

ELSIPOWER

**UNINTERRUPTED POWER
UNINTERRUPTED RELIABILITY**



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 www.elsi.com.tr

ABOUT US

Uninterrupted energy, uninterrupted reliability.

Since 1978, we have been delivering reliable solutions in the field of uninterruptible power systems by adapting our products and services to the latest technologies and customer needs.

By continuously improving the quality, reliability, and durability of our products, we provide dependable power solutions for a better future every day.

With our extensive product range and expert team, we provide reliable power solutions tailored to the needs of both local and international organizations, contributing to a stronger and more sustainable future.



We guarantee continuity wherever energy is needed.

OUR SOLUTIONS



ONLINE UPS



LINE INTERACTIVE UPS



MODULAR UPS



AUTOMATIC VOLTAGE REGULATOR



STATIC VOLTAGE REGULATOR



POWER CONVERTER



INVERTER



STATIC TRANSFER SWITCH (STS)



VRLA BATTERY



LITHIUM-ION BATTERY



E-BIKE BATTERY



RELIABLE

We manufacture products that meet high standards of quality, reliability, and performance.



EXPERT TEAM

Our experienced team is always by your side.



INNOVATIVE

We closely follow technology and create innovative solutions that make a difference.



GLOBAL

We continue to grow with strong partnerships in Turkey and around the world.



CONTENTS



ONLINE UPS



LINE INTERACTIVE UPS



MODULAR UPS



AUTOMATIC VOLTAGE REGULATOR



STATIC VOLTAGE REGULATOR



CONVERTER



INVERTER



STATIC TRANSFER SWITCH (STS)



VRLA BATTERY



LITHIUM BATTERY



ELECTRIC BICYCLE BATTERY



**ELS-11
SERIES
(1 - 3kVA)**



- ✓ 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



Buildings



Server Systems



Medical Facilities



Industrial Factories



Transportation Systems



Emergency Systems

TECHNICAL SPECIFICATIONS

MODEL	ELS-111	ELS-112	ELS-113
Capacity (kVA/kW)	1kVA/900W	2kVA/1800W	3kVA/2700W
INPUT			
Voltage	208 / 220 / 230 / 240 VAC		
Voltage Range	176 VAC (linearly derates at 50% and 100% load); 176 ~ 280 VAC (no derating); 280 ~ 300		
Frequency	40 ~ 70 Hz (Auto-Sensing)		
Power Factor	≥ 0.99		
Bypass Voltage Range	- 25% ~ +15% (adjustable via LCD)		
(THDi)	≤ 6%		
OUTPUT			
Voltage	208 / 220 / 230 / 240 VAC (adjustable via LCD screen)		
Voltage Regulation	± 1%		
Frequency	45–55 Hz or 55–65 Hz (sync range); 50 / 60 Hz ± 0.1 Hz (battery mode)		
Waveform	Pure Sine Wave		
Power Factor	0.9		
Voltage THD	≤ 2% (linear load), ≤ 5% (non-linear load)		
Crest Factor	3:1		
Overload	105–125% load: 1 min, 125% - 150% load 30 sec, > 150% load 300 ms		
BATTERY			
DC Voltage	24V	36V	48V / 72V / 96V
Internal Battery Group	2 x 7Ah / 2 x 9Ah	2 x 7Ah / 2 x 9Ah	4 x 9Ah / 6 x 9Ah
Charging Current (Max.)	1 A / 6 A		
Recharge Time	Standard model: 90% capacity in 3 hours. Long-run model: depends on battery capacity.		
SYSTEM FEATURES			
Efficiency	≥ 90% (Line mode) ≥ 85% (Battery mode) ≥ 95% (ECO mode)	≥ 91% (Line mode) ≥ 86% (Battery mode) ≥ 96% (ECO mode)	≥ 92% (Line mode) ≥ 87% (Battery mode) ≥ 97% (ECO mode)
Transfer Time	Line to Battery: 0 ms; Inverter to Bypass: 4 ms		
Protections	Short circuit, overload, over temperature, battery discharge protection and fan self-test		
Communication	RS232, USB (standard); RS485 / dry contacts / SNMP (optional)		
Display	LCD + LED Display		
Standards	EN 62040-1, EN 62040-2, EN 61000-3-2, EN 61000-3-3, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11, IEC 61000-2-2, IEC 62040-2, IEC 62040-1, IEC 62040-3		
OTHER FEATURES			
Operating Temperature	0°C ~ 40°C		
Storage Temperature	- 25°C ~ 55°C (without battery)		
Relative Humidity	0 ~ 95% (non-condensing)		
Operating Altitude	1% power derating per 100 m above 1000 m		
Protection Class	IP20		
Noise Level	≤ 50 dB		

