## **EA890i**

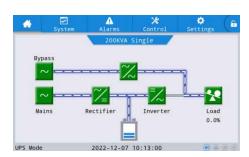
160 kVA ~ 500 kVA PF 0.9 IGBT Rectifier



EA890 is eries 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 + 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.

#### Features

- 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, DZnO winding transformer compatible with unbalanced load
- Strong mixed load capacity and high overload capacity
- Redundant Fan Design and Independent Ventilation Enhances Durable Operation Under Harsh Environment
- Intelligent self-diagnosing function, superior failure protection, large capability of history records storage
- High efficiency even at light loads
- Adjustable Battery Numbers
- Intelligent Battery Management to Prolong Battery Life Cycle
- N+X Redundancy Parallel Operation with up to 6 Units (Option)
- Variety of Communication Options Available
- EPO & ECO Mode Operation
- Generator compatible
- High MTBF (> 200,000 h)
- Low MTTR (< 0.5 h)



7" Touch Screen

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#### **Specifications**

# **Online UPS**

MODEL	EA89160i	EA89200i	EA89250i	EA89300i	EA89400i	EA89500i
Capacity	160 kVA / 144 kW	200 kVA / 180 kW	250 kVA / 225 kW	300 kVA / 270 kW	400 kVA / 360 kW	500 kVA / 450 kW
INPUT						
Input wiring	Three-phase five-wire (3Φ + N + PE)					
Rated voltage	380 / 400 / 415 Vac					
Voltage range	304 ~ 346 V (derating 10%), 346 ~ 456 V (full load)					
Rated frequency	50 / 60 Hz					
Frequency range	(50 / 60) ± 5 ₺					
Power factor	≥ 0.99					
Total harmonic distortion (THDi)	≤ 3%					
Delayed start of rectifier			10 s (1 ~ 30	0 settable)		
Bypass voltage range	± 20% (settable)					
OUTPUT						
Output wiring		Т	hree-phase five-v	vire (3Φ + N + PE	Ξ)	
Rated voltage			380 / 400	/ 415 Vac		
Output voltage regulation			±	1%		
Output frequency regulation		:	50 / 60 Hz ± 0.1%	6 in battery mode	)	
Waveform			Sinus	oidal		
Power factor			0.	9		
Voltage distortion (THDv)	≤ 2% (linear load), ≤ 5% (non-linear load)					
Crest factor			3:			
Overload	105% ~ 110% for 60 min, 110% ~ 125% for 10 min, 125% ~ 150% for 1 min, 150% ~ 200% for 200ms					
	100% 110% 101 0	70 111111, 110/0 120	7/0 101 10 111111, 120/	100% 101 1 11111	1, 100/0 200/0 101	200110
BATTERIES						
DC voltage	Le	ad acid battery:	600 Vdc Lithium	iron phosphate ba	ttery: 614.4 Vdc	
		Lead acid Lead acid b	600 Vdc Lithium battery: 12 V x 50 attery: 2 V x 300 nate battery: 3.2 V	pcs (48 <sup>5</sup> 2 pcs s	ettable) settable)	
DC voltage  Number of batteries  Charging current	Li	Lead acid Lead acid b thium iron phosph	battery: 12 V x 50 attery: 2 V x 300	pcs (48~52 pcs s pcs (288~312 pcs s / x 192 pcs (192/2	ettable) settable) 08 pcs settable)	ıps (settable)
DC voltage  Number of batteries	Li	Lead acid Lead acid b thium iron phosph	battery: 12 V x 50 attery: 2 V x 300 nate battery: 3.2 \ attery capacity (se	pcs (48~52 pcs s pcs (288~312 pcs s x 192 pcs (192/2 ettable) × numb	ettable) settable) 08 pcs settable)	ıps (settable)
DC voltage  Number of batteries  Charging current	Li	Lead acid Lead acid b thium iron phosph	battery: 12 V x 50 attery: 2 V x 300 nate battery: 3.2 V	pcs (48~52 pcs s pcs (288~312 pcs s x 192 pcs (192/2 ettable) × number e ≥ 94%,	ettable) settable) 08 pcs settable)	ups (settable)
DC voltage  Number of batteries  Charging current  SYSTEM	Li	Lead acid Lead acid b thium iron phosph	battery: 12 V x 50 attery: 2 V x 300 nate battery: 3.2 V attery capacity (so	pcs $(48^{\circ}52 \text{ pcs s})$ pcs $(288^{\circ}312 \text{ pcs s})$ x 192 pcs $(192/2)$ ettable) × number $e \ge 94\%$ , $e \ge 98\%$	ettable) settable) 08 pcs settable)	ıps (settable)
