

MicroMate®

Uninterruptible Power Supply Systems



HT Series High Frequency Online UPS

Personal
Computers



Medical



Telecom



Local area
Networks



Labs



Servers



E-business



10 ~ 120KVA (3 Ph in / 3 Ph out)

Product snapshot:

Model: 10 ~ 120KVA

Nominal voltage: 380 / 400 / 415VAC

Frequency range: 50/60Hz

Output Power factor: 0.8 or 0.9

Reduce the investment cost saving valuable space:

HT Series UPS represents the best solution that is both cost effective and environmental friendly, It delivers an excellent integrated autonomy, reduced footprint and optimum input and output performances, guaranteeing reliable and flexible power.

Key Features

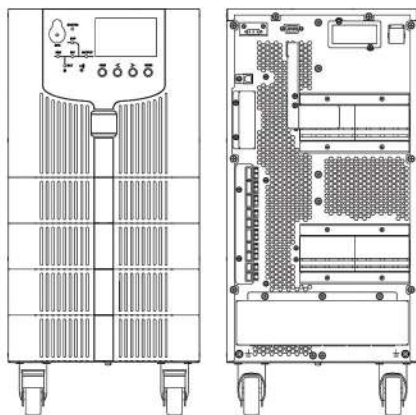
- True double-conversion
- DSP technology guarantees high performance
- Output power factor 0.8 or 0.9
- Wide input voltage range
- Active power factor correction in all phases with PF > 0.99 and THDi < 3%
- 50Hz/60Hz frequency converter mode
- ECO mode operation for energy saving
- Modular Subsystem design for convenience of field maintenance
- Emergency power off function (EPO)
- Generator compatible
- SNMP+USB+RS-232 multiple communications
- Intelligent battery management to prolong battery life-span
- Battery temperature compensation option available
- Maintenance bypass available
- Optional N+X parallel redundancy (up to 6 UPS)

High Reliability

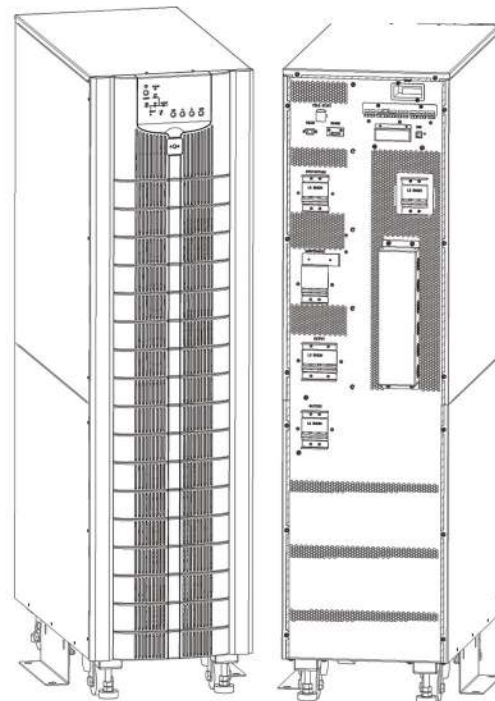
- Its cut-edge digital control technology of DSP (Digital Signal Processor) can deliver higher quality, performance and reliability
- Higher payload and overload capability, better load compatibility, and suitable for various load types
- Powerful Interference immunity capability in compliance with requirements of EMI: IEC62040-2 and EMC: IEC61000-4-2(ESD), IEC61000-4-3(RS), IEC61000-4-4 (EFT), and IEC61000-4-5(Surge), deliver a clean power source

Compact Design, Lower Noise

- With leading control technology and craftsmanship, it can greatly increase the power density and thus reduce the footprint or occupy less space. Additionally, its lower noise during operation offers you a more comfort working environment.



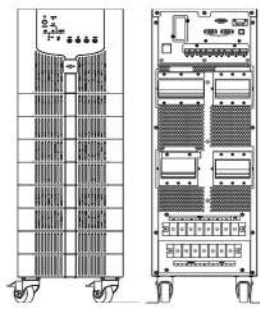
10KVA ~ 15KVA UPS
(without built-in battery)



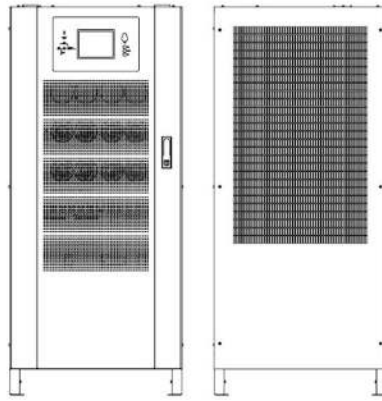
20KVA ~ 30KVA UPS
(with built-in battery)