**ELS-11
SERIES
(6 - 10kVA)**

- ✓ 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



Buildings



Server Systems



Medical Facilities



Industrial Factories



Transportation Systems



Emergency Systems

TECHNICAL SPECIFICATIONS

PARAMETER	ELS-116	ELS-1110
Capacity (kVA/kW)	6kVA/5.4kW	10kVA/9kW
INPUT		
Phase	1Phase+N+PE	
Nominal Voltage	220/230/240VAC	
Voltage Tolerance	120VAC-276VAC	
Nominal Frequency	50/60 Hz (Auto-Sensing)	
Frequency Tolerance	45Hz-65Hz	
Power Factor	≥0.99	
Input Current Harmonic	≤5% (100% linear load, input THDv≤1%)	
Bypass Voltage Tolerance	220VAC max: +25% (+10,+15,+20,+25) 230VAC max: +20% (+10,+15,%20) 240VAC max: +15% (+10,+15) min: factory setting -45% (-20,-30,-45)	
Generator Input	Supported	
OUTPUT		
Phase	1Phase+N+PE	
Nominal Voltage	220/230/240VAC	
Power Factor	0.9	
Voltage Regulation	±1%	
Frequency	50/60Hz / (±0.1%)	
Crest Factor	3:1	
Output Voltage Harmonic (THDv)	≤3% (linear load), ≤5% (non-linear load)	
Waveform	Pure Sine Wave	
Efficiency**	≥90%	
BATTERY		
Number of Batteries	16/18/20 pcs (Adjustable)	
Capacity	16 x 12V 7-9 Ah (Standard internal battery)	
Battery Type	VRLA	
Standard Charge Current	1A	
Charge Current (Max.)	6A (Adjustable)	
Charge Time (90%)	8-10 hours (Standard)	
Transfer Time	Mains-Battery: 0ms; Mains-Bypass: 0ms	
PROTECTION		
Overload	105%-110% 10 min, 110%~130% 1 min, >130% transfer to bypass	
Short Circuit	System stops.	
Over Temperature	Online Mode: Transfers to bypass; Battery Mode: UPS shuts down immediately	
Low Battery	Alarm and Shutdown	
Self-Test	Software test at startup	
EPO	UPS shuts down immediately	
Battery	Advanced Battery Management	
ALARMS		
Visual & Audible	Input error, Low Battery, Overload, System error	
DISPLAY		
Status LED & LCD	Online Mode, Battery Mode, Eco Mode, Bypass Mode, Low Battery, Bad	
LCD	Input Voltage, Input Frequency, Output Voltage, Output Frequency, Load Percentage, Battery Voltage, Internal Temp and Ambient Temp	
PHYSICAL		
Dimensions - WxDxH (mm)	191x460x720	
Weight (kg)	60	61
COMMUNICATION***		
Standard	USB, RS232, EPO	
Optional	SNMP Adapter, Relay card	
ENVIRONMENTAL		
Operating/Storage Temp	0°C ~ +40°C / -25°C ~ +55°C	
Humidity	0~95% non-condensing	
Altitude	< 1500m	
Noise Level (1m)	<55 dBA	
STANDARDS		
Certification	CE, EN/IEC 62040-1-1, EN/IEC 62040-2	

