

HYDRA T3

SERIES

10-200 kVA

ONLINE UPS

THREE LEVEL



VFI
TYPE

UPS ONLINE

TOWER

PF=
0.9

POWER FACTOR

Service

SERVICE

HIGHLIGHTS

True Three Level Rectifier and Inverter Technology

Ultra High Output Galvanic Isolation Transformer Embedded

Robust and Reliable Design

Highest Reliability with Embedded Isolation Transformer

- HYDRA T3 Series is a true VFI on-line double conversion, three-phase UPS system with Innovative 3 Level Technology and engineered to provide high level of energy efficiency and reliable and robust protection for most demanding industrial and medical environments.
- Three level inverter and rectifier technology and with embedded isolation transformer makes HYDRA T3 Series one of the most reliable systems for data security and other critical applications.

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 **GPE**
GENERAL POWER EQUIPMENT

Compact Design

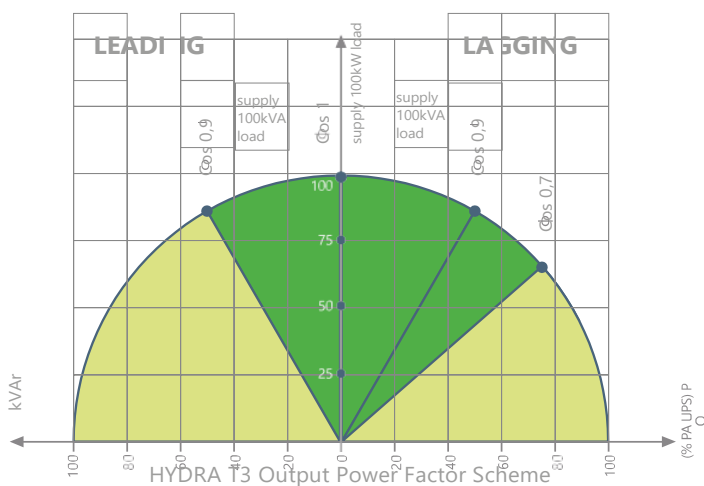
- Designed with an Integrated transformer ensuring galvanic isolation on the output for ultimate safe installation.
- Easy to install and service and can be integrated into harsh commercial and industrial environments.
- Compact footprint and matching battery cabinets.

Low Total Cost of Ownership

- Less energy consumption to supply the loads thanks to high efficiency.
- Reduced energy loss.
- Reduced electricity usage and air conditioning requirements.
- Reduction in operating cost of UPS.
- IGBT based power factor correction technology provides input power factor close to 1 ($\geq 0,99$). The high input power leads to reduced electricity pay-out, minimizes cable, switchboard, fuse and generator requirements, thus reducing investment cost.
- Low input current total harmonic distortion (THDi) less than 3% helps to avoid the disturbance and expensive harmonic filters.
- Small footprint and easy maintenance

High Output Power Factor 0.9

- Output power factor of (1KVA=0.9KW) rate provides up to 25% more active power than a traditional UPS.
- Suitable for modern power supply application with unit or capacitive power factor (e.g. new servers generation).
- No reduction in active power from 0,9 leading to 0,9 lagging.



Maximum Availability

- Parallel configuration up to 8 units per redundancy (N+1) and power increase.
- Loop connection helps the UPS system to continue the operation when the connection cable is interrupted.

Standard Electrical Features

- Output Galvanic Isolation Transformer Embedded
- Dual Input
- Common Battery
- Frontal Access for Input/Output Cabling
- Backfeed Protection
- Cold Start (Optional)
- Advanced Battery Management
- Short Circuit and Overload Protection
- Parallel Ready
- Redundant Power Supply
- Power Walk-in for Progressive Rectifier Start-up when the Mains is Restored
- Battery Temperature Sensor
- Static & Manual Bypass Operation

Advanced Communication Features

- 500 Real Time Event Log with Detailed Parameters
- User Friendly Multilingual 320x240 Graphic Display Provides Operation Information
- Monitoring and Shutdown Software
- RS232 Serial and RS485 Ports
- Modbus RTU (Optional)
- 2 Communication Slots
- Remote Emergency Power Off (Optional)
- Remote Display Panel (Optional)
- Dry Contact (Optional)
- SNMP (Optional)
- Profibus (Optional)

