

750W Battery Charger / Power Supply NSR750F Series



NSR750F Series - 750W Battery Charger / Power Supply

Following on from the tried and tested SR-series, the NSR750F series is upgraded and re-engineered to provide robust and reliable DC battery charging for your critical systems.

The NSR750F is one of the most robust Battery Charger / Power Supplies you can buy.

Key Features

- Automatic temperature compensated charging voltage (programmable via RS-485 / Ethernet).
- Precision power supply voltage configurable (automatic power supply operation with no battery connected).
- Battery detection - regular battery presence and battery circuit integrity checks.
- Power loss & battery system alarms through relays and LED indications.
- Different output connector options - M8 studs or Phoenix connectors.
- Rugged design and construction for long life and challenging environments.
- Thermal reliability improved by using double fan cooling system.

Unique Features

Universal Input Voltage

- The NSR series accommodates a wide input voltage with AC input 90 ~ 264Vac.

Intuitive Web Management Interface

- Ethernet/SNMP-optional models provide access to an intuitive and comprehensive web interface for monitoring and configuration.

High Efficiency

- Up to 90% power efficiency.



NSR750FxxSx Rear Panel



NSR750FxxTx Rear Panel

NSR750 Series Options

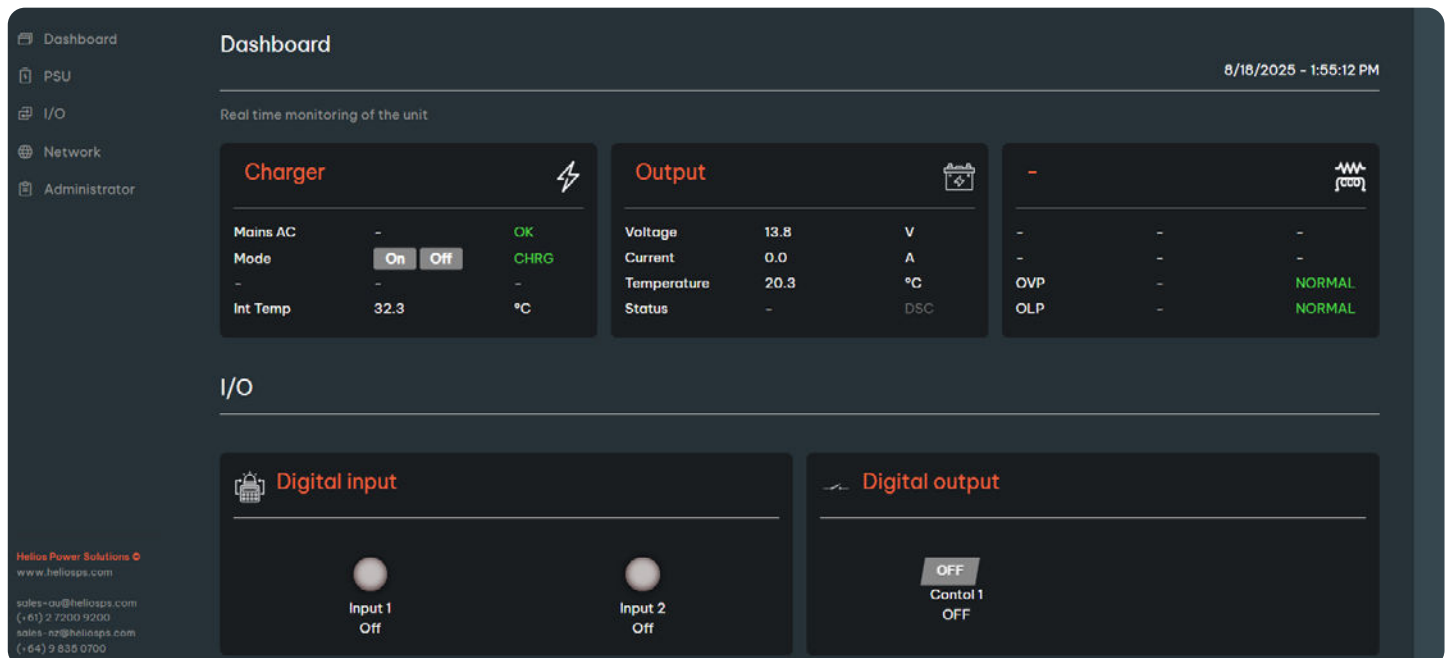
| Base Model | Output Power (W) | Operation Mode | Battery Nom. Voltage | Output Terminals | Communications |
|------------|------------------|----------------|----------------------|------------------|----------------|
| NSR | 100 | U F | 12 24 48 | S T | (blank) C |
| | 250 | | | | |
| | 500 | | | | |
| | 750 | | | | |

| Output Power (W) | Operation Mode | Battery Nom. Voltage | Output Terminals | Communications |
|--|-------------------------------------|--|---------------------------------------|---------------------------------------|
| 100 - 100W 250 - 250W 500 - 500W 750 - 750W | U - UPS/Charger F - Charger Only | 12 - 12Vdc 24 - 24Vdc 48 - 48Vdc | S - M8 Studs T - Phoenix Terminals | (blank) - RS-485 C - Ethernet/SNMP |

