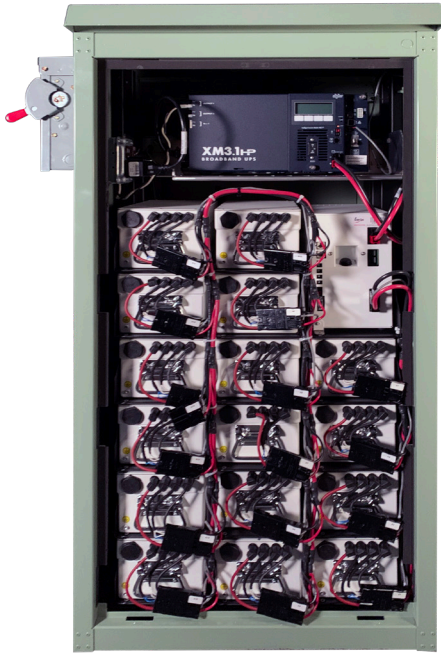# Alpha® XRT-Li extended runtime power system

an EnerSys® company

- Certified as a system to industry benchmark-setting NRTL safety standards UL 9540/9540A and ANSI/ UL 62368-1

- Scalable system delivers anywhere from 8 hours to as much as 72 hours of backup

- Utilizes industry-leading Alpha® XM3.1-HP power supply for reliable integration into your network

- Battery sub-system certified to safety standards UL 1973, UN 38.3 and ISO 13849-1:2015

- Module State of Charge (SoC) balancing

- Remote monitoring via Continuity or AlphaXD

Alpha® XRT-Li extended runtime power system , leveraging the award-winning Alpha® XM3.1-HP™ broadband UPS and PowerSafe® iON battery power module (BPM) with lithium-ion technology, scales to safely provide anywhere from 8 to 72 hours of unparalleled high-density backup power capacity that helps ensure your network's resiliency.

Alpha® XRT-Li extended runtime power system capitalizes on over 40 years of expertise in cable broadband powering and over 100 years of experience with energy storage solutions, allowing EnerSys to deliver an optimized system supporting extended runtime applications in the Outside Plant.

- Alpha® XRT-Li power system sets the safety benchmark for outdoor lithium systems, certifying to the highest NRTL lithium-ion safety standards UL 9540/9540A and ANSI/UL 62368-1.

- The PowerSafe® iON 36-1800 battery power module (BPMs) utilizes high quality automotive grade lithium-ion cells to maximize energy density.

- The award-winning Alpha® XM3.1-HP™ uninterruptible power supply (UPS), delivers an intelligent integrated system designed for optimal charging performance and remote power management.

- Housed within the Alpha® PN-4 cabinet, XRT-Li extended runtime power system integrates seamlessly into existing networks utilizing components already widely approved and deployed.

- The battery management system (BMS) provides additional levels of protection for the batteries, including overvoltage, undervoltage and overcurrent. It manages cell balancing and temperatures to help maintain overall State of Health (SoH) of the battery and is network-enabled for remote power management.

Alpha® XRT-Li extended runtime power system

System Specifications	
Battery Power Modules	Up to 22
Battery Management Systems (BMS)	1
Max Rated Energy Capacity (1 BMS and 22 BPMs)	36.3 kWh @ 40.7V
Max Rated System Load	12A
Operating Temperature	-15°C to +45°C
Mechanical	
Cabinet Dimensions (W x D x H)	26 × 24 × 52 in (660 × 610 × 321 mm)
Weight	231 lb (105 kg)
Agency Compliance	
Certifications	**UL® 9540:** Energy Storage System (ESS) Requirements
	UL® 9540a: Test reporting
	ANSI/UL 62368-1 : Audio/video, information and communication technology equipment; Telecommunication products: network infrastructure equipment

Alpha® XM3.1-HP™ Broadband UPS*	
AC Input Voltage	120 Vac (nominal); Range: 90 Vac to 138 Vac
Input Frequency	60Hz nominal, ±3% tolerance
Output Voltage; Max Current; Max Power	63/89 Vac; 18 A; 1620 VA
Mechanical	
Dimensions (W x D x H)	16.43 × 10.57 × 7.76 in (417 × 268 × 197 mm)
Weight	61 lb (27.6 kg)
*For full specifications see Alpha® XM3.1-HP power supply Datasheet	

PowerSafe® iON 36-1800** Battery Power Module (BPM)				
Battery Voltage	36 Vdc (Nominal); Range: 30.0 Vdc to 40.7 Vdc			
Capacity	50 Ah			
Energy	1.81 kWh (1.65 kWh rated) (@ 40.7 V max. - based on 1C discharge rate at 25°C)			
Runtimes (Standby Time)				
Batteries	Load			
	12A	8A	6A	4A
8	12hrs	14hrs	23hrs	33hrs
16	24hrs	29hrs	45hrs	66hrs
22	32hrs	38hrs	63hrs	92hrs
Mechanical				
Dimensions (W x D x H)	6.57 × 13.54 × 5.27 in (167 × 317 × 134 mm)			
Weight	32.8 lb (14.9 kg)			
Agency Compliance				
Certifications	**UN 38.3, UL® 1973**			
**For full specifications see PowerSafe iON 36-1800 battery power module Datasheet				

Battery Management System (BMS)	
DC Input Voltage	36.2 Vdc (Nominal); Range: 30.0 Vdc to 40.7 Vdc
Max Rated Charge/Discharge	44 A @ 40.7 V
Mechanical	
Dimensions (W x D x H)	13.15 × 6.39 × 10.38 in (334 × 162 × 264 mm)
Weight	16.5 lb (7.5 kg)
Agency Compliance	
Certifications	**UL® 1973**
	ISO® 13849-1:2015: Functional safety; Safety-related Parts of Control Systems

Alpha® XRT-Li extended runtime power system

PowerSafe® iON 36-1800** battery power module

PSI-36-BMS battery management system