

# DEWEN™



# ATHLON TriGuard SERIES

Power range:10KW-40KW

ATHLON TriGuard Series UPS: High-performance three-phase UPS offering reliable, flexible power protection with unity power factor in a fully integrated solution and suitable for laser printer and ultrasound system load.

## **About DEWEN®**

DEWEN, a premier brand under KEMET LIMITED, is dedicated to advancing sustainable power backup solutions for modern industries. Rooted in over 20 years of KEMET's expertise across the Middle East and Africa, DEWEN specializes in the design and manufacture of innovative backup power products, including Uninterruptible Power Supplies (UPS), rectifiers, inverters, and power and frequency converters.

Driven by a commitment to sustainability, DEWEN integrates eco-conscious practices throughout its design and manufacturing processes, ensuring that our solutions are not only reliable but also environmentally responsible. Each DEWEN product is crafted to deliver efficiency and resilience, enabling businesses to maintain continuity while minimizing their environmental impact.

With DEWEN, KEMET LIMITED reinforces its mission to support clients in implementing sustainable, reliable, and efficient power solutions tailored to their unique needs, helping pave the way for a greener future in energy and backup power.

The ATHLON TriGuard Series by DEWEN® is a robust three-phase UPS solution engineered to deliver reliable power protection for critical applications across a range of enterprise environments, supporting loads from 10KVA to 40KVA. Designed for maximum efficiency, TriGuard features a unity output power factor of 1.0, ensuring full, real power delivery to connected equipment with minimal energy loss. Its compact, small-footprint design allows seamless integration, making it ideal for space-constrained settings in both IT and industrial applications. With advanced voltage regulation and rapid response to power fluctuations, the TriGuard Series maintains stable, continuous power to support sensitive equipment and essential systems without disruption. For applications requiring extended backup time, TriGuard offers an expandable battery module option, enabling longer runtimes to meet specific operational demands. This scalability makes it a reliable choice in environments where uninterrupted power is essential to business continuity. Whether deployed in a data center, industrial site, or critical infrastructure environment, the ATHLON TriGuard Series provides secure, high-quality power in a fully integrated package, ensuring flexible, adaptable power protection as your requirements evolve.

### True Double-Conversion Online UPS

The true double-conversion design of this UPS ensures the delivery of clean, high-quality power to safeguard mission-critical systems. It offers robust protection for sensitive equipment, making it ideal for applications such as high-demand networks, small-scale server centers, telecommunications, and industrial environments.

### High Output Power Factor of 1

The ATHLON TriGuard Series is engineered with a high-density design that features a unity output power factor, meaning it operates with an output power factor of 1.0. This design provides significant advantages in terms of efficiency and real power delivery, maximizing the amount of usable power provided to connected loads.

In essence, a unity power factor of 1.0 ensures that all power drawn from the utility is effectively utilized without wastage, delivering full, real power directly to critical systems. This feature is particularly valuable in environments where reliable and efficient power delivery is essential, such as data centers, healthcare facilities, industrial sites, and IT infrastructures.

### Advanced High-Current Charging for Rapid Battery Recovery

The DEWEN® ATHLON TriGuard Series stands out with its high-capacity, fast-charging capabilities, designed to meet the demands of critical applications. This series includes an advanced battery charger that reaches up to 12A placing it among the highest standard charger capacities in its class compared to other brands. This robust charging capability ensures rapid battery recharge, ideal for environments where maintaining continuous power is essential. While the series offers swift battery recharging for quick recovery, it also emphasizes adherence to recommended charging current values, allowing for optimal battery performance and longevity. This high-capacity charger makes the TriGuard Series an excellent choice for critical systems requiring both reliable backup power and expedited battery recovery times.

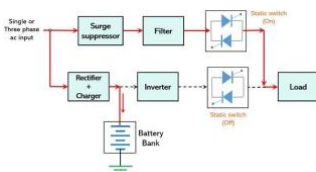
### Seamless Generator Compatibility in TriGuard UPS Series

The TriGuard UPS series offers advanced generator compatibility, a key feature

designed to provide seamless and reliable power support in critical applications. This feature allows the TriGuard UPS to connect directly to a generator without the need for an Automatic Transfer Switch (ATS), simplifying system setup and enhancing efficiency. When connected to a generator, the TriGuard UPS is engineered to handle the inherent frequency and voltage fluctuations that often occur during generator startup and operation. With built-in filtering and power conditioning, the TriGuard series stabilizes generator power, ensuring clean and uninterrupted power delivery to sensitive loads. This capability is essential in environments where power reliability is critical, as it allows for smooth transitions to generator power in the event of a mains failure, reducing downtime and safeguarding connected equipment. Additionally, the generator compatibility feature manages load distribution effectively, preventing excessive inrush current and extending the lifespan of both the UPS and the generator.