ELS-11
SERIES

RACK TOWER
1-2-3kVA

- ✓ 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



Buildings



Server Systems



Medical Facilities



Industrial Factories



Transportation Systems



Emergency Systems

TECHNICAL SPECIFICATIONS

MODEL	ELS-111 RT	ELS-112 RT	ELS-113 RT
Capacity (kVA/kW)	1kVA / 900W	2kVA / 1800W	3kVA / 2700W
INPUT			
Voltage	208 / 220 / 230 / 240 VAC		
Voltage Range	110–176 VAC (%50–100 Load Linear Derating); 176–280 VAC (No Derating); 280–300 VAC		
Frequency	40 - 70 Hz (Auto-Sensing)		
Input Power Factor	≥ 0.99		
Total Harmonic Distortion	≤ %6		
Bypass Voltage Range	%25 ~ +%15 (Selectable)		
OUTPUT			
Voltage	208 / 220 / 230 / 240 VAC – Selectable via LCD Panel		
Voltage Regulation	± %1 (Linear Load)		
Frequency	45 – 55 Hz or 55 – 65 Hz (Synchronized); 50 / 60 Hz ±0.1 Hz (Battery Mode)		
Waveform / Power Factor	Pure Sine Wave / 1		
Crest Factor	3:1		
Total Harmonic Distortion	Linear Load ≤ %2 ; Non-Linear Load ≤ %5		
Transfer Time	Mains to Battery: 0 ms / Inverter to Bypass Mode: 4 ms (Typical)		
Inverter Overload Capacity	105–125%: 1 min / 125–150%: 30 sec / >150%: 300 ms		
EFFICIENCY			
Mains Mode	≥ %91	≥ %91	≥ %92
Battery Mode	≥ %85	≥ %86	≥ %87
ECO Mode	≥ %95	≥ %96	≥ %97
BATTERY			
Battery Voltage	24 VDC (Std) / 36 VDC (H)	48 VDC (Std) / 72	72 VDC (Std) / 96 VDC (H)
Battery Quantity / Model	2 x 7Ah / 9Ah / 3 Pcs	4 x 7Ah / 9Ah / 6 Pcs	6 x 7Ah / 9Ah / 8 Pcs
Charging Current (Standard)	1A		
Charging Current (Long Backup)	6A		
Charging Time	8 Hours to 90% Capacity		
ALARMS			
Mains Failure	Audible alarm every 4 seconds		
Low Battery	Audible alarm every 1 second		
UPS General Error	Continuous Audible Alarm		
Overload	2 Audible Alarms every 1 second		
Protections	Short Circuit, Overload, Overtemperature, Battery Deep Discharge, Fan Test		
ENVIR. / COMM. / STANDARDS			
Operating Temp / Humidity	0°C–40°C / 20%–90% (Non-condensing)		
Audible Noise	<50 dB (at 1 meter)		
SNMP (Optional)	SNMP-based Power Management via Web Browser		
STANDARDS	EN 62040-1, EN 62040-2, EN 61000-3-2, EN 61000-3-3, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11, IEC 61000-2-2, IEC 62040-2, IEC 62040-1		
DIMENSIONS			
Dimensions (WxDxH)	440x338x88(S) / 440x468x88(L)	440x430x88(S) / 440x468x88(L)	440x560x88(S) / 440x468x88(L)
Packed Dimensions (WxDxH)	598x428x194(S) / -	545x560x201(S) / 545x592x201(L)	590x690x201(S) / 590x592x201(L)
Net Weight (kg)	10.6(S) / 7.6(L)	18.7(S) / 9.7(L)	26.8(S) / 10.1(L)
Packed Weight (kg)	11.3(S) / 11.1(L)	21.8(S) / 13.2(L)	29.7(S) / 13.6(L)

ELS-11
SERIES

RACK TOWER
6-10kVA

- ✓ 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



Buildings



Server Systems



Medical Facilities



Industrial Factories



Transportation Systems



