



EA900 G4 ON-LINE UPS

6 kVA - 20 kVA (1:1)

6 kVA - 20 kVA (3:1)

CONTENTS

- 1 Product Description**
- 2 Product Specifications
- 3 Product Highlights**
- 4 Comparisons

01
CHAPTER

**Product
Description**

Product Description

EA900 G4 6 ~ 20 kVA

Basic Information

- EA900 G4 series 6-20kVA UPSs are new generation of high performance universal UPS.
- The whole series adopts inverter three-level technology.
- Full digital charger, settable charging voltage and current, high availability
- Power factor =1, high output load capacity
- High efficiency: full load efficiency $\geq 94\%$, maximum up to 95%
- Compact and high power density



Applications

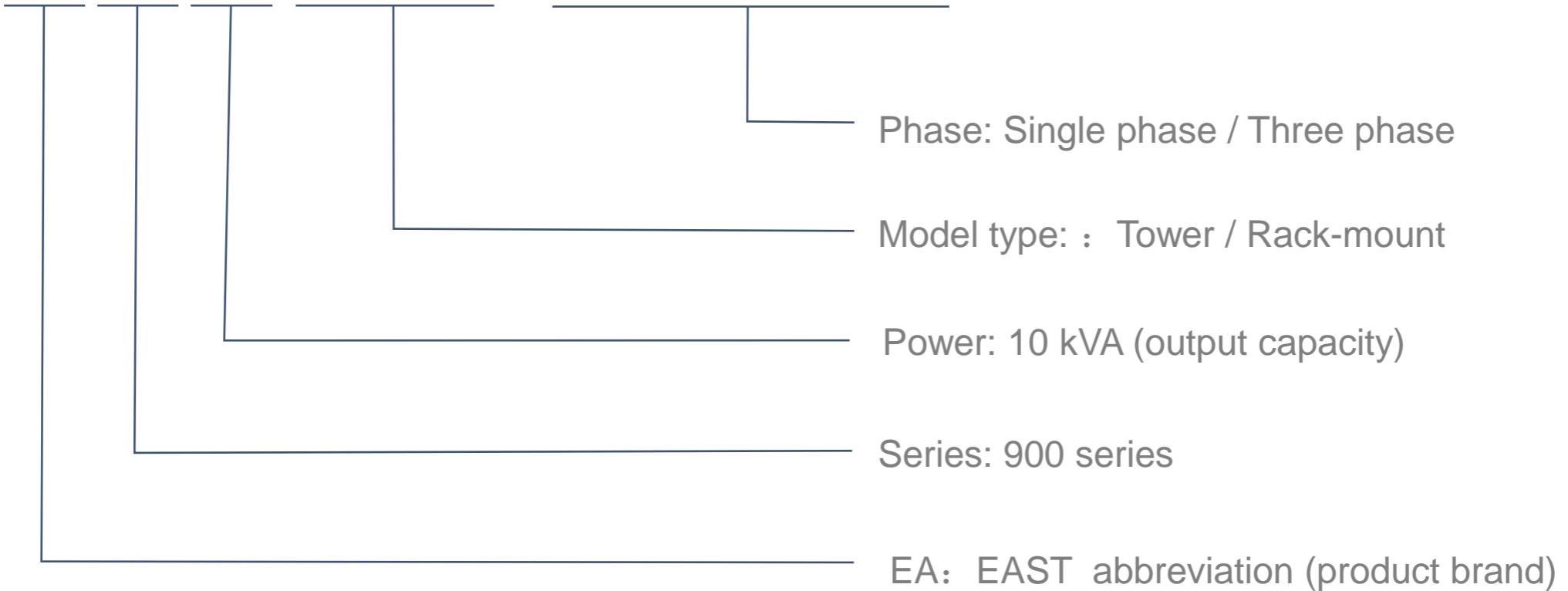
It is applicable for all ISP Internet service provider, IDC data exchange center computer room, medium-sized network management system/computer room, billing center, bank/bond settlement center, business service group, industrial process control, medium-sized office automation, precision instruments and equipment, etc.

Product Description

EA900 G4 6 ~ 20 kVA

 Model Type

EA 90 10 H/S /RT (1/1) / (3/1)