### Parallel Redundancy for Enhanced Reliability

The TriGuard UPS series supports parallel connection and redundancy for up to four units, ensuring unmatched reliability and scalability for critical power systems. This feature allows multiple UPS units to work in parallel, sharing the load to provide increased capacity or enhanced redundancy. In a parallel redundant setup, if one UPS unit goes offline due to maintenance or unexpected issues, the remaining units seamlessly continue to support the load, preventing any disruption in power. This configuration not only maximizes uptime but also allows for flexible scaling as power demands grow. With parallel redundancy, the TriGuard UPS series offers a robust, fail-safe solution for high-availability environments where uninterrupted power is essential.



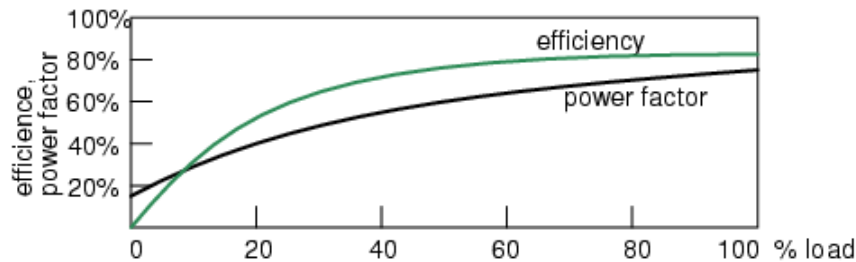
## DEWEN's Commitment to Sustainable Power Solutions!

In today's world, sustainability is not just a value but a necessity. DEWEN is dedicated to creating power solutions that embody environmental responsibility, integrating sustainable practices into every aspect of its products. Through thoughtful design, durable construction, and advanced technology, DEWEN addresses the critical need for reliable power with a minimal environmental footprint.



### Unity Power Factor: Key to Efficiency and Sustainability

The unity output power factor (PF = 1.0) in the ATHLON TriGuard Series UPS plays a critical role in improving system efficiency and sustainability. The power factor represents the ratio of real power (used to perform work) to apparent power (the total power supplied by the utility). A power factor of 1.0 means that all the supplied power is being effectively utilized by the system, with no energy wasted in the process. In practical terms, a unity power factor ensures that the UPS operates with maximum efficiency, reducing energy loss and enhancing the overall performance of connected equipment. This also leads to less heat generation, lower operating costs, and a more sustainable solution with a reduced environmental footprint. By achieving a unity power factor, the ATHLON TriGuard Series minimizes the need for over-sizing and optimizes the use of electrical capacity, which is especially crucial in critical applications where power quality and reliability are non-negotiable. For industries looking to improve energy efficiency and reduce their carbon footprint, this feature is an essential asset.



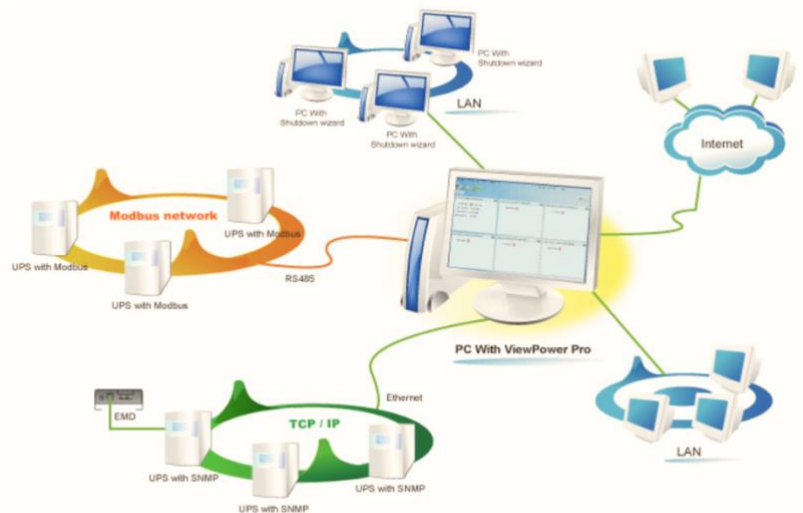
### Main Features

- True double-conversion online UPS.
- Output power factor 1.
- Active power factor correction in all phases.
- Dual AC inputs.
- Generator compatibility.
- Emergency Power Off Function (EPO).
- DSP technology applied guarantees high performance.
- Parallel redundancy up to four units with common battery.
- Adjustable number of battery for long run configuration.