Emergency Systems

TECHNICAL SPECIFICATIONS

MODEL	ELS-116 RT	ELS-1110 RT
Capacity (kVA/kW)	6kVA / 6000W	10kVA / 10000W
INPUT		
Voltage	208/220/230/240 VAC	208/220/230/240 VAC
Voltage Range	110~176 VAC (50%-100% Load Linear Derating); 176~280 VAC (No Derating); 280~300 VAC (50% Derating)	110~176 VAC (50%-100% Load Linear Derating); 176~280 VAC (No Derating); 280~300 VAC (50% Derating)
Frequency	40~70 Hz (Auto Sensing)	40~70 Hz (Auto Sensing)
Input Power Factor	≥ 0.99	≥ 0.99
THDi	≤ 5%	≤ 5%
Bypass Voltage Range	-40% to +15% (Selectable)	-40% to +15% (Selectable)
OUTPUT		
Voltage	208/220/230/240 VAC (Selectable via LCD)	208/220/230/240 VAC (Selectable via LCD)
Voltage Regulation	± 1% (Linear Load)	± 1% (Linear Load)
Frequency	45~55Hz or 55~65Hz (Synchronized); 50/60Hz ±0.1Hz (Battery Mode)	45~55Hz or 55~65Hz (Synchronized); 50/60Hz ±0.1Hz (Battery Mode)
Waveform / Power Factor	Pure Sine Wave / 1	Pure Sine Wave / 1
Crest Factor	3:1	3:1
THDv	Linear Load ≤ 1%; Non-Linear ≤ 4%	Linear Load ≤ 1%; Non-Linear ≤ 4%
Transfer Time	Mains to Battery: 0 ms; Inverter to Bypass: 4ms (Typical)	Mains to Battery: 0 ms; Inverter to Bypass: 4ms (Typical)
Overload Capacity	105%-110% 10min; 110-125% 1min; 125%-150% 30s	105%-110% 10min; 110-125% 1min; 125%-150% 30s
EFFICIENCY		
Efficiency at ≤60% Load	≥ 94.5%	≥ 94.5%
100% Load	≥ 100%	≥ 100%
ECO Mode	≥ 99%	≥ 99%
BATTERY		
Voltage	192-240 VDC (16 or 20 Batteries Selectable)	192-240 VDC (16 or 20 Batteries Selectable)
Quantity / Model	16 × 7-9 Ah (Internal)	16 × 7-9 Ah (Internal)
Standard Charge Current	1A	1A
Long Run (L) Charge Current	1-5 A selectable / 12 A (optional)	1-5 A selectable / 12 A (optional)
Recharge Time	8 hours: 90% Capacity	8 hours: 90% Capacity
ALARMS		
Low Battery	Audible Alarm / 4s	Audible Alarm / 4s
UPS General Fault	Continuous Audible Alarm	Continuous Audible Alarm
Overload	Audible Alarm twice / 1s	Audible Alarm twice / 1s
ENVIRONMENT / COMM / STANDARDS		
Operating Temp / Humidity	0°C - 40°C / 20%-90% (Non-condensing) / IP20	0°C - 40°C / 20%-90% (Non-condensing) / IP20
Noise Level	<55 dB (at 1 meter)	<55 dB (at 1 meter)
SNMP (Optional)	Power management via SNMP manager and web browser	Power management via SNMP manager and web browser
Standards	Safety: IEC/EN 62040-1, IEC/EN 62477-1 EMC: IEC/EN 62040-2, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8	Safety: IEC/EN 62040-1, IEC/EN 62477-1 EMC: IEC/EN 62040-2, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8
DIMENSIONS		
Net Dimensions (WxDxH)	440 × 680 × 176 mm (S) - 4U	440x580x88 (L) 2U
Package Dimensions	564x792x418 (S) / 514x696x168 (L)	564x792x418 (S) / 514x696x168 (L)
Net Weight (kg)	58 kg (S) / 12 kg (L)	63 (S) / 14 (L)
Gross Weight (kg)	68 (S) / 14 (L)	73 (S) / 16 (L)