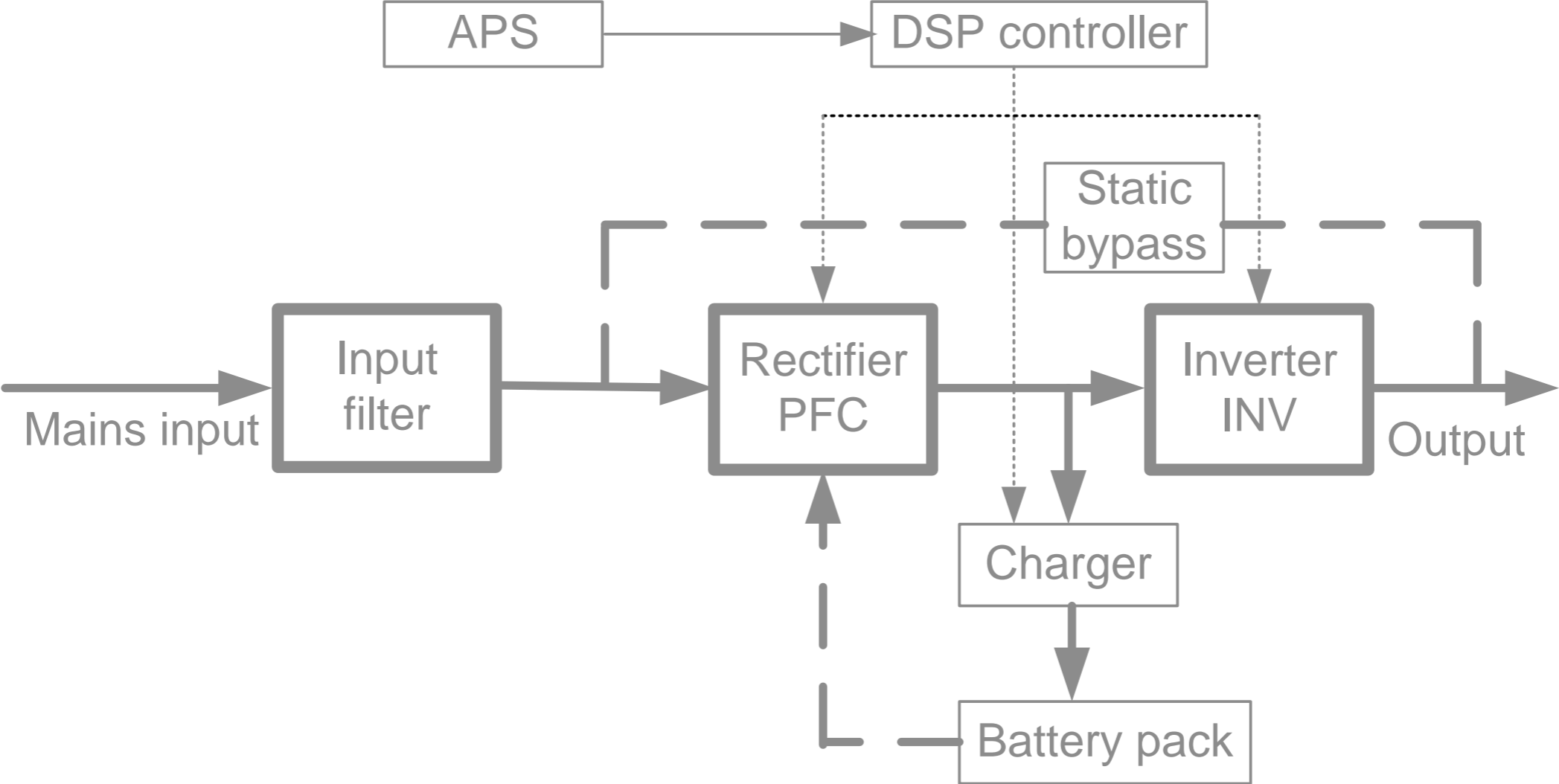


Product Description

EA900 G4 6 ~ 20 kVA



Working Principle

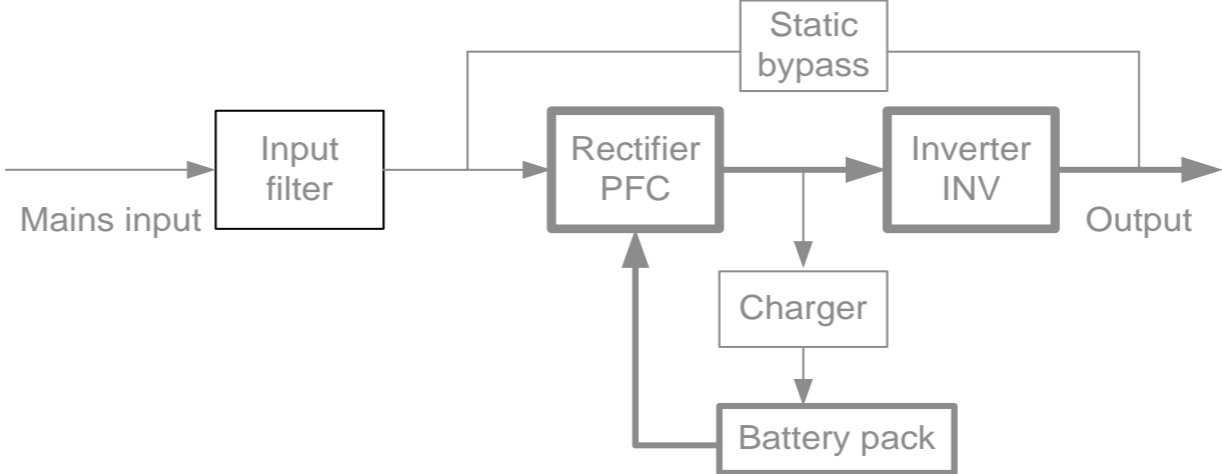
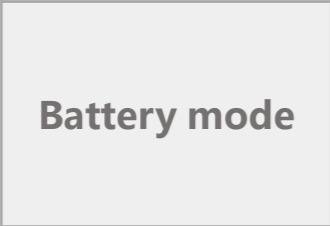
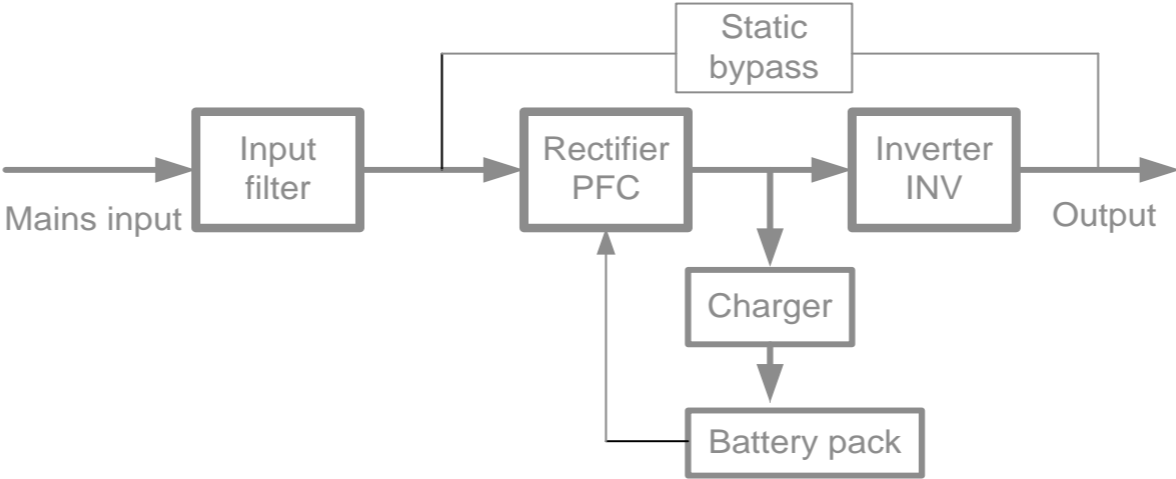
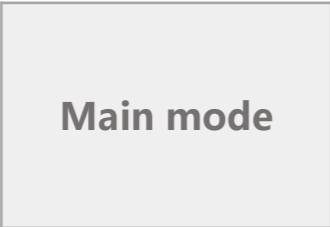


