

HIGH FREQUENCY ONLINE UPS



CONSNANT

Constant Electric Power
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CONSINANT

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CNH110 SERIES

Tower Online UPS 1-3kVA

1/2/3kVA

1 Phase Input/1 Phase Output



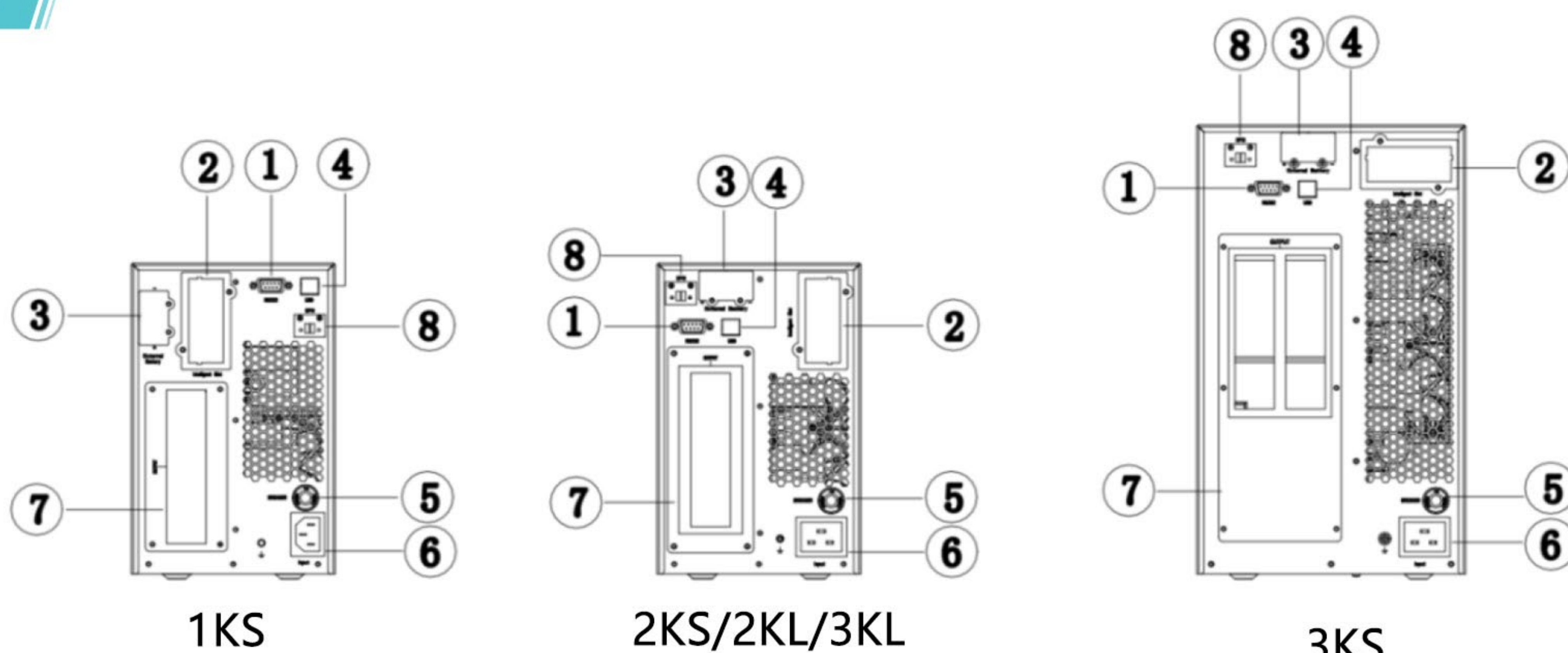
Features

- True online double-conversion technology
- Wide input voltage range
- DSP technology
- Advanced PFC technology, input PF>99%
- Strong charging capacity
- Lighting and surge protection
- LCD/LED display
- Smart RS232 and USB Ports with monitoring software

Application

IDC (Internet Data Center), Network, Servers and Workstations, Control System, Communication System, Office, PC etc.

Rear Panel



- 1KS
- ① RS232
 - ② Smart slot
 - ③ External battery connection port
 - ④ USB

2KS/2KL/3KL

- ⑤ Input over current protection breaker
- ⑥ AC input
- ⑦ Output socket
- ⑧ EPO

Model	CNH110 1KS	CNH110 1KL	CNH110 2KS	CNH110 2KL	CNH110 3KS	CNH110 3KL
Capacity	1kVA/1kW		2kVA/2kW		3kVA/3kW	
Input						
Rated Voltage	208/ 220/230/240Vac, L+N+PE					
Voltage Range	110~300Vac					
Frequency Range	40-70Hz					
Power Factor	≥0.99					
THDi	≤4% (linear load); ≤5% (non-linear load)					
Output						
Rated Voltage	208/220/230/240Vac,L+N+PE					
Voltage Regulation	±1%					
Frequency	50/60Hz ± 0.1%					
THDu	≤2% (linear load); ≤5% (non-linear load)					
Transfer Time	Zero					
Waveform	Pure sine wave					
Crest Factor	3:1					
Overload Capacity (Line Mode)	102%~110% load, 30min;110%~130% load, 10min; 130%~150% load, 30s; >150% load, 200ms					
Overload Capacity (Battery Mode)	102%~110% load, 1min;110%~130% load, 10s; 130%~150% load, 3s;>150% load, 200ms					
Efficiency						
Line Mode	94.5%		95.5%		95.5%	
Battery Mode	88.5%		91.5%		91.5%	
ECO Mode	98%					
Battery						
Nominal Voltage	24Vdc /36Vdc	36Vdc	48Vdc /72Vdc	72Vdc	72Vdc / 96Vdc	96Vdc
Battery Number	7Ah*2 / *3	External	7Ah*4 / *6	External	7Ah*6/*8	External
Charge Current	1A	1-12A settable	1-12A	1-12A settable	1A	1-12A settable
Communication						
Interface	RS232 / USB / SNMP card(optional) /Dry contact card(optional)					
Environment						
Operation Temperature	0~40℃					
Humidity	0~95%(non-condensing)					
Noise	≤50dB@1meter away					
Altitude	Up to 1000m without derating					
Physical						
Dimensions (W*D*H)mm	145*354*224	145*354*224	190*418*322	145*405*224	190*418*322	145*405*224
Weight (kg)	9 /11	4.5	16.3 /20.2	6	23.5 /27	6.3

All specifications are subject to change without prior notice.

CNH110 SERIES TOWER ONLINE UPS 6-10kVA

6/10kVA

1 Phase Input/1 Phase Output

PF=1

6/10KL

6/10KS

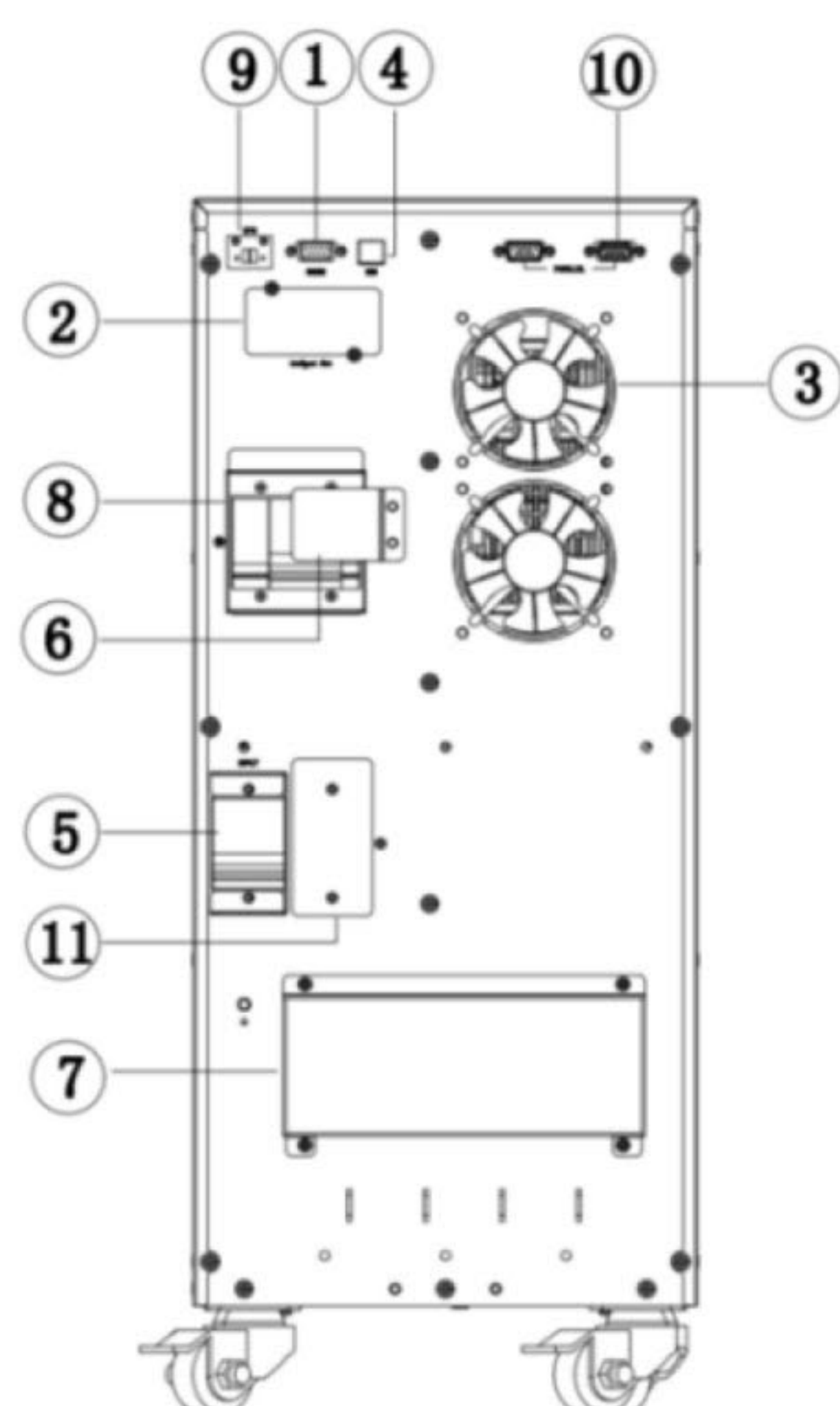
Features

- True online double-conversion technology
- Wide input voltage range
- DSP based technology
- Advanced PFC technology, input PF>99%
- Strong charging capacity
- Lighting and surge protection
- LCD/LED display
- Compatible with the generator

