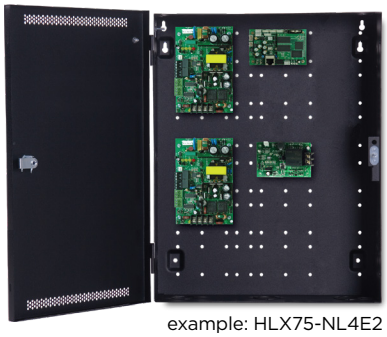
DC HELIX



example: HLX75-NL4E2

Overview

DC HLX75 are 75W DC power systems specifically designed for mission critical applications that require redundant DC back up power for critical infrastructure protection. HLX systems combine two identical power configurations within the same enclosure to provide uninterrupted output power with zero voltage drop and zero sag switchover. The AC Helix option provides redundant AC inputs for automatic switchover to a second AC source when the primary source is compromised.

HLX systems provide email alerts on AC or system faults and allow 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.

HLX models are user configurable for 120 or 230VAC input and 12 or 24VDC output (factory default: 120VAC, 12VDC) with multiple output options. HELIX features 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
- *12V/6A or 24V/3A*

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*

HLX 75 /H- D8 NL4 E2 /E

- FLEXPOWER DC HELIX
- 75W power rating
- AC HELIX Option
- /E — for 230VAC
- E2 — enclosure
- NL4 — networked
- D8 — accessory modules
  - B100 - 12VDC regulator
  - Output modules:
  - C8 - eight lock, D8 - eight auxiliary
  - M8 - eight managed
  - (Class II = C8P, D8P, M8P)

Model No.	Output	Internal Distribution: Bulk	Auxiliary	Control	Managed
HLX75-NL4E2	12A/12V or 6A/24V	1			
HLX75-D8NL4E2		1	8		
HLX75-2D8NL4E2		1	16		
HLX75-C8D8E2		1	8	8	
HLX75-D8M8NL4E2		1	8		8
HLX75-B100D8NL4E2	4A/12V and 4A/24V	1	8		
HLX75-B100D8M8NL4E2		1	8		8

for power limited outputs add "P" after accessories in model number, ie HLX75-D8PNL4E2
for redundant AC inputs, add /H in model number, ie HLX75/H-D8PNL4E2

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Specifications

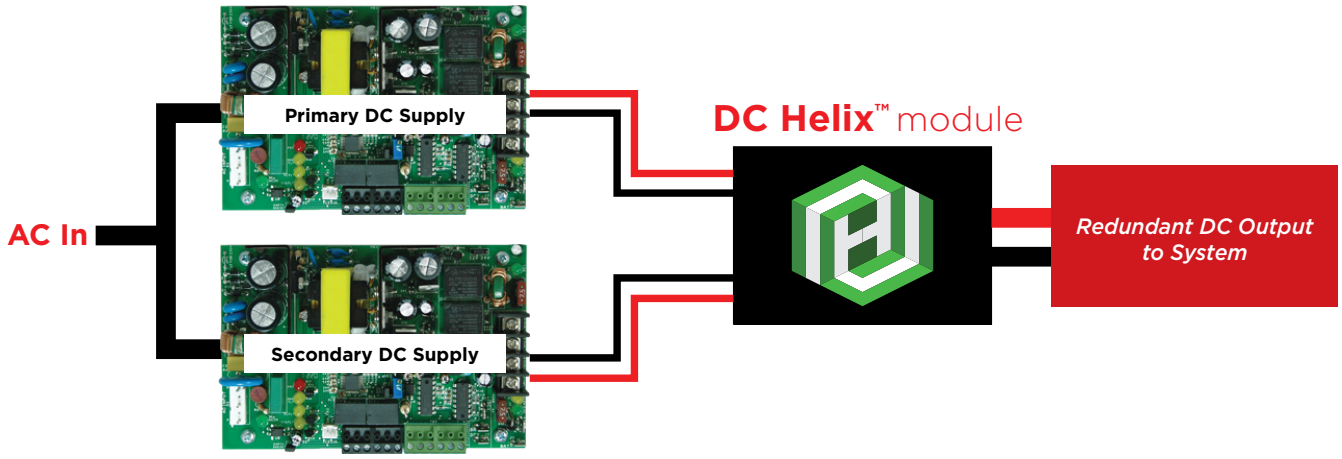
Input Power	Input 120/230 VAC 50/60 Hz | 83 Watts (0.69A) Thermal overload protection Short circuit protection Polarized AC disconnect point
Output Power	75 Watts, maximum of 6 amps at 12 VDC or maximum of 3 amps at 24 VDC DC1 continuous output 120 mV output voltage ripple
Indicators / Supervision	AC input and DC1 System Fault, AC Fault, Ground Fault, Reverse Battery Distributed output availability Low battery and battery presence supervision AC fail supervision
Battery Charging	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
Regulatory Compliance	UL294 / ULC S318 / ULC S319 FCC
BTU Rating	33 BTU/Hr
Enclosure	E2 (20.00"H x 16.00"W x 4.50"D) Weight: 20 lbs.

Operation

The DC Helix module uses a primary and secondary DC source to provide a redundant DC output. Under normal conditions, the primary DC source is passed to the equipment being powered. When the DC Helix detects that the primary DC source has been compromised, the output transfers to use the secondary DC source for the powered equipment.

The DC Helix automatically adjusts for a 12V or 24V system and requires that both the primary and secondary sources be set to the same DC output voltage.

DC HELIX Wiring



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.

lifesafetypower.com

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Specifications subject to change without notice.

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