

NETCON NTRM Modular Series UPS

3:3 Phase PF 1.0, 80~1200KVA

Module: 40/50/60KVA



Wide input
Range



Power
Factor



Double
Conversion



Long
Back-up



IFR



ECO



Interface
(optional)



Hot
swappable

NETCON modular UPS consists of multiple independent UPS modules working together. Each module typically includes its own battery, inverter, and other necessary components for providing backup power to connected devices or systems. Modular Design offers several advantages over traditional UPS systems in form of, Scalability allowing easy expansion suitable for businesses with changing power requirements. Redundancy for uninterrupted operation, simplifies Maintenance tasks optimizing reduces downtime, optimizing efficiency by automatically adjust the number of active modules based on the current power demand.

Modular UPS systems are popular choices for data centers, telecommunications facilities, and other critical applications where reliable backup power is essential.

Features:

Modular design

- ▶ All units adopt modular design, including power module, bypass module, monitoring module, can be easily integrated
- ▶ Power module, Bypass module, Monitoring module, ECU control module, all these modules are hot-swappable

High reliability

- ▶ Wide input voltage range, line voltage range is 138-485V, UPS will derate to 40% when input voltage is below 305V.
- ▶ UPS adopts multiple digital bus and redundancy parallel control system, making sure the whole system keep online if any single circuit fail.
- ▶ The UPS will keep on single or parallel working, if any module fail.
- ▶ Thickened conformal coating, applicable for harsh environment such as high heat, high humidity, dust.

Green and power saving

- ▶ High input power factor, it is up to 0.99.
- ▶ 3-level topology design, efficiency is up to 96%
- ▶ THDi <3% (100% linear load).
- ▶ The UPS will work in sleeping mode when the load is very small.

LBS function

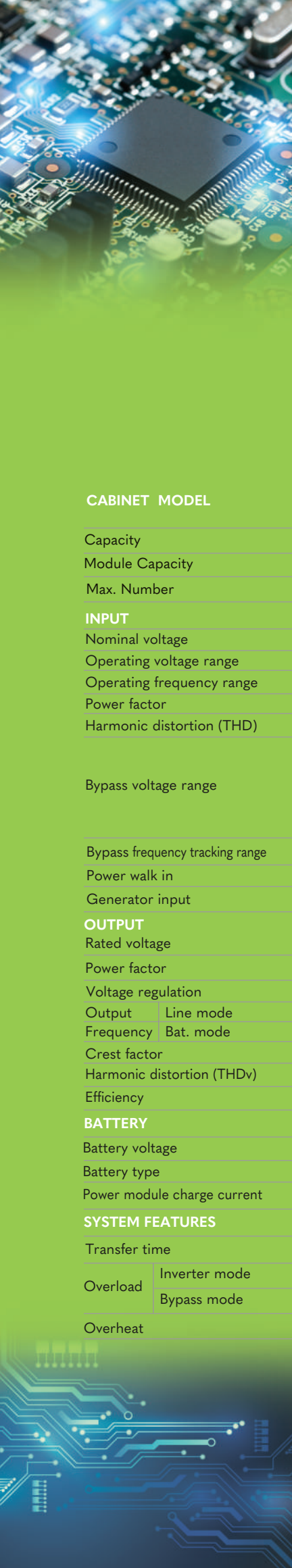
- ▶ LBS function can realize 2 independent UPS system work in synchronization, and it enhances the reliability of the system.

VRLA & Lithium battery supportable

- ▶ Compatible with VRLA or lithium battery.

Parallel redundancy function

- ▶ Support parallel expanded operation: maximum is 8 units
- ▶ Support sharing batteries for the UPS in parallel.



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Strong load capability

- ▶ Output power factor is 1.0, UPS can supply power to 100% unbalanced load.
- ▶ High adaptability for load, it can connect full inductive load or capacitive load.

Intelligent management

- ▶ With 7 inches (Standard) and 10 inches (Optional) colorful touch LCD screen.

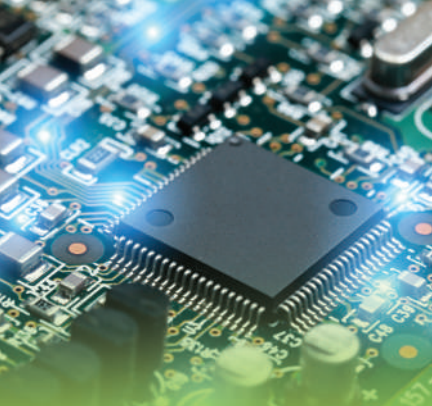
- ▶ Support recording and exporting history logs and fault logs.
- ▶ Support upgrading FW&SW on line
- ▶ EPO & REPO function.