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		

**ELS-33
SERIES
(10 - 60kVA)**



- ✓ High-Frequency Online Double Conversion Technology
- ✓ Advanced Dual-Core DSP Control
- ✓ Input Power Factor up to 0.99 (Active PFC)
- ✓ Dual Input Design with Independent Bypass
- ✓ Smart Fan System for Extended Lifetime
- ✓ Cold Start (Battery Start-Up Capability)
- ✓ Compact Design with 5" Color LCD Display
- ✓ Optional SNMP, Wi-Fi, GPRS Card & SMS Alerts
- ✓ EMC – LVD CE Certified
- ✓ Standard RS232, USB, RS485, EPO, Dry Contacts, Parallel Port



Buildings



Server Systems



Medical Facilities



Industrial Factories



Transportation Systems



Emergency Systems

TECHNICAL SPECIFICATIONS

MODEL	ELS-3310	ELS-3315	ELS-3320	ELS-3330	ELS-3340	ELS-3360
Capacity (kVA/kW)	10kVA/10kW	15kVA/15kW	20kVA/20kW	30kVA/30kW	40kVA/40kW	60kVA/60kW
INPUT						
Voltage	380/400/415 VAC					
Voltage Range	304 ~ 478 VAC (100% Load) / 228 ~ 304 VAC (Derates linearly with load)					
Frequency	50 - 60 Hz (Automatic Sensing)					
Frequency Range	40 - 70 Hz \pm 0.5%					
Input Power Factor	\geq 0.99					
Total Harmonic Distortion	\leq %5					
Bypass Voltage Range	-20% ~ +15% VAC Upper Limit; +10%, +15%, +20%, +25% / Lower Limit; -10%, -15%, -20%, -25%, -30%, -40% Selectable					
OUTPUT						
Voltage	380 / 400 / 415 VAC - Selectable from LCD Panel					
Voltage Regulation	\pm %1					
Frequency	Synchronized with mains; 45-55 Hz or 45-65 Hz / Battery operation 50 / 60 Hz \pm 0.1 Hz					
Waveform / Output Power Factor	Pure Sine / Cos ϕ : 1					
Crest Factor	3:1					
Harmonic Distortion	Linear Load \leq %1 ; Non-Linear Load \leq %3					
Transfer Time	Mains to Battery: 0 ms; Inverter to Bypass: 0 ms					
Inverter Overload Capacity	110% Load 60 min, %110-%125 Load 10 min, %125-%150 Load 1 min > %150 Load 200 ms					
Bypass Overload Capacity	125% Load (Continuous), %125-130 Load 10 min, %130-150 Load 1 min, %150-400 Load 1 s, %125-130 \geq 400 Load 200					
BATTERY						
Battery Voltage	Standard Models; 240 VDC / 32-40 pcs (Adjustable)					
Battery Qty / Model	20 x 12V 7-9Ah	40 x 12V 7-9 Ah	60 x 12V 7-9 Ah	External Battery Required		
Battery Charging Current	Max. 10A	Max. 15A	Max. 15A	Max. 20A	Max. 20A	Max. 20A
Battery Charging Time	Standard Models: 90% capacity in 4 hours; Long-run models: depends on battery capacity					
SYSTEM						
Efficiency	Max 95%	Max 95%	Max 95%	Max 96%	Max 96%	Max 96%
Display	5" Touchscreen					
Alarm	Battery Operation / Low Battery / Fan Failure					
Paralel Operation	Up to 6 Units (Optional)					
ENVIRONMENT / COMMUNICATION / STANDARDS						
Operating Temp / Humidity	0 °C ~ 40 °C - %20 ~ %90 (Non-condensing)					
Audible Noise	\leq 58 dB (at 1 meter)					
Communication	Standard; RS 232, RS 485, USB, Optional; Programmable Dry Contact, SNMP, Parallel Kit					
DIMENSIONS						
Net Dimensions (WxDxH)-Standard	250 x 720 x 560	250 x 800 x 700	250 x 840 x 930	350 x 800 x 1280	250 x 790 x 560	
Net Dimensions (WxDxH)-Charger	250 x 720 x 560	250 x 720 x 560	250 x 840 x 650	250 x 720 x 560		
Package Dimensions (WxDxH)-Standard	350 x 800 x 722	350 x 900 x 862	350 x 912 x 1102	450 x 900 x 1400	350 x 850 x 818	
Package Dimensions (WxDxH)-Charger	350 x 800 x 718	350 x 900 x 718	350 x 980 x 810	350 x 800 x 718		
Net Weight (Kg)	82(S) / 31(L)	145(S) / 33(L)		215(S) / 42(L)	300(S) / 42(L)	48(L)
Package Weight (Kg)	93(S) / 40(L)	142(S) / 42(L)	156(S) / 42(L)	227(S) / 52(L)	310(S) / 52(L)	58(L)



COMPUTERS



NETWORK
EQUIPMENT



SECURITY
SYSTEMS



SERVER & IT
EQUIPMENT



POS
SYSTEMS



MEDICAL
DEVICES

**ELS-33
SERIES
(80 - 200kVA)**



- ✓ High-Frequency Online Double Conversion Technology
- ✓ Advanced Dual-Core DSP Control
- ✓ Input Power Factor up to 0.99 (Active PFC)
- ✓ Dual Input Design with Independent Bypass
- ✓ Smart Fan System for Extended Lifetime
- ✓ Cold Start (Battery Start-Up Capability)
- ✓ Compact Design with 5" Color LCD Display
- ✓ Optional SNMP, Wi-Fi, GPRS Card & SMS Alerts
- ✓ EMC – LVD CE Certified
- ✓ Standard RS232, USB, RS485, EPO, Dry Contacts, Parallel Port



