MicroMate®

Uninterruptible Power Supply Systems

HTL Series

High Frequency Online UPS

10 ~ 200KVA (3 Ph in / 3 Ph out)

Product snapshot:

Model: 10 ~ 200KVA

Nominal voltage: 380 / 400 / 415VAC

Frequency range: 50/60Hz

Output Power factor: 0.9/1.0

Reduce the investment cost with high efficiency technique:

HTL Series UPS represents the best solution that is both cost effective and flexible configuration. It delivers an excellent integrated autonomy, small footprint and power efficiency of up to 96% with the design of three level inverter topology.

Key Features

- True double-conversion
- DSP technology guarantees high performance
- Output power factor 0.9/1.0
- Wide input voltage range
- Active power factor correction in all phases with PF ≥ 0.99 and THDi ≤ 2%
- 50Hz/60Hz frequency converter mode
- ECO mode operation for energy saving
- Modular Subsystem design for convenice of field maintenance
- Support EPO, in the event of an emergency, user can shut off UPS rapidly
- Generator compatible
- Intelligent battery management to prolong battery life-span
- Battery temperature compensation option available
- Maintenance bypass available
- Full protection, including back feed protection and battery leakage protection
- 7 inch multicolor LCD touch screen

High Reliability

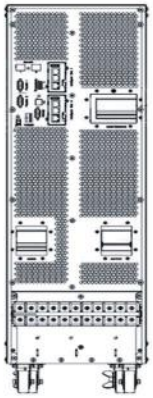
- Its cut-edge digital control technology of DSP (Digital Signal Processor) can deliver higher quality, performance and reliability
- High adaptability for various loads, even 100% unbalance loads, inductive loads or capacitive loads.
- Powerful Interference immunity capability in compliance with requirements of Safety: IEC/EN62040-1, IEC/EN 60950-1 and EMC: IEC/EN62040-2, IEC61000-4-2, IEC 61000-4-3, IEC61000-4-4, IEC61000-4-5, IEC61000-4-6, IEC61000-4-8.

Parallel Redundancy Function

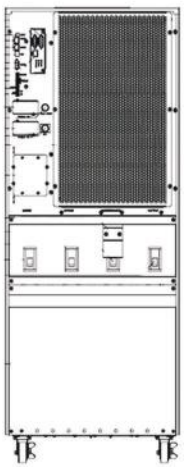
- Built-in parallel kit, realize the parallel extension and redundancy function and offer more flexibility and safety for future power requirement planning
- Support expanded capacity operations (N+X) with up to 6 units in parallel
- Support batteries sharing for the UPS in parallel

Exellent Communication and Power Management

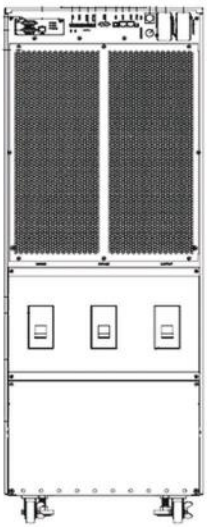
- Provide standard RS485, RS232, USB interface and communication for local or remote power management
- 2 slots intelligent for the installation of optional communication accessories such as SNMP and dry contact card
- Built-in one set dry contact NC/NO relay (selectable internal bypass / battery low voltage)



10KVA ~ 40KVA UPS



60 ~ 80KVA UPS



100 ~ 200KVA UPS

MicroMate®

HTL Series Online UPS
10KVA to 80KVA (3-Phase / 3-Phase)

Technical Specifications

Model		HTL10K-33 / HTL10KS-33	HTL15K-33 / HTL15KS-33	HTL20K-33 / HTL20KS-33	HTL30K-33 / HTL30KS-33	HTL40KS-33	HTL60KS-33	HTL80KS-33
Capacity		10KVA	15KVA	20KVA	30KVA	40KVA	60KVA	80KVA
Input								
Nominal Voltage		380 / 400 / 415Vac (3Ph+N+PE)						
Operating Voltage Range		208~478Vac						
Operating Frequency Range		45 ~ 55Hz at 50Hz / 54 ~ 66Hz at 60Hz (auto sensing)					40 ~70Hz	
Power Factor		⩾ 0.99						
Bypass Voltage Range		380Vac Max voltage: +25% (optional +10%, +15%, +20%)						
		400Vac Max voltage: +20% (optional +10%, 15%)						
		415Vac Max voltage:+15% (optional +10%)						
		Min voltage: -45% (optional -20%, 30%)						
Bypass Frequency Range		Frequency synchronize tracing range: ±10%						
ECO Range		Same as bypass						
Harmonic Distortion (THDi)		⩽3% (100% non-linear load)						
Output								
Output Voltage		380 / 400 / 415Vac (3Ph+N+PE)						
Power Factor		1.0						
Voltage Regulation		±1%						
Frequency	Line Mode	±1% / ±2% / ±4% / ±5% / ±10% of the rated frequency (optional)						
	Bat. Mode	50 / 60 (±0.1%) Hz						
Crest Factor		3:1						
Harmonic Distortion (THD)		⩽2% with linear load						
		⩽5% with non linear load						
Efficiency		93.50%	94.50%					
Battery								
Battery Voltage		Standard Model: ±120Vdc (20pcs 12V / 9AH); S-Model: ±96V / ±108V / 120Vdc (16 / 18 / 20pcs optional)	Standard Model: ±120Vdc (2x20pcs 12V / 9AH) S-Model Optional Voltage: ±96V / ±108V / ±120Vdc (16 / 18 / 20pcs optional)		Standard Model: 120Vdc (3x20pcs 12V9AH; S-Model Optional Voltage: ±96V / ±108V / ±120Vdc (16/18/20pcs optional)	Optional Voltage: ±192V / ±204V / ±216 / ±228V ±240Vdc (32 / 34 / 36 / 38 / 40 pcs optional)		
Charge Current (A) (charge current can be set according to battery capacity installed)		Standard Model: 1.35A S- Model: 10A max	Standard Model: 2.7A S-Model: 10A max		Standard Model: 4.05A S-Model: 15A max	15A max	30A max	30A max
System Features								
Transfer Time		Utility to Battery: 0ms; Utility to bypass: 0ms						
Overload		Load ⩽110%: last 60mins, ⩽125%: last 10mins, ⩽150%: last 1min, ⩾150% change to bypass						
Short Circuit		Hold Whole System						
Communication		USB, RS232, RS485, Parallel port, REPO port, Coupler dry contact, Intelligent slot, SNMP card (optional), Relay card (optional). LBS port (only 60~80K)						
Environmental								
Operating Temperature		0 ~ 40°C						
Storage Temperature		-25 ~ 55°C (No Battery)						
Humidity Range		0 ~ 95% (Non Condensing)						
Altitude		<1500m. When >1500m, lower the rated power for use						
Noise Level		<55dB	<58dB				<63dB	
Physical								
Weight (KG)		129/35	186/39	187/40	236/43	239/46	118	122
Dimension W*D*H (mm)	Standard UPS Module	250x828x868					360x828x868	
	S-Model UPS Module	250x580x655						
Standards								
Safety		IEC / EN62040-1, IEC / EN60950-1						
EMC		IEC / EN 62040-2, IEC61000-4-2, IEC61000-4-3, IEC 61000-4-4, IEC61000-4-5, IEC61000-4-6, IEC61000-4-8						