Example: NSR750F12SC
750W Charger, 12Vdc Nominal Battery Voltage with Stud Terminals and Ethernet/SNMP

Intuitive Web Interface

On SNMP/Ethernet-optional models, the intuitive web-interface provides simple programming and monitoring of the NSR750. (Programming and monitoring via MODBUS-RTU with RS-485 is provided on all models).



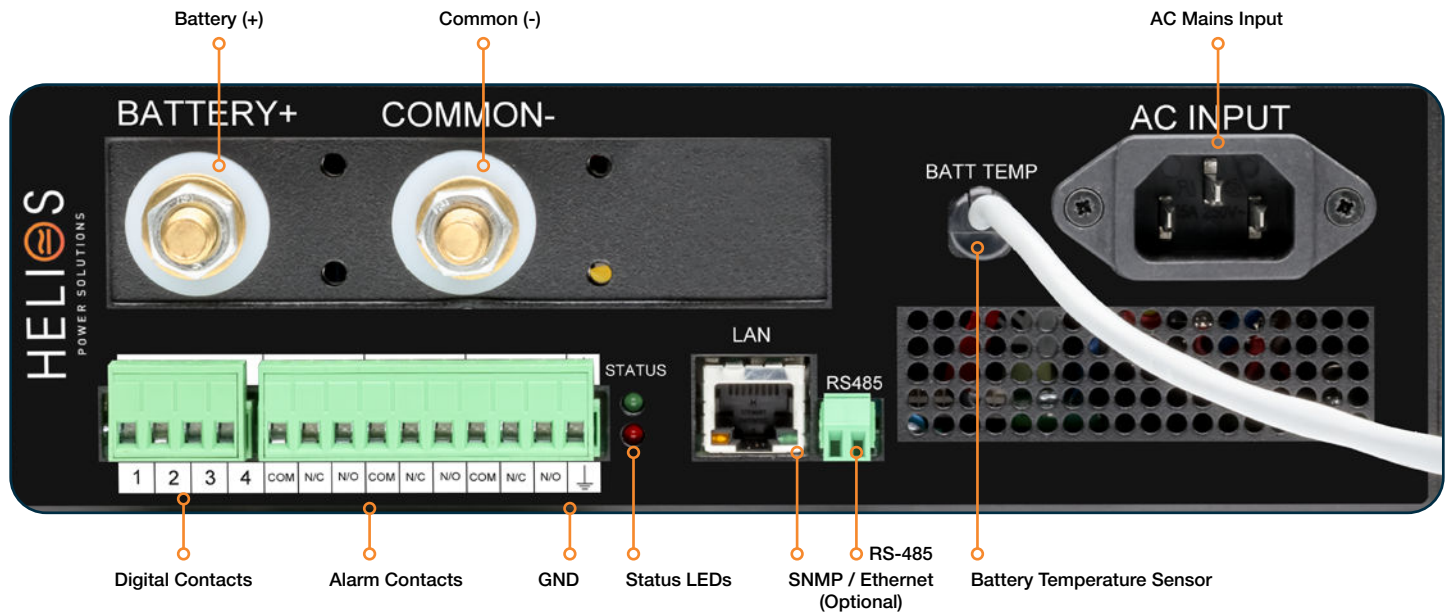
Specifications

| Model | NSR750F12xxxx | NSR750F24xxxx | NSR750F48xxxx |
|--|--|-----------------|-----------------|
| Output Voltage | 13.8Vdc nominal | 27.6Vdc nominal | 55.2Vdc nominal |
| PSU Rated (A) | 54A | 27A | 13.5A |
| Charge Limit (A) ¹ | 54A | 27A | 13.5A |
| Power | | | |
| Input Voltage | 90-264Vac | | |
| Frequency | 47-63Hz | | |
| Output Power (Max) | 750W | | |
| Output Voltage (Programmable) | 12Vdc | 24Vdc | 48Vdc |
| Voltage Adjustment Range (via RS-485 / Ethernet) | 80 - 120% of V _{nominal} | | |
| Safety | | | |
| Fusing Protection | Input fuse and varistor Battery fuse for battery circuit | | |
| Overcurrent Protection | Constant current limit under overload and short circuit conditions | | |
| Isolation | I/P-O/P: 2121VDC / I/P-FG:2121VDC / O/P-FG: 707VDC | | |
| Efficiency | Up to 90% | | |
| Noise | <1% | | |
| Operating Temperature | -10 ~ 50°C | | |
| Over Voltage Protection | 130% of V _{nominal} | | |
| Humidity | 20-90% relative humidity non-condensing | | |
| Cooling | Fan cooled | | |
| LED Indication | Green: Batt OK Green: Power OK Red: Standby Flash code for different operating states | | |
| Alarms Relay | Form C contacts 30VDC, 2A/110VDC, 0.3A, 125VAC, 0.5A AUX (Activated by LVD condition) POWER (mains fail, PSU fails) BATTERY (batt missing, batt low) | | |
| Battery Charging | | | |
| Temp. Compensation | Temperature sensor on 1.7m lead with adhesive pad: -4mV/°C ±10% (customisable) | | |
| Battery Charge Current Limit | 100% Charger rating | | |
| Battery Circuit Protection | Fuse protection | | |
| Options | | | |
| Communication Options | RS-485 (Modbus RTU) Default on All Models Ethernet (Modbus RTU, SNMP, Web Interface) - Optional | | |
| Digital Inputs/Outputs | Isolated digital input (pins 1,2) / Open drain output (pin 3) / Return (pin 4) | | |
| EMC | CISPR 32:2015, Amdt 1:2020 Class A | | |
| Safety | AS/NZS 60335.2.29 | | |
| Dimension | 225(W) x 304(D) x 70(H)mm (excluding mounting feet and terminals) | | |
| Weight | 4kg | | |
| Protection | IP20 | | |

