# Maxpower Pro Series - Version 1.0

# **MAX-POWER PRO SERIES** 20kVA Online Transformerless Rack Mount UPS



Norden's Maxpower Pro Series 20 kVA UPS is an online double conversion UPS that features 3/3, 3/1 operation and a unity output power factor. This model features a convertible rack-tower design and parallel redundancy capabilities, making it ideal for data center applications.



### **General Features**

- LCD support Rack/Tower convertible design
- N+X parallel redundancy, support maximum 4 units in parallel
- Online double conversion with full digital control
- Wide input frequency range 40~70Hz
- Wide input voltage range:208~478Vac
- Input current harmonic:<3%
- Maximum Charging current up to 20A(Settable)
- **Dual Input Sources**
- ECO mode operation for energy saving
- Support 3/3, 3/1 and 1/1 operation
- Generator compatible
- Cold Start
- Self-testing when UPS start-up
- 50/60Hz Frequency converter mode
- Intelligent fan speed regulation
- The quantity of battery:30-50pcs is settable

## **SPECIFICATIONS**

MODEL			CN5320MP-RM
Capacity	kVA		20
	kW		20
Input	Normal Voltage		380/400/415Vac (3Ph+N+PE) 220/230/240Vac (L+N+PE)
	Operating voltage range		208~478Vac
	Operating frequency range		40~70Hz (50/60Hz Auto-Sensing)
	Power factor		≥0.99
	Bypass voltage range		Max.voltage:220V:+25% (Optional+10%,+15%,+20%)
			240V:+15% (Optional+10%) Min.voltage:-45% (Optional-20%,-30%), 230V:+20% (Optional+10%,+15%)
	ECO range		Same as the bypass
	Generator input		Support
Output	Rated voltage		380/400/415Vac (3Ph+N+PE) 220/230/240Vac (L+N+PE)
Output	Power factor		1.0
	Voltage regulation		±1%
	Frequency	Line mode	$\pm 1\%/\pm 2\%/\pm 4\%/\pm 5\%/\pm 10\%$ of the rated frequency (Optional)
		Bat. mode	50/60(±0.1)Hz
	Crest factor		3:1
	Harmonic distortion (THDv)		≤2% with linear load, ≤5% with non-linear load
	Efficiency		95%
	Output Waveform		Pure Sine Wave
Battery	Battery Numbers		30/32/34/36/38/40/42/44/46/48/50pcs with Neutral
	Charging current		20A Max.(charge current can be set according to battery capacity installed)

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MODEL	DEL		CN5320MP-RM
System Features	Transfer time		Mains to battery:0ms; Mains to bypass:0ms
	Overload	Line mode	Load≤110%: last 60min, ≤125%: last 10min, ≤150%: last 1min, >150% turn to bypass mode immediately
		Bypass mode	40A(Breaker)
	Short circuit		Hold whole system
	Overheat		Line mode: Turn to bypass; Backup mode: shut down UPS immediately
	Battery low		Alarm and switch off
	Self-diagnostics		Upon power on and software control
	Battery		Advanced battery management
	Audible & Visual alarms		Line failure, Battery under voltage, Overload, System fault
	LED & LCD display		Line mode, Bat. mode, Eco mode, Bypass mode, Battery under voltage, Overload & UPS Fault
	LCD display		Input voltage, Input frequency, Output voltage, Output frequency, Load percentage, Battery voltage,
			Inner temperature & Remaining battery backup time
	Communication interface		RS232, RS485, Parallel, Intelligent Slot(SNMP card/ Relaycard (Optional)),BMS (Optional),EPO port Output port, MAINTAIN-AUXSWS port
Environment	Operating temperature		0~40°C
	Storage temperature		-25~55°C
	Humidity range		0~95% (Non-condensing)
	Altitude		<1500m
	Noise level		<58dB
Standards	Safety		IEC/EN62040-1,IEC/EN62477-1
	EMC		IEC/EN62040-2,IEC61000-4-2,IEC61000-4-3,IEC61000-4-4,IEC61000-4-5,IEC61000-4-6,IEC61000-4-8
Physical	Dimension WxDxH (mm)		443 x 580 x 131
	Net Weight (kg)		32

<sup>\*</sup>Product specifications are subject to change without further notice.

## **EXTERNAL BATTERY PACK**

MODEL	CNBN20240CR
BATTERY SYSTEM	
Battery type	VRLA (Lead acid maintenance free battery)
Typical battery recharging time	6~8 hours (to 90% of full capacity)
Typical battery life	3~5 years, depend on discharging cycle and ambient temperature
System voltage	±240Vdc
Battery quantity	1*±20 PCS
Capacity	7Ah/9Ah (12V)
PHYSICAL	
Dimension W x D x H (mm)	443x861.5x175
Net weight (kg)	114/123
ENVIRONMENT	•
Safety	CE
Operating environment	0°C~40°C
Relative humidity	0~95% (Non condensing)
Noise level	<40dB at 1 Meter

# **ORDERING INFORMATION**

Part Number	Description
CN5320MP-RM	20kVA Double Conversion Transformer-less Rack Mount UPS (External Battery)
CNBN20240CR	240VDC Rack Mount Battery Pack

# **COMPATIBLE ACCESSORIES**

Part Number	Description
CNS01	SNMP Card for 10-80kVA 3/1 and 3/3