

DELTRONICS SATURN SERIES

DHP33 Model 3:3 phase PF 1.0
POWER RANGE: 10-40 KVA

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DELTRONICS



Deltronics Saturn Series 10-40 KVA

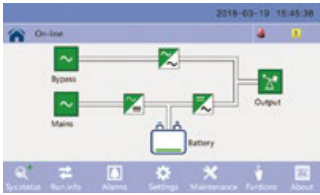
The Saturn DHP33 10-40 kVA Series is a three-phase online double-conversion UPS engineered for applications that demand high performance and continuous stability. It delivers high efficiency, a wide input voltage range, and a true 1.0 power factor to ensure reliable power supply even during significant fluctuations.

It supports both VRLA and lithium battery configurations, offers multiple communication interfaces, and includes advanced protection features, ensuring safe operation in corporate and industrial environments.

Features

- High power density design
- N+X parallel redundancy, support maximum 4 units in parallel
- Online double conversion with DSP control
- Input current harmonic: <3%
- Wide input voltage range: 208~478Vac
- Wide input frequency range 40~70Hz
- Optimization battery group, the quantity of battery
10~30kVA:
16/18/20pcs (30~50pcs supportable)
40kVA: 30~50pcs
- Maximum charging current up to 20A (Settable)
- Dual input source (Optional for standard unit)
- Colorful 2.4 inch TFT LCD display and 7 inch LCD display
- LCD are optional
- Versatile LCD human-computer interface
- Generator compatible
- ECO mode operation for energy saving
- Intelligent fan speed regulation
- Self-testing when UPS startup
- 50/60Hz frequency converter mode
- Cold start
- The output can meet 100% unbalanced load
- Multiple protection function: short-circuit, overload, overheat, battery overcharge and overdischarge, output low voltage and fan fault alarm
- Multiple communication interface: USB, RS232, RS485, Parallel port, Dry contact, Intelligent slot, SNMP card (Optional), Dry contact card (Optional), Battery temperature sensor (Optional)

LCD



7 inch colourful LCD



Battery cabinet (Optional)



Optimized battery configuration
7Ah/9Ah (12V)

