

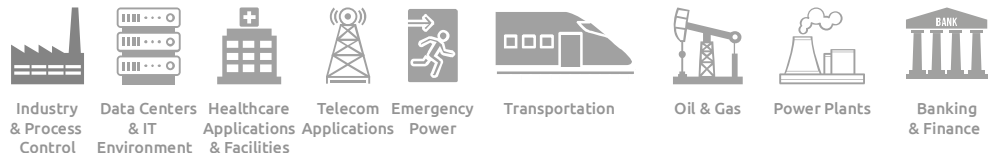
ProXtend ZHE 31 ONLINE UPS

Critical Power Protection, Zero Downtime

The **ProXtend ZHE 31** UPS uses the software & hardware bases of proven **ProXtend** three phase ups series and presents optimized, robust power protection & performance, highest availability & versatility for harshest industrial environments, healthcare and datacenter applications whilst reducing TCO & minimising the time for ROI.



Key Applications



Product Snapshot

Delivers An Outstanding Power Performance & Increased Power Quality

- True VFI | online double conversion design guarantees the complete isolation of critical load from any mains disturbances.
- Transformerless; high frequency, IGBT rectifier & inverter design via PWM technique presents active power factor correction at input which lowers THDi at input & maximizes the input power factor as > 0,99. This leads minimized generator : UPS sizing, less investment and costs due to very low harmonics. The system reduces the effect on utility and the loads connected to the same network with the ups itself. IGBT design at the inverter stage also brings high output power as 0,8 or 0,9 while reducing the THDv as low as 1%.
- Twin DSP microprocessor control offers maximized reliability, total protection of UPS & critical load against failures & damages, unbeatable parallel redundant operation in business-critical environments and applications.
- Transformerless design also brings a compact, lightweight design which brings ease of transport, installation and maximizes power density in minimum footprint as low as 0,47 m2 for a 60 kVA **ProXtend ZHE 31**
- Greater adaptability, versatility in system configurations, higher immunity to harmonics, sudden inrush currents & energy backfeed generated by the load. & environments with high RFI [loads compliant like CNC, CT]

Controlling Both CAPEX and OPEX

- Delivers industry leading 94.5%* AC~AC online double-conversion efficiency without sacrificing reliability. Thanks to its highly efficient design, savings can reach up to 35% in dissipated energy in one year compared to traditional legacy UPS [87%] systems resulting in a faster payback period of 4 years as ROI.
- HVAC systems and cooling infrastructure initial investment is kept at minimum while cooling costs such as power, maintenance of HVAC units are at minimum. Keeping power & cooling infrastructure cost at minimum [CAPEX] along with operating costs at minimum [OPEX], XRP UPS gives the power of control.
- Scalability - Pay as You Grow! Capacity can flex to meet power infrastructure growth by adding an additional ups in the field, ease of expansion from medium-sized installations to hyperscale infrastructures.

The UPS ProXtend HE 31: Power Protection and More

The **ProXtend ZHE 31** is a next-generation VFI | online double conversion IGBT rectifier & inverter high frequency tri-phase input & single phase output UPS which offers high electrical & mechanical robustness, high reliability for various industries & applications.

The UPS uses the latest IGBT-PWM technology & DSP control to provide maximum power protection performance, increased power quality & clean, continuous power for any type of application.

ProXtend ZHE 31 offers one of the lowest TCO & fastest ROI in the industry with its high efficiency values and power density. Its robust design, proven reliability and maximised availability which dramatically decrease operational downtimes and costs during its lifetime and true scalability makes it indispensable to various industries worldwide.

Advanced battery care design, zero impact on utility, generators & loads connected to the UPS itself also makes it superior by the proven data against traditional legacy ups system along with many rivals existing in the market.

ProXtend ZHE 31 is engineered to meet the needs of demanding environments & businesses worldwide.

Advanced Battery Care

The UPS **ProXtend ZHE 31** provides extended service life for batteries via its three stage charging mode. Thanks to its innovative software helps the user to monitor battery health & remaining back up period, extended scalable battery runtimes is not a matter with **ProXtend ZHE**.