### Advanced Communication and Monitoring Capabilities

The ATHLON TriGuard system is equipped with LCD, providing users with critical operational insights in an accessible format. This intuitive interface displays essential information, including alarm status, system configuration, startup/shutdown procedures, transfer operations, and advanced metering details. Through the display, users can access real-time measurements of key metrics such as system currents, voltages, and both active and reactive power.

To ensure seamless integration and remote communication, ATHLON TriGuard supports Web (HTTP), Modbus, and SNMP protocols, allowing users to monitor and manage the UPS system efficiently from various locations and platforms. These advanced communication features make ATHLON FlexiPower a versatile and user-friendly solution for reliable power management.



## Technical Data:

	ATG 10K	ATG 20K	ATG 30K	ATG 40K
PHASE	3 phase in / 3 phase out 3 phase in / 1 phase out 1 phase in / 1 phase out		3 phase in / 3 phase out	
CAPACITY	10KVA/10KW	20KVA/20KW	30KVA/30KW	40KVA/40KW
<b>INPUT</b>				
Nominal Voltage	400 VAC (3ph+N) 230 VAC (1ph + N)		400VAC (3ph+N)	
Voltage Range	110-300 VAC ± 3% @ 50% load ; 176-276 VAC ± 3% @ 100% load			
Nominal Frequency	50/60 Hz (Auto Sensing)			
Frequency Range	46-54 Hz or 56 -64 Hz		40 Hz -70 Hz	
Power Factor	≥ 0.99 @ Nominal Voltage (100% Load)			
Harmonic Distortion (THDi)	< 4% @ nominal input voltage			
<b>OUTPUT</b>				
Nominal Voltage	360/380/400/414VAC (3ph+N) 208/220/230/240 VAC (1ph+n)		360*/380*/400/414VAC (3ph+N)	
Voltage Regulation (Steady state)	± 1%			
Nominal Frequency	50/60Hz			
Frequency Range (Sync. Range)	46-64 Hz or 56-64 Hz			
Frequency Range (Batt. Mode)	50 Hz ± 0.1 Hz or 60 Hz ± 0.1 Hz		50/60 Hz ± 1%	
Harmonic Distortion	≤ 2% THD (Linear Load) ; ≤ 4% THD (Non-linear Load)			
Transfer Time	Zero (AC mode to battery mode) 4 ms (Typical, Inverter to bypass)			
Waveform (Batt. Mode)	Pure Sinwave			
Overload Capability	100-110% for 60 min, 111-125% for 10 min, 126%-150 for 1 min; > 150% immediately shutdown			
<b>Bypass</b>				
Nominal Voltage	360/380/400/414VAC (3ph+N) 208/220/230/240 VAC (1ph+n)		360*/380*/400/414VAC (3ph+N)	
Voltage Range	-30% - +20% (Adjustable)		305VAC – 457VAC	
Frequency Range (Sync. Range)	46-54 Hz or 56 -64 Hz			
Overload Capability	> 130% 1 minute (default) ; continuously working until protection (optional)			
<b>EFFICIENCY</b>				
AC Mode	95.5%			
ECO Mode	98.5%			
Battery Mode	94.5%			
<b>BATTERY</b>				
Numbers	16-20 pcs (adjustable)		32 – 40 pcs (adjustable)	
Charging Current	1A-12A adjustable			
Charging Voltage	±13.65V			
<b>INDICATORS/ALARMS</b>				
LCD Display	UPS status Load level, Battery level, Input/Output voltage, Discharge timer, and fault conditions			
<b>PHYSICAL</b>				
Cabinet Dimension (W x D x H)mm	250 x 630 x 826		300 x 815 x 1000	
Net Weight UPS only (Kg)	37	43	56	56
<b>ENVIRONMENT</b>				
Noise Level	<60 dBA @ 1 Meter	<65 dBA @ 1 Meter	<65 dBA @ 1 Meter	<70 dBA @ 1 Meter
Relative Humidity	< 95% (Non-condensing)			
Operating Temperature	0-40 °C			
Altitude**	0 -1500m at full load.			
<b>MANAGEMENT</b>				
Smart RS-232 / USB	Supports Windows® Family, Linux and MAC			
Optional SNMP	Power management from SNMP manager and web browser			

\*\* If the output voltage is set as 360VAC, the output power of the unit will be derated to 90%.

\*\*if the UPS is installed or used in a place where the altitude is above than 1000m, the output power must be derated one percent per 100m.

# DEWEN™