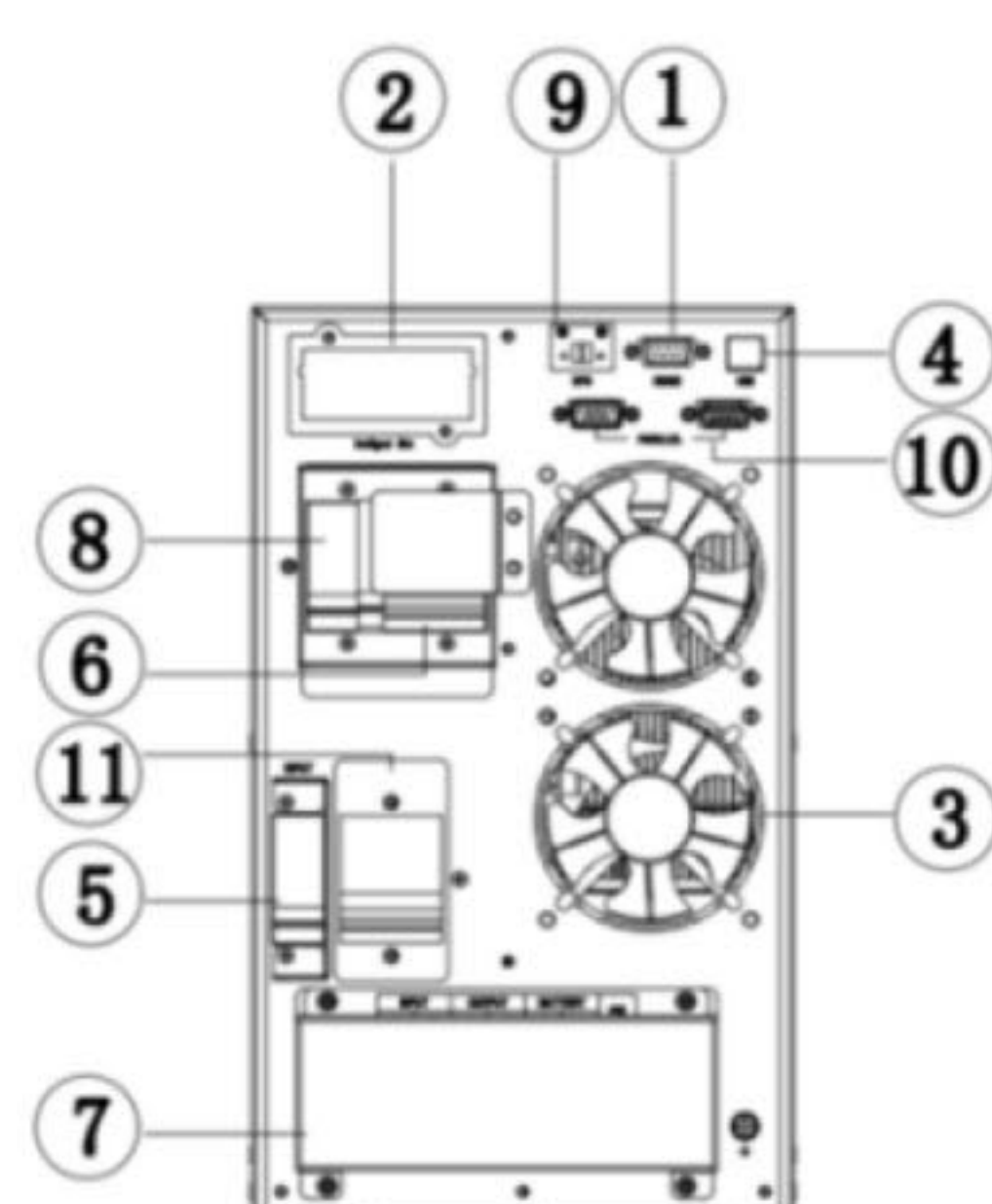
Application

IDC (Internet Data Center), Network, Servers and Workstations, Control System, Communication System, Office, PC etc.

Rear Panel



6KS/10KS



6KL/10KL

- ① RS232
- ② Smart slot
- ③ Fan
- ④ USB
- ⑤ Input breaker
- ⑥ Maintenance bypass breaker (optional)
- ⑦ Terminal block
- ⑧ Output breaker (optional)
- ⑨ EPO
- ⑩ Parallel kit (optional)
- ⑪ Battery breaker (optional)

Model	CNH110 6KS	CNH110 6KL	CNH110 10KS	CNH110 10KL
Capacity	6kVA/6kW		10kVA/10kW	
Input				
Rated Voltage	208/ 220/230/240Vac, L+N+PE			
Voltage Range	110~300Vac			
Frequency Range	40-70Hz			
Power Factor	≥0.99			
THDi	≤5%(linear load); ≤8%(non-linear load)			
Output				
Rated Voltage	208/220/230/240Vac, L+N+PE			
Voltage Regulation	±1%			
Frequency	50/60Hz±0.1%			
THDu	≤2% (linear load); ≤5% (non-linear Load)			
Transfer Time	Zero			
Waveform	Pure sine wave			
Crest Ratio	3:1			
Overload Capacity (Line Mode)	102%~105% load, 30min; 105%~125% load, 10min; 125%~150% load, 30s; >150% load, 500ms			
Overload Capacity (Battery Mode)	102%~105% load, 10min; 105%~125% load, 1min; 125%~150% load,10s; >150% load, 500ms			
Battery				
Battery Type	Sealed lead acid maintenance free			
Nominal Voltage	192Vdc / 240Vdc			
Battery Number	7Ah*16/20pcs	External	9Ah*16/20pcs	External
Charge Current	1A	1-12A settable	1A	1-12A settable
Efficiency				
Line Mode	95%			
Battery Mode	94.5%			
ECO Mode	98%			
Communication				
Interface	RS232 / USB/ SNMP card(optional) /Dry contact card (optional)			
Environment				
Operation Temperature	0~40℃			
Humidity	0~95%(non-condensing)			
Noise	≤50dB@1meter away			
Altitude	Up to 1000m without derating			
Physical				
Dimensions (W*D*H) mm	250*523*602	190*437*322	250*523*602	190*437*322
Weight (kg)	57/67	10	61.3/71.5	11

All specification are subject to change without prior notice.

CNH310 SERIES TOWER ONLINE UPS 10-20kVA

10/15/20kVA

1Phases or 3Phase Input/1Phase Output



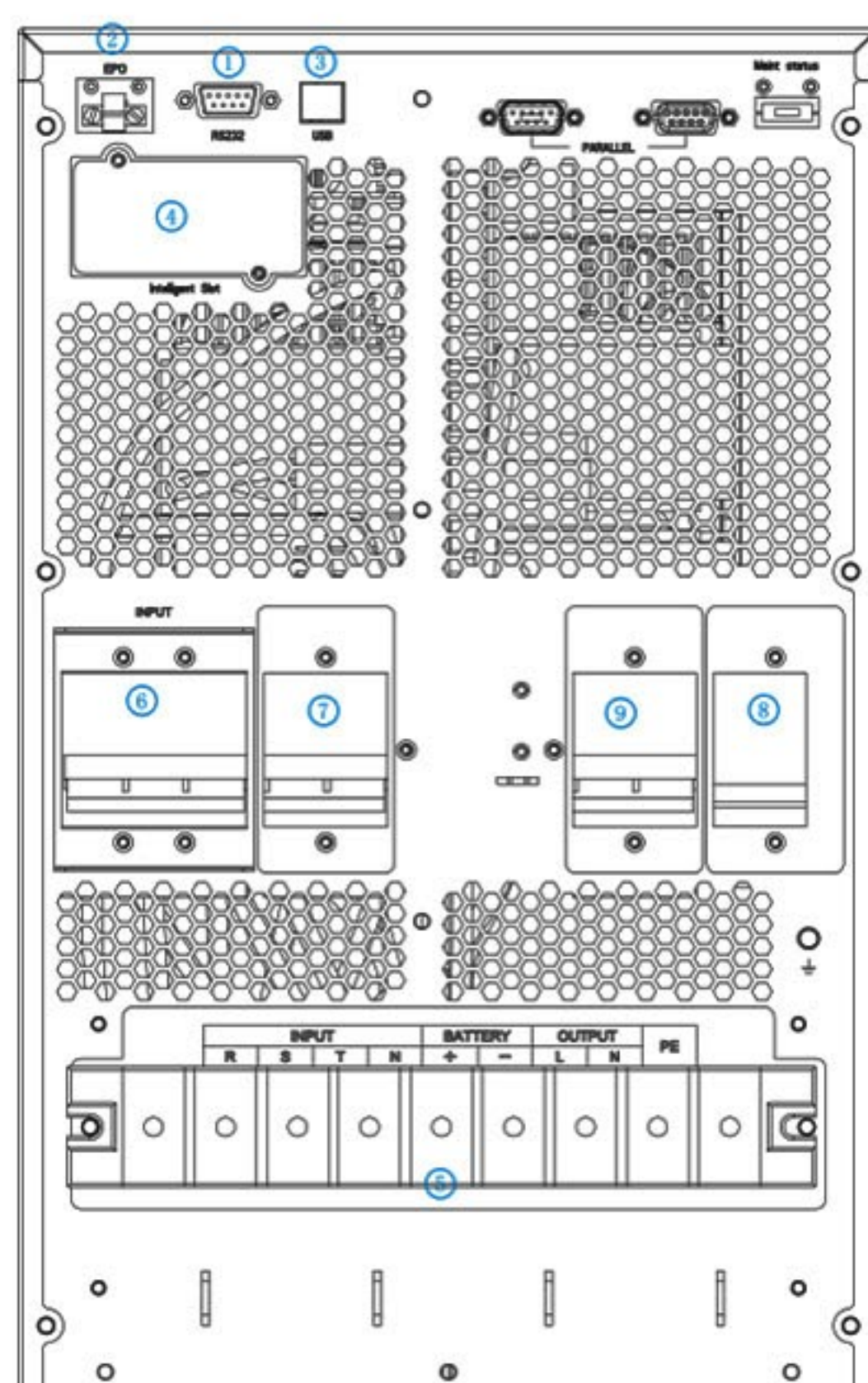
Features

- True online double-conversion technology
- Wide input voltage range
- DSP based technology
- Advanced PFC technology, input PF > 99%
- Lighting and surge protection
- LCD/LED display
- Support generator connection
- Support 3/1 and 1/1 configuration

Application

IDC (Internet Data Center), Network, Servers and Workstations, Control System, Communication System, Office, PC etc.

Rear Panel



10/15/20KL

- ① RS232 port
- ② EPO /ROO (Remote On Off) port
- ③ USB port
- ④ Intelligent slot for SNMP/MODBUS/dry contact card etc.
- ⑤ Input and output terminal block
- ⑥ AC input switch
- ⑦ Battery switch
- ⑧ AC output switch
- ⑨ Maintenance bypass switch

Model	CNH310 10KS	CNH310 10KL	CNH310 15KS	CNH310 15KL	CNH310 20KS	CNH310 20KL
			CNH110 15KS	CNH110 15KL	CNH110 20KS	CNH110 20KL
Capacity	10kVA/10kW		15kVA/15kW		20kVA/20kW	
Input						
Rated Voltage	208/220/230/240Vac, L+N+PE or 380/400/415Vac, 3Ph+N+PE					
Voltage Range	156~520Vac					
Frequency Range	40~70Hz					
Power Factor	≥0.99					
Output						
Rated Voltage	208/220/230/240Vac, L+N+PE					
Voltage Regulation	±1%					
Frequency	50/60Hz±0.1%					
THDu	≤2% (linear load); ≤7% (non-linear load)					
Trekuensi Time	Zero					
Waveform	Pure sine wave					
Crest Ratio	3:1					
Overload Capacity (Line Mode)	105%~125% load, 10min; 126%~150% load, 1min; >150 load, 100ms					
Overload Capacity (Battery Mode)	105%~125% load, 1s; >126% load, 100ms					
Battery						
Battery Type	Sealed lead acid maintenance free					
Norminal Voltage	192Vdc / 240Vdc					
Battery Number	9Ah*16pcs	External	7Ah*16/20*2	External	9Ah*16/20*2	External
Charging Current	2A	1-12A	2A	1-12A	2A	1-12A
Efficiency						
Line Mode	94%					
Battery Mode	92%					
ECO Mode	98%					
Communication						
Interface	RS232 / USB / SNMP card (optional) / Dry contact card (optional)					
Environment						
Operation Temperature	0~40℃					
Humidity	0~95% (non-condensing)					
Noise	≤55dB @ 1 meter away					
Altitude	Up to 1000m without derating					
Physical						
Dimensions (W*D*H) mm	190*534*456	250*612*409	300*698*700	250*612*409	300*698*700	250*612*409
Weight (kg)	65.6	25.6	89.6	25.6	90.1	26.1

All specification are subject to change without prior notice.