Reliability, Availability and Serviceability (RAS)

Maximized availability and reliability by the power engineering at its top level, **ProXtend ZHE 31** offers very robust & reliable power protection, this also leads minimized downtime and highest level of availability. Very high level of MTBF [Mean Time Between Failures] and very low MTTR [Mean Time to Repair] ensures the critical load not to fail for its duty. Serviceability is a measure of the system to be recovered after a disaster. A min. of 15 mins. of enough for a technician to diagnose and recover the system to reduce the downtime for business.

UPS Rating [for Model S & E]

Rated Power [kVA]	10 15 20 30 40 45 60	
Active Power [kW] [for Model S]	8 12 16 24 32 36 48	Output PF = 0.8
Active Power [kW] [for Model E]	9 13,5 18 27 36 40,5 54	Output PF = 0.9

General Characteristics

MTBF/ MTTR	Over 250000 Hours/ Below Than 15 Minutes
UPS Type & Technology	VFI Online Double Conversion [Complete Isolation of Output Load with Any Mains Disturbances] High Frequency Operation, IGBT Rectifier & Inverter, Transformerless Design Twin DSP Microprocessor Control via PWM Technique
62040-3	COMPATIBLE
Power Factor	0.8 for Model S, 0.9 for Model E
Input Voltage Range	-45% ~ +27% [at 64% Rated Load]
True Redundancy	N+X, N+1 Redundant Configurations
Parallel Configuration [N+1]	Up To 8 Units
Standard Protection Features	Input Power Limiting, Phase Reversal, Power Module Over Temperature, Over Current, High Temperature Alert, Smart Short Circuit, Regenerative Load, Current Limiting, Charging Current Limiting, Temperature Compensated Charging.
Operating Conditions	20 °C, <1000m Above Sea Level, <45% to 55% RH, for Best Performance and Optimised System Lifetime & Health
Cooling/ Isolation	Forced Air Cooling via Redundant Fans, Smart Fan Speed Control

Display & Parameters	Model S with 0.8 PF	Model E with 0.9 PF
Mimic LED Indicators	Utility, Bypass, Battery, Inverter, Output, Fault & Warnings Leds	Mimic LEDs are not available Graphical Flow Diagram is Used for Utility, Bypass, Battery, Rectifier, Inverter & Load
LCD Display Data Shown on LCD	Large LCD LCD Display : Input, Bypass, Output L-N Voltages [V], & Frequency [Hz], Input & Output Currents [A], Output Apparent Power [VA], Output Active Power [W] Output PF, Active Power Drawn from the Utility [kW], Load Percentages [%] for Each Phase, Ambient Temperature [°C], Battery Voltages for + & - Strings, Battery Current, DC Bus Voltages for + & - Strings, Alarms are Listed, 5000 pcs Events Log, Product Service Screen, UPS is controlled via Commands Submenu Along with Accessing Alarms and Date&Time Information and Settings, Available Languages for User is Listed Here and the User Can Select Between Listed Languages	Standard, 3.5" Graphical Touchscreen LCD Display : Input, Bypass, Output Voltages [V], & Frequency [Hz], Input & Output Currents [A], Output Apparent Power [VA], Output Active Power [W] Output PF, Load Percentages [%] for Each Phase, Battery Voltages for + & - Strings, Battery Current, Battery Temperature [°C], Remaining Battery Back Up Period [mins], DC Bus Voltages for + & - Strings, Internal Temperature [°C], Cooler Heatsink Temperature [°C], 512 pcs Events Log

Maintenance Bypass	STANDARD
Material [Casing]/ Colour	BLACK
Cable Entry	REAR/ FRONT BOTTOM

Efficiency

AC~AC Mode	Up To 94.5%
Eco-Mode	> 98%
DC~AC/ Battery Mode	< 97%

Input Characteristics

Rated Voltage & Range	380/400/ 415 VAC 3P+N+PE
[at 100% Rated Load]	Model S with 0.8 PF -15% ~ +27%
[at 64% Rated Load]	-45% ~ +27%
[at 42% Rated Load]	-64% ~ +27%
Rated Frequency & Range	50/60 Hz ± 10% [Online Mode]
Power Factor	> 0.99 Active Power Factor Correction Circuitry
Current Distortion [THDI]	< 3%