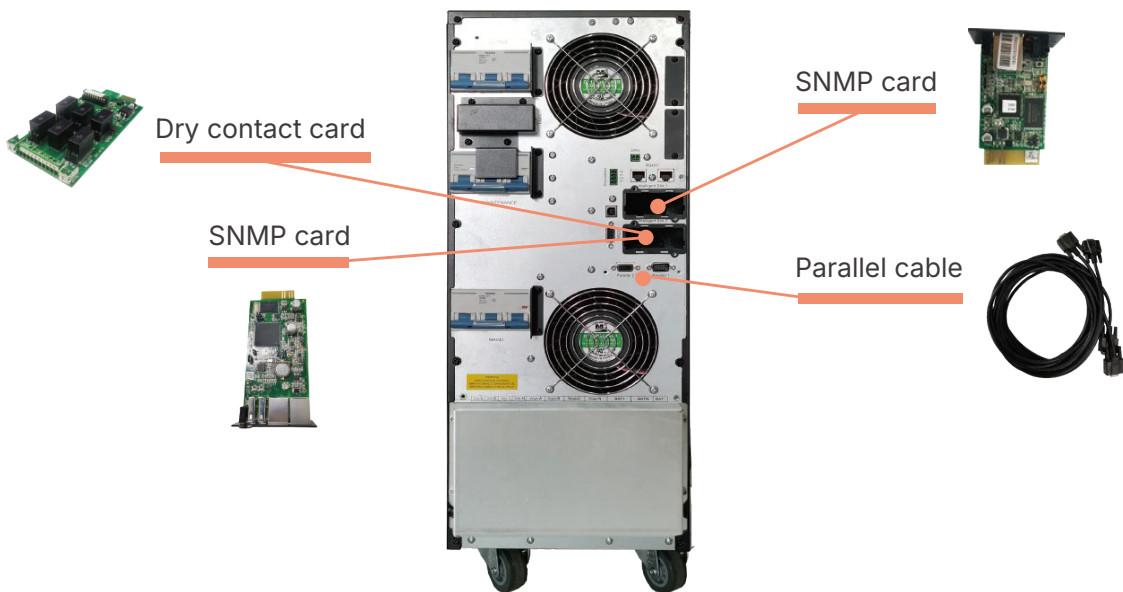
High energy efficiency

Wide input voltage range

Compatible with VRLA and lithium batteries

Comprehensive protection against overload and electrical faults

High-performance three-phase UPS



Technical Specifications

MODEL	DHP33B-10K	DHP33B-15K	DHP33B-20K	DHP33B-30K	DHP33B-40K
Capacity (VA/W)	10k/10k	15k/15k	20k/20k	30k/30k	40k/40k
INPUT					
Nominal Voltage (Vac)	380/400/415 (3Ph+N+PE)				
Operating Voltage Range (Vac)	305~478 (Full load); 208~478 (50% load)				
Power Factor	≥0.99				
Harmonic Distortion (THDi)	≤3% Linear load				
Bypass Voltage Range (Vac)	Max.voltage: 220: +25% (Optional +10%, +15%, +20%) 230: +20% (Optional +10%, +15%) 240: +15% (Optional +10%) Min.voltage: -45% (Optional -20%, -30%)				
Bypass Frequency Range (Hz)	50/60±10%				
OUTPUT					
Nominal Voltage (Vac)	380/400/415 (3Ph+N+PE)				
Voltage Regulation	±1%				
Output Frequency (Hz)	Line mode: ±1%/±2%/±4%/±5%/±10% of the rated frequency (Optional); Bat. mode: 50/60 (±0.1%)				
Crest Factor	3:1				
Harmonic Distortion (THDv)	≤2% Linear load; ≤5% Non linear load				
Overload	AC mode	≤110% 60min, ≤125% 10min, ≤150% 1min, >150% immediately turn to bypass			
	Bat.mode	≤110% 10min, ≤125% 1min, ≤150% 5s, >150% immediately shut down			
EFFICIENCY					
AC Mode	Up to 93.5%	Up to 94.5%		Up to 95.2%	
ECO Mode	Up to 98.0%	Up to 98.2%		Up to 98.6%	
BATTERY					
Battery Type	VRLA (Lead acid maintenance free battery)				
Battery Voltage (Vdc)	Chassis 1: ±120 (20pcs 9Ah)(20pcs 7Ah, 2×20pcs 7/9Ah, 3×20pcs 7/9Ah optional) Chassis 2: ±96Vdc (16pcs 9Ah)	±120 (2×20pcs 9Ah) (2×20pcs 7Ah, 3×20pcs 7/9Ah optional)	±120 (3×20pcs 9Ah)(3×20pcs 7Ah optional)	±180 (2×30pcs 9Ah)(2×30pcs 7Ah optional)	
Charging Current (Max.)(A)	1.35 (2.7 Optional)	2.7	4.05	2.7	
ENVIRONMENTAL					
Operating Temperature (°C)	0~40				
Storage Temperature (°C)	-25~55 (No battery)				
Humidity Range	0~95% (Non condensing)				
Altitude (m)	<1000, derating required when>1000				
Noise Level (dB)	<55	<58	<61	<64	
PHYSICAL					
Dimension WxDxH (mm)	Chassis 1: 250×900×868	250×900×868			
	Chassis 2: 250×645×715				
Weight (kg)	Chassis 1: 129 (20pcs 9Ah)	186 (2×20pcs 9Ah)	187 (2×20pcs 9Ah)	236 (3×20pcs 9Ah)	239 (2×30pcs 9Ah)
	Chassis 2: 80 (16pcs 9Ah)				
STANDARDS					
Safety	IEC/EN 62040-1, IEC/EN 62477-1				
EMC	IEC/EN 62040-2 (IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11, IEC 61000-2-2)				