1. Default is 100% PSU rating current, can be customisable.

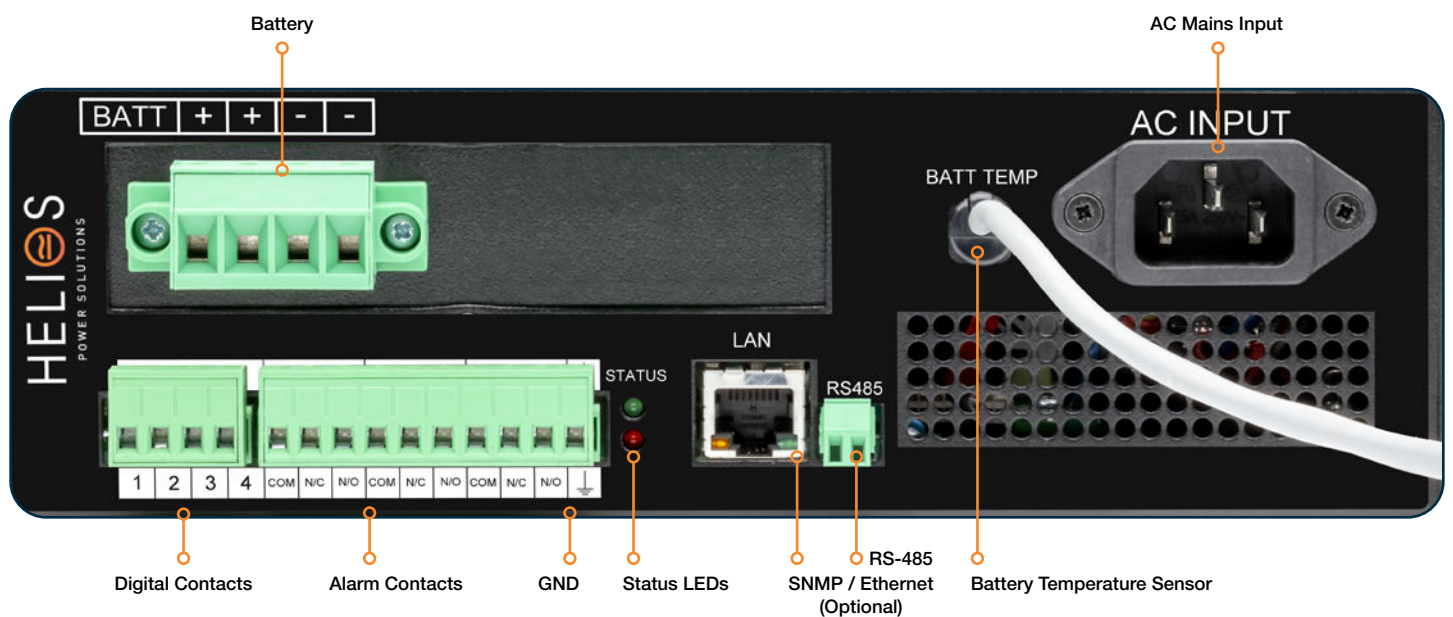
NSR750FxxS Rear Panel

with M8 Studs



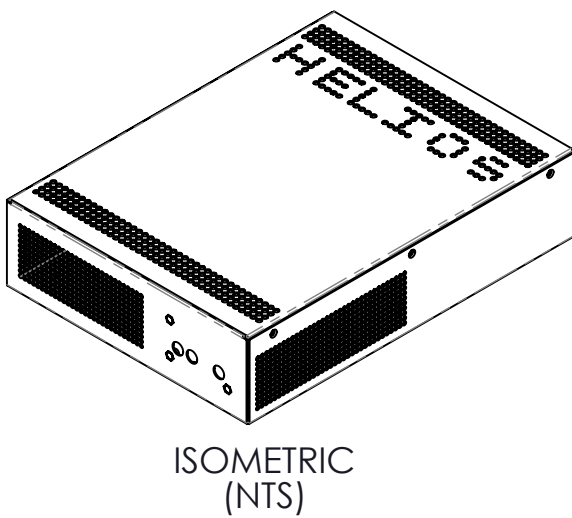
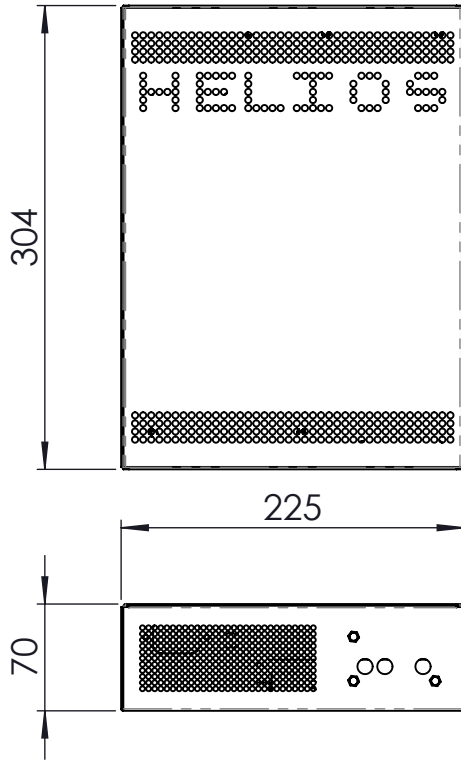
NSR750FxxT Rear Panel