Product Description

EA900 G4 6 ~ 20 kVA



Operating Mode

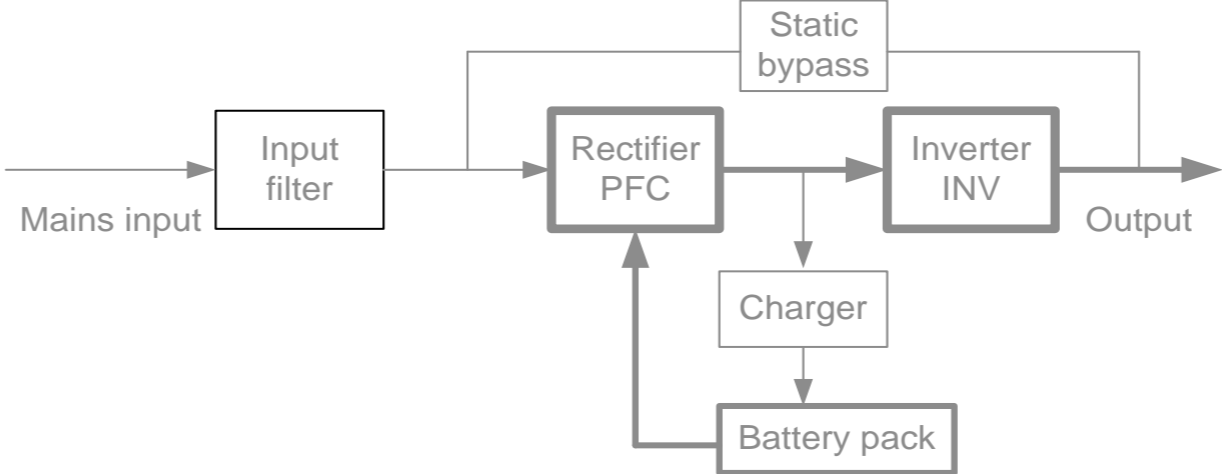
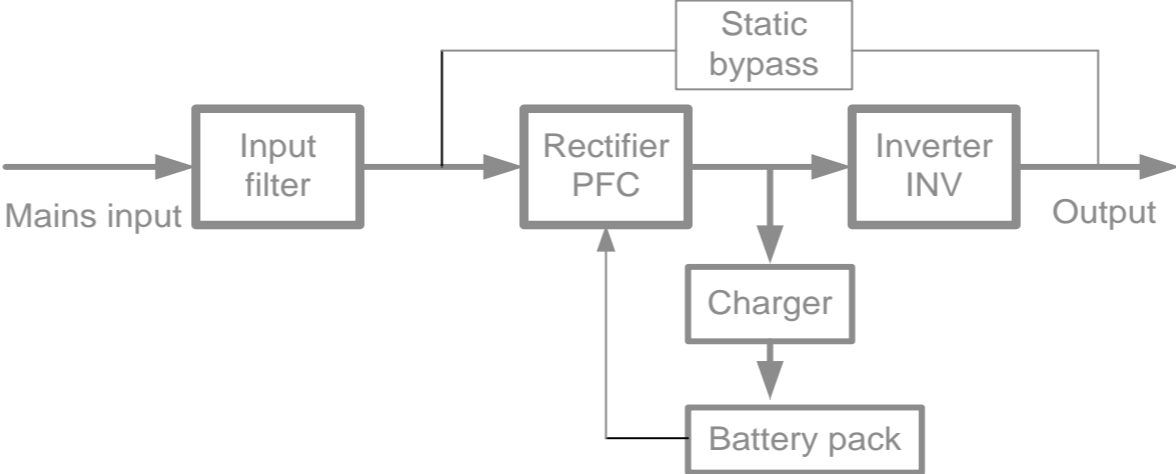
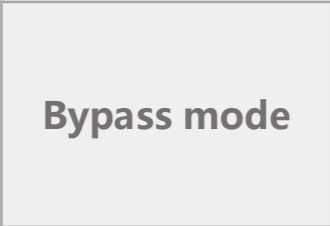