CNH110R SERIES RACK ONLINE UPS 1-3kVA

1/2/3kVA

1 Phase Input/1 Phase Output



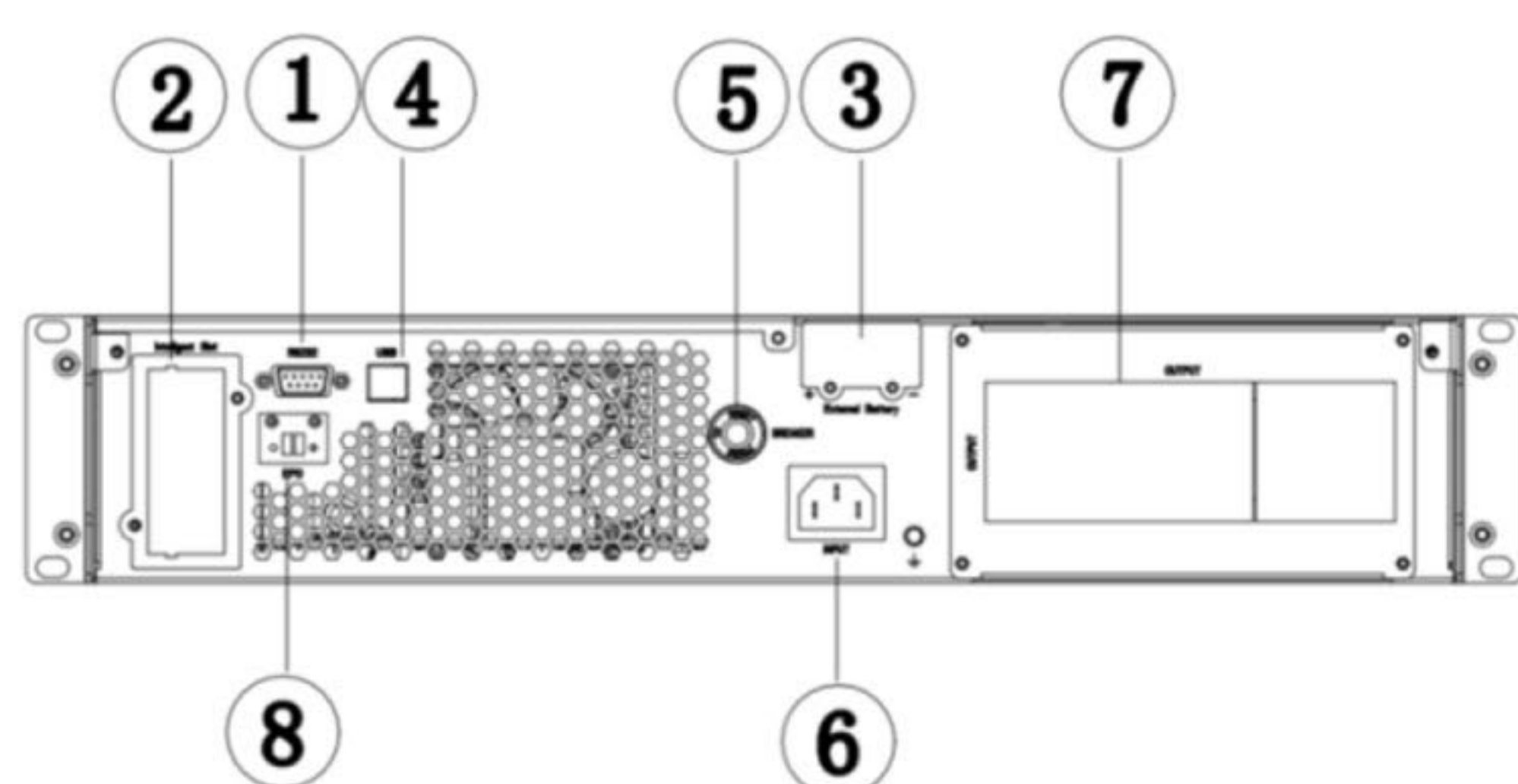
Features

- True online double-conversion technology
- Wide input voltage range
- DSP technology
- Advanced PFC technology, input PF>99%
- Strong charging capacity
- Lighting and surge protection
- Smart RS232 and USB Ports with monitoring software

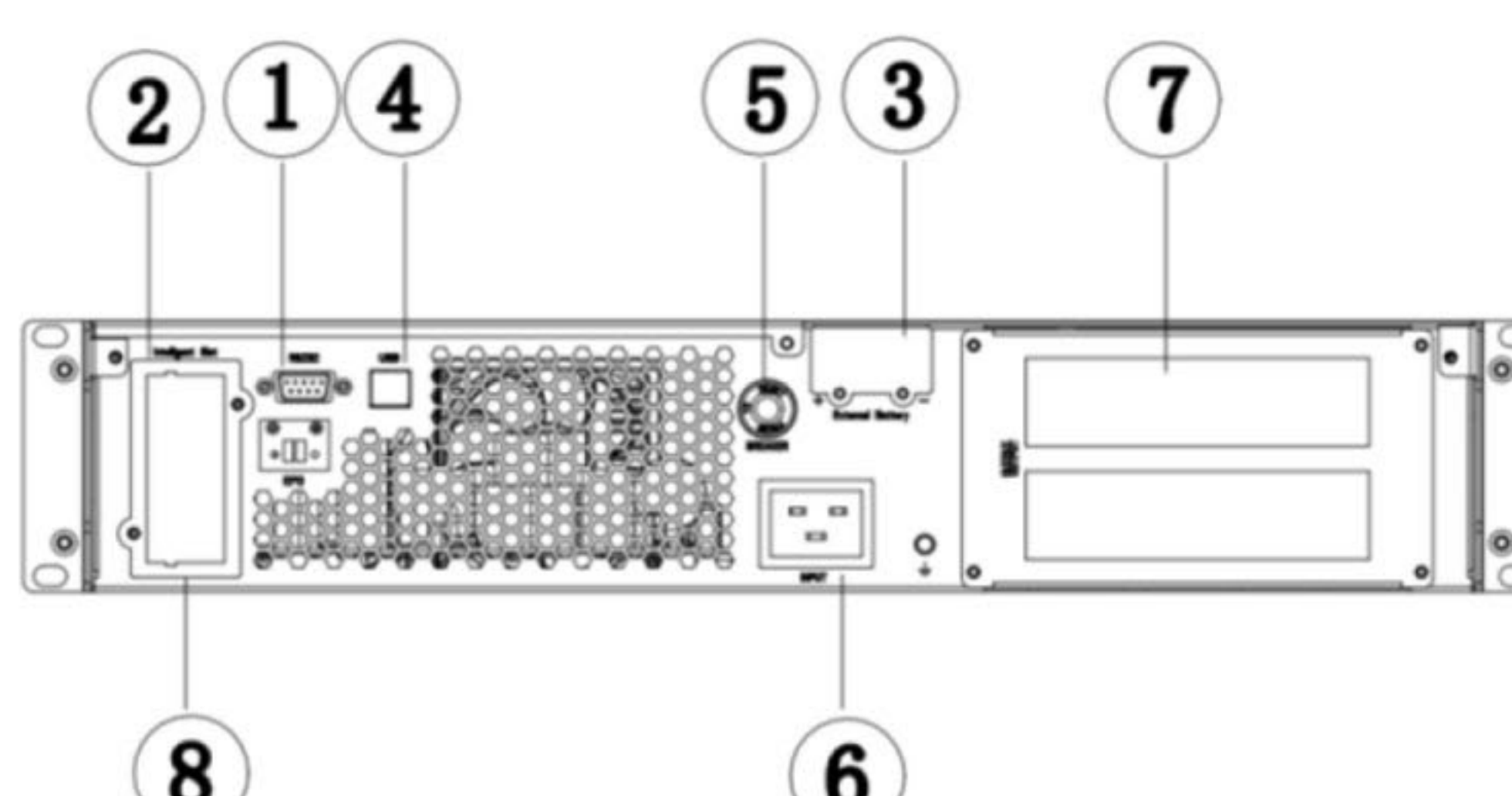
Application

IDC (Internet Data Center), Network, Servers and Workstations, Control System, Communication System, Office, PC etc.

Rear Panel



1KS/1KL



2KS/2KL/3KS/3KL

- ① RS232
- ② Smart slot
- ③ External battery connection port
- ④ USB

- ⑤ Input over current protection breaker
- ⑥ AC input
- ⑦ Output socket
- ⑧ EPO

Model	CNH110R 1KS	CNH110R 1KL	CNH110R 2KS	CNH110R 2KL	CNH110R 3KS	CNH110R 3KL
Capacity	1kVA/1kW		2kVA/2kW		3kVA/3kW	
Input						
Rated Voltage	208/ 220/230/240Vac, L+N+PE					
Voltage Range	110~300Vac					
Frequency Range	40-70Hz					
Power Factor	≥0.99					
THDi	≤4% (linear load); ≤5% (non-linear load)					
Output						
Rated Voltage	208/220/230/240Vac ,L+N+PE					
Voltage Regulation	±1%					
Frequency	50/60Hz ± 0.1%					
THDu	≤2% (linear load); ≤5% (non-linear load)					
Transfer Time	Zero					
Waveform	Pure sine wave					
Crest Factor	3:1					
Overload Capacity (Line Mode)	102%~110% load, 30min;110%~130% load, 10min; 130%~150% load, 30s; >150% load, 200ms					
Overload Capacity (Battery Mode)	102%~110% load, 1min;110%~130% load, 10s; 130%~150% load, 3s; >150% load, 200ms					
Efficiency						
Line Mode	94.5%		95.5%		95.5%	
Battery Mode	88.5%		91.5%		91.5%	
ECO Mode	98%					
Battery						
Nominal Voltage	24Vdc/ 36Vdc		48Vdc/ 72Vdc		72Vdc/ 96Vdc	
Battery Number	7Ah*2/*3pcs	External	7Ah*4/6pcs	External	7Ah*6/8pcs	External
Charge Current	1A	1-12A	1A	1-12A	1A	1-12A
Communication						
Interface	RS232 / USB/ SNMP card(optional) /Dry contact card(optional)					
Environment						
Operation Temperature	0~40℃					
Humidity	0~95%(non-condensing)					
Noise	≤50dB@1meter away					
Altitude	Up to 1000m without derating					
Physical						
Dimensions (W*D*H)mm	440*379*86	440*379*86	440*568*86	440*450*86	440*719*86	440*450*86
Weight (kg)	11.1 /13	6	18.7 /22.5	8	24.4 /27.8	10.8

All specifications are subject to change without prior notice.

CNH110R SERIES RACK ONLINE UPS 6-10kVA

6/10kVA

1 Phase Input/1 Phase Output



PF=1

Features

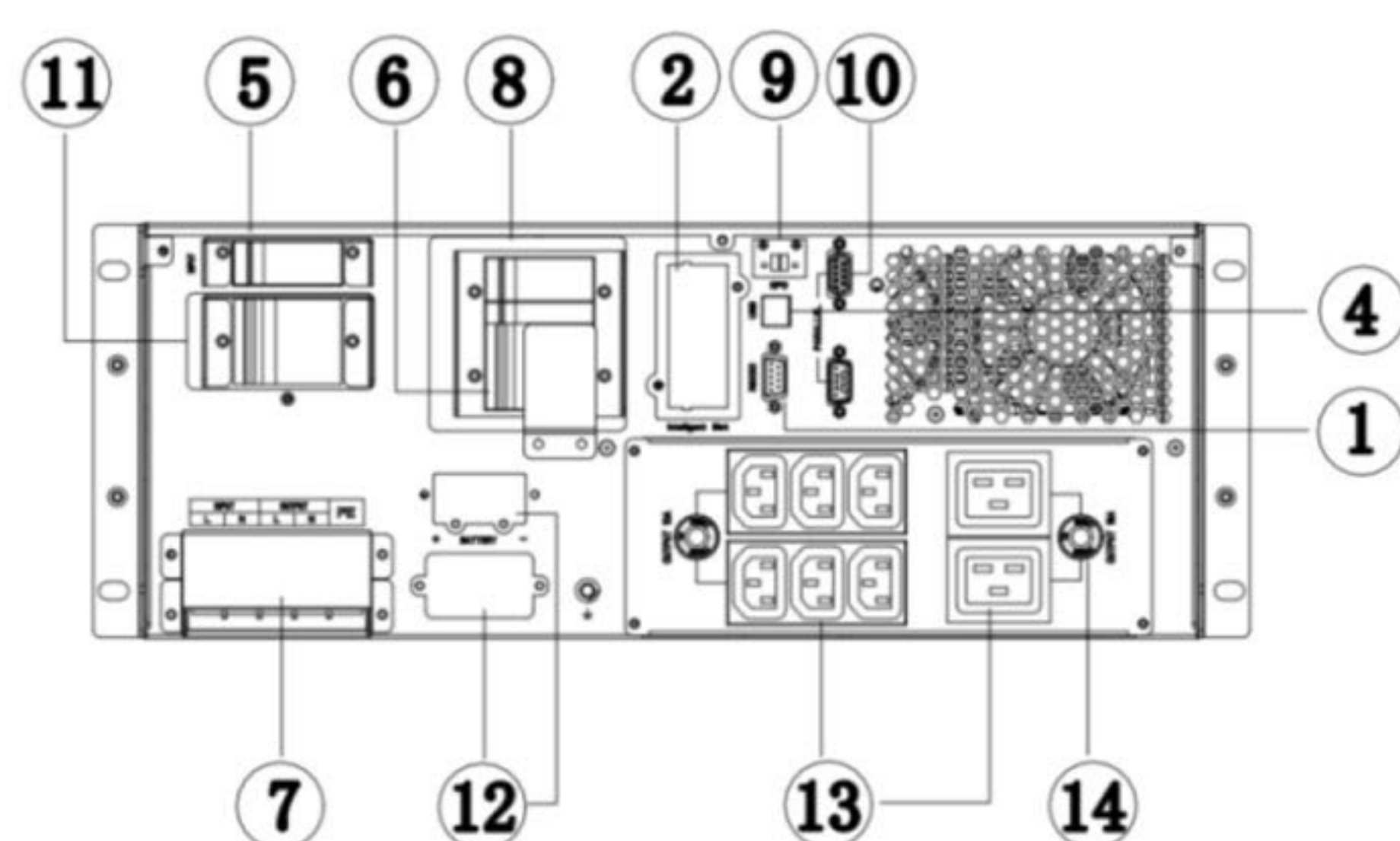
- True online double-conversion technology
- Wide input voltage range and stable power supply extends battery lifetime
- DSP based technology
- Advanced PFC technology, input PF>99%
- Lighting and surge protection
- LCD/LED display
- Support generator connection



