

## 10-20kVA Double Conversion Transformer-less UPS

Norden's Ultra power series 10-20 kVA UPS is an online double conversion UPS that features three-phase in both input and output and an output power factor of 0.9. This tower type model Features a high power density design with parallel redundancy and ECO mode operation for power saving.



### General 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
- Optimized battery group, the quantity of battery: 16/18/20pcs
- Maximum charging current up to 18A (Selectable)
- Generator compatible
- ECO mode operation for energy saving
- Intelligent fan speed regulation
- Self-testing when UPS startup
- 50/60Hz frequency converter mode

### SPECIFICATIONS

MODEL		CN93310U / CN93310U-5L	CN93315U / CN93315U-5L	CN93320U / CN93320U-5L
Capacity	KVA	10	15	20
	kW	9	13.5	18
Input	Normal Voltage	380/400/415Vac (3Ph+N+PE)		
	Operating voltage range	305~478Vac(Full load); 208~478Vac(50% load)		
	Harmonic distortion(THDi)	<3%(linear load)		
	Operating frequency range	40~70Hz (50/60Hz Auto-Sensing)		
	Power factor	≥0.99		
	Bypass voltage range	220Vac Max.Voltage:+25% (optional +10%,+15%,+20%) 230Vac Max.Voltage:+20%(optional +10%,+15%) 240Vac Max.Voltage:+15%(optional +10%) Min.Voltage:-45%(optional -20%,-30%)		
	Bypass Frequency range	Frequency synchronize tracing range:±10%		
	Generator input	Yes		
Output	Rated voltage	380/400/415Vac (3Ph+N+PE)		
	Power factor	0.9		
	Voltage regulation	±1%		
	Frequency	Line mode	±1%/±2%/±4%/±5%/±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	94.5%		
Output Waveform	Pure SineWave			
Battery	Battery voltage	±96/108/120Vdc(16/18/20pcs)		
	Charging current (Charging current can be set according to the battery capacity installed)	14A	16A	18A

MODEL		CN93310U / CN93310U-5L	CN93315U / CN93315U-5L	CN93320U / CN93320U-5L
System Features	Transfer time	Mains to battery:0ms; Mains to bypass:0ms		
	Overload	Line mode	≤110%: Overload 60min, ≤150%: Overload 1min, >150% turn to bypass mode immediately	
		Bypass mode	≤110%,last 10min; ≤125%,last 1min; ≤150%,last 5s; >150% turn to bypass Immediately	
	Backfeed Protection	Yes		
	Alarm	Overload, utility abnormal, UPS fault, battery low, etc		
	Protection	Short circuit, overload, over-temperature, battery low, fan fault alarm		
	Communication	USB, RS232, RS485, Parallel port,dry contact, Intelligent slot, LBS, SNMP card (optional), Relay card (optional)		
Environment	Operating temperature	0~40°C		
	Storage temperature	-25~55°C		
	Humidity range	0~95% (Non-condensing)		
	Altitude	<1500m		
	Noise level	<55dB	<58dB	<58dB
Physical	Dimension W x D x H (mm)	250x580x655		
	Net Weight (kg)	35	39	40
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		

\*Specifications are subject to change without prior notice.

### ORDERING INFORMATION

Part Number	Description
CN93310U	10kVA Double Conversion Transformer-less 3/3 UPS (External Battery)
CN93310U-5L	10kVA Double Conversion Transformer-less 3/3 UPS with 5inch LCD display (External Battery)
CN93315U	15kVA Double Conversion Transformer-less 3/3 UPS (External Battery)
CN93315U-5L	15kVA Double Conversion Transformer-less 3/3 UPS with 5inch LCD display (External Battery)
CN93320U	20kVA Double Conversion Transformer-less 3/3 UPS (External Battery)
CN93320U-5L	20kVA Double Conversion Transformer-less 3/3 UPS with 5inch LCD display (External Battery)

### COMPATIBLE ACCESSORIES

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

