

## 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 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%)<br>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   | ±192/216/240Vdc(16/18/20pcs)   |  |                        |
|                 | Charging current<br>(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; Inverter to bypass:0ms  |  |                        |
|                 | Overload   | Line mode   | ≤110%,last 60min; ≤125%,last 10min; ≤150%,last 1min; > 150% turn to bypass 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 |  |                        |

\*Product specifications and appearances are subject to change without prior notice.

### ORDERING INFORMATION

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

### COMPATIBLE ACCESSORIES

| Part Number | Description |
|-------------|-------------|
| CNS01       | SNMP Card   |