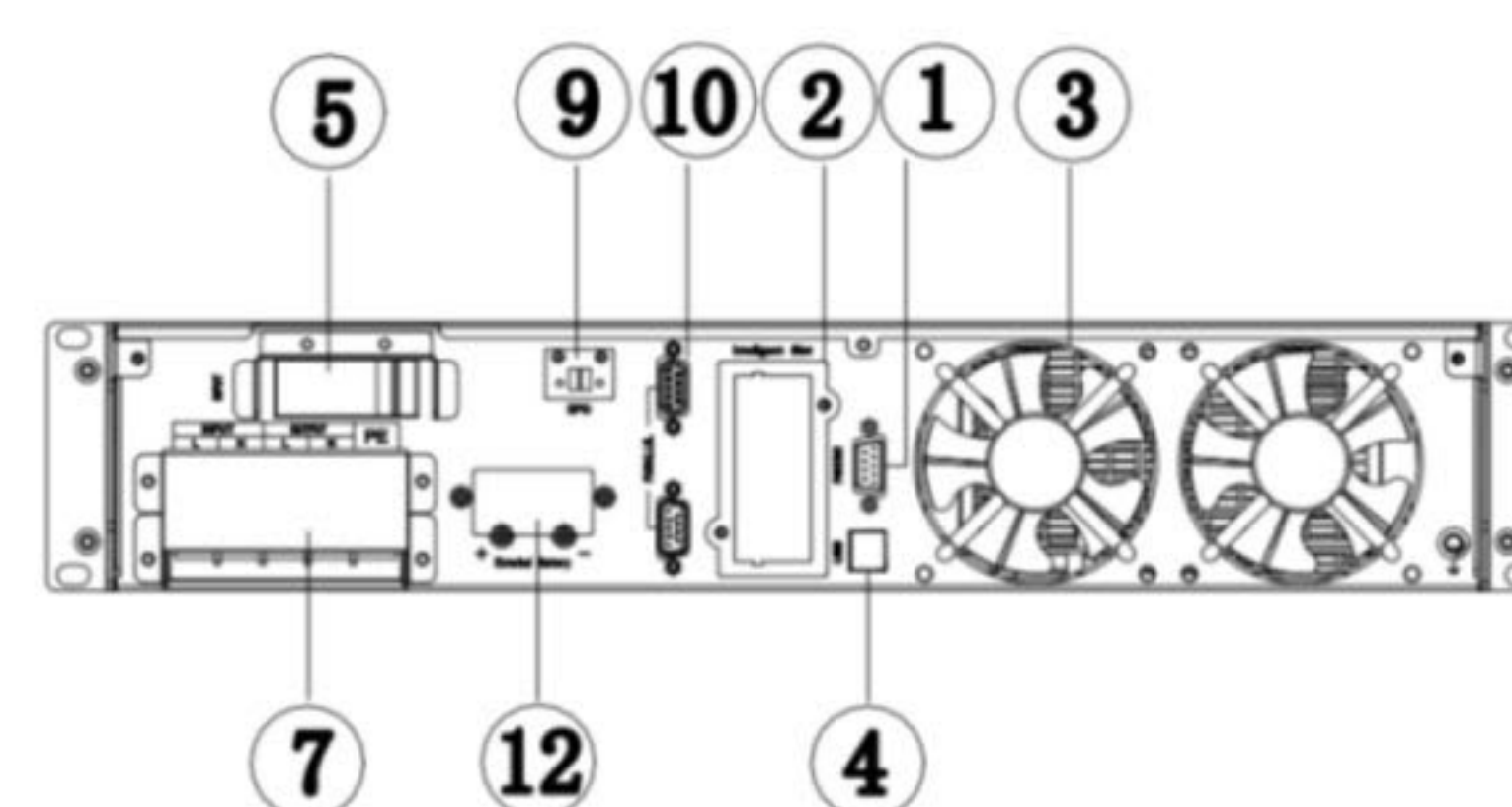
Application

IDC (Internet Data Center), Network, Servers and Workstations, Control System, Communication System, Office, PC etc.

Rear Panel



6KS/10KS



6KL/10KL

- | | |
|------------------------------|--|
| ① RS232 | ⑧ Output breaker |
| ② Smart slot | ⑨ EPO |
| ③ Fan | ⑩ Parallel port |
| ④ USB | ⑪ Battery breaker |
| ⑤ Input breaker | ⑫ External battery connection port |
| ⑥ Maintenance bypass breaker | ⑬ Output socket |
| ⑦ Terminal block | ⑭ Output over current protection breaker |

Model	CNH110R 6KS	CNH110R 6KL	CNH110R 10KS	CNH110R 10KL
Capacity	6kVA/6kW		10kVA/10kW	
Input				
Rated Voltage	208/ 220/230/240Vac, L+N+PE			
Voltage Range	110~300Vac			
Frequency Range	40-70Hz			
Power Factor	≥0.99			
THDi	≤5%(linear load); ≤8%(non-linear load)			
Output				
Rated Voltage	208/220/230/240Vac, L+N+PE			
Voltage Regulation	±1%			
Frequency	50/60Hz±0.1%			
THDu	≤2% (linear load); ≤5% (non-linear Load)			
Transfer Time	Zero			
Waveform	Pure sine wave			
Crest Ratio	3:1			
Overload Capacity (Line Mode)	102%~105% load, 30min; 105%~125% load, 10min; 125%~150% load, 30s; >150% load, 500ms			
Overload Capacity (Battery Mode)	102%~105% load, 10min; 105%~125% load, 1min; 125%~150% load,10s; >150% load, 500ms			
Battery				
Battery Type	Sealed lead acid maintenance free			
Nominal Voltage	192Vdc / 240Vdc			
Battery Number	7Ah*16pcs	External	9Ah*16pcs	External
Charging Current	1A	1-12A settable	1A	1-12A settable
Efficiency				
Line Mode	95%			
Battery Mode	94.5%			
ECO Mode	98%			
Communication				
Interface	RS232 / USB/ SNMP card(optional) /Dry contact card (optional)			
Environment				
Operation Temperature	0~40℃			
Humidity	0~95%(non-condensing)			
Noise	≤50dB@1meter away			
Altitude	Up to 1000m without derating			
Physical				
Dimensions (W*D*H) mm	440x753x173	440x487x86	440x753x173	440x487x86
Weight (kg)	58	11	61.3	12

All specifications are subject to change without prior notice.

CNH310R SERIES RACK ONLINE UPS 10-20kVA

10/15/20kVA

1Phase or 3Phase Input/1Phase Output



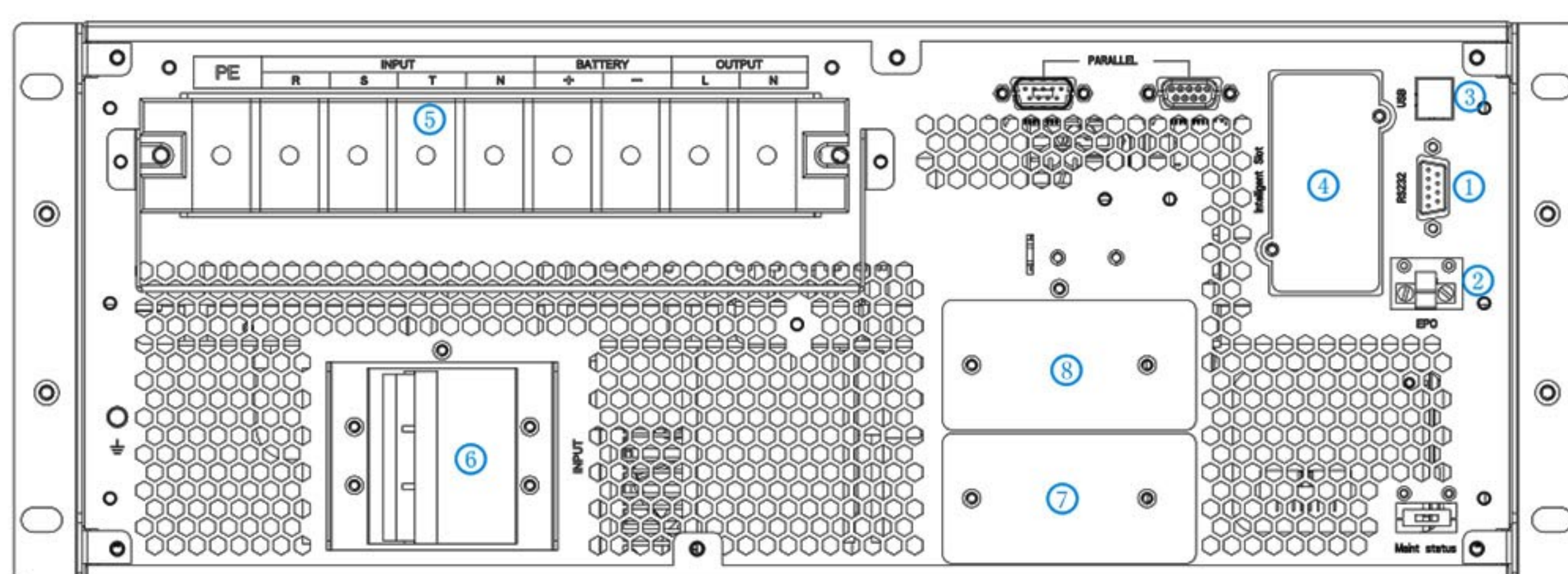
Features

- True online double-conversion technology
- Wide input voltage range
- DSP based technology
- Advanced PFC technology, input PF > 99%
- Cold start
- Lighting and surge protection
- LCD/LED display
- Support generator connection
- Smart slot for mission critical applications

Application

IDC (Internet Data Center), network, servers and workstations, control system, communication system, office, PC etc.

Rear Panel



10KL/15KL/20KL

- ① RS232 port
- ② EPO/ ROO (Remote ON OFF) Port
- ③ USB Port
- ④ Intelligent Slot for SNMP/MODBUS/DRY Contact Card Etc
- ⑤ Input and Output and Battery Terminal Block
- ⑥ AC Input switch
- ⑦ AC Output Switch
- ⑧ Maintenance Bypass Switch

Model	CNH310R 10KL	CNH310R 15KL	CNH310R 20KL
		CNH110R 15KL	CNH110R 20KL
Capacity	10kVA/10kW	15kVA/15kW	20kVA/20kW
Input			
Rated Voltage	220/230/240Vac L+N+PE or 380/400/415Vac, 3Ph+N+PE		
Voltage Range	156~520Vac		
Frequency Range	40~70Hz		
Power Factor	≥0.99		
Output			
Rated Voltage	208/220/230/240Vac, L+N+PE		
Voltage Regulation	±1%		
Frequency	50/60Hz±0.1%		
THDu	≤2%(linear load); ≤7%(non-linear load)		
Transfer Time	Zero		
Waveform	Pure sine wave		
Crest Ration	3:1		
Overload Capacity (Line Mode)	105%~125% load, 10min; 126%~150% load, 1min; >150% load, 100ms		
Overload Capacity (Battery Mode)	105%~125% load, 1S; >126% load, 100ms		
Battery			
Battery Type	Sealed lead acid maintenance free		
Nominal Voltage	190Vdc / 240Vdc		
Battery Number	External		
Charging Current	1-12A		
Efficiency			
Line Mode	94%		
Battery Mode	92%		
ECO Mode	98%		
Communication			
Interface	Rs232/ USB/ SNMP card (optional) / Dry contact card (optional)		
Environment			
Operation Temperature	0~40℃		
Humidity	0~95% (non-condensing)		
Noise	≤55dB @ 1 meter away		
Altitude	Up to 1000m without derating		
Physical			
Dimensions (W*D*H) mm	440*612*173 (4U)	440*612*173 (4U)	440*612*173 (4U)
Weight (kg)	25.6	25.6	26.1

All specifications are subject to change without prior notice.



