



## FLEXPOWER **HELIX**<sup>TM</sup> redundant power systems

### Overview

**FLEXPOWER HELIX** are single voltage power systems specifically designed for mission critical applications that require redundant back up power. HELIX systems combine two identical power configurations within the same enclosure to provide uninterrupted output power with zero voltage drop and zero sag switchover.

Network management provides email alerts on AC or system faults and allows remote monitoring of critical system parameters for both the main and backup power supplies, including output voltage, battery voltage, battery current, and enclosure temperature. Programmable upper and lower limits on key parameters allow tailoring of fault points to the application.

HELIX systems are factory pre-configured for 120 VAC operation and user configurable to 12 or 24 VDC output (factory default is 12 VDC). Eight distributed outputs are fused at 3A each. HELIX configurations feature comprehensive fault detection and reporting with programmable fault delays and come in a steel enclosure with lock and tamper switch.

### System Features

#### Dual FPO offline power supplies

- 120 or 230 VAC input
- 12 or 24 VDC output
- Continuous output

#### Power rating

- 6A@12VDC or 3A@24VDC

#### Lifetime Warranty

### System Functions

#### Redundant backup power

- Two mirrored systems
- Single voltage output
- Zero voltage sag on switchover

#### Network management and reporting

- AC loss
- AC or System faults
- Low battery
- Internal Temperature
- Programmable upper and lower limits
- Remote monitoring of system parameters
- Time to service

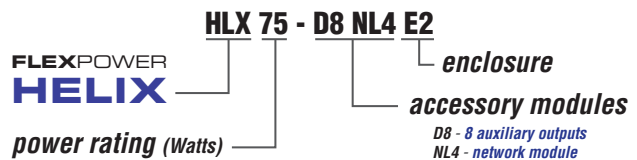
### Specifications

<b>Input Power</b>	Input 120/230 VAC 50/60 Hz   83 Watts (0.69A) Thermal overload protection Short circuit protection Polarized AC disconnect point
<b>Output Power</b>	75 Watts, maximum of 6 amps at 12 VDC or maximum of 3 amps at 24 VDC DC1 continuous output 120 mV output voltage ripple Power distribution option: 8 fused outputs at 3 amps each
<b>Indicators / Supervision</b>	AC input and DC1 System Fault, AC Fault, Ground Fault, Reverse Battery Distributed output availability Low battery and battery presence supervision AC fail supervision D8 output status
<b>Battery Charging</b>	Independent built-in charger for sealed lead acid or gel type batteries Microprocessor dual rate charging of 12 or 24 V battery sets Automatic switchover to standby battery when AC fails Maximum charge current 1.0 amps Zero voltage drop when switched over to battery backup
<b>Regulatory Compliance</b>	UL294 / ULC S318 / ULC S319 FCC
<b>BTU Rating</b>	109 BTU/Hr
<b>Enclosure options</b>	E2 (20.00"H x 16.00"W x 4.50"D)



example: HLX75-E2

### Product Configurator



### Model Number Ordering

	Single output	8 outputs
<b>managed</b>	HLX75-NL4E2	HLX75-D8NL4E2
<b>standard</b>	HLX75-E2	HLX75-D8E2

for power limited outputs add "P" after D8 in model number, ie HLX75-D8PE2

### FAULT DETECTION AND REPORTING

The comprehensive fault detection and reporting mechanism of the FPO power supply provides for both local and remote fault reporting.

Independent relay contacts are provided to report AC and system fault conditions to remote or auxiliary equipment.

#### Detected Fault Conditions

##### AC Power

- AC loss, AC low
- AC Presence

##### DC Power and System

- Abnormal or loss of power supply operation
- Over current, over temperature condition
- DC output high, low
- Battery Presence, Earth Ground (user optional)
- Reversed battery condition, blown fuse or loss of output voltage on selected accessory boards (detected on the power supply)

### POWER DISTRIBUTION

Eight power distribution outputs are individually programmable to a continuous output drawn from either buss 1 or buss 2

- 3A fused per output (D8)
- 2.5A per output class 2 power limited (D8P)

#### Visual Indicators

- DC Presence: Green LED per output

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### NETWORK COMMUNICATION MODULE

#### Network Interface for Monitoring / Reporting / Controlling

- Enables network connectivity via LAN / WAN for remote diagnostics, battery management, and trouble / service email alerts

#### PowerCom software provides 24/7 power status monitoring of

- System integrity
- Battery condition
- Cabinet temperature

#### Network & email alerts for

- AC / System fault conditions
- Switch to back-up power
- Degraded battery
- Fire Alarm Interface (FAI) or external event activation
- Time-to-service reminders

#### 100 event time & date stamp buffer with Excel compatible reports

#### SNMP interface v1, v2, v3 and allows network access of real time system parameters under SNMP

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### HELIX LIMITATIONS

Due to the nature of this product and its intended applications, the limitations and conditions of installation of the Helix power supply must be fully understood by the system planner & installer. Please thoroughly read the HELIX installation manual and understand the following sections before using the Helix power supply.

#### Redundancy

The Helix line of power supplies adds a layer of redundancy over the typical FPO power supply. Only the FPO power supply is redundant - any distribution in the system is not redundant. Also, the Helix cannot overcome any problems in the field wiring or load devices - if a short circuit shuts down the main supply, the backup supply will also be shut down by this short circuit.

#### Primary AC Connection

Both FPO power supplies must be powered from the same AC branch circuit. Powering the two internal FPO power supplies from different branch circuits could lead to possible improper operation and loss of output voltage.

#### Backup Battery

FPO2 must have battery backup connected for proper operation. A battery should not be connected to FPO1 - this is to prevent cycling between FPO1 and FPO2 during battery discharge on loss of AC.

#### Fault Contacts

The fault contacts of BOTH FPO power supplies must be monitored to annunciate failure of either power supply. The fault contacts may either be monitored separately or series/paralleled as needed for a common fault indication. Use of a Netlink network monitoring module is also highly recommended.

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