ELON Pro Series
100-200 kVA

BARWELO



ELON Pro Series: High-performance protection for critical loads

BARWELO ELON Pro Series 100-200 kVA is a high-performance on-line double-conversion UPS range designed to provide reliable, high-quality power protection for demanding three-phase critical applications.
Electrical performance: Input power factor of 1 from 10% load and very low input current harmonic distortion (THDi <1.5% at 100% load) help reduce electrical installation impact and improve grid quality.
Load protection: Output power factor 0.9 and very low output voltage distortion provide strong compatibility with linear and non-linear loads, including IT and mixed critical loads.
Efficiency and flexibility: On-line efficiency reaches 94-95% across this power range, with Smart Eco-mode efficiency up to 98.4%. Parallel redundant configuration is supported for critical installations.

Applications: Critical environments

Data centres, hosting and housing facilities, IT networks, server farms, voice and data networks, and other critical three-phase loads requiring continuous power protection.



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PERFORMANCES

- On-line double conversion (VFI) technology with DSP control.
- Input power factor 1 from 10% load.
- THDi <1.5% at 100% load; <2.5% at 50% load; <6.0% at 10% load.
- Output power factor 0.9 for three-phase input / output models.
- THDv <0.5% with linear load and <1.5% with non-linear load.
- On-line efficiency 94-95% for the 100-200 kVA range.
- Smart Eco-mode efficiency up to 98.4%.
- Parallel redundant configuration (N+1), up to 4 units.
- Batt-Watch battery monitoring and charging regulation.
- 7" colour touch screen.
- 1 x RS232/RS485 + 1 x USB with Modbus protocol.
- Intelligent slot for SNMP.
- Designed to withstand linear, non-linear and mixed load types.



HIGH EFFICIENCY

High performance in On-line mode and Smart Eco-mode helps reduce operating energy consumption.

BATTERY FLEXIBILITY

External battery banks are configured according to the required backup time of each project.

REMOTE MANAGEMENT

Optional network management can be provided through SNMP-based monitoring and related communication options.

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RANGE & DIMENSIONS

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RANGE

Model	Power (VA / W)	Dimensions (D x W x H mm)	Weight (kg)
EL PRO-100K	100000 / 90000	880 x 590 x 1320	290
EL PRO-120K	120000 / 108000	880 x 590 x 1320	290
EL PRO-160K	160000 / 140000	850 x 900 x 1900	540
EL PRO-200K	200000 / 180000	850 x 900 x 1900	550

External battery banks are configured separately according to the required backup time. Dimensions and weights shown above refer to the UPS cabinet only.

DIMENSIONS

- EL PRO-100K / 120K: 590 mm (W) × 880 mm (D) × 1320 mm (H).
- EL PRO-160K / 200K: 900 mm (W) × 850 mm (D) × 1900 mm (H).

Installation note: The battery system is external and project-specific. Battery quantity, cabinet size and autonomy depend on the required backup time and the selected battery design.



TECHNICAL SPECIFICATIONS

ELON Pro Series 100-200 kVA

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MODEL	ELON Pro Series 100-200 kVA
TECHNOLOGY	On-line, double conversion, HF, DSP control
INPUT	
Rated voltage	Three-phase 3 x 380 / 3 x 400 / 3 x 415 V (3P + N)
Voltage range	+15% / -20% (configurable)
Rated frequency	50 / 60 Hz
THDi	100% load: <1.5% / 50% load: <2.5% / 10% load: <6.0%
Power factor	1 from 10% load
Rectifier topology	Three-phase IGBT full wave, soft start, PFC, transformerless
OUTPUT	
Power factor	0.9 (three-phase input / output)
Rated voltage	Three-phase 3 x 380 / 3 x 400 / 3 x 415 V (3P + N)
Dynamic accuracy	+/- 2% dynamic
Static accuracy	+/- 1% steady
Response time accuracy	20 ms for load steps 0%-100% and voltage drop up to -5%
THDv	<0.5% linear load / <1.5% non-linear load
Synchronised frequency	50/60 Hz +/-5 Hz (selectable)
Free running frequency	50/60 Hz +/-0.05%
Synchronous speed	From 1 Hz/s to 10 Hz/s (programmable)
On-line efficiency	94.0% - 95.0%
Smart Eco-mode efficiency	Up to 98.4%
Admissible overloads	125% for 10 min / 150% for 60 s / >150% for 20 ms
Crest factor	>3:1
BYPASS	
Manual bypass	No breaks
Static bypass	Solid state, controlled by microprocessor
Smart Eco transfer time	4 ms (typical)
On-line transfer time	Nil
Transfer to bypass	Immediate, for overloads exceeding 150%
Retransfer	Automatic, after alarm deactivation
BATTERY	
Battery configuration	External battery bank; configured to required backup time
Battery type	Lead acid, sealed, maintenance free
Charging regulation	Batt-Watch
COMMUNICATION	
Ports	1 x RS232/RS485 + 1 x USB, with Modbus protocol
Relay interface	4 x AC failure, bypass, low battery and general
Intelligent slot	1, for SNMP
Display	7" colour touch screen
GENERAL	
Operating temperature	0 C to +40 C
Relative humidity	Up to 95%, non-condensing
Maximum operating altitude	(power derating for higher altitudes,2400 UP TO 5000 masl)
Acoustic noise at 1 metre	100-120 kVA: <65 dB(A) / 160-200 kVA: <70 dB(A)
STANDARDS	
Safety	EN-IEC 62040-1
Electromagnetic compatibility	EN-62040-2
Operation	VFI-SS-11 (EN-62040-3)
Seismic (optional)	IEC 60068-3-3:2019/COR1:2021 / UBC1997 Zone 3 & Zone 4 Ip 1.5
Corporate Certification:	ISO 9001 / ISO 14001 / ISO45001

Technical data based on the manufacturer's source specifications for the corresponding 100-200 kVA range.

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