Product Description

EA900 G4 6 ~ 20 kVA



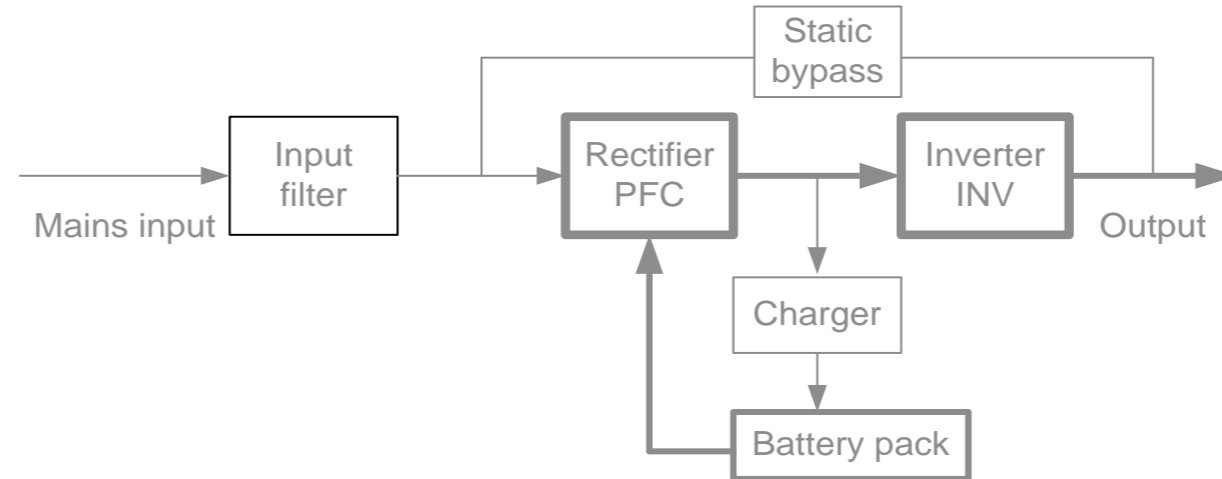
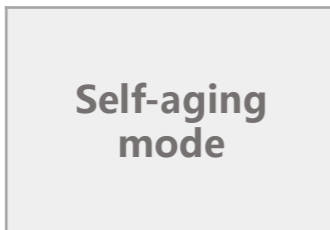
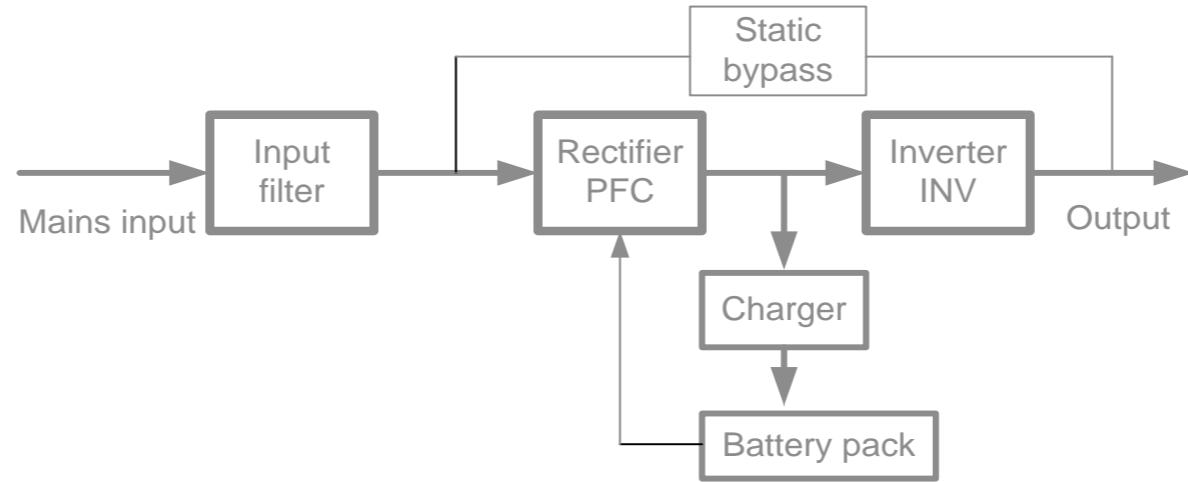
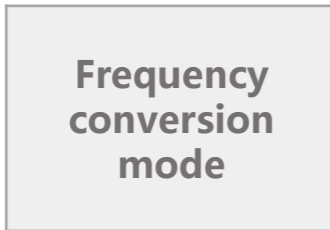
Operating Mode