DC voltage  Number of batteries  Charging current  SYSTEM  Efficiency	Li Charging rate	Lead acid Lead acid b thium iron phosph e(settable) × ba	battery: 12 V x 50 attery: 2 V x 300 nate battery: 3.2 V attery capacity (so Line mod- ECO mod	pcs $(48^{\circ}52 \text{ pcs s})$ pcs $(288^{\circ}312 \text{ pcs s})$ x 192 pcs $(192/2 \text{ ettable}) \times \text{number}$ $\Rightarrow \ge 94\%,$ $\Rightarrow \ge 98\%$	ettable) settable) 08 pcs settable) er of battery grou	
DC voltage  Number of batteries  Charging current  SYSTEM  Efficiency  Max. number of parallel connections	Li Charging rate	Lead acid be thium iron phosphe (settable) × ba	battery: 12 V x 50 attery: 2 V x 300 nate battery: 3.2 V attery capacity (so Line mod-	pcs (48~52 pcs s pcs (288~312 pcs s x 192 pcs (192/2 ettable) × number e ≥ 94%, e ≥ 98% ge, undervoltage, 5232, RS485, dry	ettable) settable) 08 pcs settable) er of battery grou battery low voltage	e and fan failure
DC voltage  Number of batteries  Charging current  SYSTEM  Efficiency  Max. number of parallel connections  Protections	Li Charging rate	Lead acid be thium iron phosphe (settable) × ba	battery: 12 V x 50 attery: 2 V x 300 nate battery: 3.2 V attery capacity (so Line mod- ECO mod erature, overvoltage d configuration: RS	pcs $(48^{\circ}52 \text{ pcs s})$ pcs $(288^{\circ}312 \text{ pcs s})$ x 192 pcs $(192/2 \text{ pcttable}) \times \text{number}$ $e \ge 94\%$ , $e \ge 98\%$ ge, undervoltage, 5232, RS485, dry mperature compe	ettable) settable) 08 pcs settable) er of battery grou battery low voltage	e and fan failure
DC voltage  Number of batteries  Charging current  SYSTEM  Efficiency  Max. number of parallel connections Protections  Communications	Li Charging rate	Lead acid be thium iron phosphe (settable) × ba	battery: 12 V x 50 attery: 2 V x 300 nate battery: 3.2 V attery capacity (so Line mod- ECO mod ECO mod derature, overvoltaged configuration: RS on: SNMP card, tel	pcs $(48^{\circ}52 \text{ pcs s})$ pcs $(288^{\circ}312 \text{ pcs s})$ x 192 pcs $(192/2 \text{ pcttable}) \times \text{number}$ $e \ge 94\%$ , $e \ge 98\%$ ge, undervoltage, 5232, RS485, dry mperature compe	ettable) settable) 08 pcs settable) er of battery grou battery low voltage	e and fan failure
DC voltage  Number of batteries  Charging current  SYSTEM  Efficiency  Max. number of parallel connections Protections  Communications  Display	Li Charging rate	Lead acid be thium iron phosphe (settable) × ba	battery: 12 V x 50 attery: 2 V x 300 nate battery: 3.2 V attery capacity (so Line mod- ECO mod ECO mod derature, overvoltaged configuration: RS on: SNMP card, tel	pcs (48°52 pcs s pcs (288°312 pcs s / x 192 pcs (192/2 ettable) × number e ≥ 94%, e ≥ 98% ge, undervoltage, 5232, RS485, dry mperature competouch screen	ettable) settable) 08 pcs settable) er of battery grou battery low voltage	e and fan failure
DC voltage  Number of batteries  Charging current  SYSTEM  Efficiency  Max. number of parallel connections  Protections  Communications  Display  OTHERS	Li Charging rate	Lead acid be thium iron phosphe (settable) × ba	battery: 12 V x 50 attery: 2 V x 300 nate battery: 3.2 V attery capacity (so Line mod- ECO mod erature, overvoltaged configuration: RS on: SNMP card, ter 7 inches LCD	pcs (48°52 pcs s pcs (288°312 pcs $^{\circ}$ x 192 pcs (192/2 ettable) × numbres $e \ge 94\%$ , $e \ge 98\%$ sign, undervoltage, 5232, RS485, dry experience competouch screen	ettable) settable) 08 pcs settable) er of battery grou battery low voltage	e and fan failure