CNBR SERIES Battery Cabinet



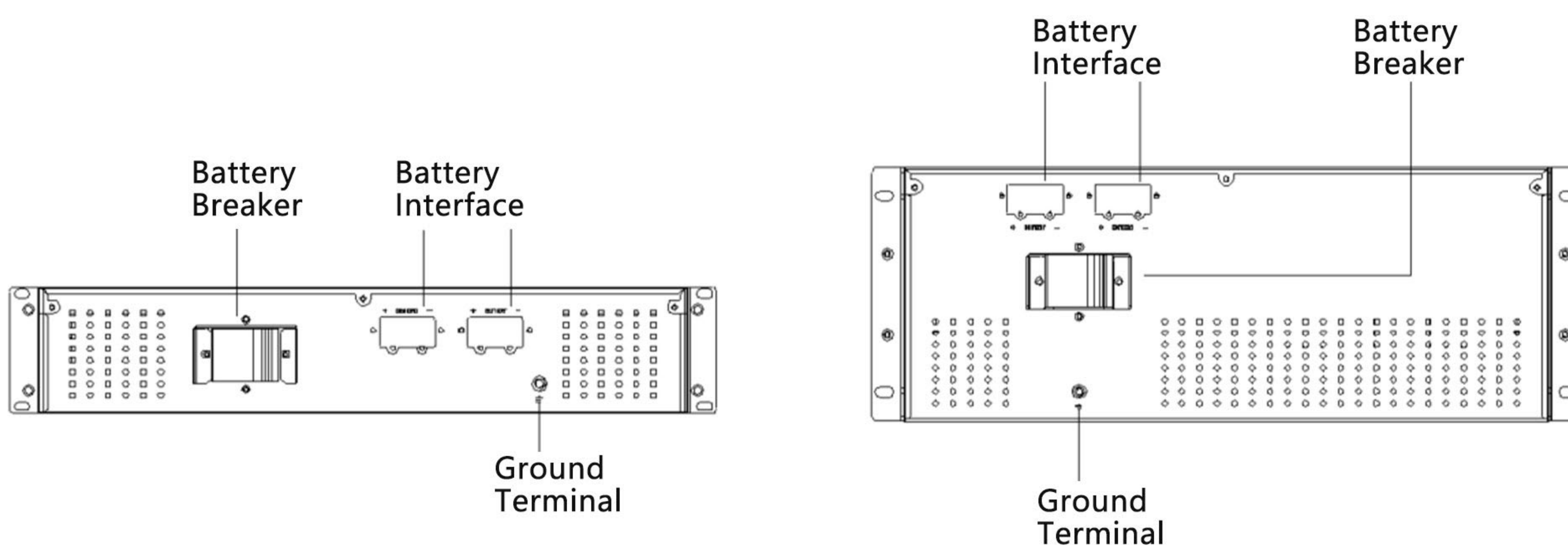
Introduction

The battery cabinets are made up with the plastic front-panels and the steel enclosures, they can perfectly match up with single phase 1-20KVA UPS.

Features

- The appearance of the battery cabinet is similar to the UPS's, looking nice
- Anderson terminals are used to connect the UPS and the battery cabinet, easy connection
- The battery cabinet is configured with battery breaker, more safer in use

Rear Panel



Model	Voltage of Battery String (Vdc)	Battery Quantity (pcs)	Battery Capacity (Ah)	Size of Battery Breaker (A)	Size of Battery Cable (AWG)	Weight (kg)	Dimension (W*D*H)mm
CNBR24-7AH	24	2	7	63	10	9	440*446*86
CNBR24-9AH	24	2	9	63	10	12	
CNBR24-7AH	24	4	7	63	10	16	
CNBR24-9AH	24	4	9	63	10	17	
CNBR36-7AH	36	3	7	32	10	14	
CNBR36-9AH	36	3	9	32	10	15	
CNBR36-7AH	36	6	7	32	10	21	
CNBR36-9AH	36	6	9	32	10	22	
CNBR48-7AH	48	4	7	63	10	16	
CNBR48-9AH	48	4	9	63	10	17	
CNBR48-7AH	48	8	7	63	10	26	
CNBR48-9AH	48	8	9	63	10	28	
CNBR72-7AH	72	6	7	63	10	21	
CNBR72-9AH	72	6	9	63	10	22	
CNBR96-7AH	96	8	7	63	10	26	
CNBR96-9AH	96	8	9	63	10	28	
CNBR192-7AH-2U	192	16	7	63	10	48	440*767*86
CNBR192-9AH-2U	192	16	9	63	10	51	440*446*173
CNBR192-7AH-4U	192	16	7	63	10	49	
CNBR192-9AH-4U	192	16	9	63	10	52	
CNBR192-7AH-4U-20K	192	16	7	125	6	50	
CNBR192-9AH-4U-20K	192	16	9	125	6	53	
CNBR240-7AH-4U	240	20	7	63	10	59	
CNBR240-9AH-4U	240	20	9	63	10	63	
CNBR240-7AH-4U-20K	240	20	7	125	6	60	
CNBR240-9AH-4U-20K	240	20	9	125	6	64	

All specification are subject to change without prior notice.



CNH330 SERIES

Tower ONLINE UPS 10-160kVA

10-160kVA

3Phase Input/3Phase Output



Features

- **Integrated Solution for Data Center**

UPS can be integrated with battery cabinet, PDU external maintenance bypass, offering excellent choice for data center.

- **3Phase In/3Phase Out UPS**

It is 3Phase In/3Phase Out high-density UPS system, of which input current is kept in balance, No unbalance problem might occur.

- **Digital Control**

This series UPS is controlled by digital signal processor (DSP); enhance it increases reliability, performance, self-protection, and self-diagnostics and so on.

- **Battery Configurable**

The battery voltage of this series UPS can be configured at 30 blocks, 32 blocks, 34 blocks, 36 blocks, 38 blocks, 40 blocks, 42 blocks, 44 blocks, 46 blocks, 48 blocks or 50 blocks according to your convenience.

- **EPO Function**

The series UPS may be completely shut off when the EPO is pressed. REPO function (Remote EPO) is also available in this series UPS.

- **Intelligent Charging Method**

The series UPS adopts advanced three-stage charging method:

- 1st stage: high current constant charging to guarantee to charge back to 90%;
- 2nd stage: Constant voltage in order toitalize battery and make sure batteries are fully charged;
- 3rd stage: floating mode. with this 3-stage charging method, it extends the life of the batteries and guarantees fast charging.

- **LCD Display**

With LCD displays, the user may easily get UPS Status and its operational parameters, such as input/output voltage, frequency & load%, battery % and ambient temperature, etc...

- **Intelligent Monitoring Function**

Via optional SNMP Card, you may remotely control and monitor the UPS.

- **Charging Current is Configurable**

Via setting tool, the user may set the capacity of the batteries as well as reasonable charging current as well as maximum charging current. Constant voltage mode, constant current mode or floating mode can be switched automatically and smoothly.

CNH330 10-160KVA						
Model	10-40KVA	60KVA	80KVA	100KVA	120KVA	160KVA
Input						
Nominal Voltage	380/400/415 Vac (3Ph+N+PE)					
Operating Voltage Range	138~485Vac					
Operating Frequency Range	40Hz-70Hz					
Power Factor	≥0.99					
Harmonic Distortion (THDi)	≤3% (100% non-linear load)					
Harmonic Distortion (THDi)	220Vac Max.Voltage: +25% (optional + 10%, +15%, +20%). 240Vac Mac.Voltage: +15% (optional +10%) Frequency synchronize tracing range: ±10%		230Vac.Max: +20% (optional +10%, +15%) Min.Voltage: -45% (optional-20%, -30%)			
Generator Input	Support					
Output						
Output Voltage	380/400/415Vac (3Ph+N+PE)					
Voltage Regulation	±1%					
Power Factor	0.9					
Output Frequency	1. Line Mode: synchronize with input; when input frequency > ±10% (±1% /±2% /±4% /±5% optional) 2. Battery Mode: 50/60*(1±0.02%)Hz					
Crest Factor	3:1					
Harmonic Distortion (THD)	≤2% with linear load		≤4% with non linear load			
Efficiency	95%					
Battery						
Battery Voltage	Optional Voltage: ±180V/ ±192V/ ±204V/ ±216V/ ±228V/ ±240/ ±252/ ±264/ ±276/± 288/300Vdc (30/32/34/36/38/40/42/44/46/48/50 pcs optional)					
Charge Current (A) (charge current can be set according to battery capacity installed)	10-20k Max 5A 30-40k Max 10A	Max. 15A	Max. 20A	Max. 30A		MaX. 45A
System Features						
Transfer Time	Utility to battery: 0ms; Utility to bypass: 0ms					
Overload	Load≥110%: last 60min, ≤125%: last 10min, ≤150%: last 1 min					
Alarm	Overload, utility abnormal, UPS fault,battery low, etc					
Backfeed	Support					
Protection	Short circuit, overload, over temperature, battery low, fan fault alarm					
Communication	USB,RS232,RS485,Parllel port, REPO port, LBS port, Backfeed port, Intelligent slot, SNMP card (optional), Relay card (optional)					
Environmental						
Operating Temperature	0℃~40℃					
Storagage Temperature	-25℃~55℃ (no battery)					
Humidity Range	0~95% (non condensing)					
Altitude	< 1500m. When>1500mm, lower the rated power for use					
Noise Level	<58dB	<60dB	<62dB	<63dB	<65dB	<66dB
Physical						
Dimensions H/S D*W*H(mm)	720*250*535	865*250*862	885*440*1200			
Net Weights (kg)	10K:33 / 15K:33.5 20K:34 / 30K:35 40K: 40	70.5	150		162	196
Standards						
Safety	IEC/EN62040-1, IEC/EN60950-1					

CNH330R SERIES RACK ONLINE UPS 10-40kVA

CONSNANT

10-40kVA

3Phase Input/3Phase Output



This series UPS is a kind of three-in/three-out high frequency online UPS, it provides 10KVA, 15KVA, 20KVA, 30KVA and 40KVA. The products are modularized and adopt the N+X redundancy. It can flexibly increase the number of the UPS modules according to the load capacity which is convenient for flexible allocation and gradually investment.

The UPS can solve most of the power supply problems, such as blackout, over-voltage, under-voltage, voltage sudden drop, oscillating of decreasing extent, high voltage pulse, voltage fluctuation, surge, inrush current, harmonic distortion (THD), noise interference, frequency fluctuation, etc..

This UPS can be applied to different applications from computer device, automatic equipment, communication system to industry equipment.

Features

• 3Phase In/3Phase Out UPS

It is 3Phase In/3Phase Out high-density UPS system, of which input current is kept in balance. No unbalance problem might occur.

• Digital Control

This series UPS is controlled by Digital Signal Processor (DSP); it increases reliability, performance, self-protection, self-diagnostics and so on.

• Compact Design

This series UPS adopts compact design concept. The capacities are available for 10KVA, 15KVA, 20KVA, 30KVA and 40KVA.

• Battery Configurable from 30 blocks to 50 blocks

The battery voltage of this series UPS can be configured at 30 blocks, 32 blocks, 34 blocks, 36 blocks, 38 blocks, 40 blocks, 42 blocks, 44 blocks, 46 blocks, 48 blocks or 50 blocks according to your convenience.

• Charging Current is Configurable

Via setting tool, the user may set the capacity of the batteries as well as reasonable charging current as well as maximum charging current. Constant voltage mode, constant current mode or floating mode can be switched automatically and smoothly.

• Intelligent Charging Method

The series UPS adopts advanced three-stage charging method—
1st-stage: high current constant current charging to guarantee to charge back to 90%;

2nd-stage: Constant Voltage In order to vitalize battery and make sure batteries are fully charged;

3rd-stage: floating mode.

With this 3-stage charging method, it extends the life of the batteries and guarantees fast charging.

• LCD Display

With LCD plus LED displays, the user may easily get UPS status and its operational parameters, such as input/output voltage, frequency & load%, battery % and ambient temperature, etc..