Product Description

EA900 G4 6 ~ 20 kVA

Operating Mode



Product Description

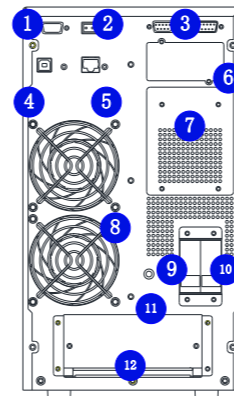
EA900 G4 6 ~ 20 kVA



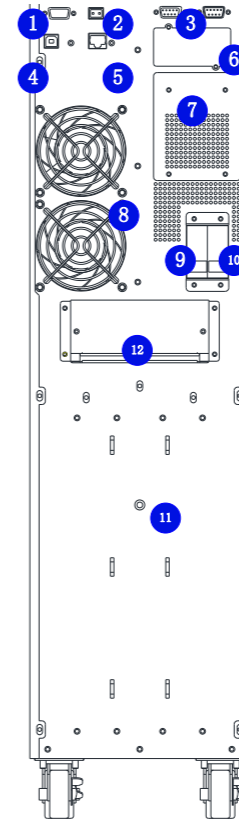
Overview

Single-phase components

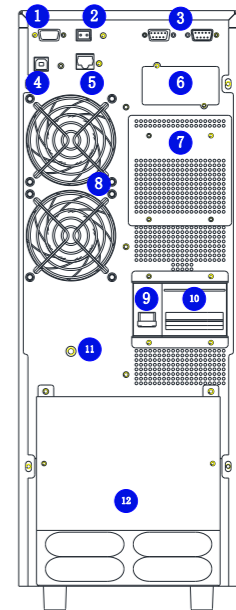
1. RS232
2. EPO
3. Parallel operation
4. USB
5. Temperature detection port
6. Smart card slot
7. Reserved location / maintenance bypass
8. Fan
9. Main input switch
10. Bypass input switch
11. GND
12. Terminal block and its cover



6KH/10KH



6KS/10KS



15/20KH

Product Description

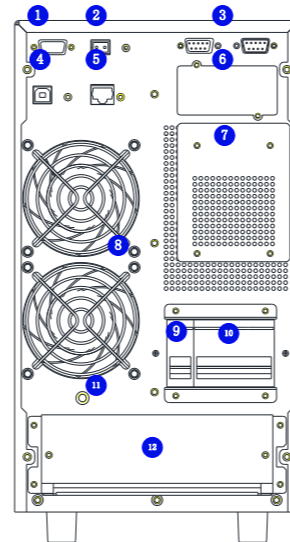
EA900 G4 6 ~ 20 kVA



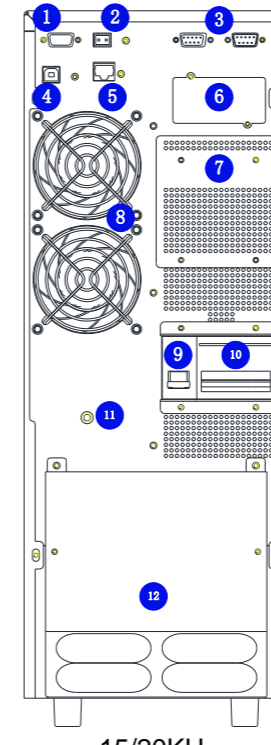
Overview

Three / single phase components

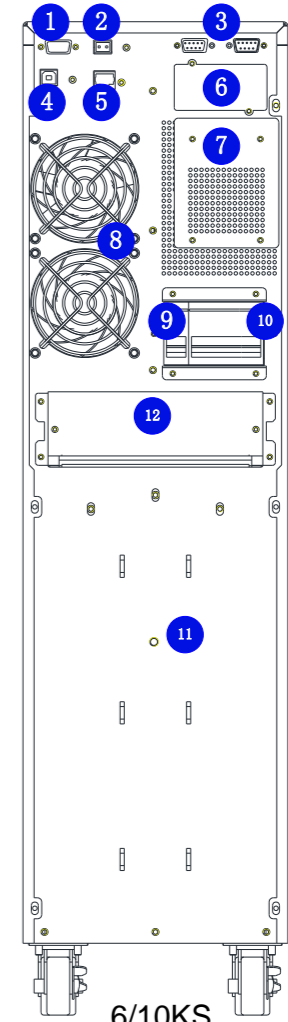
- | |
|---|
| 1. RS232 |
| 2. EPO |
| 3. Parallel operation |
| 4. USB |
| 5. Temperature detection port |
| 6. Smart card slot |
| 7. Reserved location / maintenance bypass |
| 8. Fan |
| 9. Main input switch |
| 10. Bypass input switch |
| 11. GND |
| 12. Terminal block and its cover |