DC voltage  Number of batteries  Charging current  SYSTEM  Efficiency  Max. number of parallel connections Protections  Communications  Display  OTHERS  Operating temperature	Li Charging rate	Lead acid be thium iron phosphe (settable) × ba	battery: 12 V x 50 attery: 2 V x 300 nate battery: 3.2 V attery capacity (so  Line mode ECO mode erature, overvoltage d configuration: RS on: SNMP card, tel 7 inches LCD	pcs (48°52 pcs s pcs (288°312 pcs s x 192 pcs (192/2 ettable) × number e ≥ 94%, e ≥ 98% ge, undervoltage, 5232, RS485, dry mperature competouch screen	ettable) settable) 08 pcs settable) er of battery grou battery low voltage	e and fan failure
DC voltage  Number of batteries  Charging current  SYSTEM  Efficiency  Max. number of parallel connections Protections  Communications  Display  OTHERS  Operating temperature  Storage temperature	Li Charging rate	Lead acid be thium iron phosphe (settable) × base erload, overtemper Standars tional configurations	battery: 12 V x 500 attery: 2 V x 300 nate battery: 3. 2 V attery capacity (se  Line mode ECO mode erature, overvoltage d configuration: Rs on: SNMP card, tel 7 inches LCD  0 ~ 4  - 25°C ~ 55°C (v	pcs (48°52 pcs s pcs (288°312 pcs s x 192 pcs (192/2 ettable) × number e ≥ 94%, e ≥ 98% ge, undervoltage, 5232, RS485, dry mperature competouch screen	ettable) settable) 08 pcs settable) er of battery grou battery low voltage contacts insation, SMS alar	e and fan failurd
DC voltage  Number of batteries  Charging current  SYSTEM  Efficiency  Max. number of parallel connections Protections  Communications  Display  OTHERS  Operating temperature  Storage temperature  Relative humidity	Li Charging rate	Lead acid be thium iron phosphe (settable) × base erload, overtemper Standars tional configurations	battery: 12 V x 50 attery: 2 V x 300 nate battery: 3. 2 V attery capacity (se  Line mode ECO mode erature, overvoltage d configuration: RS on: SNMP card, tel 7 inches LCD  0 ~ 4  - 25°C ~ 55°C (v 0% ~ 95% (nor	pcs (48°52 pcs s pcs (288°312 pcs s x 192 pcs (192/2 ettable) × numbre e ≥ 94%, e ≥ 98% ge, undervoltage, 5232, RS485, dry mperature competouch screen vithout battery) n-condensing) ng 1% for each a	ettable) settable) 08 pcs settable) er of battery grou battery low voltage contacts insation, SMS alar	e and fan failure
DC voltage  Number of batteries  Charging current  SYSTEM  Efficiency  Max. number of parallel connections Protections  Communications  Display  OTHERS  Operating temperature Storage temperature  Relative humidity  Altitude	Li Charging rate	Lead acid be thium iron phosphe (settable) × base (settable) × base erload, overtempts tonal configurations of the thick the	battery: 12 V x 50 attery: 2 V x 300 nate battery: 3.2 V attery capacity (se  Line mod- ECO mod  erature, overvoltage d configuration: RS on: SNMP card, tel 7 inches LCD  0 ~ 4 - 25°C ~ 55°C (v 0% ~ 95% (nor ve 1000 m, derati	pcs (48°52 pcs s pcs (288°312 pcs s x 192 pcs (192/2 ettable) × numbre e ≥ 94%, e ≥ 98% ge, undervoltage, 5232, RS485, dry mperature competouch screen vithout battery) n-condensing) ng 1% for each a	ettable) settable) 08 pcs settable) er of battery grou  battery low voltage contacts insation, SMS alar	e and fan failure ms