Buildings



Server Systems



Medical Facilities



Industrial Factories



Transportation Systems



Emergency Systems

TECHNICAL SPECIFICATIONS

MODEL	ELS-3380	ELS-33100	ELS-33120	ELS-33200
Capacity (kVA/kW)	80kVA / 80kW	100kVA / 100kW	120kVA / 120kW	200kVA / 200kW
INPUT				
Voltage	380 / 400 / 415 VAC			
Voltage Range	304 ~ 478 VAC (100% Load) / 228 ~ 304 VAC (Derates linearly with load)			
Frequency	50 / 60 Hz (Auto-Sensing)			
Frequency Range	40-70 Hz \pm 0.5%			
Input Power Factor	\geq 0.99			
Total Harmonic Distortion (THDi)	\leq 5%			
Bypass Voltage Range	Factory Setting: -20% ~ +15% VAC; Upper Limit: +10, +15, +20, +25; Lower Limit: -10, -15, -20, -25, -30, -40 (Selectable via LCD)			
Bypass Frequency Range	\pm 1 Hz, \pm 3 Hz, \pm 5 Hz (Selectable via LCD)			
Bypass Overload Range	125% Load: Long term; 125-130% Load: 10 min; 130-150% Load: 1 min; 150-400% Load: 1 sec; \geq 400% Load: 200 ms			
OUTPUT				
Voltage	380 / 400 / 415 VAC (Selectable via LCD)			
Voltage Regulation	\pm 1% (Linear Load)			
Frequency	Synchronized with the grid; 50 / 60 Hz \pm 0.1 Hz in Battery Mode			
Waveform / Output Power Factor	Pure Sine Wave / 1			
Crest Factor	3:1			
Total Harmonic Distortion (THDv)	Linear Load \leq 1%; Non-Linear Load \leq 3%			
Transfer Time	0 ms			
Inverter Overload Capacity	110% Load 60 min; 110-125% Load 10 min; 125-150% Load 1 min; $>$ 150% Load 200 ms			
BATTERY				
Battery Voltage	Standard Models: 240 VDC / 32-40 units (Adjustable)			
Battery Charge Current	30A	40A	40A	60A
Charging Voltage Accuracy	\leq 1%			
SYSTEM				
Efficiency	96%			
Display	5" or 7" Touchscreen (Optional)			
Parallel Operation	Up to 6 units (Optional)			
ENVIRONMENT / COMMUNICATION / STANDARDS				
Operating Temperature / Humidity	0 °C ~ 40 °C / 0% ~ 95% (Non-condensing)			
Storage Temperature	-40 °C ~ 70 °C			
Audible Noise	\leq 70 dB (at 1 meter)			
Operating Altitude	\leq 1000 m; 1000-2000 m: 1% power derating per 100 m			
Communication	Standard: RS 232, RS 485, USB; Optional: Dry Contact, SNMP, Parallel Kit			
DIMENSIONS				
Net Dimensions (WxDxH)	360 x 800 x 1200	360 x 850 x 1200	360 x 850 x 1200	440 x 850 x 1250
Packed Dimensions (WxDxH)	450 x 870 x 1370	450 x 940 x 1350	450 x 940 x 1350	530 x 940 x 1410
Net Weight (kg)	152	156	160	194 / 200
Packed Weight (kg)	172	180	180	214 / 220



COMPUTERS



NETWORK
EQUIPMENT



SECURITY
SYSTEMS



SERVER & IT
EQUIPMENT



POS
SYSTEMS



MEDICAL
DEVICES

EL-11 LINE INTERACTIVE SERIES

FEATURES

- ✓ Microprocessor-Based Digital Control
- ✓ Simulated Sine Wave
- ✓ Automatic Voltage Regulation (AVR)
- ✓ Boost and Buck Automatic Voltage Regulation (AVR)
- ✓ Short Circuit and Overload Protection
- ✓ Cold Start and Energy Saving Mode
- ✓ Compact and Lightweight Design, Silent Operation
- ✓ Fault Alarms and Warning Indicators
- ✓ Lightning and Low Voltage Protection
- ✓ Smart Battery Management and Deep Discharge Protection (SBM)



Buildings



Server Systems



Medical Facilities



Industrial Factories



Transportation Systems



Emergency Systems

Uninterrupted Power, Intelligent Technology, Ultimate Reliability

TECHNICAL SPECIFICATIONS

MODEL	EL-650	EL-850	EL-1000	EL-1200	EL-1500	EL-2000	EL-3000
Capacity (kVA/kW)	650VA / 390W	850VA / 510W	1000VA / 600W	1200VA / 720W	1500VA / 900W	2000VA / 1200W	3000VA / 1800W
INPUT							
Voltage	220 / 230 / 240 VAC						
Voltage Range	162 - 295 VAC						
Frequency	50 / 60 Hz Auto-Sensing						
OUTPUT							
Power Factor	0.6						
Voltage (Mains Operation)	220 / 230 / 240 VAC \pm 12%						
Voltage (Battery Operation)	220 / 230 / 240 VAC +3% / -10%						
Waveform	Simulated Sine Wave						
Output Voltage Harmonic (THDv)	< 3%						
Frequency (Battery Operation)	50 / 60 Hz \pm 0.5%						
Transfer Time	5ms						
Overload	10 min at 110% (Mains Mode); 10 sec above 100% (Battery Mode)						
Number of Outlets	2	2	2	3	3	3	3
BATTERY							
Type	Maintenance-free Sealed Lead Acid Battery						
Charging Time	2-4 hours (90% capacity)						
Nominal DC Voltage	24VDC		24VDC			48VDC	
Battery Quantity	2 x 12V 7Ah		4 x 12V 7Ah			4 x 12V 9Ah	
Protection	Overload, short circuit, deep discharge protection, battery replacement indicator						
Battery Management	YES						
DISPLAY							
LED Display	Mains normal, Backup, UPS fault and battery status						
LCD Display	Load Level, Battery Level, Bypass, AVR, Low Battery, Replace Battery, UPS Fault, Overload						
ALARM							
Alarms	Power Failure, Battery Level Low, Overload and Fault						
PROTECTION							
Lightning Protection	320 joules						
Overload Protection	110% load 20s, 125% load 2s						
Short Circuit Protection	Fuse protection for short circuit and overload						
ENVIRONMENT / STANDARDS							
Operating Temperature	0-40 °C						
Humidity	0 - 90% (Non-condensing)						
Noise Level (at 1 meter)	< 40 dBA			< 45 dBA			
Protection Class	IP20						
Standards	EN 62040-1-1 (Safety), EN 62040-2 (EMC)						
DIMENSIONS							
Dimensions (W x D x H)	100 x 280 x 142 mm			175 x 370 x 247 mm		175 x 427 x 247 mm	
Net Weight (kg)	7.5 kg			15.5 kg		23 kg	