6/10KH



15/20KH



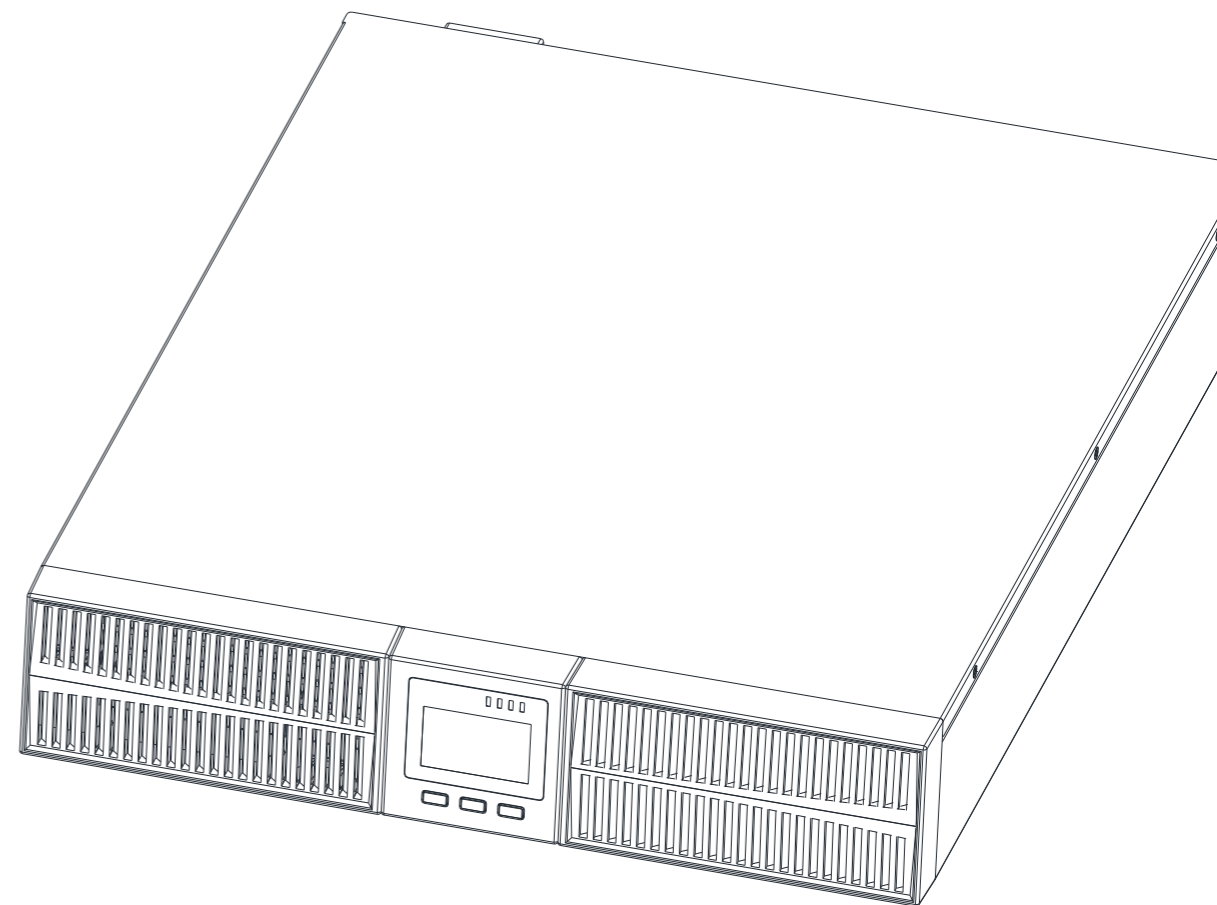
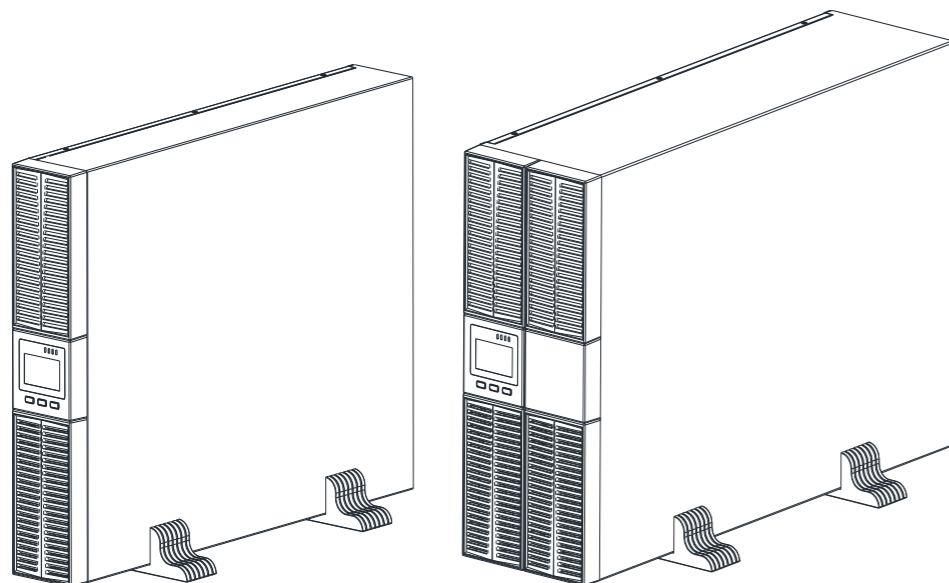
6/10KS

Product Description

EA900 G4 6 ~ 20 kVA

 RT Model

- Installation versatility (can be installed in rack or tower format)
- The panel can be removed directly from the front.



Batteries can be directly maintained from the front for Standard model UPSs, which support hot plug.