• Intelligent Monitoring Function

Via optional SNMP Card, you may remotely control and monitor the UPS.

• EPO Function

The series UPS may be completely shut off when the EPO is pressed. REPO function (Remote EPO) is also available in this series UPS.

Capacaity		CNH330R 10-40KVA	
Input			
Phase		3Phase/4Wires + Ground	
Rated Voltage		380/400/415Vac	
Voltage Range		138~476Vac	
Frequency Range		40~70Hz	
Power Factor		≥0.99	
Bypass Voltage Range		Max. voltage: +15%(optional +5%、+10%、+25%) Max. voltage: -45%(optional -20%、-30%) Frequency protection range: ±10%	
Current Harmonic		≤3% (100% linear load)	
Output			
Phase		3Phase/4Wires + Ground	
Rated Voltage		380/400/415Vac	
Power Factor		0.9	
Voltage Precision		±1%	
Output Frequency	Utility Mode	±1%、±2%、±4%、±5%、±10% of the rated frequency (optional)	
	Battery Mode	(50/60±0.2)Hz	
Crest Factor		3:1	
Transfer Time		Utility to battery: 0ms Utility to bypass: 0ms (following)	
Overload Capacity		Load≤110%, 60min, ≤125% last 10min, ≤150% last 1min,≥150% shut down UPS immediately	
THD		≤2% with linear load ≤5% with non liear load	
Efficiency			
Efficiency		ECO mode≥98%; Normal mode≥95%	
Comunication Interface			
UPS Module		RS485、SNMP card (optional)	
Battery			
Voltage		±180V ±192V ±204V ±216V ±228V ±240V ±252V ±264V ±276V ±288V ±300Vdc optional	
Charge Current(A)		Maximum current 10A	
Backup Time		Depends on the capacity of external batteries	
Operating Environment			
Temperature		0℃~40℃	
Humidity		0~95% non condensing	
Storage Temperature		-25℃~55℃	
Altitude		< 1500m	
Other			
Unit Dimensions (W*H*D)		485x130x728mm	
Weight (Kg)		23/25/25/26/28.5	
Industry Standard		CE, EN/IEC 62040-2, EN/IEC 62040-1-1	

CNM330 SERIES MODULAR ONLINE UPS 200-600kVA

CONSNANT



Introduction

Our CNM330 Series is a kind of three-in-three-out high frequency online UPS, it provides three specifications: The 200~600kVA. The products are modularized and adopt the N+X redundancy. It can flexibly increase the number of the UPS modules according to the load capacity which is convenient for flexible allocation and gradually investment.

The UPS can solve most of the power supply problems, such as blackout, over-voltage, under-voltage sudden drop, oscillating of decreasing extent, high voltage pulse, voltage fluctuation, surge, inrush current, harmonic distortion (THD), noise interference, frequency fluctuation, etc..

This UPS can be applied to different applications from computer device, automatic equipment, communication system to industry equipment.

Features

- Digital control
- 19-inch standard cabinet (2-meter high cabiners are provided according to the user's requirement).
- Modularized design
- High power-density design, The height of the single module is 3U.

Features

■ N+X Parallel Redundancy

This series UPS adopts N+X parallel redundancy design, user can set different redundancy according to the importance of the load. While the redundancy modules are set more than two, the availability of UPS system will achieve 99.999%, which may satisfy the required reliability of the critical load connected. Through LCD display setting, you may configure the required quantity of the redundancy unit. When the load connected is over the number of the redundancy, the UPS will alert right away. The design of the MTBF (Meantime before failure) is up to 250,000 hours.

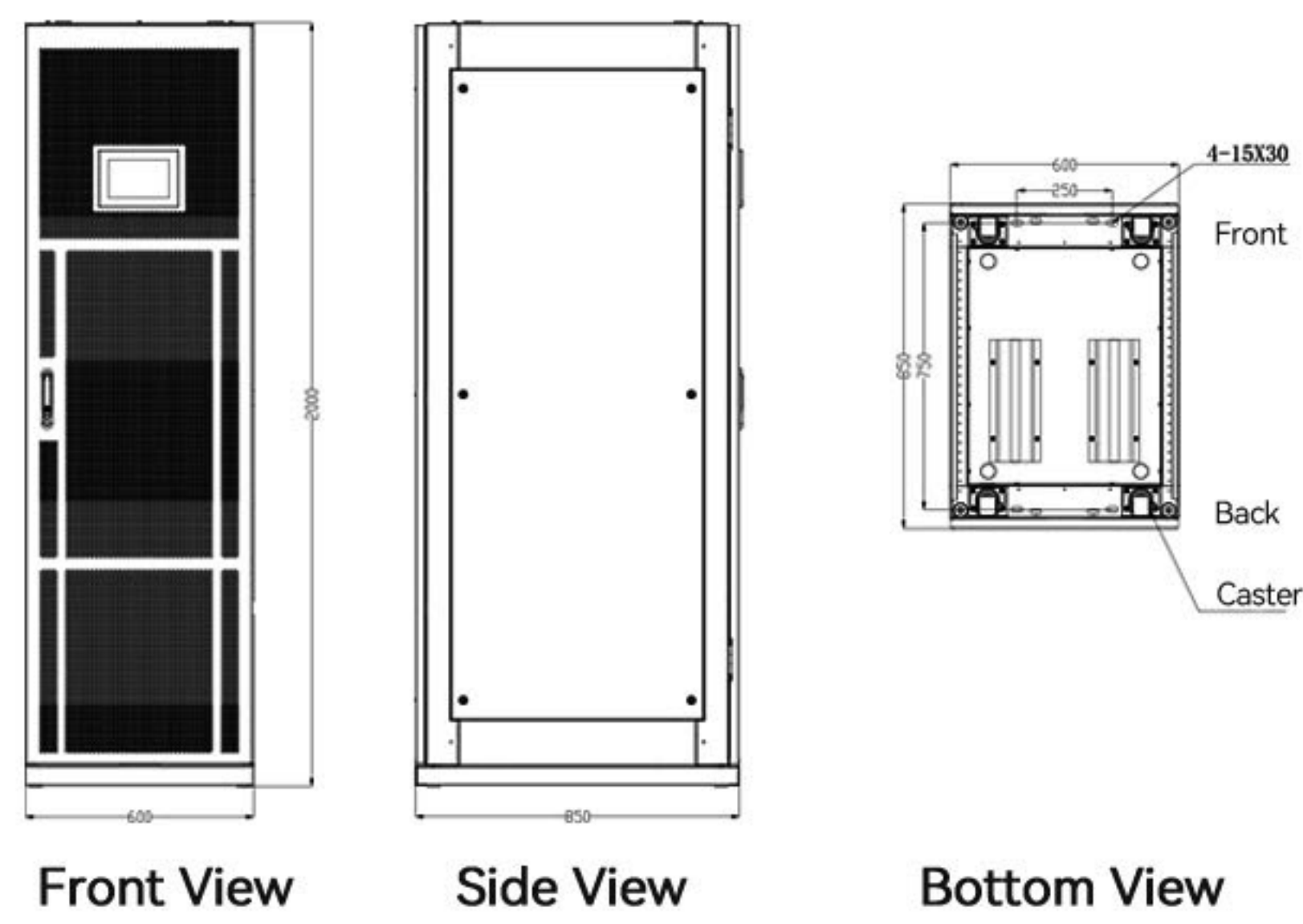
This series can set the number of redundancy modules. When the load exceeds the redundancy setting, the UPS can still work normally and simultaneously send out corresponding warning as long as the load doesn't exceed the total capacity of modules.

- Parallel redundant control system
- Optimizing distributed convergence for the cabinet
- Centralized bypass
- Common battery
- Automatic charge current adjustment according to battery capacity connected.
- 3-Stage intelligent charging
- Touch-screen Super-large LCD display
- Remote monitoring via SNMP
- Optional Accessories available such as isolation transformer, distribution Panle, SNMP Card, Relay Contact Board, etc...
- Equip with Maintenance Bypass Switch for easy maintenance purpose
- Superior MTTR (Meantime to repair) & Short shutdown time in maintenance
- Centralized monitoring module is also available
- EPO and REPO function

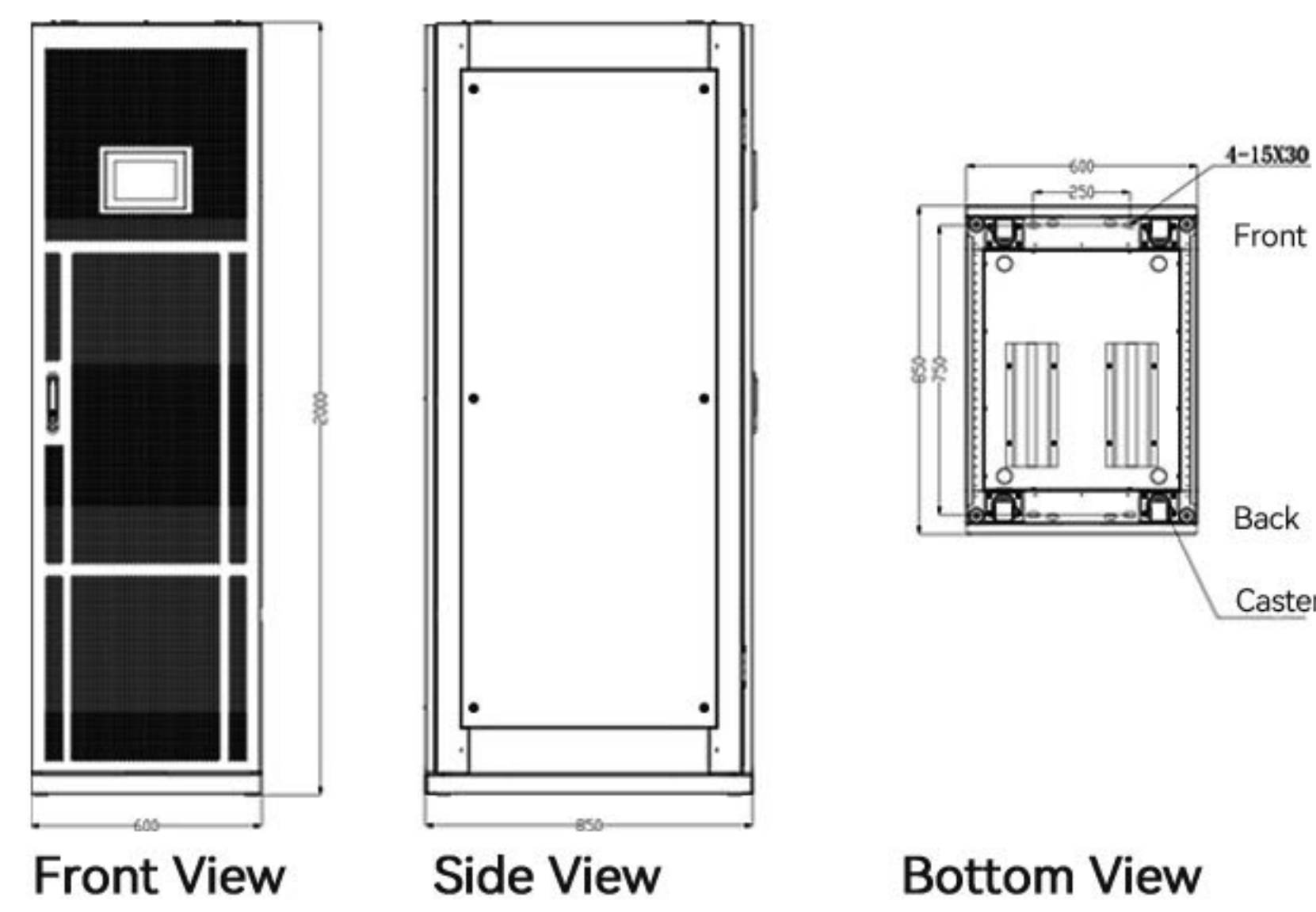


Appearance

200/300/400kVA (Standard and Full Configuration)