COMPUTERS



NETWORK
EQUIPMENT



SECURITY
SYSTEMS



SERVER & IT
EQUIPMENT



POS
SYSTEMS



MEDICAL
DEVICES

Uninterrupted Power, Intelligent Technology, Ultimate Reliability

ELS-1000 / ELS-1200 / ELS-1300
ELS-1700
SERIES

OPTIONS

- ✓ High power options from 1000W to 1700W
- ✓ Input voltage range: 150 – 220 VAC
- ✓ Operating temperature: 0°C to 40°C
- ✓ Net weight: 7.2 kg / Lifting capacity: 160 – 220 kg
- ✓ Remote control range up to 30 meters
- ✓ VRLA battery with an average lifespan of 5 years
- ✓ Charging time: 12 hours / Standby time: up to 100 hours
- ✓ Audible and visual alarm during battery operation
- ✓ Overload protection
- ✓ Supports external receivers with rolling code, up to 42 remote controls can be paired



Retail Stores & Shops



Automotive Service Areas



Warehouses & Garages



Buildings & Residential Complexes



Parking Areas



Automatic Barrier & Access Control Systems

MODULAR UPS

Modular UPS are **Uninterruptible Power Supplies** composed of more than one power module, which increase capacity as needed.

In these systems, power modules operate in parallel and can be added or removed as required. Thus, they provide easy adaptability to increasing power needs.

Thanks to their modular structure, any module can be maintained or replaced without interrupting the system operation.



Data Centers



Medical



Transportation



Studios & Production



Emergency Systems



Industry

Modular UPS systems can be scaled **up to 10 kVA** and up to **3 MW** in parallel configurations.



VOLTAGE REGULATOR



AUTOMATIC VOLTAGE REGULATOR

- ✓ Copper winding option
- ✓ Maintenance-free operation
- ✓ Short circuit protection
- ✓ Low / high voltage protection (circuit breaker optional)
- ✓ Suitable for operation under variable load conditions
- ✓ Single-phase and three-phase options are available for different requirements
- ✓ Input / output voltage values can be monitored via display



Uninterrupted Power
Intelligent Technology
Ultimate Reliability



Buildings



Server Systems



Medical Facilities



Industrial Factories



Transportation Systems



Emergency Systems

VOLTAGE REGULATOR



STATIC VOLTAGE REGULATOR

- ✓ Copper winding option
- ✓ Maintenance-free operation
- ✓ Short circuit protection
- ✓ Low / high voltage protection (circuit breaker optional)
- ✓ Single-phase and three-phase options are available for different requirements
- ✓ Suitable for operation under variable load conditions
- ✓ Input / output voltage values can be monitored via display



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Emergency Systems



- ✓ Low input current harmonics (<3%) with IGBT rectifier technology
- ✓ Maximum power and high efficiency (up to 95%)
- ✓ Stable operating performance thanks to microprocessor control
- ✓ Low output distortion factor
- ✓ Suitable for remote monitoring, management, and centralized operation
- ✓ Parallel operation and load sharing capability
- ✓ User-friendly interface
- ✓ Low output distortion factor
- ✓ Galvanic isolation



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Emergency Systems



- ✓ Uninterrupted bypass switching
- ✓ High overload capacity
- ✓ Audible and LED alarm
- ✓ Compatible with Modbus protocol
- ✓ Protection class: IP20 – IP55
- ✓ Self-diagnostics with recorded data
- ✓ Advanced TMS protection on all terminals
- ✓ Automatic restart and recovery after faults
- ✓ High performance with advanced DSP technology
- ✓ Smart charging feature and built-in battery monitoring system
- ✓ Modular card structure for easy replacement and maintenance
- ✓ No additional voltage adjustment required



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Emergency Systems



Ultra Low Transfer Time

<5ms transfer time assures you will never get interrupted



Easy Maintenance & Repair

Hot Swap power module (2 System) and front access always easy repair and maintenance



Back-up Power Supply(s)

Power supply is the most frequently malfunctioned component in electronic devices



Overload Resistance

To provide interrupted supply for your loads, you should have high resistance for overloads.