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Technical Specifications

MODEL	DHP33-10K	DHP33-15K	DHP33-20K	DHP33-30K	DHP33-40K
Capacity (VA/W)	10k/10k	15k/15k	20k/20k	30k/30k	40k/40k
INPUT					
Nominal Voltage (Vac)	380/400/415 (3Ph+N+PE)				
Operating Voltage Range (Vac)	305~478 (Full load); 208~478 (50% load)				
Power Factor	≥0.99				
Harmonic Distortion (THDi)	≤3% Linear load				
Bypass Voltage Range (Vac)	Max.voltage: 220: +25% (Optional +10%, +15%, +20%) 230: +20% (Optional +10%, +15%) 240: +15% (Optional +10%) Min.voltage: -45% (Optional -20%, -30%)				
Bypass Frequency Range (Hz)	50/60±10%				
OUTPUT					
Nominal Voltage (Vac)	380/400/415 (3Ph+N+PE)				
Voltage Regulation	±1%				
Output Frequency (Hz)	Line mode: ±1%/±2%/±4%/±5%/±10% of the rated frequency (Optional); Bat. mode: 50/60 (±0.1%)				
Crest Factor	3:1				
Harmonic Distortion (THDv)	≤2% Linear load; ≤5% Non linear load				
Overload	AC mode	≤110% 60min, ≤125% 10min, ≤150% 1min, >150% immediately turn to bypass			
	Bat.mode	≤110% 10min, ≤125% 1min, ≤150% 5s, >150% immediately shut down			
EFFICIENCY					
AC Mode	Up to 93.5%	Up to 94.5%		Up to 95.2%	
ECO Mode	Up to 98.0%	Up to 98.2%		Up to 98.6%	
BATTERY					
Battery Type	VRLA (Lead acid maintenance free battery)				
Battery Voltage (Vdc)	10~30kVA: ±96/108/120; battery quantity (16~20pcs, 16pcs default, 20pcs no power derating; 18pcs output power factor 0.8/0.9; 16pcs output power factor 0.7/0.8)				40kVA: ±180~300 (30~50pcs)
	±180~300 (30~50pcs)				
Charging Current (Max.)(A)	14	16	18	20	20
ENVIRONMENTAL					
Operating Temperature (°C)	0~40				
Storage Temperature (°C)	-25~55 (No battery)				
Humidity Range	0~95% (Non condensing)				
Altitude (m)	<1000, derating required when>1000				
Noise Level (dB)	<55	<58	<61	<64	
PHYSICAL					
Dimension WxDxH (mm)	250×580×655				
Weight (kg)	35	39	40	43	46
STANDARDS					
Safety	IEC/EN 62040-1, IEC/EN 62477-1				
EMC	IEC/EN 62040-2 (IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11, IEC 61000-2-2)				

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DHP33-BT 10-40kVA Battery Pack Specification

MODEL	DHP33 BT40120N	DHP33 BT80120N	DHP33 BT80120N	DHP33 BT60180N	DHP33 BT80240N
BATTERY SYSTEM					
Battery Type	VRLA (Lead acid maintenance free battery)				
Typical Battery Recharge Time (hours)	6~8 (To 90% of full capacity)				
Typical Battery Life (years)	3~5, depend on discharging cycle and ambient temperature				
System Voltage (Vdc)	±120		±180		±240
Battery Quantity (pcs)	2×20	4×20		2×30	2×40
Capacity (Ah)	7/9				
PHYSICAL					
Dimension WxDxH(mm)	250×619×616 (With caster)		250×900×868 (With caster)		
Weight (kg)	122/134	244/265		200/215	244/265
ENVIRONMENTAL					
Operating Environment (°C)	0~40				
Humidity Range	0~95% (Non condensing)				
Altitude	<1000, derating required when >1000				
Noise Level (dB)	<40				
STANDARDS					
Safety	IEC/EN 62040-1, IEC/EN 62477-1				

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3. Remark: DHP44B BT80240N "DHP44" means series; "BT" means Battery Tower cabinet; "80" means battery number inside the cabinet; "240" means the battery system voltage; "N" means battery with neutral connection.