Battery	Standard: 5 minutes (optional)
Rated Voltage [DC]	Maintenance Free Sealed Lead Acid - VRLA
DC Input Voltage Range	
Intelligent Battery Management	Temperature Compensated 4 Stage Charging, Deep Discharge Protection, Scheduled/Automatic & Manual Battery Test, 25% of Rated Power, 20°C - 25°C for Longer Battery Lifetime*

Output Characteristics

Rated Voltage & Accuracy	220/ 230/ 240 VAC 1P+N+PE < ±1% at 100% Rated Linear-Static Load, < ±2% at Non-Linear Load; < ±3% at Dynamic Loads
Rated Frequency & Accuracy	50/ 60 Hz (Selectable), ±1% (Synchronized to Mains) ±0,01% (Free Running Mode, Selectable)
Power Factor	0.8 for Model S, 0.9 for Model E
Voltage Distortion [THDv]	≤3% (at 100% Linear Load)
Crest Factor	3:1
Unbalanced Load & Acceptable Load PF	Compatible with Operation on 100% Unbalanced Load 0,9 Leading to 0,9 Lagging without Any Degradation
Overload Operation	10 mins @ 100% ~ 125% Rated Load 60 seconds @ 126 ~ 150% Rated Load Switches to Bypass Line over 150% Rated Load

Static Bypass

Rated Voltage & Range	220/ 230/ 240 VAC 1P+N+PE ±10%
Rated Frequency & Range	50/ 60 Hz, ±6% [Adjustable]

Communication & Supervision

Model S with 0.8 PF Standard (Available As Hardware & Software): 2* RS232 Serial Comm. Port, SNMP Slot, EPO-Emergency Power OFF Button.
Optional (Standard in Software, Optional as Hardware): RS485 (MODBUS) Serial Comm. Port, 4 pcs Dry Contacts, SNMP - Network Management Kit [External or Internal], Generator Interface, Remote Monitoring & Management Panel, TCP/IP converter, GSM/GPRS Modem, Communication Ports Multiplier.
Model E with 0.9 PF Standard (Available As Hardware & Software): RS232 Serial Comm. Port, RS485 (MODBUS) Serial Comm. Port, SNMP Slot, EPO-Emergency Power OFF Button, Generator Interface, Programmable 4 pieces Dry Contacts from Front Panel for Any of The Following Signals : General Alarm, Mains Failure, Battery Failure, Output Failure, Load on Bypass, Output Overload, High Temperature
Optional (Standard in Software, Optional as Hardware): SNMP - Network Management Kit [External or Internal], Remote Monitoring & Management Panel, TCP/IP converter, GSM/GPRS Modem, Communication Ports Multiplier.

Remote Monitoring & Management

Environment

Operating Temperature Range	
Prespecified Operating T.	0°C - 40°C / 20°C - 25°C / -30°C ~ 60°C
Storage Temperature	
Altitude/ Relative Humidity	< 1000m above sea level/ < 95% (non-condensing)
Noise	< 55 dBA < 58 dBA < 60 dBA < 62 dBA

Certifications

Safety	EN 62040-1
Electromagnetic Compatibility [EMC]	EN 62040-2
Performance [VFI-SS-111]	EN 62040-3
Safety	EN 60950-1 Information Technology Equipment
Quality Management	CE, ISO 9001:2015, ISO 14001:2015

Optional Features & Accessories

Isolation Transformer	Optional for Input & Output
Custom Input Voltage Range	Optional
IP Classified Enclosure	Available from IP21 ~ IP 66
Others	Paralleling Kit, Network Management Kit, External Bypass, Remote Monitoring & Management Panel, UPS Looking Battery Enclosures...etc

Physical

Dimensions [mm]	Please see Ratings & Dimensions Chart
Weight [kg]	Please see Ratings & Dimensions Chart
Protection Degree	IP20 (Standard)



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