Product Description

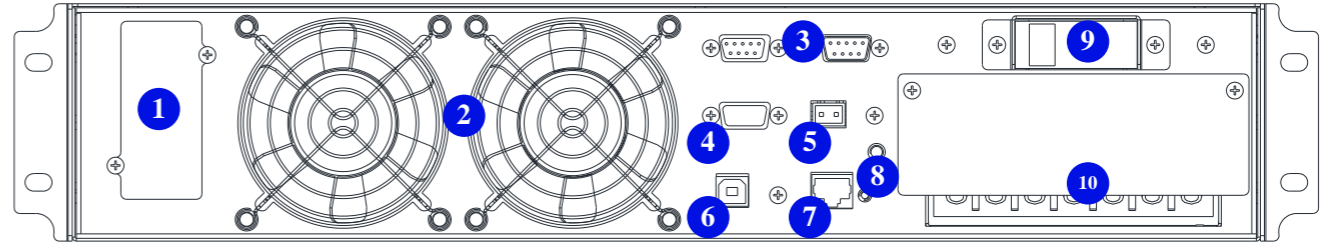
EA900 G4 6 ~ 20 kVA



RT Model

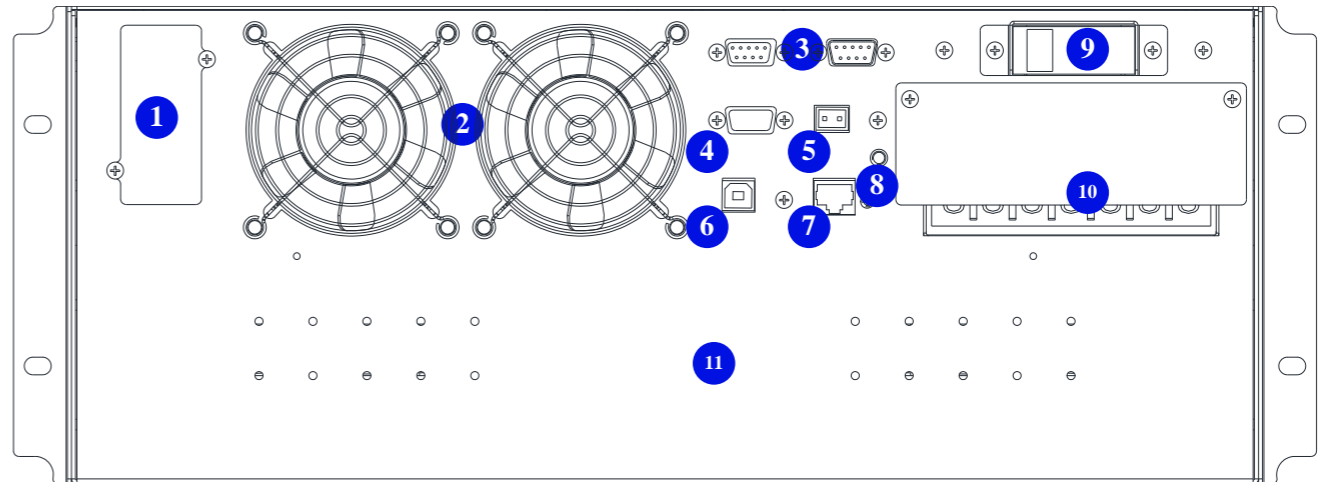
Single / single phase components

- | |
|----------------------------------|
| 1. Smart card slot |
| 2. Fan |
| 3. Parallel operation |
| 4. RS232 |
| 5. EPO |
| 6. USB |
| 7. Temperature detection port |
| 8. GND |
| 9. Bypass input switch |
| 10. Terminal block and its cover |
| 11. Battery compartment |



6/10KH

440 * 88 * 580 mm



6/10KS

440 * 176 * 660 mm

Product Description

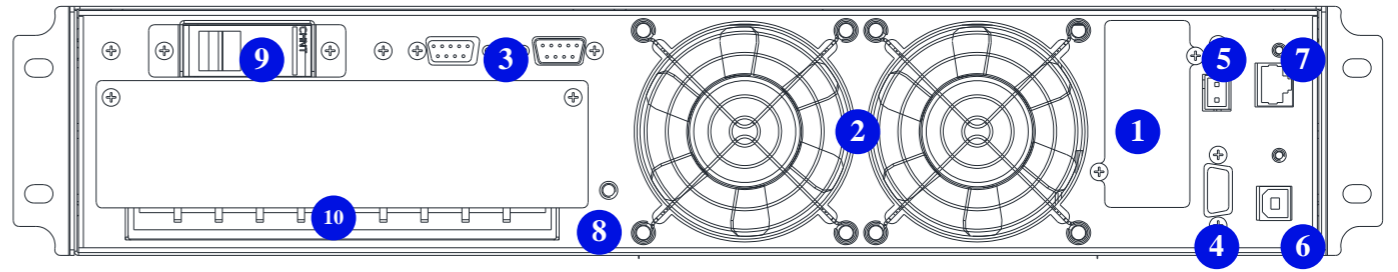
EA900 G4 6 ~ 20 kVA



RT Model

Three / single phase components

- | |
|----------------------------------|
| 1. Smart card slot |
| 2. Fan |
| 3. Parallel operation |
| 4. RS232 |
| 5. EPO |
| 6. USB |
| 7. Temperature detection port |
| 8. GND |
| 9. Bypass input switch |
| 10. Terminal block and its cover |
| 11. Battery compartment |



02
CHAPTER

**Product
Specifications**

Product Specifications

EA900 G4 6 ~ 20 kVA



Specifications

Operating environment:

Temperature range	Humidity	Altitude	Storage temperature
0°C - 40°C	< 95%	< 1000 m	-25°C - +70°C

Derating reference:

Altitude (m)	1000	1500	2000	2500	3000	3500	4000	4500	5000
Power derating	100%	95%	91%	86%	82%	78%	74%	70%	67%

03
CHAPTER

Product Highlights

Product Highlights

EA900 G4 6 ~ 20 kVA

Main Features

1

High Reliability

3

High Availability

5

High Intelligence



2

High Usability

4

Available Options

6

Energy Conservation and Environment Protection

Product Highlights

EA900 G4 6 ~ 20 kVA



High Reliability

DSP control method	Advanced DSP (Digital signal processors) technology, rectifier, inverter and charging are all controlled by DSP , which effectively improves product performance and system reliability
Fan intelligent speed regulation	Fan speed varies intelligently with the load rate and charging current, which can effectively reduce the noise impact of the whole machine on the surrounding environment and extend the service life of the fan.
Effective software and hardware protection function	It integrates AC input overvoltage/undervoltage, overload, short-circuit protection, overtemperature protection, IGBT pulse-by-pulse current limiting protection, battery undervoltage warning protection, battery overcharge protection and other multi-functional protection in one, and has a strong self-diagnosis function, ensuring the stability and reliability of the system operation.
Process optimization	With three anti-paint process, UPS can work in a harsh environment for a long time.
Parallel technology	Advanced digital parallel technology, redundant parallel connection provide higher reliability than stand-alone systems.

