



VR series 3:3

10kVA ~ 20kVA



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3:3 phase PF 1.0

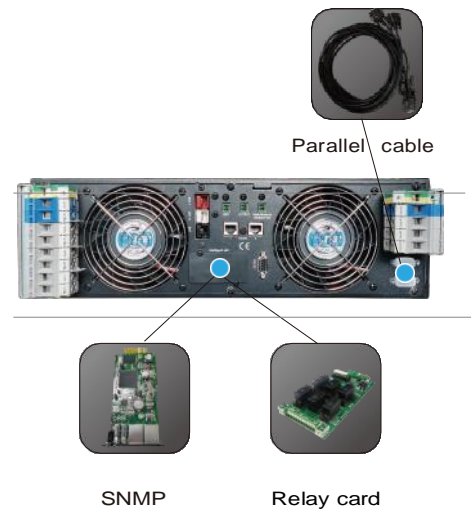
Capacity:10kVA ~ 20kVA



## Features

- LCD support Rack/Tower convertible 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
- Optimization battery group, the quantity of battery:30~50pcs is settable
- Maximum charging current up to 20A (Settable)
- Dual input source
- Support 3/3 and 3/1 and 1/1 operation
- Generator compatible
- ECO mode operation for energy saving
- Cold start
- Intelligent Fan speed regulation
- Self testing when UPS startup
- 50/60Hz Frequency converter mode
- The output can meet 100% unbalanced load

- Multiple protection Function: short-circuit, overload, overheat, battery overcharge and overdischarge, output low voltage and Fan Fault alarm
- RS232, RS485, Parallel, Intelligent Slot (SNMP card/ Relay card (Optional)), BMS (Optional), EPO port, Output port, MAINTAIN-AUXSWS port
- PDU module is optional



# Technical Specification

MODEL	VR-10KT	VR-15KT	VR-20KT
Capacity	10kVA / 10kW	15kVA / 15kW	20kVA / 20kW
<b>INPUT</b>			
Nominal 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%) 230V:+20% (Optional+10%,+15%) 240V: +15% (Optional+10%) Min.voltage:-45% (Optional-20%,-30%)		
Frequency protection range	50/60Hz ± 10%		
Harmonic distortion (THDi)	≤3% Linear load		
<b>OUTPUT</b>			
Output voltage	380/400/415Vac (3Ph+N+PE) 220/230/240Vac (L+N+PE)		
Voltage regulation	±1%		
Power Factor	1.0		
Output Frequency	Line Mode	±1%/±2%/±4%/±5%/±10% of the rated Frequency (Optional)	
	Bat. Mode	(50/60 ± 0.1%) Hz	
TransFer time	AC mode to Bat.Mode	0ms	
	Inverter to Bypass	0ms	
Output waveForm	Pure Sinewave		
Crest Factor	3:1		
Harmonic distortion (THDv)	≤2% Linear load ≤5% Non-linear load		
Overload	Line Mode	Load≤110%: last 60min; ≤125%: last 10min; ≤150%: last 1min; ≥150% turn to bypass mode immediately	
	Bat. Mode	Load≤110%: last 10min; ≤125%: last 1min; ≤150%: last 5s; ≥150% shut down UPS immediately	
	Bypass Mode	Breaker (Load < 125%, long-term operation)	
<b>EFFICIENCY</b>			
EFFiciency	up to 94.5%		up to 95%
<b>BATTERY</b>			
Battery voltage	± 180/192/204/216/228/240/252/264/276/288/300Vdc (30/32/34/36/38/40/42/44/46/48/50pcs optional)		
Charge Current (charge current can be set according to battery capacity installed)	18A Max.		20A Max.
<b>PHYSICAL</b>			
Dimension W×D×H (mm)	443 x 580 x 131(3U)		
Net weight (kg)	29	31	32
<b>ENVIRONMENTAL</b>			
Operating temperature	0°C~40°C		
Storage temperature	-25°C~55°C		
Humidity range	0~95% (Non-condensing)		
Altitude	<1500m,derating required when>1500m		
Noise level	<55dB		<58dB
<b>STANDARDS</b>			
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.

## PLUS20BP battery pack specification

MODEL	PLUS20BP
<b>BATTERY SYSTEM</b>	
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)
<b>PHYSICAL</b>	
Dimension W x D x H (mm)	443 x 861.5 x 175 (4U)
Net weight (kg)	114/123
<b>ENVIRONMENT</b>	
Safety	CE
Operating environment	0°C~40°C
Relative humidity	0~95% (Non condensing)
Noise level	<40dB at 1 Meter