OPTIONS



Remote Monitoring

With SNMP, ModBus TCP/IP, RS232 and RS-485



Interface Module

Graphic touchscreen user interface module (HMI)



Cabinet Heater

Internal cabinet, anticondensation heater.



Transducers (4-20mA and 0-10V)

This options provides transducer outputs with both 0-10V and 4-20mA outputs.



Configurable System Parameters

Allows flexible adjustment of system settings according to application requirements.



Cabinet Options

Rack and Tower Type options are available.



KEY FEATURES			
Model	STS-1		STS-3
Input Phase	Single Phase		Three Phases
Current	16A - 1000A		16A - 2000A
Poles	1-Pole (w/o Neutral	2-Poles (with Neutral	3-Poles (w/o Neutral Breaking) 4-Poles (with Neutral Breaking)
INPUT & OUTPUT PARAMETERS			
Voltage	110VAC / 115VAC / 120VAC 220VAC / 230VAC / 240VAC (OPT: Others)		190VAC / 200VAC / 210VAC 380VAC / 400VAC / 415VAC 440VAC / 460VAC / 660VAC
Voltage Range	± 20% (Transfer when Out of Range) (Adjustable)		
Frequency	50 / 60Hz		
Frequency Range	45-65Hz		
Efficiency	>99%		
Transfer Type	Break Before Make		
Transfer Time	1/4 cycle (Sync) & 1/2 cycle (Unsync)		
Transfer Options	Automatic / Manual		
Crest Factor	3:1		
PHYSICAL CHARACTERISTICS			
Cabinet Type	Rack / Wall Mount / Tower Type (Depends on current)		
Cabinet Colour	RAL7032, RAL7035 (OPT: Others)		
Protection Degree	IP20 (OPT: IP21 to IP55)		
Cooling System	Natural / Fan Cooling (Power Dependent)		
Cable Entry	Bottom (OPT: Top, Rear, Side)		
Maintenance Bypass	MCB or MCCB or CAM Switch (for each Sources)		
ENVIRONMENT			
Storage Temperature	-25 to 70°C		
Operating Temperature	-10 to 50°C		
Relative Humidity	0 to 95% (Non-Condensing)		
COMMUNICATIONS			
Standard Communication	ModBus RTU over RS232 (OPT: RS485, ModBus TCP/IP, SNMP and IEC61850) Dry Contact x4 (OPT: Up to x16)		
HMI	LED/LCD Panel with Mimic Diagram (OPT: Touch Screen Panel)		
Languages	Turkish, English, German, Dutch, Portuguese, Spanish, Russian		
PROTECTIONS			
Input / Output Protection:	MCB or MCCB for Source Inputs and Output		
	Over Temperature, Output CB Open		
	Power Supply Fault, Emergency Stop		
ADDITIONAL FEATURES (OPT.)			
Isolation	Primary / Secondary Isolation Transformer		
Gauges	Input Voltage & Current		
	Output Voltage & Current		
	Battery Voltage & Current		
Protections	Fan Failure, SCR Fuse Failure, External Block, Parallel Fault		
Others	SPD, Cabinet Heater, Cabinet Lightning, Service Plug		
STANDARTS			
EN62310-1	General and Safety Requirements		
EN62310-2	Electromagnetic Compatibility (EMC) Requirements		
EN62310-3	Method for Specifying Performance and Test Requirements		

ELSIPOWER

RELIABLE ENERGY

VRLA BATTERY

Designed to deliver safe, long-lasting and stable energy performance. They provide uninterrupted support for your systems.



MAINTENANCE FREE



LONG SERVICE LIFE



SAFE & RELIABLE



ECO FRIENDLY



ELSIPOWER

LITHIUM BATTERY



OUR LITHIUM BATTERIES offer a powerful solution to modern energy needs with high energy density, long cycle life and lightweight design. Thanks to advanced cell technology, they provide stable and efficient power output while offering reliable use with low maintenance requirements and high safety standards.

With their compact design, fast energy storage capacity and **reliable performance** features, they provide uninterrupted energy support in industrial and commercial applications.



www.elsi.com.tr



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ELSIPOWER

Our Electric Bicycle Batteries

offer high energy density and a durable structure, providing extended range and reliable performance. With advanced cell technology and stable power output, they ensure consistent and efficient riding performance under various conditions.

KEY FEATURES

- ✓ Long Service Life
- ✓ High Energy Efficiency
- ✓ Stable Power Output
- ✓ Resistant to Shock and Vibration
- ✓ Overcharge and Discharge Protection

