EA890i

160-500kVA

PF 0.9

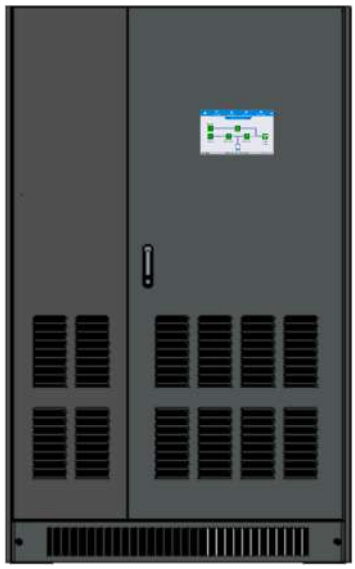
IGBT RECTIFIER

CBC®

Power Quality and Control Solutions

EA890i Robust and High Efficiency

EA890i series is an on-line dual-conversion industrial UPS based on EA890 platform, which is designed based on our years of experience in the application of power electronic products in highways, tunneling, manufacturing and electric power etc. This series of products adopts IGBT rectifier + IGBT inverter built-in isolation transformer scheme, which has superior electrical safety performance and high system availability, and can provide stable and reliable power supply guarantee for the industries of finance, transportation, telecommunication, and manufacturing.



200/300KVA

Robust design

This equipment is reliable and high-quality. It uses dual-mains input and DSP technology to guarantee reliability, input/output isolation for security, and features a true inbuilt galvanic isolation transformer and redundant fan design for durability. This equipment is a top choice for power needs.

- Online Double Conversion Topology, accept Dual-Mains Input
- DSP Technology Guarantees High Reliability
- Input and Output are completely isolated for great security
- True Inbuilt Galvanic Isolation Transformer Design, DZn0 winding transformer compatible with unbalance load
- Strong mixed load capacity and high overload capacity
- Redundant Fan Design and Independent Ventilation Enhance Durable Operation Under Hard Environment

Application

- Manufacturing Process Equipment
- Medical Equipment
- Power Electronic Equipment Machine
- Power Electric Utility

High Reliability and Energy efficient

High system efficiency reduces cost, extends battery life, and improves performance. Prioritize efficiency for cost effectiveness and reliability.

- Intelligent self-diagnosing function, superior failure protection, large capability of history records storage.
- Prioritize efficiency for cost effectiveness and reliability.
- High efficiency even at light loads
- Adjustable Battery Numbers
- Intelligent Battery Management to Prolong Battery Life Cycle

Redundancy control electric power board

UPS is equipped with two identical auxiliary power supply boards, each being a standby to another. The two power supply boards get the input power supply from AC and DC sources. When one power supply or one auxiliary power supply board is faulty, the UPS system can still be running normally. This function provides higher reliability for the system.

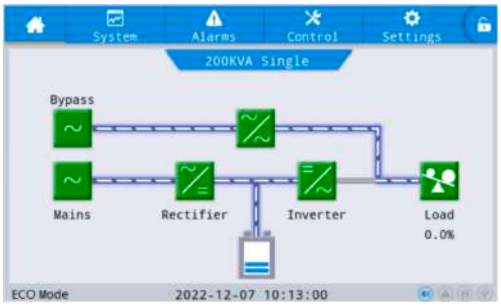
Modular design and comprehensive front maintenance

Flexible Installation options

N+X Redundancy Parallel Operation with up to 6 Units

User Interface

7 inches LED+LCD touch screen graphically displays UPS status and offers easy access to measurements, controls and settings.



Rich of Connectivities

According to the specific requirements of the site, we may need to provide auxiliary connection for the UPS to manage the battery system (battery temperature sensor), communicate with a personal computer, provide warming signals to external devices or realize such functions as remote emergency shutdown.

- Intelligent Slot: This is a communication interface for the SNMP card, WIFI card and 4G card, which is used to install the communication option SNMP card on the site, so as to remotely manage the UPS via the Internet.
- Relay Card-MS provides the essential 2 input dry-contact for EPO, 4 programable input dry contacts and 6 programmable output dry contact to interface between your CBC UPS and any relay-connected computer as well as a variety of industrial applications
- RS485/CAN Interface for Lithium battery BMS
- UPS HOST Interface
- Battery temperature compensation interface
- RS232/RS485 Interface

Software

iStars and iSmartView Software Suite incorporates two important applications for ensuring quality power and uptime:monitoring and management of power devices across the network combined with automatic, graceful shutdown when faced with an extended power outage.

- Monitor and manage multiple power devices across your network
- Extend the uptime of dual-powered servers with redundancy capabilities
- Enable server shutdown and live migration events

CBC International is a engineering and trading company for Power Quality and Control Solution. For 20 years we have been at forefront in UPS, High Power Rectifier for Chlor-Alkali process, Automatic Voltage Regulator, and Lithium Iron battery in Thailand market. CBC is a pioneer to bring Lithium Iron battery to distribute in Telecom industry. Today we have more than 5.28MWh Lithium Iron battery installed in telecom industry. CBC is only Thai company who can make High Power Rectifier up to 30,000A/0-1000Vdc and Power up to 20MW 22kV system.