Flexibility

- Optional IP31, IP41, Protection degree for harsh environments.
- Optional tropicalization and anti-corrosion protection for electronic boards.
- Optional temperature sensor for external battery cabinets for extended runtimes.
- External battery cabinets for different sizes of batteries to provide extended runtimes.
- Adaptability to the mains without neutral.

| MODEL | | | | | | | | | | | | |
|----------------------------------|---|---------|---------|---------|---------|-------|-------|-------|--------|--------|--------|--------|
| Capacity | | 10kVA | 15kVA | 20kVA | 30kVA | 40kVA | 60kVA | 80kVA | 100kVA | 120kVA | 160kVA | 200kVA |
| Power Watt | | 9 kW | 13.5 kW | 18 kW | 27 kW | 36 kW | 54 kW | 72 kW | 90 kW | 108 kW | 144 kW | 180 kW |
| INPUT | | | | | | | | | | | | |
| Voltage Range | 380/400/415 VAC 3 Phase +N (Optional 220/380 VAC-15% +22% 3P+N+PE) | | | | | | | | | | | |
| Power Factor | At Full Load >0.99 | | | | | | | | | | | |
| Frequency Range | 45 - 65 Hz (Selectable) | | | | | | | | | | | |
| Total Harmonic Distortion (THDi) | <3% | | | | | | | | | | | |
| OUTPUT | | | | | | | | | | | | |
| Voltage Range | 380/400/415 VAC 3 Phase + N | | | | | | | | | | | |
| Voltage Tolerance | Static ± 1 , Dynamic ± 3 | | | | | | | | | | | |
| Efficiency | 94.5% | | | | | | | | | | | |
| Frequency Tolerance | 50Hz / 60Hz $\pm 0,01\%$ (Battery Mode) | | | | | | | | | | | |
| THD (THDv) | Linear Load <2% Non-Linear Load <5% | | | | | | | | | | | |
| Crest Factor (CF) | 3:1 | | | | | | | | | | | |
| Overload Capacity* | At 125% Load 10min, at 150% Load 1min | | | | | | | | | | | |
| BATTERY | | | | | | | | | | | | |
| Quantity (12V DC VRLA) | 32 | | | | | | | | | | | |
| Charge Capacity | 12,5% of Active Power (Nominal 0,1 C10, Adjustable) | | | | | | | | | | | |
| ENVIRONMENTAL | | | | | | | | | | | | |
| Operating Temperature | For UPS 0°C/+40°C For Battery +15°C/+25°C | | | | | | | | | | | |
| Storage Temperature | For UPS -15°C/+45°C For Battery 0°C/+30°C | | | | | | | | | | | |
| Protection Class | IP20 | | | | | | | | | | | |
| Humidity | 0-95% Without Condensation | | | | | | | | | | | |
| Altitude | <1000m, Correction Factor 1. <2000m, Correction Factor >0.92, <3000m; Correction Factor >0.84 | | | | | | | | | | | |
| Noise Level | <53 dBA | <55 dBA | <60 dBA | <65 dBA | <72 dBA | | | | | | | |
| COMMUNICATION | | | | | | | | | | | | |
| Communication Port | RS232 Standard, RS485 and SNMP Adapter Option | | | | | | | | | | | |
| STANDARDS | | | | | | | | | | | | |
| Quality | ISO 9001, ISO 14001 | | | | | | | | | | | |
| Performance | EN62040-3 (VFI-SS-111,) | | | | | | | | | | | |
| EMC/LVD | EN62040 2, EN62040 1, EN60950, | | | | | | | | | | | |
| DIMENSIONS & WEIGHT | | | | | | | | | | | | |
| Cabinet Dimensions (mm) | Width | 600 | | | 600 | | 650 | | 700 | | 780 | |
| | Depth | 650 | | | 700 | | 790 | | 830 | | 900 | |
| | Height | 1400 | | | 1450 | | 1500 | | 1550 | | 1650 | |
| Net Weight (kg) | 200 | 250 | 310 | 360 | 390 | 430 | 475 | 525 | 550 | 650 | 760 | |
| Packaging Dimensions (mm) | Width | 680 | | | 680 | | 730 | | 780 | | 860 | |
| | Depth | 730 | | | 780 | | 870 | | 910 | | 980 | |
| | Height | 1500 | | | 1550 | | 1600 | | 1650 | | 1750 | |
| Gross Weight (kg) | 250 | 300 | 375 | 410 | 450 | 500 | 525 | 580 | 600 | 700 | 810 | |

* under certain conditions.

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