

DTH Series

3 phase in, 3 phase out High-frequency online UPS

Power Range

10kVA-20kVA

Working Mode

Single phase in, single phase out; Three phase in, single phase out; Three phase in, three phase out

Application

Posts, telecommunications, finance, Internet, securities, public transportation, etc.

Features

► Upgrade on Core Functions

- Multiple units can be paralleled to share battery packs, saving space and maintenance costs.
- Featuring DC cold start function, quick startup without mains power, ensuring continuous operation of critical equipment.
- Auto-restart function, restart after power is restored, reducing manual intervention.
- Supporting up to 4 units in parallel, allowing flexible expansion of power capacity.
- Ultra-thin chassis, saving 50% of cabinet space.
- Supports input/output configurations of single-phase in/single-phase out, three-phase in/single-phase out, and three-phase in/three-phase out.



► Energy-efficient & Reliable Design

- Intelligent fan speed control adjusts the fan speed automatically based on the load, balancing heat dissipation and energy consumption.
- When the power quality from the grid is high, the ECO economy mode can be used to supply power to the load, optimizing energy use and reducing operating costs.
- Can be well-matched with generators, reducing the generator ratio and lowering investment costs.
- The overall efficiency reaches 96%, effectively reducing energy loss and lowering operating costs.
- Optimized input characteristics with high input power factor and low input current harmonics, reducing grid pollution.
- Output power factor up to 1.0, improving energy utilization by up to 20%.
- Optional graded power-down programmable terminals are available, with intelligent graded power-down and programmable strategies for precise load management.

► Safety & Maintenance

- A startup password can be set to eliminate the risk of accidental operations.
- It's equipped with a fault code display function, intuitively showing fault codes for quick identification of the root cause.
- It supports battery temperature compensation, dynamically adjusting the charging voltage to extend battery lifespan.



* The dual-mode design allows it to stand or lie down.

► Intelligent & User-friendly

- Core component temperature visualization with early overheating risk alerts.
- It features a maintenance switch and output circuit breaker status detection, with instant alarms for abnormalities. During maintenance, it automatically isolates the circuit to ensure operational safety.
- Multiple protection mechanisms with immediate audible and visual alarms in case of abnormal conditions, ensuring equipment safety.
- Gravity-sensing LCD screen with LED status lights, featuring an adaptive viewing angle for information display.
- Standard RS232/RS485/EPO interfaces, supporting BMS and parallel intelligent expansion.

Specifications



Model	DTH33-10KRL	DTH33-15KRL	DTH33-20KRL
Capacity	10kVA	15kVA	20kVA
Input			
Input and output standards	1 phase in, 1 phase out; 3 phase in, 1 phase out; 3 phase in, 3 phase out (by default)		
Rated voltage	208/220/230/240Vac(1P+N+PE) 380/400/415Vac(3P+N+PE)		
Voltage range	80-280Vac (phase voltage)		
Frequency range	40-70Hz		
Power factor	≥0.99@100% load		
THDi	≤2%@100% linear load; ≤5%@100% nonlinear load		
Output			
Rated voltage	208/220/230/240Vac(1P+N+PE) 380/400/415Vac(3P+N+PE)		
Voltage accuracy	< 1%		
Power factor	1.0		
Output frequency	50/60Hz±0.1		
THDu	≤1%@100% linear load; ≤3%@100% nonlinear load		
Switching time	0ms		
Overload	<115%, long run; 115%-130%, 10 min; 130%-155%, 1 min		
Bypass overload	200%		

Specifications



Model	DTH33-10KRL	DTH33-15KRL	DTH33-20KRL
Capacity	10kVA	15kVA	20kVA
Other Features			
Efficiency	>96% (mains power)		
Battery	Lead-acid battery/lithium-ion battery (optional function)		
Battery units	By default 16 units (12-20 units optional, derating below 16 units)		By default 32 units (28-50 units optional, derating below 30 units)
Charging current	1-12A (by default 5A)		
W*D*H (mm)	430*500*130		
Net Weight (Kg)	22.5		
Rough Weight (kg)	25.5		
Altitude	2000m, derating according to IEC 62040-3 when above 2000m		
Working temperature	-5~40°C		
Humidity	0-95% non-condensing		
Communication	RS232, RS485, EPO (remote, local), BMS (optional), parallel (optional), smart slot (optional), maintenance switch detection interface, output circuit breaker detection interface		
Display	LCD touch screen, LED light, function buttons		
Optional parts	Lithium battery communication, parallel components, battery temperature compensation options, SNMP card, dry contact, smart slot, graded power-down programmable terminals		
Protection	Output overload, short circuit; battery undervoltage, overvoltage; charging overheat, short circuit; abnormalities on AC input voltage, frequency and phase sequence; UPS overheat, fan failure, etc.		
Alarm	Overload, mains power abnormality, UPS faults, battery undervoltage, etc.		

*Input voltage below 165V requires derating.