

CLEANLINE[®] UPS

เครื่องสำรองไฟฟ้า

True On-Line Double Conversion Design

T series

Tower Model

T-100K33L	100kVA/90kW
T-120K33L	120kVA/108kW
T-160K33L	160kVA/144kW
T-200K33L	200kVA/180kW

KEY Features:

- **True double conversion with DSP technology**
Double conversion between input/output, battery and bypass are totally isolated power line noise, spike and transients, keeping power failure away from your critical loads.
- **Output power factor 0.9**
For critical applications, this 3-phase online UPS with output power factor 0.9 ensures higher efficiency and advanced performance.
- **Active power factor correction in all phases**
Power factor correction is active in all phases and it can improve the efficiency of input.
- **50Hz/60Hz frequency converter mode**
Lock output frequency at 50Hz or 60Hz to suit power sensitive equipments.
- **ECO mode operation for energy saving**
ECO mode improves the efficiency up to 98% to cut energy usage & cost. In this mode, loads are supplied by the mains directly. While mains failure, the UPS will constantly supply the power to the connected device without any interruption.



T-200K33L/T-160K33L

T-120K33L/T-100K33L

- **Emergency power off function (EPO)**
In case of any emergency and fire, the EPO control mechanism can instantly shut down the system.
- **Optional parallel operation with common battery**
The system can be operated in parallel, increasing the capacity and performance. Besides, this parallel UPS system can share common battery packs which might greatly reduce the expense and reach the same performance.
- **Smart battery charger design to optimize battery performance**
This UPS is equipped with 3-stage charger for optimize battery performance. This feature extends the useful service life of battery and optimizes battery recharge time.
- **Power walk-in function**
When UPS transfer to line mode from battery, the battery current reduces slowly and AC current increase slowly.
- **10" touch LCD for T-100K33L-T-200K33L models**



On-line UPS Seletion Guide

MODEL		T-100K33L	T-120K33L	T-160K33L	T-200K33L
PHASE		3-phase in/3-phase out			
TOTAL CAPACITY		100kVA/90kW	120kVA/108kW	160kVA/144kW	200kVA/180kW
TOPOLOGY		True On-line Double Conversion			
INPUT					
Nominal Voltage		3 x 380/400/415 VAC (3-Ph+N)			
Voltage Range		208-478 VAC (3-phase) @ 70% load 305-478 VAC (3-phase) @ 100% load			
Frequency Range		40-70Hz			
Power Factor		≥0.99 @ 100% load			
OUTPUT					
Output Voltage		3 x 380/400/415 VAC (3-Ph+N)			
Voltage Regulation (Steady state)		≤±1% Typical (balanced load); ≤±2% Typical (unbalanced load)			
Voltage Recvoery Time		±1% at 10 ms			
Frequency Range (Synchronized Range)		50Hz or 60Hz ±1%, ±2%, ±4%, ±8% (adjustable)			
Frequency Range (Batt. Mode)		50Hz ±0.1Hz or 60 Hz ±0.1Hz			
Current Crest Ratio		3:1 (max.)			
Harmonic Distortion		≤2% THD (Linear Load); ≤4% THD (Non-linear load)			
Transfer Time	AC Mode to Batt. Mode	Zero			
	Inverter to Bypass	Zero			
Waveform (Batt. Mode)		Pure Sine wave			
Overload	AC Mode	105-110% for 1hr, 111-125% for 10 min, 126-150% for 1 min, >150% for 200 ms			
	Battery Mode	105-110% for 1 hr, 111-125% for 10 min, 126-150% for 1 min, >150% for 200ms			
Parallel Capacity		up to 3 units in parallel			
EFFICIENCY					
AC Mode		94.0%			
ECO Mode		98.0%			
Battery Mode		93.0%			
BATTERY					
Typical Recharge Time		-			
Internal Battery		-			
Charging Current (max.)		24A	32A	40A	48A
INDICATORS					
LCD Display		10" Touch Type color LCD			
ALARM					
Battery Mode		Sounding every 4 seconds			
Low Battery		Sounding every second			
Overload		Sounding twice every second			
Fault		Continuously sounding			
PHYSICAL					
Dimension, D x W x H (mm)		940 x 567 x 1015		1040 x 567 x 1452	
Net Weiight (kgs)		194	229	306	340
ENVIRONMENT					
Operation Temperture		0-40° C			
Operation Humidity		<95% and non-condersing			
Noise Levell		Less than 70dB @ 1 Meter		Less than 73dB @ 1 Meter	
MANAGEMENT					
Smart RS-232 / USB		Supports Windows 2000/2003/XP/Vista/2008, Windows® 7/8/10, Linux and MAC			
Optional SNMP		Power management from SNMP manager and web browse			
STANDARDS					
Safety		IEC/EN 62040-1			
EMC		IEC/EN 62040-2 IEC/EN 62040-3			
Accessories and Optional		Isolation Transformers, SNMP-Adapter			

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