Technical Specifications

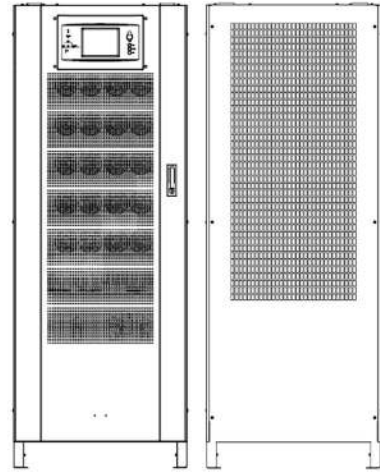
Model	HT10K-33	HT15K-33	HT20K-33	HT30K-33	HT40K-33	HT60KS-33	HT80KS-33	HT90KS-33	HT100KS-33	HT120KS-33								
	HT10KS-33	HT15KS-33	HT20KS-33	HT30KS-33	HT40KS-33													
Capacity	10KVA	15KVA	20KVA	30KVA	40KVA	60KVA	80KVA	90KVA	100KVA	120KVA								
Main Input																		
Input Voltage	415V (line to line) 50 / 60Hz																	
Input Connection	3Ph + N + PE																	
Power Factor	> 0.99																	
Input Voltage Window	-27%, -15%, or 300V ~ 477V																	
	-20% ~ -40%, power derating between 100% to 70%																	
Frequency Window	40 ~ 70Hz																	
Bypass Input																		
Bypass Voltage	380V / 400V / 415V / 420V / 440V, 3-Ph 220V / 230V / 240V / 250V, 1-Ph																	
Bypass Voltage Window	-20% ~ +15%, full load																	
Frequency Window	±5Hz, settable																	
Battery																		
Battery Voltage	±192VDC ~ ±240VDC																	
Charger Power	20% * Power																	
Charger Voltage Precision	1%																	
Output																		
Output Voltage Precision	380V / 400V / 415V / 420V / 440V ±1% (balance load), ±1.5% (unbalance load), 3-Ph																	
	220V / 230V / 240V / 250V (balance load), ±1.5% (unbalance load), 1-Ph																	
Output Voltage Transient	5% (0 ~ 100% load step)																	
Voltage THD (Total Harmonic Distortion)	THD < 1.5% (linear load), THD < 5% (non linear load)																	
Power Factor	0.8 or 0.9																	
Frequency Tracking Range	50 / 60Hz ± 3Hz, adjustable																	
Frequency Precision (Free Running)	± 0.02%																	
Phase Tolerance	120° ± 0.5° (balance and unbalance load)																	
Voltage Unbalance degree (100% Unbalance Load)	± 1%																	
Frequency Tracking Speed	0.5Hz/s to 5Hz/s, adjustable																	
Crest Factor	3:1																	
Overload Capability	102%, long time operation																	
	110%, transfer to bypass after 1 hour																	
	125%, transfer to bypass after 10 minutes																	
	150%, transfer to bypass after 1 minute																	
	> 150%, transfer to bypass after 200ms																	
Bypass Overload Capability	125%, long time operation																	
	125% < load < 130%, last for more than 1 hour																	
	130% < load < 150%, last for more than 6 minutes > 1000%, last for more than 100ms																	
System																		
System Efficiency	Normal Mode: 95%																	
	ECO Mode: 98%																	
Battery Mode Efficiency	95%																	
Battery Configuration	12V, 32pcs (32 ~ 44pcs acceptable)																	
Display	LCD + LED, keyboard					LCD + LED, touch screen and keyboard												
EMI	IEC62040-2																	
EMC	IEC61000-4-2 (ESD)																	
	IEC61000-4-3 (RS)																	
	IEC61000-4-4 (EFT)																	
	IEC61000-4-5 (Surge)																	
Insulation Resistance	> 2M (500V DC)																	
Dielectric Strength	(input, output to PE) 2820V DC, leakage current lower than 3.5mA, no flashover in 1 minute																	
Surge Protection	Comply with IEC60664-1 class IV, endure surge of 1.2 / 50us + 8 / 20us higher than 6KV / 3KA																	
IP Class	IP20																	
Interface (Communication Ports)	Standard: RS232, RS485; Optional: Dry contacts, SNMP card, EPO, Generator interface																	
Installation / Connection	Top or bottom cable connection																	
Operation Temperature	0°C ~ 45°C																	
Relative Humidity	0 ~ 90% (No condensing)																	
Noise (dB)	< 55dB																	
Physical																		
Weight (KG)	51.5 / 28		89 / 48		89 / 52		140 / 57		170		210		231		210		266	
Dimension W x D x H (mm ³)	Standard UPS Module		250 x 840 x 715		350 x 738 x 1335		500 x 800 x 1400		600 x 980 x 950		600 x 980 x 1150		600 x 980 x 1400		600 x 980 x 1150		600 x 980 x 1400	
	S-Model UPS Module		250 x 745 x 540		250 x 745 x 770		250 x 900 x 770											



40KVA UPS



60KVA ~ 80KVA UPS



100KVA ~ 120KVA UPS



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**KECERMELANGAN PERNIAGAAN BERETIKA
MINISTRY OF DOMESTIC TRADE
MALAYSIA 2010**