with Phoenix Terminals

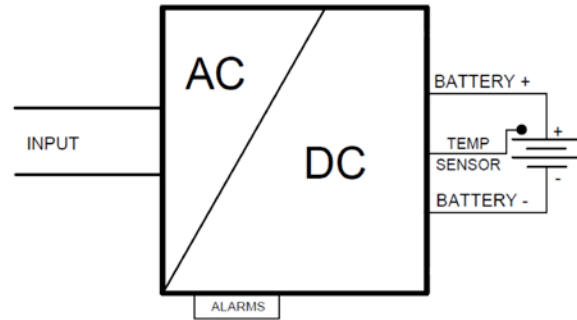


Technical Drawings

Units shown in millimetres (mm)

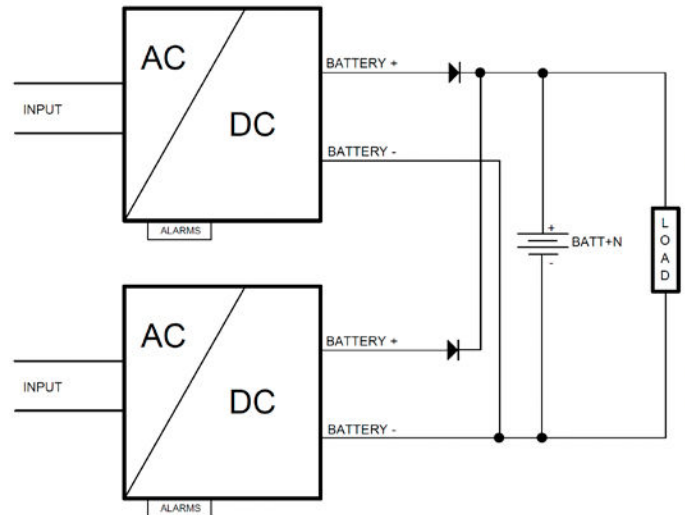


Circuit Block Diagram



N+1 Redundancy with 2 x NSR Units

Common Battery



Independent Batteries

