

NUCLEUS



The Nucleus Series consists of economic, environment-friendly, and reliable DC power supplies that use the resonant converter technology, operating at high frequencies. They have a high input power factor along with very low output voltage ripples. They are used extensively for charging lead-acid and nickel-cadmium batteries; at telecom and power distribution sites, or wherever DC power is needed.

Standard Product Range

V	24	48	110	220
15			NCL 1110-15	NCL 3220-15
30		NCL 1048-30 NCL 3048-30	NCL 3110-30	NCL 3220-30
60	NCL 1024-60	NCL 1048-30 NCL 3048-30	NCL 3110-60	-
100	NCL 1024-100 NCL 3024-100	NCL 3048-100	-	-

Features:

- Real energy-saving due to high input power factor
- Clean power to load due to low output voltage ripples
- Microprocessor control
- Amazingly small size and light weight compared to same-rating chargers
- LEDs for easy status monitoring
- LCD panel showing voltage, current, and alarm information
- Rack-mount or wall-mount types
- Serial communications via RS-232 port
- Advanced short-circuit protection
- ISO 9001 certified company
- 1-year parts and labor warranty
- 10-year spare parts availability guarantee
- Year-round technical support 24 hours a day.

Rectifier / Battery Charger



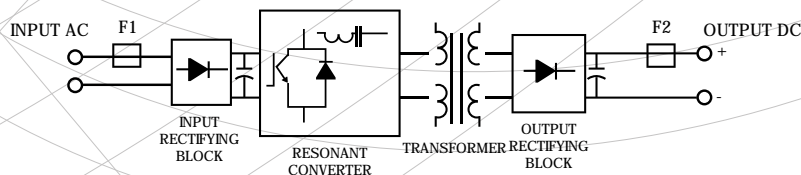
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TECHNICAL SPECIFICATIONS

INPUT	
Voltage	1-Phase 220Vac, 3-Phase 220 / 380Vac
Voltage Tolerance	± 15%
Frequency	50 / 60 Hz.
Frequency Tolerance	±%10
Power Factor	1-Phase: 0.85 / 3-Phase: 0.92
OUTPUT	
Voltage	24, 48, 110, 220 Vdc, -10% ... +35% (front panel selectable)
Current	15, 30, 60, 100A
Current Limiting	I nomx102% front panel selectable between 0 and 102%
Ripple	<0.5%
Voltage Regulation	±0.5% at float charge, ±1% at boost charge
Efficiency	3-Phase: >92% / 1-Phase: >85%
Protections	Input (thermal/magnetic) fuses, Output fuses, Advanced short circuit protection, Overvoltage protection, Overcurrent protection, Automatic restart
Battery Charge Modes (Adjustable charging voltages)	Automatic charge, boost charge: 2.4 V / Cell Float charge: 2.25 V / Cell
Boost Charge Time	Incrementable by 1 hour up to 24 hours
LCD Properties	2x16 character-wide display, showing: Output voltage & current, Load (%), Fault notices, 50 entry memory with time&date, Output voltage high/low
Displays	AA (AC available), Fault, Current limiting, Automatic charge, Float charge, Boost charge, Common alarm
Operation and Control	Via menu selections from buttons on front panel
Alarms	Common relay contact output for AA input low, DA output low and overheat
Endurable Dielectric Voltage	2000 V Input-Output 2000 V Input-Chassis 500 V Output-Chassis (For PS with output voltage <50 V) 1000 V Output-Chassis (For PS with output voltage >50 V)
Case Dimensions (WxDxH)	3-Phase: 375x220x600 / 1-Phase: 300x190x450 (mm.)
Protection Class	IP 20
Audible Noise @1m.	50 dBA
Cooling System	Mandatory cooling (Fan)
Weight	1-Phase PS < 40kg. 3-Phase PS < 50kg.
Operating Temperature	0°C 40°C
Storing Temperature	-20°C 70°C
Relative Humidity	98% (Non-condensing)
Standards	VDE, DIN 41773 (Battery charge characteristics) ANSI-NEMA PE 5 TS 2000

Battery cabinets not included. All specifications subject to change without notice. Consult EKA's technical support department for special applications. All names used above are registered trademarks of their respective owners.

BLOCK DIAGRAM



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