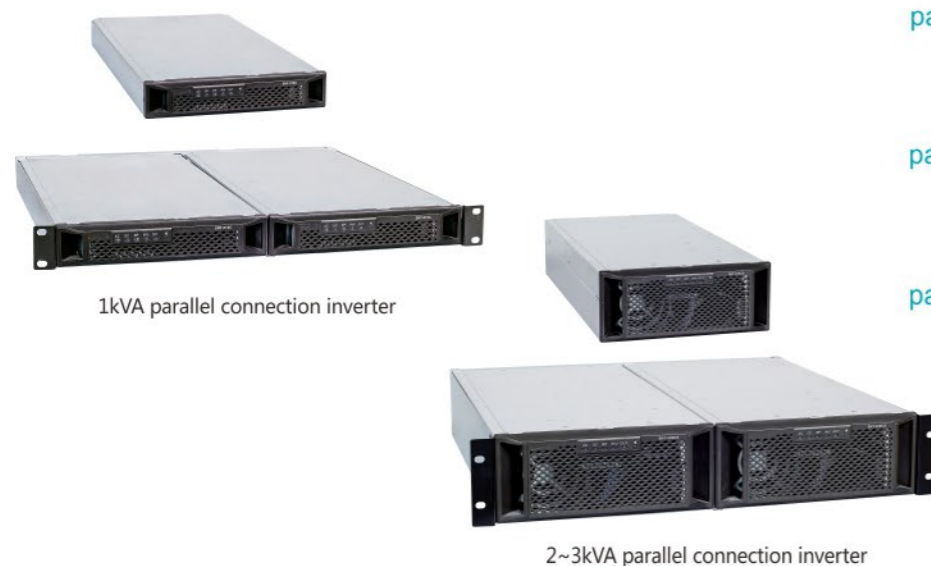


01 / Product style



48V
parallel connection inverter

1kVA
parallel connection inverter

2~3kVA
parallel connection inverter

02 / Overview

The 48V modular parallel connection inverter is an inversion device that converts 48V DC power supplied by communication DC power supply into 220V/50Hz sinusoidal AC power. It is designed with complete isolation of input and output, and allows hot plugging and parallel connection redundancy. With small size and convenient parallel connection, it is a product specially designed for users with high requirements for power supply reliability and maintainability.

03 / Main characteristics

- ❖ **Digital control**
Using 32-bit DSP digital and high-frequency SPWM technology, it is characterized by strong anti-interference ability, high operational speed, high intelligence, high control precision and high quality of output waveform.
- ❖ **N+1 parallel connection redundancy design**
It can form an N+1 parallel connection redundancy power supply system, in which the modules are backed up with each other, leading to high reliability and flexible configuration.
- ❖ **Parallel connection technology without master/slave definition**
Operation and parallel connection of each module are independently controlled by the built-in DSP, so that there is no single-point failure and the current is automatically and equally distributed among the modules.
- ❖ **Allowing hot plugging**
It allows "plug-and-play" without any parameter setting or operation, and the module automatically enters into normal working state, leading to simple and convenient maintenance and change.
- ❖ **Built-in bypass**
User may choose inverter priority or bypass priority.
- ❖ **Monitoring management**
The indicator lamp panel can give out sound and light alarm upon fault, and RS485 communication and fault dry contact are provided.
- ❖ **Protection function**
It has protection against input overvoltage/under-voltage, output overvoltage/under-voltage, overtemperature, and short circuit.
- ❖ **High power density**
Using $\frac{1}{2}$ 19" width design, its size is only a half of common inverter, so that smaller space is required and convenient connection is allowed.

04 / Performance parameters

Product form	Rated power	1kVA	2kVA	3kVA
	Dimension (h × w × d) (mm)	9.5"1U	216 × 43.6 × 426.5	9.5"2U
Input parameters	DC input voltage	48VDC		
	DC input range	42 ~ 59VDC		
	Bypass input range	176 ~ 264VAC		
	Bypass switchover time	8 ~ 12mS		
	Max. quantity of parallel connection	2	8	
AC output	Rated output voltage	220VAC		
	Rated output frequency	50Hz		
	Load adjustment rate	< 1%		
	Frequency accuracy	< 0.1%		
	Peak factor	3 : 1		
	Waveform distortion	Resistive full load<3%, non-linear full load<5%		
	Efficiency	≥88% (rated input voltage, resistive full load)		
	Dynamic response	Voltage transition range<3%, transition response recovery times≤60ms (load from 0 to 100)		
	Current non-uniformity under parallel connection	<3% effective value of rated current		
	Overload capacity	Overload current<105%, continuous operation Overload current 105~125%, shutdown after 10min Overload current 125~150%, shutdown after 1min Overload current 125~150%, shutdown after 10s Overload current>150%, shutdown in 20ms		
Protection function	Protection against opposite connection of input, input under-voltage/overvoltage, output overload, output short circuit, and overtemperature			
Communication	Communication interface	RS485		
Ambient environment	Dielectric strength	2kVac, 1min		
	Noise (1m)	< 45dB		
	Ambient temperature for operation	- 10 ~ 50℃		
	Ambient temperature for transport and storage	- 40 ~ 70℃		
	Relative humidity	0~90%, without condensation		
Relative altitude (M)	≤3000m; at 1500~3000m, an output derating of 1% for each 100m of altitude increase			

Note: The above specs are subject to change without notice.