

Liebert NPS

Rack Network Power Switch

■ AC Power Systems for
Business-Critical Continuity



For redundant operation of two input power sources, secure manual and automatic switching of load to available power source.

The Liebert NPS is a fast static transfer switching device between two input power sources, that ensures continuous, high-availability dual-input power supply to your equipment. Its slim 2U case, designed for rack mount applications, is capable of supporting loads up to 6kVA of power at 230V or 25 Amps, and features a hot swappable bypass module.

A user friendly interface, the simple operation and maintenance, allow easy integration in telecom, network and computer application environments. A single Liebert NPS will allow you to protect a whole rack, ensuring fast transfer from one input source to an alternative source with no interruption to the load. For optimal performance the Liebert NPS can be used with Liebert UPStation GXT2 Uninterruptible Power Supplies, available in ratings between 700VA and 6000VA, for rack and tower mode applications.

The static transfer performed by Liebert NPS is both on line and neutral conductors of the single phase sources and the behaviour is break before make. Both the paths, line and neutral, are provided with semiconductor fuses for a complete safety. The fuse holders are easily accessible on the back side of the enclosure, for a fast replacement. The low audible noise, the enclosure and the environmental characteristics allow an easy installation in datacenters.

Applications

- For redundant operation of two UPS just connect input of the two UPS to the mains input. Connect the output of each UPS to the 2 inputs of the NPS. In case one UPS should fail the NPS will automatically switch to the second UPS source, ensuring the load will stay online.
- When using a Generator Set as an alternative source, running in parallel with the mains utility supply: connect one NPS input to the Mains and the other NPS input to the Generator source. Use a UPS between the Generator and the NPS input to regulate the Generator frequency/voltage and to allow for start up of Generator in case of Main Power failure. When Mains Power fails, the NPS automatically switches to the Generator source starting up at first on UPS Battery Power and then, when the Generator engine is online, transferring the load to the Generator supply.
- When you require to perform maintenance to your input source, the NPS also allows for manual switching to a second source, becoming a practical maintenance bypass. The load is transferred to the second source and the main power source can be disconnected without affecting the load.
- For maintenance reasons, the NPS features also a hot swap electronic module, which can be extracted without affecting the load.



Liebert


EMERSON
Network Power

Specification:

Model

SSWITCH-25A

Electrical Characteristics	UNITS	Description
Nominal Input Voltage	Volts	220, 230 or 240 volts single phase, 2W+G, 50 Hz. Solidly grounded power sources
Nominal Output current	Amps	25
Frequency	Hz	50 / 60
Source unhealthy status	-	Guaranteed Transfer to alternate source within -15 % of Vnominal
Load Power factor range	-	0.5 to unity leading or lagging
Load Crest factor	-	Up to 3.5
In-Phase transfer window	-	Adjustable from 5 ± 1°
Source voltage distortion	%	up to 10% THD
Overload capability	%	125% of continuous current for 2 hrs, 1000% for two cycles minimum.
Over current Protection	-	By semi conductor fuse
Short circuit withstand capability	Amps	upto 20,000 symmetrical amps, protected by internal fusing.
Redundant Control Power supplies	-	taken from available source 1 and source 2
Integral Maintenance Bypass	-	Make before break operation
Unsynchronised transfer		6 millisecc for synchronized transfer and 16 millisecc for unsynchronized transfer.

Mechanical Characteristics

Height	mm	88.0
Width	mm	427.0
Depth	mm	450.0
Weight	kg	8.0
Colour		Matt Black
Installation		19" Rack Mounted / floor / table top
Cable entry	-	Rear side

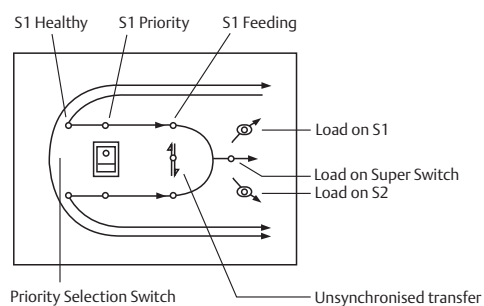
Environmental Characteristics

Heat dissipation	W	75
Storage temp. range	°C	-40 to 60°C
Operating temp. range	°C	0 to 40°C
Relative humidity	%	0 to 95%
Operating altitude	m	Upto 1500m (5,000 ft)
Storage / Transport Altitude	m	Upto 12000m (40,000 ft)
Audible Noise	db	< 45 db at 1.5 m

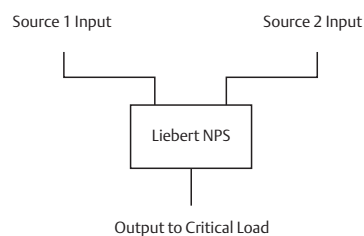
Standards and Requirements

Safety	EN50178
EMC	EN61000-6-2 (2001-10; immunity); EN61100-6-3 (emission)
Approvals	CE mark

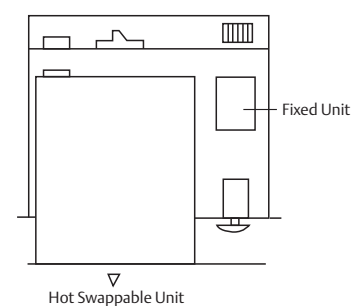
Status and alert indicators



Principle of Operations



Hot Swap module operation



Emerson Network Power, a business of Emerson (NYSE:EMR), is the global leader in enabling Business-Critical Continuity™. The company is the trusted source for custom, adaptive and ultra-reliable solutions that enable and protect its customers' business-critical technology infrastructures. Backed by the largest global services organization in the industry, Emerson Network Power offers a full range of innovative power, precision cooling, connectivity and embedded products and services for computer, communications, health-care and industrial systems. Key product brands within the Emerson Network Power family include Liebert, Knuerr, ASCO, Astec, Lorain.

Emerson Network Power.

The global leader in enabling business-critical continuity.

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- Embedded Power
- Precision Cooling
- Connectivity
- Monitoring
- Rack & Integrated Cabinets
- DC Power
- Out Side Plant
- Services
- Embedded Computing
- Power Switching & Controls
- Surge Protection

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