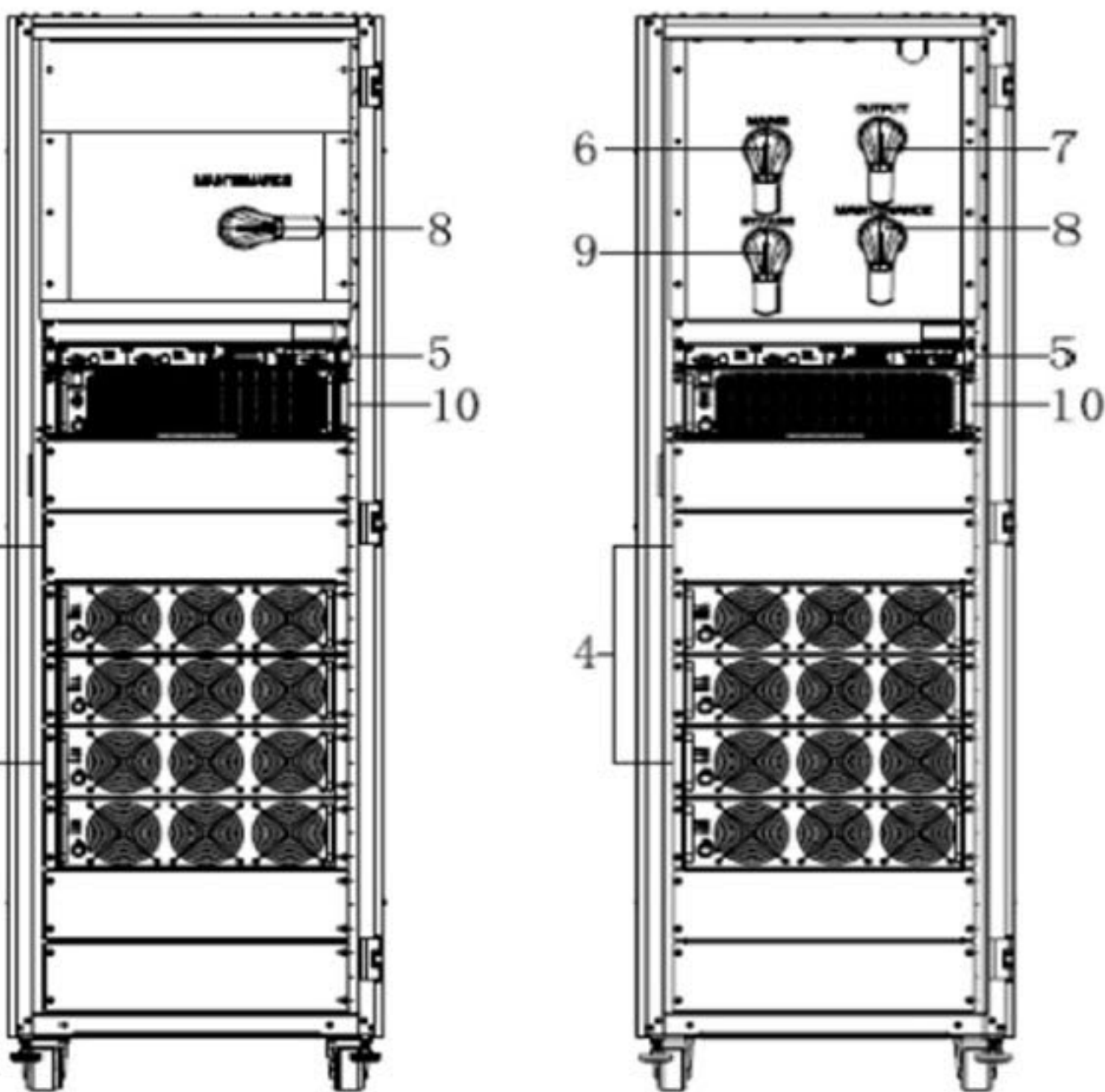
400/500/600kVA (Standard and Full Configuration)



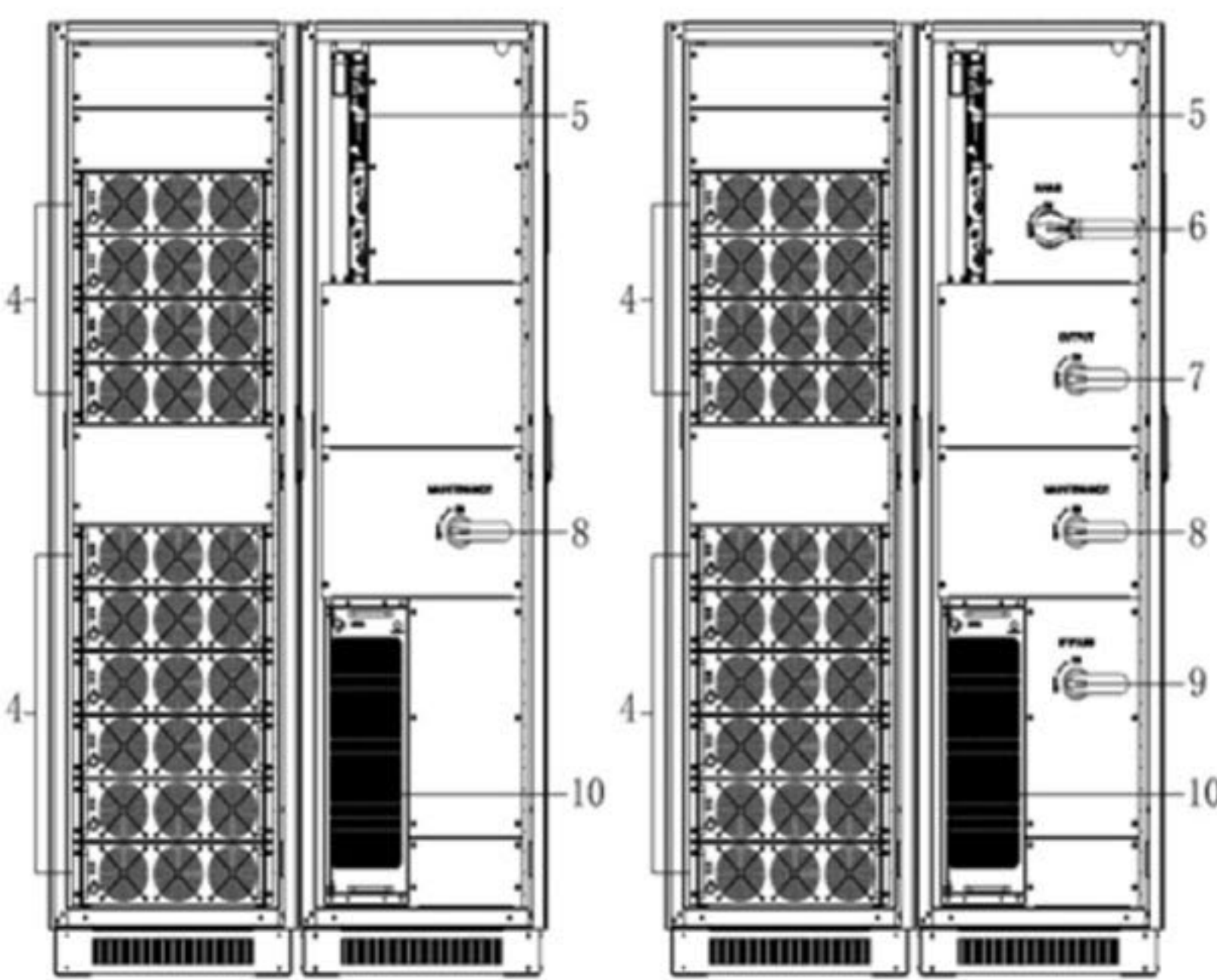
Notice:

- (1) LCD panel: Display UPS data and status
- (2) Power cabinet: Assembly power module
- (3) Power distribution cabinet: Assembly control unit, bypass module and switch
- (4) Power module
- (5) Control unit
- (6) Mains switch
- (7) Output switch
- (8) Maintenance switch
- (9) Bypass switch
- (10) Bypass module
- (11) Mains-A input copper bar
- (12) Mains-B input copper bar
- (13) Mains-C input copper bar
- (14) Input neutral copper bar
- (15) Battery negative copper bar
- (16) Battery neutral copper bar
- (17) Battery positive copper bar
- (18) Output-A input copper bar
- (19) Output-B input copper bar
- (20) Output-C input copper bar
- (21) Output neutral copper bar

200kVA (Standard and Full Configuration)



500kVA (Standard and Full Configuration)

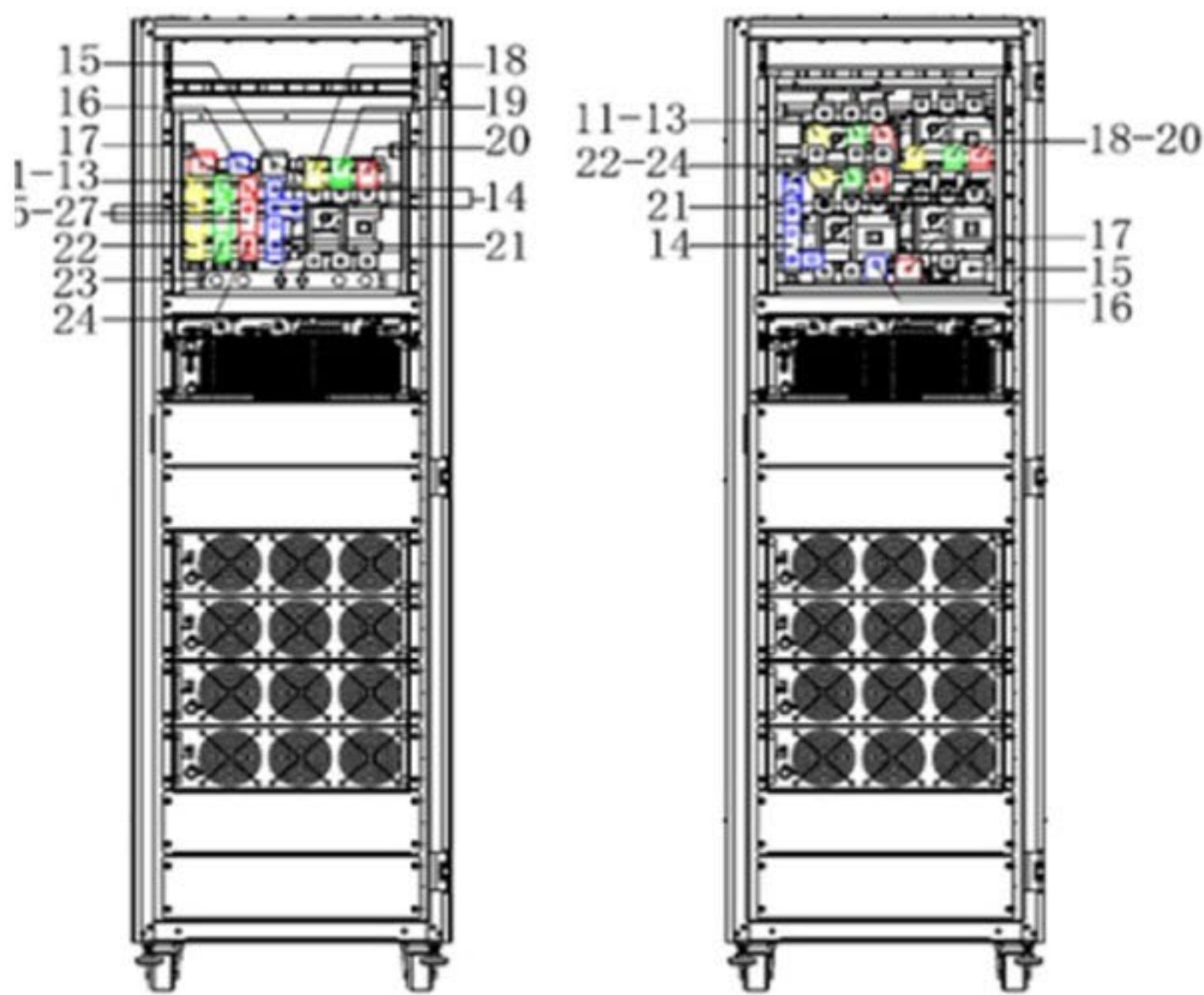


- (22) Bypass-A input copper bar: Wiring must be used when mains-bypass separation
- (23) Bypass-B input copper bar: Wiring must be used when mains-bypass separation
- (24) Bypass-C input copper bar: Wiring must be used when mains-bypass separation
- (25) Phase A mains-bypass common input connect copper bar
- (26) Phase B mains-bypass common input connect copper bar
- (27) Phase C mains-bypass common inoput connect copper bar