Compatible with generator

- ▶ Power Walk In function, it can reduce the start current impact to system, and it can reduce the capacity of generator.

Technical Specifications

CABINET MODEL		NTRM-80/120/200/320	NTRM-200/300/400/500/ 600/800/1000	NTRM-300/600/840/1080/1200
Capacity		80KVA~320KVA	200KVA~1000KVA	300KVA~1200KVA
Module Capacity			40/50/60KVA	
Max. Number		2 / 3 / 5 / 8	4/6/8/10/12/16/20	5/10/14/18/20
INPUT				
Nominal voltage		380/400/415Vac, (3Ph+N+PE)		
Operating voltage range		138~305Vac for 40% Load; 305~485Vac for 100% Load		
Operating frequency range		40Hz-70Hz		
Power factor		≥0.99		
Harmonic distortion (THD)		≤3% (100% Linear load)		
Bypass voltage range		≤3% (100% Linear load) Max. voltage: 220V: +25% (Optional +10%, +15%, +20%) 230V: +20% (Optional +10%, +15%) 240V: +15% (Optional +10%) Min. voltage: -45% (Optional -10%, -15%, -20%, -30%)		
Bypass frequency tracking range		±10%		
Power walk in		Support		
Generator input		Support		
OUTPUT				
Rated voltage		380/400/415Vac, (3Ph+N+PE)		
Power factor		1.0		
Voltage regulation		±1%		
Output	Line mode	Synchronize with input, when the input frequency >±10% (±1%/±2%/±4%/±5% optional), output 50/60 (±0.1Hz) (50/60±0.1%)Hz		
Frequency	Bat. mode			
Crest factor		3:1		
Harmonic distortion (THDv)		≤2% with linear load; ≤4% with nonlinear load		
Efficiency		Upto 96%		
BATTERY				
Battery voltage		360Vdc~600Vdc		
Battery type		VRLA / Li		
Power module charge current		20A (Max.)		
SYSTEM FEATURES				
Transfer time		Utility to Battery: 0ms; Utility to bypass: 0ms		
Overload	Inverter mode	≤110% 60min, ≤125% 10min, ≤150% 1min, >150% 1.2s shut down inverter 30°C: 135% for long term; 40°C: 125% for long term; >1000%, 100ms		
	Bypass mode			
Overheat		Line Mode: Switch to Bypass; Backup Mode: Shut down UPS immediately		



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Technical Specifications (Contd.)

Low battery voltage	Alarm and Switch off			
Self-diagnostics	Upon Power On and Software Control			
Backfeed protection	Support			
EPO (Optional)	Shut down UPS immediately (Turn to bypass optional)			
Battery	Advanced Battery Management			
Noise suppression	Complies with EN62040-3			
Audible & visual alarms	Line Failure, Battery Low, Overload, System Fault			
Status LED & LCD display	Line Mode, Bypass Mode, Battery Low, Battery Fault, Overload & UPS Fault			
Reading on the LCD display	Input, Output, Battery, Command, Setting, Maintenance			
Communication interface	RS232, RS485, Parallel, LBS, BMS, Dry contact port, Relay card (Optional), SNMP card (Optional), Battery temperature sensor (Optional)			
ENVIRONMENTAL				
Operating temperature	0°C~40°C			
Storage temperature	-25°C 55°C			
Humidity range	0~95% (Non condensing)			
Altitude	<1000m, derating required when <1000m			
Noise level	<66dB		<73dB	
PHYSICAL				
Dimension W x D x H (mm)	UPS cabinet (S/F)	80/120kVA: 600×850×1200 200/320kVA: 600×850×2000	200/300/400kVA: 600×850×2000 500/600kVA: 1200×850×2000 800/1000kVA: 2000×850×2000	300kVA: 600×850×2000 600kVA: 1200×850×2000 840/1080kVA: 2000×850×2000 1200kVA: 2200×850×2000
	Power module	440×620×130mm		
Net weight (kg)	UPS cabinet	80kVA: 155; 120kVA: 165 200kVA: 270; 320kVA: 290	200kVA: 270; 300kVA: 290 400kVA: 310; 500kVA: 650 600kVA: 720; 800kVA: 980 1000kVA: 1080	300kVA: 290; 600kVA: 720 800kVA: 980; 1080kVA: 1080 1200kVA: 1200
	Power module	33kg	34kg	35kg
STANDARDS				
Safety	IEC/EN 62040-1, IEC/EN 62477-1			
EMC	IEC/EN 62040-2 (IEC 61000-2-2, 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)			
	S: Without or only with one maintenance bypass breaker F: With mains, bypass, maintenance bypass and output breakers 1. Specifications are subject to change without prior notice 2. Data above are typical values for reference only, not as a basis for engineering design			



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