FDS33-T Series UPS

Features

- The world's highest density power solution
- 20kVA up to 1040kVA transformer based UPS
- Double Conversion with capability for switching to Multi-Mode (Automatically switches between Double Conversion and Line Interactive modes according to mains status if Multi-Mode is activated)
- Designed for standard 19” rack with 28 or 40 units height
- Unlimited parallel expansion capability
- 3-Level intelligent charging mode
- Wide ranges of input voltage and input frequency
- Excellent generator compatibility
- 3-Phase input, 3-Phase output
- Separated AC input of modules for rectifier and bypass
- Rack standalone modular UPS
- Capacity per module: 20kVA-18kW, 30kVA-27kW and 40kVA-36kW
- Separated bypass for modules
- Shared or separated batteries in parallel configuration (selectable)
- Selectable external battery quantity (192Vdc up to 240Vdc for 20, 30 & 60 kVA UPS and 384Vdc up to 480Vdc for others)
- Adjustable charging current
- Advanced battery management
- Intelligent monitoring function for each module
- Easy maintenance by providing MBB (Make Before Break) manual bypass for repairs and system support
- Centralized monitoring unit for system
- Optional Emergency Power Off function (EPO)
- On-grid capability for testing UPS in 100% load without real full loads

Technical Specifications

General		
UPS model	FDS33-TXXXX XXXX are apparent power of UPS in kVA XX up to 80, XXX up to 960, XXXX up to 1040 FDS33-T20, FDS33-T30, FDS33-T40, … , FDS33-T1040	
Rated apparent power	20, 30, 40, 60, 80, 120, 160, 200, 240, 280, 320, 360, 400, 440, 480, 520, 560, 600, 640, 680, 720, 760, 800, 840, 880, 920, 960, 1000, 1040 kVA	
Applicable standard	IEC62040-3	
UPS classification	VFI SS CCC* *C: 1 or 2 or 3 by order refer to IEC 62040-3	
UPS topology	Double Conversion / Multi-Mode (selectable by user)	
Efficiency	91%	
Parallel expansion capability	Unlimited	
N+1 redundancy capability	Yes	
Dimensions and weight	Dimensions (H×W×D)	Weight
FDS33-T20	1500 × 600 × 800 mm	335kg
FDS33-T30	1500 × 600 × 800 mm	415kg
FDS33-T40	1500 × 600 × 800 mm	495kg
FDS33-T60	1500 × 600 × 800 mm	660kg
FDS33-T80	1500 × 600 × 800 mm	820kg
FDS33-T120	2000 × 600 × 800 mm	1250kg
FDS33-T160	2000 × 600 × 800 mm	1600kg
FDS33-T200	2(2000 × 600 × 800) mm	2180kg
FDS33-T240	2(2000 × 600 × 800) mm	2515kg
FDS33-T280	2(2000 × 600 × 800) mm	2850kg
FDS33-T320	2(2000 × 600 × 800) mm	3180kg
FDS33-T360	2(2000 × 600 × 800) mm	3550kg
FDS33-T400	3(2000 × 600 × 800) mm	4135kg
FDS33-T440	3(2000 × 600 × 800) mm	4470kg
FDS33-T480	3(2000 × 600 × 800) mm	4800kg
FDS33-T520	3(2000 × 600 × 800) mm	5135kg
FDS33-T560	3(2000 × 600 × 800) mm	5465kg
FDS33-T600	4(2000 × 600 × 800) mm	6050kg
FDS33-T640	4(2000 × 600 × 800) mm	6385kg
FDS33-T680	4(2000 × 600 × 800) mm	6715kg
FDS33-T720	4(2000 × 600 × 800) mm	7050kg
FDS33-T760	4(2000 × 600 × 800) mm	7380kg
FDS33-T800	5(2000 × 600 × 800) mm	7965kg
FDS33-T840	5(2000 × 600 × 800) mm	8300kg
FDS33-T880	5(2000 × 600 × 800) mm	8631kg
FDS33-T920	5(2000 × 600 × 800) mm	9085kg
FDS33-T960	5(2000 × 600 × 800) mm	9420kg
FDS33-T1000	6(2000 × 600 × 800) mm	10000kg
FDS33-T1040	6(2000 × 600 × 800) mm	10335kg

General (continue)		
Acoustic noise at 1m		60 to 75 dBA depending on nominal power and load percentage
Degree of protection against hazards and water ingress		IP20
Mean Time Between Failures (MTBF)		250,000h
Mean Time To Repair (MTTR)		5min
Environmental		
Operating temperature		0°C to +40°C
Storage temperature		-25°C to +55°C
Humidity		0 to 95% non-condensing
Altitude	at rated power 0.974 × rated power 0.920 × rated power 0.872 × rated power 0.820 × rated power	≤1500m ≤2000m ≤3000m ≤4000m ≤5000m
Input		
Phases required		3Ph+N+PE
Rated voltage		400Vac
Voltage tolerance	100% load 70% load 50% load	±20% -30% to +20% -48% to +20%
Frequency range		35Hz to 70Hz
Power factor		≥0.99
THDi		≤3%
Bypass voltage range	max. voltage min. voltage	400Vac +10% 400Vac -20% (optional-10%)
Output		
Output phases available		3Ph+N+PE
Rated voltage		400Vac
Voltage regulation	double conversion mode stored energy mode	±1% ±1%
Power factor		0.9
Frequency	double conversion mode stored energy mode	50/60Hz ±10% (adj.) 50/60Hz ±0.1%
Crest factor		3:1
THD	linear load nonlinear load	≤2% ≤3%
Transfer time	double conversion mode to stored energy mode double conversion mode to bypass	0.00Sec 0.00Sec

Output (continue)		
Overload	double conversion mode up to 110% >110% up to 125% >125% up to 150% >150%	 60min 10min 1min transfer to bypass
	energy saving mode	according to bypass breaker curve
Battery		
Battery type		All types of lead acid and gel, sealed or vented
Normal voltage		192Vdc up to 240Vdc for 20, 30 & 60 kVA UPS and 384Vdc up to 480Vdc for others (selectable)
Max. charge current per module		10A per module (10A per 20, 30 or 40 kVA module)
Protections		
Short circuit		
Overload		
Output overvoltage		
Overheat		
Battery low		
Battery reverse (optional)		
Self-diagnostics		
EPO		
Display		
UPS module	Audible & visual	Mains Failure, Low Battery, Overload, System Fault
	Status LED & LCD	Double Conversion Mode, Energy Saving Mode, Low Battery, Battery Test Failure, Overload, UPS Fault
	LCD information	Input Voltage, Input Frequency, Output Voltage, Output Frequency, Load Percentage, Battery Voltage, Parameters Set., History Record
UPS system	Central control monitoring	UPS system information and control
Communication Interface		
USB, RS485, Dry contacts (optional), SNMP card (optional), Relay card (optional), Parallel port		

In the interest of continual product improvement all specifications are subject to change without notice.