

FDS33-N Series UPS



Features

- The world's highest density power solution
- 20kVA up to 1040kVA UPS capacity
- 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 44 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-NXXXX XXXX are apparent power of UPS in kVA XX up to 80, XXX up to 960, XXXX up to 1040 FDS33-N20, FDS33-N30, ... , FDS33-N1040		
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	20, 30 & 60 kVA 95%, others 96%		
Parallel expansion capability	Unlimited		
N+1 redundancy capability	Yes		
Dimensions and weight	Dimensions (H×W×D)	Weight	
	FDS33-N20	1500 × 600 × 800 mm	195kg
	FDS33-N30	1500 × 600 × 800 mm	205kg
	FDS33-N40	1500 × 600 × 800 mm	215kg
	FDS33-N60	1500 × 600 × 800 mm	240kg
	FDS33-N80	1500 × 600 × 800 mm	260kg
	FDS33-N120	1500 × 600 × 800 mm	310kg
	FDS33-N160	1500 × 600 × 800 mm	380kg
	FDS33-N200	2200 × 600 × 800 mm	530kg
	FDS33-N240	2200 × 600 × 800 mm	590kg
	FDS33-N280	2200 × 600 × 800 mm	640kg
	FDS33-N320	2(2200 × 600 × 800) mm	940kg
	FDS33-N360	2(2200 × 600 × 800) mm	1030kg
	FDS33-N400	2(2200 × 600 × 800) mm	1090kg
	FDS33-N440	2(2200 × 600 × 800) mm	1140kg
	FDS33-N480	2(2200 × 600 × 800) mm	1190kg
	FDS33-N520	2(2200 × 600 × 800) mm	1240kg
	FDS33-N560	2(2200 × 600 × 800) mm	1300kg
	FDS33-N600	2(2200 × 600 × 800) mm	1350kg
	FDS33-N640	3(2200 × 600 × 800) mm	1650kg
	FDS33-N680	3(2200 × 600 × 800) mm	1710kg
	FDS33-N720	3(2200 × 600 × 800) mm	1760kg
	FDS33-N760	3(2200 × 600 × 800) mm	1810kg
	FDS33-N800	3(2200 × 600 × 800) mm	1870kg
	FDS33-N840	3(2200 × 600 × 800) mm	1920kg
	FDS33-N880	3(2200 × 600 × 800) mm	1970kg
	FDS33-N920	3(2200 × 600 × 800) mm	2150kg
	FDS33-N960	3(2200 × 600 × 800) mm	2200kg
	FDS33-N1000	3(2200 × 600 × 800) mm	2250kg
	FDS33-N1040	3(2200 × 600 × 800) mm	2310kg

General (continue)		
Acoustic noise at 1m		≤58dBA
Degree of protection against hazards and water ingress		IP20
Mean Time Between Failures (MTBF)		250,000h
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	≤1500m
	0.974 × rated power	≤2000m
	0.920 × rated power	≤3000m
	0.820 × rated power	≤4000m
	0.872 × rated power	≤5000m
Input		
Phases required		3Ph+N+PE
Rated voltage		400Vac
Voltage tolerance	100% load	±20%
	70% load	-30% to +20%
	50% load	-48% to +20%
Frequency range		35Hz to 70Hz
Power factor		≥0.99
THDi		≤3%
Bypass voltage range	max. voltage	400Vac +10%
	min. voltage	400Vac -20% (optional-10%)
Output		
Output phases available		3Ph+N+PE
Rated voltage		400Vac
Voltage regulation	double conversion mode	±1%
	stored energy mode	±1%
Power factor		0.9
Frequency	double conversion mode	50/60Hz ±10% (adj.)
	stored energy mode	50/60Hz ±0.1%
Crest factor		3:1
THD	linear load	≤2%
	nonlinear load	≤3%
Transfer time	double conversion mode to stored energy mode	0.00Sec
	double conversion mode to bypass	0.00Sec

Output (continue)		
Overload	double conversion mode up to 110% >110% up to 125% >125% up to 150% >150% energy saving mode	60min 10min 1min transfer to bypass 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.
UPS system	Central control monitoring	UPS system information, control and history record
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.