Assured **redundant power** designed for mission critical applications.

Enhance, extend, and optimize power to your critical security infrastructure with **Helix Armour™** an award winning family of redundant power management solutions that maximizes operational reliability while reducing costs and minimizing risks.

Uninterrupted power - Delivers DC power redundancy and resiliency for a variety of power requirements.

Proactive management - ensures operational excellence with network reporting to maintain required levels of performance, reliability, and availability to critical applications.

Seamless fail-over protection - Intelligent monitoring reacts to power failures with automatic backup switchover with zero latency to maintain uninterrupted system operation.

Protecting your investment - HELIX Armour™ DC redundancy provides the ultimate insurance against failure of your mission critical security systems.

maximum protection for critical infrastructure

AC assurance - HELIX AC utilizes and monitors two ac branch circuits. Trouble to a primary branch instantly switches power to the back up branch to maintain uninterrupted system operation.

Applications for redundant A+B ac power include:

- Power to critical Access or Security Systems
- Banking, Gaming, Pharmaceutical, SCIF, Data Centers

DC reliability - Mirrored power supplies monitor and report DC integrity. If a power system fails, HELIX ARMOUR safely transfers operation to the secondary power system without any voltage or current disruption.

Active duty 24/7 - HELIX ARMOUR utilizes patented LifeSafety Power NetLink® technology to detect and report system anomalies. Trouble with power, batteries or connected devices are reported to multiple users so critical infrastructure can be properly secured.

Trust and verify - HELIX ARMOUR eliminates guesswork by testing, analyzing and reporting battery holdup time, so dead or degraded batteries don't compromise system uptime.

Industry recognized reliability - Award winning HELIX DC redundant systems carry multiple UL listings and are the go to choice for assured protection in government, finance, medical and technology verticals.

HELIX™ Redundant DC protection

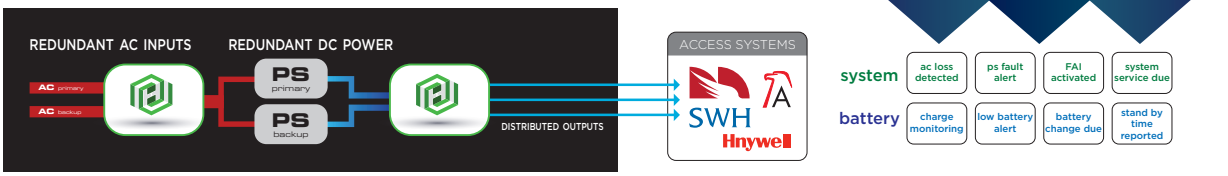
redundant protection: HLX 250 — power rating (watts): HLX75, HLX150, HLX250

non-redundant distribution: 2C8 3D8 EXX- E — E: 230VAC enclosure; EXX: accessory qty (if >1); 2C8 3D8: accessory modules B100, C4, C8, D8, F8, NL2, NL4, M8

HELIX ARMOUR™ Redundant AC, DC protection

redundant ac, dc protection: HLX 250 AR1 — insert AR module into DC part number: AR1 (120VAC) AR2 (230VAC)

non-redundant distribution: 2C8 3D8 EXX- E



Typical HELIX DC Part Numbers

Rack Mount			
Input	Output*	Model No.	Outputs
120 VAC	12V	RH75-112N	1
	12V	RH75-112-8N	8
	12V	RH75-112-16N	16
	24V	RH75-124N	1
	24V	RH75-124-8N	8
	24V	RH75-124-16N	16
230 VAC	12V	RH75-212N	1
	12V	RH75-212-8N	8
	12V	RH75-212-16N	16
	24V	RH75-224N	1
	24V	RH75-224-8N	8
	24V	RH75-224-16N	16

*Factory sets output voltage

Wall Mount			
Input	Output**	Model No.	Outputs
120 VAC	12V or 24V	HLX75-NL4E2	1
	12V or 24V	HLX75-D8NL4E2	8
	12V or 24V	HLX75-2D8NL4E2	16
230 VAC	12V or 24V	HLX75-NL4E2/E	1
	12V or 24V	HLX75-D8NL4E2/E	8
	12V or 24V	HLX75-2D8NL4E2/E	16

**User defines output voltage

AC Module

Wall / Rack Mount	
Input	Model No.
120 VAC	AR1
230 VAC	AR2

HELIX GENERAL SPECIFICATIONS

INPUT	Input 120VAC / 230VAC 50/60 Hz
	Thermal overload protection
	Short circuit protection
OUTPUT	DC1 continuous output
	120 mV output voltage ripple
	Power distribution: user defined
INTERNAL PS INDICATORS	AC input and DC1 output
	System and AC Faults
	Ground fault, reverse battery
EXTERNAL INDICATORS	AC On
	Distributed outputs

BATTERY CHARGING	Independent built-in lead acid battery charger
	Dual rate charging of 12 or 24V battery sets
	Auto transfer to battery when AC fails
AC SUPERVISION	Management of AC line (AR modules)
	120 mV output voltage ripple
	Power distribution: user defined
DC SUPERVISION	Power Supply, battery sets, external temps
	Email, SNMP, XML reporting
AGENCY LISTINGS	HLX DC: CE, UL294, UL603, UL1076, ULC S318,
	S319, CSA C22.2 #107.1 / CSA 22.2 #60950
	HLX AC: CE

HELIX NOTES

Due to the nature of the Helix system architecture and its intended applications, the limitations and conditions of installation of the Helix system must be fully understood by the system planner & installer. Thoroughly read the Helix installation manual before using a Helix power system.

Redundancy
Helix adds a layer of AC and DC redundancy over a typical single FPO power supply system. In a HELIX configuration only the FPO power supply is redundant - any power 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.

Backup Battery
PS2 must have battery backup connected for proper operation. A battery should not be connected to PS1 - this is to prevent cycling between PS1 and PS2 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.