

# DT Series



## DT Series 3 Phase IGBT Rectifier Online UPS ( 10-140KVA )

### System Introduction

DT-Series is a true full digitized IGBT rectifier double conversion online UPS. It has parallel redundant features. With THDI $\leq$ 4%, output power factor 0.9, and overall efficiency AC~AC up to 93% , DT-Series can be defined as a high reliability and efficiency green power. It also integrates friendly user communication interface and remote-control system, which is ideal for medium to large data centers, precision equipment, and Telecomm industry.



### System Features

#### High Performance Index

- ◆ Advanced IGBT Rectifier and HF PFC Technology. Input THDI $\leq$ 4%, Input Power Factor $\geq$ 0.99 to save more energy;
- ◆ DT Series adapts the 5th generation IGBT Inverter control technology to enhance the output voltage/current performance. Online 3 Phase Input and output double conversion structure to adapt 380/400/415V, 50/60Hz Mains Grid Supply Systems.
- ◆ Output Power Factor 0.9 to carry 12.5% load capacities than traditional UPS.
- ◆ Wide Input Voltage Range 380Vac (-45% to +25%) or 210-475 Vac with 50/60Hz  $\pm$ 5% Frequency Range. High adaptive capacity and Generator Capability with ratio of 1.2 : 1.
- ◆ Overall Efficiency upto 94%. Can reach to 98% on ECO Mode.
- ◆ Powerful overload ability with output short circuit protection: 110%-120% overloads for 10 mins. 125%-150% for 1 min.
- ◆ Intelligent battery management to extend battery life. Dual DSP control to correct charging parameters, which provides optimized charging solutions based on operational mode, such as float charge or equalized charge. Flexible Battery Configuration. It can be set on the front panel with 28/30/32 Units of Batteries.

#### Safe, Reliable, and Easy Maintenance

- ◆ DT Series adapts dual DSP technology to control UPS all kinds of power function processes (including Parallel function) in order to increase system reliability.
- ◆ Flexible Single or Dual Utility Power Input to comprehensively protect load devices.
- ◆ Battery Misconnection protection. UPS will not be damaged by reverting the polarities connection.
- ◆ Self-Evaluation and Alarm of Phase Misconnection or Lost.
- ◆ 100% 3 Phase Unbalanced Allowance Design.
- ◆ Front Modular Maintenance Design. MTBF can be upto 300K Hours.
- ◆ 90% of system components are from international famous brands. All devices has been aged and fully tested for at least 24 hours before leaving the factory.

### Compatible applications/loads

DT-Series is designed for small and medium important equipment/application systems, such as SME data exchange centers, communication equipment industry, and precision instruments.



## Specification

Model	DT100L33	DT150L33	DT200L33	DT300L33	DT400L33	DT600L33	DT800L33	DT1000L33	DT1200L33	DT1400L33	
Capacity	10KVA/9KW	15KVA/13.5KW	20KVA/18KW	30KVA/27KW	40KVA/36KW	60KVA/54KW	80KVA/72KW	100KVA/90KW	120KVA/108KW	140KVA/112KW	
<b>Host Machine Specification</b>											
UPS Structure	Online Double Conversion										
Appearance	High Frequency Online Design										
Overall Efficiency (AC-AC)	> 93%										
Noise (In 2 Meters)	< 50-65dB										
Working Temp.	-10-40°C										
Storage Temp.	-25 ~ 60°C (Without Batteries)										
Humidity	< 95% Non-Condensing										
National Standard	GB4943										
International Standard	EN 50091-1/2 . EN62040-1 . EN62040-2										
Parallel Redundancy	Parallel Redundancy Upto 8 Units										
Protection	Overload, Short-Circuit, Over Temp., Utility Power Voltage High/low, BAT Voltage High/low										
DC Start	Available										
Generator Compatibility	Available										
Display	5 Inch LCD Color Touch Screen (multi-language) + LED					7 Inch Color Touch LCD(multi-language)					
Mute	Auto										
Cabinet Standard	IP20										
Cooling System	Intelligent Speed Control Cooling Fan										
Elevation	< 1500M, without derated										
<b>Rectifier Specification</b>											
Input Voltage	380Vac+N+W, 3 Phase										
Input Voltage Range	380Vac+25% -45% (When Input Voltage < 75% . Output Power Derated)										
Input Frequency Range	40-70Hz										
Soft-Start	> 20 Seconds										
Input PF	0.99										
THDI	< 3.5%										
Input Current	20A	30A	40A	57A	77A	115A	153A	192A	230A	268A	
<b>Output Specification</b>											
Output Voltage	Line Voltage: 380× ( 1±1% ) AC or Phase Voltage: 220× ( 1±1% ) AC										
Output Power Factor	0.9									0.8	
Output Voltage Regulation	380Vac±1%(Static Load); 380Vac ± 2%(50-0% Sudden Change); 380Vac±3% (100-0% Sudden Change)										
Output Frequency	±8% at 50Hz: Online Mode tracking input and bypass freq.; ±0.1%: when input or bypass frequency is more than ±8% or under BAT Mode										
Distortion	< 1% (Linear Full Load) , < 3% (Non-Linear Full Load)										
3 Phase Unbalanced	Allow 3 Phase 100% Unbalanced										
Output Volt Unbalanced Degree	≤1° (Balanced Load)										
Input/Output Phase Swift	≤1° (Balanced Load)										
Frequency Tracking Range	46-54Hz										
Output Waveform	Pure Sine Wave										
Overload	< 125%: More than 10 mins										
	> 125%: More than 1 min										
	> 150%: More than 300ms transfer to bypass										
Crest Ratio	3 : 1										
Efficiency	> 93%										
Short-Circuit	Circuit Auto-Protection, Bypass Switch Tripping										
Output Abnormal	INV. Output Auto-Locked Protection										
<b>Bypass Specification</b>											
Static Bypass Transfer Time	0ms										
Static Bypass Input Range	380Vac ( -15~+15% )										
Frequency Range	± 1Hz, ±2Hz, ±3Hz Selectable										
Bypass --> INV Transfer Time	2ms										
Frequency Tracking Speed	0.5-2hz/s										
Manual Maintenance Bypass	Available										
<b>Battery Specification</b>											
Type	Sealed Lead Acid Maintenance Free										
BAT Rated Volts/Units	± 168Vdc ( 28 Units ) , ±180Vdc ( 30 Units ) , ±192Vdc ( 32 Units )										
BAT Low	Shutdown Protection										
<b>Communication Specification</b>											
Communication Port	RS232/SNMP/485/ Dry Contact ( Optional Accessory )										
Remote Software	Multi-functional Monitoring System, Online and BAT Mode Status, BAT Fault, Remote Control										
<b>Physical Parameters</b>											
Size mm(W×D×H)	370×705×1030				600×790×1900				700×790×1900		
Net Weight Kg	80	86	89	106	112	265	287	327	457	477	

Note: Specifications are subject to change without further notice



5/7 inch color touch screen+LED



DSP Controller

