Acts as an ideal current source during short-circuit conditions		
Other Protections		Sensitive battery discharge protection (temperature, voltage, current)		
COMMUNICATION INTERFACE				
Interface (Communication Ports)		Standard RS232 port; optional RS485, internal SNMP, and dry contact cards		
Monitoring and Management Software		Standard		
ENVIRONMENTAL				
Operating Temperature		0°C + 40°C		
Recommended Temperature for Battery Life		20 - 25°C		
Humidity		% 0-95 (non-condensing)		
Noise Level (at 1 m distance)		<50 dBA		
PHYSICAL				
Tower/Rack Convertible				
Net Weight (Including Internal Batteries) (kg)		85 kg with 9Ah	Additional battery cabinet (contact for weight)	
Dimensions (WxDxH) (Rack)-(Incl. batteries)(mm)		440x680x176 (4U)	440x680x270 (6U)	UPS + Extra battery cabinet shipped.
Tower Model				
Net Weight (Tower Type)		60Kg		
Dimensions (WxDxH)-(Tower Type)(mm)		290x650x750		
STANDARDS				
Safety		EN62040-1 (Safety); EN62040-2 (EMC); EN62040-3 (Performance); EN60950-1		
Protection Class		IP20		