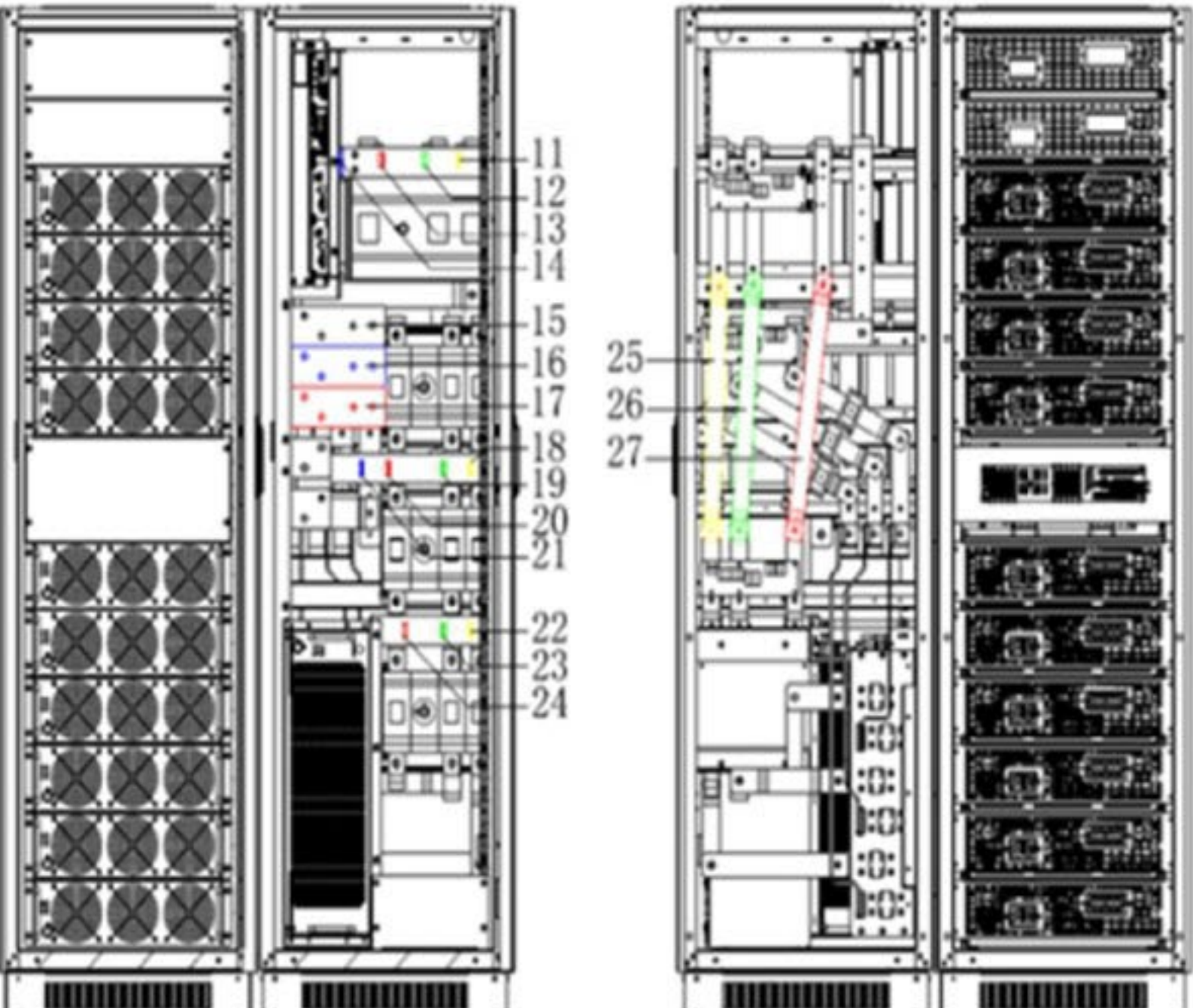
Standard Configuration

Full Configuration

Standard Configuration Full Configuration



Connect Copper Bar



Connect Copper Bar

Mains-bypass
Common Copper Bar

Model	Configurations	Cable Routing
200kVA	50/100/150/200kVA	Supports cable routing from the top
300kVA	50/100/150/200/250/300kVA	Supports cable routing from the top and can support cable routing from the bottom if a cable entry cabinet is configured
400kVA	50/100/150/200/250/300/350/400kVA	Standard cabinet supports cable routing from the top. Full configuration cabinet supports cable routing from the bottom and top
500kVA	50/100/150/200/250/300/350/400/450/500kVA	Supports cable routing from the top
600kVA	50/100/150/200/250/300/350/400/450/500/550/600kVA	Supports cable routing from the top

* Standard configuration: cabinet only with maintenance bypass switch
 * Full configuration: cabinet with mains, bypass, maintenance and output switch



Specifications

CNM330 200 - 600KVA					
Model	300KVA		400KVA	500KVA	600KVA
System Capacity	50-300KVA		50-400KVA	50-500KVA	50-600KVA
Module Capacity	50KVA				
Max. Module Number	6	8	10	12	
Input					
Phase	3 Phase 4 Wires and Ground				
Rated Voltage	380/400/415Vac				
Voltage Range	138~485Vac • At 40°C: The UPS works at full load when the voltage is 323-485Vac is derated load when the voltage is 323-138Vac • At 30°C: The UPS works at full load when the voltage is 305-485Vac is derated load when the voltage is 305-138Vac				
Frequency Range	40Hz-70Hz				
Power Factor	≥0.99				
Current THDi	≥3% (100% nonlinear load)				
Bypass Voltage Range	Max. Voltage: 220V: +25% (optional +10%, +15%, +20%); 230V: +20% (optional +10%, +15%); 240V: +15% (optional +10%); Min. Voltage: -45% (optional -10%, -20%, -30%) Frequency Protection Range: ±10%				
Output					
Phase	3 Phase 4 Wires and Ground				
Rated Voltage	380/400/415Vac				
Power Factor	1				
Voltage Regulation	±1%				
Frequency	Utility Mode	±1%/±2%/±4%/±5%/±10% of the rated frequenct (optional)			
	Battery Mode	(50/60±0.1)Hz			
Crest Factor	3:1				
THD	≤2% with linear load ≤4% with non linear load				
Overload	Inverter overload capability: • 105%<load≤110%: transfer to bypass mode after 60 min • 110%<load≤125%: transfer to bypass mode after 60 min • 125%<load≤150%: transfer to bypass mode after 60 min Bypass overload capability: • Temperature≤30°C, load≤135%: run for a long time • Temperature≤40°C, load≤125%: run for a long time • 1000% load: run for 100 ms				
Battery					
Voltage	Optional Voltage: ±180V/192V/±204V/±216V/±228V/±240/±252/±264/±276/±288/±300Vdc (30/32/34/36/38/40/42/44/46/48/50pcs optional) 384Vdc~480Vdc (30~40 pcs, 40 pcs define, 36 and 50 pcs no power derating: 32~34 pcs output power factor				
Module Charge Current (A) max.	20A				
Transfer Time					
Transfer Time	Utility to battery: 0ms; Utility to bypass: 0ms				



Specifications

Protection				
Short Circuit	Hold Whole System			
Overheat	Line Mode: Switch to bypass; Backup Mode: Shut down UPS immediately			
Battery Low	Alarm and Switch off			
Self-diagnostics	Upon powe on and software control			
EPO	Shut down UPS immediately			
Battery	Advanced battery management			
Noise Suppression	Complies with EN62040-2			
Communication Interface				
Communication Interface	CAN, RS485, FE, LBS, Parallel, Relay Card, SNMP Card (optional)			
Environment				
Operating Temperature	0°C~40°C			
Storage Temperature	-25°C~55°C			
Humidity	0~95% non condensing			
Altitude	< 1500m			
Display				
Audible & Visual	Line Failure, Battery Low, Overload, System Fault			
Status LED	UPS Fault, Alarm and normal			
Reading on the LCD	Input Voltage, Input Frequency, Output Voltage, Output Frequency, Load Percentage, Battery Voltage, Parameter set, History Record...			
Other				
Standard Cabinet Dimensions (W*D*H)	600*850*2000mm	600*850*2000mm		1200*850*2000mm
Full Cabinet Dimensions (W*D*H)	600*850*2000mm	1200*850*2000mm		1200*850*2000mm
Module Dimensions (W*D*H)	440*620*130mm			
Cabinet Weight(Kg)	260	280/600	650	720
Module Wdight(Kg)	34			
Safety Conformance	CE, EN/IEC 62040-3, EN/IEC			

STANDARD: Conform to GB/IEC regulation: EMC: GB7260.0/IEC62040-2-GB/17626.2~5/IEC61000-4-2~5 SAFETY: GB4943

Note: Product specifications are subject to change without further notice.



CNM331 SERIES MODULAR ONLINE UPS 100-600kVA

CONSNANT



Introduction

CNM330 100-600kVA is a newest generation of centralized bypass three-in-three-out modular UPS. The product adopts digital control, modular design and N+X parallel redundancy technology. The capacity covers all power sections between 100kVA and 600kVA, which is convenient for users to configure flexibly and gradually invest. It can be 4 parallel to 2400kVA.

Scenarios

Large and medium centers, server rooms, Financial centers, government, enterprise IT rooms, medical education and other mission-critical applications

Features

Advanced Technology

- DSP control technology, excellent performance, high stability system
- Three phase Vienna and three-level technology with 97% efficiency
- Output power factor 1.0

High Reliability

- Centralized control redundancy, N+X parallel redundancy up to 99.999%
- Centralized bypass improves the power supply ability
- With EPO and REPO function

Strong Convenience

- Modular design, adjustable power module quantity
- Hot-swappable module, short maintenance time
- 10 inches color touch screen, providing abundant UPS status

Smart Design

- Charging mode in smooth switching by LCD setting
- Intelligent charging makes fast charging and extends battery life
- Multiple optional parts, such as SNMP, relay, dry contact card, etc

Green Concept

- 3U modular design saves machine room's space
- Parallel shared battery technology reduces battery investment
- Optional 30-50pcs batteries without N line leads flexible configuration

CNM331 100-600KVA	
Model	600kVA
Cabinet Capacity (VA/W)	100~600kW
Module Capacity (VA/W)	100k/100k
Max. Module Number	6
Main Input	
Rated Voltage	380/400/415Vac
Voltage Range	138~485Vac; 305~485Vac (no derated load), 138~305Vac (derated load)
Phase	3 Phase 4 Wire and Ground
Frequency Range	40-70Hz
Power Factor	≥0.99
Current THDi	≤3% (100% Linear load)
Bypass Input	
Rated Voltage	380/400/415Vac
Phase	3 Phase 4 Wire and Ground
Bypass Protection Range	±10%
Power Walking In	Yes
Bypass Back Irrigation	Yes
Generator Access	Yes
Output	
Voltage	380/400/415Vac±1%
Power Factor	1
Frequency (Utility Mode)	±1%/±2%/±4%/±5%/±10% of the rated frequency (optional)
Frequency (Battery Mode)	(50/60±0.1%)Hz
Wave Form	Pure Sine Wave
Crest Factor	3:1
THDV	≤2% with linear load ≤3% with non linear load
Transfer Time (ms)	Utility to Bypass: 0ms; Utility to Battery: 0ms
Effieiciency (%)	97%
Overload	load ≤ 110%: transfer to bypass after 60 min; 110% < load ≤ 125%: transfer to bypass after 10 min; 125% < load ≤ 150%: transfer to bypass mode after 1 min.
Battery	
Modular Charge Current	Max 20A
Voltage	Optional Voltage: 360-600Vdc (30~50 pieces optional)
Environment	
Operating Temperature	0°C~40°C
Storage Temperature	-25°C ~ 55°C
Humidity	0~95% (no condensing)
Altitude	<1500m (over 1500m, derating use)
Noise (dB) (1m distance)	<70dB
Others	
Alarm	Overload, utility abnormal, UPS fault, battery low ,etc
Protection	short circuit, overload, over temperature, battery low, fan falut alarm, bypass back irrigation, lightning protection.
Communication Interface	CAN, RS485, FE, LBS, Parallel, Relay card, SNMP card(optional)
Cabinet Dimensions (W*D*H)	800x1000x2000
Module Dimensions (W*D*H)mm	440x750x131
Cabinet Weight (Kg)	440
Module Weight (Kg)	50
Safety Conformance	CE,EN/IEC 62040-3,EN/IEC 62040-1-1



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