

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		