Note: Product specifications are subject to change without prior notice.

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HTL Series Online UPS
100KVA to 200KVA (3-Phase / 3-Phase)

Technical Specifications

Model		HTL100KS-33	HTL120KS-33	HTL150KS-33	HTL160KS-33	HTL200KS-33
Capacity		100KVA	120KVA	150KVA	160KVA	200KVA
Input						
Nominal Voltage		380 / 400 / 415Vac, (3Ph+N+PE)				
Operating Voltage Range		138~485Vac for 40% load; 305~485Vac for full-load				
Operating Frequency Range		40 ~ 70Hz				
Power Factor		⩾ 0.99				
Harmonic Distortion (THDi)		⩽3% (100% linear load)				
Bypass Voltage Range		220Vac Max voltage: +25% (optional +10%, +15%, +20%) 230Vac Max voltage: +20% (optional +10%, 15%) 240Vac Max voltage:+15% (optional +10%) Min voltage: -45% (optional -20%, 30%) Frequency synchronize tracing range: ±10%				
Generator Input		Support				
Output						
Output Voltage		380 / 400 / 415Vac (3Ph+N+PE)				
Power Factor		0.9 & 1.0				
Voltage Regulation		±1%				
Output Frequency		1) Line Mode: Synchronize with input; when input frequency >±10% (±1%/±2%/±4%/±5% optional), output (50/60±0.1) Hz 2) Battery Mode: (50/60±0.1) Hz				
Crest Factor		3:1				
Harmonic Distortion (THD)		⩽1% with linear load ⩽4% with non linear load				
Efficiency		96%				
Battery						
Battery Voltage		Optional Voltage: ±180V/±192V/±204V/±216/±228V/±240V/±252V/±264V/±276V/±288/±300Vdc (30/32/34/36/38/40/42/44 46/48/50pcs optional); 360Vdc~600Vdc (30~50pcs, 36pcs default, 36 to 50 pcs output power factor 1.0; 32~34 pcs output power factor 0.9; 30 pcs output power factor 0.8)				
Charge Current (A) (charge current can be set according to battery capacity installed)		40A max		60A max		
System Features						
Transfer Time		Utility to Battery: 0ms; Utility to bypass: 0ms				
Overload	INV Mode	110% overload for 60mins; 125% overload for 10mins; 150% overload for 1min				
	Bypass Mode	135% overload for long time; >1000% overload for 100 ms				
Backfeed Protection		Support				
Alarm		Overload, utility abnormal, UPS fault, battery low, etc				
Protection		Short circuit, overload, over temperature, battery low, fan fault alarm				
Remote LCD		Support				
Communication		USB, RS232, RS485, Parallel port, Coupler dry contact, Intelligent slot, LBS, SNMP card (optional), Relay card (optional)				
Environmental						
Operating Temperature		0 ~ 40°C				
Storage Temperature		-25 ~ 55°C (No Battery)				
Humidity Range		0 ~ 95% (Non Condensing)				
Altitude		<1500m. When >1500m				
Noise Level		<60dB		<62dB	<63dB	<64dB
Physical						
Weight (KG)		147	152	180	190	200
Dimension W*D*H (mm)	Standard UPS Module	442x850x1200				
	S-Model UPS Module					
Standards						
Safety		IEC / EN62040-1, IEC / EN60950-1				
EMC		IEC / EN 62040-2, IEC61000-4-2, IEC61000-4-3, IEC 61000-4-4, IEC61000-4-5, IEC61000-4-6, IEC61000-4-8				

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