DC voltage  Number of batteries  Charging current  SYSTEM  Efficiency  Max. number of parallel connections Protections  Communications  Display  OTHERS  Operating temperature  Storage temperature  Relative humidity  Altitude  IP rating	Li Charging rate	Lead acid be thium iron phosphe (settable) × base (settable) × base erload, overtempter Standard tional configurational confi	battery: 12 V x 50 attery: 2 V x 300 attery: 3.2 V attery capacity (se  Line mod- ECO mod  erature, overvoltage d configuration: RS on: SNMP card, tel 7 inches LCD  0 ~ 4  - 25°C ~ 55°C (v 0% ~ 95% (nor ve 1000 m, derati	pcs (48°52 pcs s pcs (288°312 pcs s / x 192 pcs (192/2 ettable) × number e ≥ 94%, e ≥ 98% 6 ge, undervoltage, 5232, RS485, dry mperature competouch screen unch screen vithout battery) n-condensing) ng 1% for each a	ettable) settable) 08 pcs settable) er of battery grou  battery low voltage contacts insation, SMS alar  additional 100 m	e and fan failure
DC voltage  Number of batteries  Charging current  SYSTEM  Efficiency  Max. number of parallel connections Protections  Communications  Display  OTHERS  Operating temperature  Storage temperature  Relative humidity  Altitude  IP rating  Noise level at 1 m	Charging rate  Short-circuit, over	Lead acid be thium iron phosphe (settable) × base (settable) × base erload, overtempter Standard tional configurations = 1000 m. Abore = 65	battery: 12 V x 50 attery: 2 V x 300 nate battery: 3.2 V attery capacity (so ECO mode ECO mode erature, overvoltage d configuration: RS on: SNMP card, ter 7 inches LCD    0 ~ 4   - 25°C ~ 55°C (v 0% ~ 95% (nor ve 1000 m, deration in the state of the st	pcs (48°52 pcs spec (288°312 pcs (192/2 pctable) × numbre e ≥ 94%, e ≥ 98% pcs, undervoltage, 5232, RS485, dry preparature competouch screen vithout battery) n-condensing) ng 1% for each a 20	ettable) settable) 08 pcs settable) er of battery grou  battery low voltage contacts insation, SMS alar  additional 100 m  < 70  2380 × 86	e and fan failure ms
DC voltage  Number of batteries  Charging current  SYSTEM  Efficiency  Max. number of parallel connections Protections  Communications  Display  OTHERS  Operating temperature  Storage temperature  Relative humidity  Altitude  IP rating  Noise level at 1 m  Dimensions (W×D×H) (mm)	Charging rate  Short-circuit, over Op  800 × 860 × 1700  900 × 1000	Lead acid be thium iron phosphe (settable) × base (settable) × base erload, overtempter Standard tional configurations = 1000 m. Abore = 65	battery: 12 V x 50 attery: 2 V x 300 attery: 3.2 V attery capacity (se  Line mode ECO mode erature, overvoltage d configuration: RS on: SNMP card, tel 7 inches LCD  0 ~ 4  - 25°C ~ 55°C (v 0% ~ 95% (nor ve 1000 m, derati IP 5 dB 210 x 860 x 198	pcs (48°52 pcs spec (288°312 pcs (192/2 pctable) × numbre e ≥ 94%, e ≥ 98% pcs, undervoltage, 5232, RS485, dry preparature competouch screen vithout battery) n-condensing) ng 1% for each a 20	ettable) settable) 08 pcs settable) er of battery grou  battery low voltage contacts insation, SMS alar  additional 100 m  < 70  2380 × 86	e and fan failure ms ) dB 60 × 1950

- All specifications are subject to change without notice.
- Custom-made specifications are acceptable.
- This product is applicable to industrial, commercial, financial, rail transit and other industries applications, but not available for life support systems.
- For critical systems related to public safety or significant economic benefits, dual power system is required to power the load.

info@talia-ups.com