AVO
EMPOWERING BUSINESS

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ONLINE UPS
10KVA-120KVA(3:3)

TTIE 12000

APPLICATION

Computer/critical servers/data center/hub & other network device/LAN/WAN.
Industrial / Medical

FEATURES

- Online double-conversion with full DSP control
- IGBT inverter with output isolation transformer
- 100% unbalance load capability
- Output power factor 0.9
- Generator compatible
- Support battery cold start and auto-restart when mains power is restored
- ECO mode operation for energy saving
- Superior protection
- 5.7 inches LCD touch screen, friendly human & machine interface
- Front access makes maintenance and replacement easy (60 ~ 120KVA)
- Intelligent self-diagnosing function, all kinds of failure protection, large capability of history records storage
- High MTBF(>200,000h)
- Low MTTR (<0.5h)
- Standard emergency power off (EPO)
- Standard RS232,RS485,dry contacts communication port
- Optional SNMP communication port
- Optional N+X redundancy parallel up to 6 units
- Optional input filter to improve input power factor

TECHNICAL SPECIFICATIONS

MODEL	TTIE12010	TTIE12015	TTIE12020	TTIE12030	TTIE12040	TTIE12060	TTIE12080	TTIE12100	TTIE12120
Capacity	10KVA / 9KW	15 KVA / 13.5 KW	20 KVA/ 18 KW	30 KVA / 27 KW	40 KVA / 36 KW	60 KVA / 54 KW	80 KVA / 72 KW	100 KVA / 90 KW	120 KVA / 108 KW
INPUT									
Rated voltage	380 V/400V/415 Vac								
Voltage range	±25%								
Rated frequency	50/60 Hz								
Frequency range	50/60 Hz ±5Hz								
Power factor	≥ 0.95 (with filter)								
Bypass voltage range	±20% (settable)								
Delayed start of rectifier	1 ~ 300 s (settable via display panel)								
ECO voltage range	±10% (settable)								
OUTPUT									
Voltage	380 V/400V/415 Vac								
Voltage regulation	±1%								
Frequency	Synchronized with utility in mains mode; 50 / 60 Hz ± 0.1 % in battery mode								
Waveform	Sinusoidal								
Power factor	0.9								
Crest factor	3:01								
Total harmonic distortion (THDV)	≤ 2% (linear load); ≤ 5% (non-linear load)								
Transfer time	AC mode to battery mode: 0 ms Inverter mode to bypass mode: 0 ms Inverter mode to ECO mode: 5 ~ 10 ms								
Inverter overload capability	105%: long time running; 105% -110%: transfer to bypass in 1 h 110% ~ 125%: transfer to bypass in 10 mins 125% ~ 150%: transfer to bypass in 1 min 150% ~ 200%: transfer to bypass in 200 ms > 200%: transfer to bypass in 100 ms								
Slight adjustment of inverter output voltage	± 5 V								
BATTERIES									
DC Voltage	12 V x configured battery number (settable via display panel)								
Number of battery	28 ~ 32 pes (settable)								
Charging current	10Acefaut/Settable								
Charging	Three-stage chargirg, auto switch floating / equalizing charge								
Battery state display	Display battery backup time, battery remaining capacity								
Battery self-test	Settable periodic self-test; manually configurable test time and voltage								
SYSTEM									
Efficiency	In line mode: Max. 93%; ECO mode: 98%								
Max. Parallel numbers	6								
Protections	Short-circuit - overload - overvoltage - undervoltage - low battery - overtemperature - fan fault								
IP rating	IP20								
EMI	EN62040-2								
EMS	IEC61000-4-2(ESD) IEC61000-4-3(RS) IEC61000-4-4(EFT) IEC61000-4-5 (surge)								
COMMUNICATIONS									
RS232 / RS485 / dry contacts (standerc)	Supports Windows 98 / 2000 / 2003 / XP / Vista / 2008 / Windows" 7/8/10								
SNMP (optional)	Power management from SNMP manager and web browser								
OTHERS									
Humidity	0~95% RH @ 0-40‡C (non-condensirg)								
Noise level	55 dB					60 dB	65 dB		
Dimensions (W x D x H)(mm)	400 x 800 x 1100					600 x 700 x 1500	700 x 800 x 1700		
Packaged dimensions (W x D x H) (mm)	490 x 890 x 1170					690 x 790 x 1570	790 x 890 x 1770		
Net / Gross weight (kg)	158/200 165/207 175/217 210/252 250/302					460/480	590/620 630/650 690/720		

- All specifications are subject to change without prior notice.
- Custom-made specifications are acceptable.