



MARINAS & SHIPYARDS

WITH ITS COMPACT DESIGN, IT IS SUITABLE FOR BOTH MARINAS AND SHIPYARDS



MODULAR DESIGN

RELIABLE, SCALABLE AND EASY TO MAINTAIN THANKS TO ITS MODULAR STRUCTURE



BI-DIRECTIONAL TECHNOLOGY

BI-DIRECTIONAL OPERATION WITH FOUR QUADRANT ENERGY FLOW CAPABILITY



USER-FRIENDLY HMI

ALL PARAMETERS CAN BE MONITORED VIA A USER-FRIENDLY TOUCH PANEL



HIGH INGRESS PROTECTION

IP54 INGRESS PROTECTION ALLOWS INSTALLATION ON VESSELS AND SHORE



The ENCLOVE Energy NSP Series Shore Power Converter is a highly flexible, modular system designed to deliver continuous, clean, and reliable power across critical sectors operating under demanding environmental conditions. Engineered with a unique modular design, the NSP Series guarantees exceptional power continuity and galvanic protection, making it the ideal solution for marine, transport, medical, and industrial applications.

KEY FEATURES

- **Unique Modular & Flexible Design:** Designed for horizontal scalability and easy expansion, optimizing the system footprint while minimizing maintenance times (Short mean time to repair)
- **Dual Input & Seamless Transfer (Optional):** Supports dual input setups and optional seamless generator transfer to protect critical loads during source transitions without downtime.
- **Ultimate Environmental Protection:** Employs conformal coated printed circuit boards and a built-in marine filtration system to withstand harsh, humid, or dusty industrial environments.
- **Comprehensive Electrical Shielding:** Equipped with robust galvanic isolation between input and output, galvanic corrosion protection, and reverse polarization protection.
- **Zero Impact Source Technology:** Features an advanced IGBT rectifier and inverter design that ensures an ultra-high input power factor (>0.99) and low input current distortion (THD $<3\%$).
- **Advanced UI & Control:** Operated via a 7" multilingual touch panel interface supported by state-of-the-art DSP control and a real-time logging of up to 2000 events with detailed parameters.
- **Bi-Directional Power Flow:** Built to manage flexible energy distribution and power sharing requirements efficiently.

APPLICATIONS

- **Marine & Offshore:** Dockside shore-to-ship power, vessels, and other harsh maritime environments.
- **Industrial Processes:** Critical industrial plants requiring continuous voltage stability.
- **Transport Infrastructure:** High-demand transit and railway support infrastructure.
- **Medical Facilities:** Sensitive clinical environments requiring reliable, clean power backup.

POWER RANGE	10kVA - 1000kVA
MODEL NAME	NSP-3PXXXNI-3PXXXNI-XXXXK-XXX-XXX
INPUT	
Voltage	170 – 520V 3P + PE (different input voltages with input transformer)
Maximum Supply Voltage	±10%
Nominal Input Frequency	50/60Hz
Frequency Tolerance	30 - 70Hz
Input Connection	3P or 3P+N (with or without neutral) (Neutral Optional)
Current Harmonic	<3% THDi (at nominal load)
Power Factor	> 0.99
OUTPUT	
Power	10 kVA to 1000kVA
Power Factor	0.9 (1.0 Optional)
Voltage	208/380/400/415/440/480/690 VAC 3P+PE (N Optional)
Voltage Tolerance	Static ±1%, Dynamic ±3%
Frequency	50Hz / 60Hz/400Hz ±0,01%
Voltage Harmonic	Linear Load <1% / Non-Linear Load <3%
Overload Capacity	10 min. @ <125% Load 1 min. @ <150% Load
Short Circuit Rating	2 sec. @ 200% Load
Efficiency	94%
GENERAL	
Cabinet Type	Standalone
Cabinet Color	RAL7032, RAL7035 (Other colours optional)
Ingress Protection	IP54 (IP55 - Optional)
User Panel	7-inch touch panel with a color TFT display
Communication Ports	RS232, RS485, MOD-Bus, J-Bus, CAN-Bus, SNMP(Optional), Dry Contact (Optional)
Operating Temperature	0 – 50°C
Storage Temperature	-20 – 70°C
Cooling Type	Forced-air cooling with fan speed adjusted according to the load Optional (Optional liquid cooling: 6 L/min flow rate per 100 kW. Non-corrosive coolant)
Temperature De-Rating	2% power loss per 1°C above 40°C, up to 50°C.
Operating Altitude	<1000m, Correction Factor 1. / <2000m, Correction Factor >0.92, / <3000m; Correction Factor >0.84
Humidity	<95% without condensation
Acoustic Noise	<65 dBA
Standards (General)	ISO 9001, ISO 14001, ISO 45001, EN62040-2, EN62040-1, EN60950, EN62040-3
Standards (Marine)	Marine certifications available upon request (BV, DNV GL, ABS, RINA, CCS, LR) (Optional)
Dimensions	Dimensions: Available upon request
Others	Cabinet Heater, Cabinet Lighting, Service Plug

The company reserves the right to change the model, appearance, and technical specifications of the products without prior notice.