We provide one-stop services for

Power Quality Control Solutions

- Line Interactive UPS
- Online Transformerless UPS
- Online Transformer based UPS
- Online Modular UPS
- Industrial UPS
- Automatic Voltage Regulator (AVR)
- Smart Capacitor Power Factor Compensation
- Static Var Compensation (SVC)
- Active Power Filter (APF)
- High Power Rectifiers
- VRLA Lead acid batteries
- Home Solar Roof and Energy Storage

EA890i UPS Technical Specifications

Power

Ratings	160kVA/144kW 200kVA/180kW 250kVA/225kW	300kVA/270kW 400kVA/360kW 500kVA/450kW
Topology	Double-conversion online UPS	
Operating Frequency	50/60 Hz (45 to 65 Hz)	
Input Power Factor	≥ 0.99	
Total Harmonic Distortion	≤ 3% THDi	

Electrical input

Input wiring	3P4W+PE
Nominal input voltage	380/400/415Vac
Input voltage range	304-346V(derating 10% , 346-456V at 100% without derating

Electrical output

Nominal output voltage	380/400/415
Output voltage regulation	± 1%
Output frequency	50/60 Hz ± 0.1% in Battery mode
Waveform	Sinusoidal
Power factor	0.9 Permitted load 0.7 lagging to 0.8 leading without derating
Voltage distortion THDv	≤ 2% linear load, ≤ 5% non-linear load
Crest factor	3:1
Overload	105%-110% for 60 min, 110%-125% for 10 min 125%-150% for 1 min, 150%-200% for 200ms

Battery

DC Voltage	Lead Acid Battery: 600Vdc
Number of batteries	2Vx300pcs (288~312pcs settable) 12Vx50pcs (48~52 pcs settable) Lithium Iron phosphate battery: 614.4Vdc 3.2V x 192 pcs (192/208 pcs settable)
Charging current	Charging rate (settable) 0.1~0.25C for 12V&2V, 02~1C for 3.2V Battery capacity (settable) Number of battery group (Settable)
Self-test function	Automatic Battery self-test mode Battery self test by voltage Battery self test by time
Display Battery Capacity	Battery remain capacity Battery backup time

System

Efficiency	≥ 98% ECO mode ≥ 94% Double conversion mode
Delay start of rectifier	10s (1~300s settable)
Transfer time	Main<—> battery 0ms,Bypass<—>Inverter 0ms
ECO interruption time	≤ 10ms
Surge protection	Meet IEC60664-1:class IV Capacity withstanding 1.2/50us+8/20us Mixed wave at least 6kV/3kA
Parallel technology	N+X Redundancy Parallel Operation with up to 6 Units

General

Cabinet rating	IP 20	
Dimensions WxDxH(mm)	800 x 860 x 1700 1210 x 860 x 1950 2380 x 860 x 1950	160kVA 200-300kVA 400-500kVA
Weight without battery	790kgs 160kVA 1135kgs 200kVA 1275ks 250kVA	1355kgs 300kVA 2090kgs 400kVA 2300kgs 500kVA

Communication Interfaces

Display	7 inches Graphic LCD LED 4 status for notice and alarm
Audible alarms	Yes
EPO	EPO (NO+NC)
Dry contact	2 Input dry contacts(customizable) 2 Input dry contact(default) 2 Input dry contact(reserved) 5 Output dry contacts(customizable) 1 Output dry contact for battery low capacity
Communication ports	(1)RS232, (1)RS485, (1)USB, (1)RS485/CAN (1)NET, (1)Battery temperature compensation (1)USB Host, (1)Monitoring Display (1)Intelligent slot for SNMP,WIFI,4G card

Environmental

Operating temperature	0°C ~ 40°C Batteries recommended max.+25°C
Storage temperature	-25°C ~ 55°C without batteries +15°C to +25°C with batteries
Relative humidity	5-95%, non-condensing
Audible noise	< 65dB 160kVA~300kVA at 1m typical < 70dB 400kVA~600kVA at 1m typical
Altitude	≤ 1000m. above 1000m, derating 1% for additional 100m

Certifications

EMS Standards	IEC61000-2-2, IEC61000-3-4
EMI compliance	IEC 62040-1,IEC 62040-2, IEC 62040-3
Performance classification	VFI-SS-111
Quality	ISO9001:2015, ISO14001:2015
TIS	TIS1291: 1-2553, 2-2552, 3-2553

Software

iStars	Real-time Monitoring and management of UPS across the network
iSmartView	Centralized monitoring and management software running on PC platform for UPS
iSearch	Monitoring and management SNMP cards in LAN

Due to continuous product improvements, specifications are subject to change without notice.

For more information visit: cbcinter.com

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