Product Highlights

EA900 G4 6 ~ 20 kVA



High Usability

LCD+LED display	LCD screen + LED display: visually display UPS working status and operating parameters.
Powerful background software	Background software settings: <ol style="list-style-type: none">1. View all machine information on the display interface;2. Basic parameter settings;3. Battery parameter settings;4. Parameter calibration;5. Special function settings (mute, battery discharge automatic shutdown time, automatic switch machine, etc.).
	Other functions of background software: History download, fault information query, test mode.
Compact design	Adopt full digital control technology and power board multiplexing design. Compact internal layout, miniaturized the complete unit for small footprint

Product Highlights

EA900 G4 6 ~ 20 kVA



High Availability

Wide input range	Input voltage range: 110 ~ 288 Vac / 304 ~ 478 Vac Input frequency range: 40 ~ 70 Hz, 50 / 60 Hz grid system auto sensing, suitable for harsh grid environment.
Dual-input design	Dual-input design to support independent bypass and improve bypass availability.
High output power factor	Output power factor improved from 0.9 to 1, load capacity increased by 11%.
Battery charging	Support 16 ~ 20 batteries, charging current can be set, maximum current support 12 A; 12 A (single phase) / 10 A (three-single phase) charger is optional (charger in parallel is unavailable)
Cold start	Ability to switch on the UPS with batteries to meet emergency needs.
Zero conversion time	The pure online double-conversion online design has zero conversion time of the UPS power supply mode when the utility power is unstable, which effectively ensures the safety and reliability of the load operation.
Frequency conversion mode	Two modes of frequency conversion: 50 Hz input / 60 Hz output or 60 Hz input / 50 Hz output, meet the special needs of users.

Product Highlights

EA900 G4 6 ~ 20 kVA



Available Options

Options

Standard configuration: RS232, EPO. Optional configuration: SNMP card, USB, RS485, dry contacts, parallel connection, EPO, battery temperature compensation, EMD and SMS alarms.



High Intelligence

Intelligent management

Support RS232, USB, RS485, SNMP card, multi-platform communication interfaces to monitor the operating status of the UPS.

Battery management

Intelligent battery management, automatic floating / equalizing charge control, charger dormancy control, improve the reliability of the charger. Through monitoring can carry out regular battery self-test function.

Product Highlights

EA900 G4 6 ~ 20 kVA



Energy Conservation and Environment Protection

Active power factor correction	Adopting digital controlled active power factor correction (PFC) technology, the input power factor is up to more than 0.99, avoiding pollution to the grid environment, achieving energy saving and reducing the cost of system investment.
Overall efficiency	System efficiency increased to 96% and energy saving rate doubled.
ECO mode	When the power grid is in good condition, the working efficiency is up to 98% with high efficiency and energy saving after the ECO mode is started. In ECO working mode, a 120 kVA UPS full-load work can save 16556 CNY (calculated by 0.7 CNY per kWh) in electric charge for one year.).

04
CHAPTER

Comparisons

Comparisons

EA900 G4 6 ~ 20 kVA



Single-Phase

Product comparison	EA900 6-10 kVA	Voltronic/galleon one	KSTAR/MEM plus2
Inverter technology	Three-level	Two-level	Two-level
Input PF	0.99	0.99	0.99
THDi	5%	5%	5%
Input range	110 ~ 288 Vac (300 selectable)	110 ~ 300 Vac	110 ~ 300 Vac
Frequency range	40 – 70 Hz	46 – 64 Hz	40 - 70 Hz
Output PF	1	0.9	0.9
THDV	2% R/5% RCD	2% R/5% RCD	2% R/5% RCD
Max. efficiency	95%	94%	93.50%
Number of batteries	16 ~ 20 pcs can be set	16 / 20 pcs	16 / 20 pcs / positive and negative battery
Charging current	5 A digital charger	4 A analog charger	6 A analog charger
	Voltage and current can be set		
	Max. support for 12 A options		
Noise	55 dB max	55 dB / 58 dB	54 dB max
Load adaptability	Support half-wave load	Not supported	Not supported
Self-aging	Support	Not supported	Not supported
Typical dimension (10k)	191 * 495 * 350	190 * 442 * 318	250 * 502 * 616

Comparisons

EA900 G4 6 ~ 20 kVA



Three / Single-Phase

Product comparison	EA900 6-10 kVA	Voltronic/galleon one	KSTAR/MEM plus2
Inverter technology	Three-level	Two-level	Two-level
Rectification technology	Real three phase independence	Unreal three phase	Unreal three phase
Input PF	0.99	0.99	0.99
THDi	5%	6%	5% (R)
Input range	190 ~ 478 Vac	190 ~ 520 Vac	208 ~ 478 Vac
Frequency range	40 – 70 Hz	46 – 64 Hz	45 - 66 Hz
Output PF	1	0.9	0.9
THDV	1% R/4% RCD	2% R/5% RCD	2% R/5% RCD
Max. efficiency	95%	91%	93.50%
Number of batteries	16 ~ 20 pcs can be set	20 pcs	16 / 18 / 20 pcs / positive and negative battery
Charging current	5 A digital charger	4 A analog charger	5 A analog charger
	Voltage and current can be set		
	Max. support for 10 A options		
Noise	58 dB max	60 dB max	58 dB max
Load adaptability	Support half-wave load	Not supported	Not supported
Self-aging	Support	Not supported	Not supported
Typical dimension (20 k)	191 * 495 * 515	190 * 442 * 688	250 * 502 * 616



THANK YOU

EAST[®]