

HGCZ07 Series Charger

HGCZ07 Series Automatic Charger Four Charging Modes:
Constant current/voltage small constant current charging mode, Constant current/voltage charging mode, floating charging mode and initial charging mode.



HGCZ107



HGCZ207



HGCZ307

Product Introduction

HGCZ07 series automatic charger is a new generation of reliable hi-tech product with advanced technology, stable performance, strong function, high degree of intelligence, new kind of man-machine interface and high charging efficiency. It adopts advanced embedded microprocessor technology, dynamic tracking, auto-regulating charging curve; LCD liquid crystal screen with Chinese displaying, real time monitoring battery voltage, charging current, charging time, charged capacity etc. parameters during the charging process; integrating multiply methods of voltage, time, and capacity to judge the completion of battery charging, to set the battery always in the micro bubbling state, effectively prevent the active substance on battery's pole plate from separating, to reduce the volatilizing of electrolyte, to prolong the working life of battery. It adapts to conventional, maintenance equalizing, initial, floating and forced activation chargings for various kinds of battery, and it is the users' idea selection of charger for the lead/acid and alkaline battery on electric fork, electric tractor and electric conveyer.

Technical Features

- Multiple charging modes for selection, flexible using, wide application range;
- Liquid crystal screen real time displaying working mode, charging parameters and fault information;
- The charging parameters can be on line set or amended during the charging process, once the parameters are set, they can be memorized for long;
- Micro-processor real time monitoring changing rate of charging current/voltage, auto-switch over according to the value of connected battery voltage to reach high efficient energy saving.
- Auto-checking, time delay start, soft start;
- With the protection of open circuit, reverse connecting, over load, short circuit and over temperature and fault warning;
- Most specifications in multiple channel outputs such as two, three, four, six channels. Each channel is controlled independently and no interfere to each other.

Technical Data

Type/ Specification (A/V)	Rated Input Power Supply (V)	Output Power (Kw)	Rated Charging Current (A)	Chargable Battery Range (V/Ah)	Output Channel	Size (Mm)
HGCZ107-50A/48V	2Phase/380V (1Phase/220V)	3.6×1	0~50	12-48 / 250-400	1	460×380×780
HGCZ107-65A/48V		4.7×1	0~65	12-48 / 350-520	1	
HGCZ107-80A/48V		5.8×1	0~80	12-48 / 400-630	1	
HGCZ107-65A/80V		7.8×1	0~65	24-80 / 350-520	1	
HGCZ207-50A/48V		3.6×2	0~50	12-48 / 250-400	2	850×500×1200
HGCZ207-65A/48V		4.7×2	0~65	12-48 / 350-520	2	
HGCZ207-80A/48V		5.8×2	0~80	12-48 / 400-630	2	
HGCZ207-65A/80V		7.8×2	0~65	24-80 / 350-520	2	
HGCZ107-50A/48V		3.6×3	0~50	12-48 / 250-400	3	850×500×1400
HGCZ107-65A/48V		4.7×3	0~65	12-48 / 350-520	3	
HGCZ107-80A/48V		5.8×3	0~80	12-48 / 400-630	3	
HGCZ107-65A/80V		7.8×3	0~65	24-80 / 350-520	3	
HGCZ307-125A/160V	3Phase/380V	10.4×1	0~65	12-96 / 100-600	1	
		4.8×2	0~30	12-96 / 100-250	2	
HGCZ107-50A/48V		3.6×4	0~50	12-48 / 250-400	4	1000×550×1600
HGCZ107-65A/48V		4.7×4	0~65	12-48 / 350-520	4	
HGCZ107-80A/48V		5.8×4	0~80	12-48 / 400-630	4	
HGCZ107-65A/80V		7.8×4	0~65	24-80 / 350-520	4	
HGCZ107-50A/48V		3.6×6	0~50	12-48 / 250-400	6	1400×550×1800
HGCZ107-65A/48V		4.7×6	0~65	12-48 / 350-520	6	
HGCZ107-80A/48V		5.8×6	0~80	12-48 / 400-630	6	
HGCZ107-65A/80V		7.8×6	0~65	24-80 / 350-520	6	



- Applications for charging general/free maintenance lead-acid batteries on various kinds of battery operated forklift truck, pallet truck, scissors lift, stacker, industry vehicles and material handling equipments.
- Innovation, environment protect, reliability and durability.
- High efficiency (more than 85%) with consequent saving of energy.
- Flexibility, the same product can charge different kind and different capacity of batteries thanks to easy adjustments.
- Custom models available on special order.
- CE certificate and ISO9001 audit and verification.


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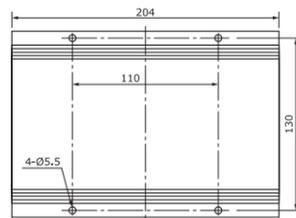
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HWC1B Series Charger



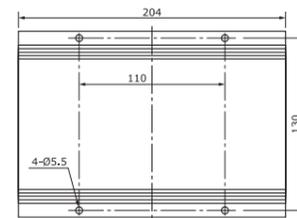
HWC1B



HWC2B Series Charger



HWC2B



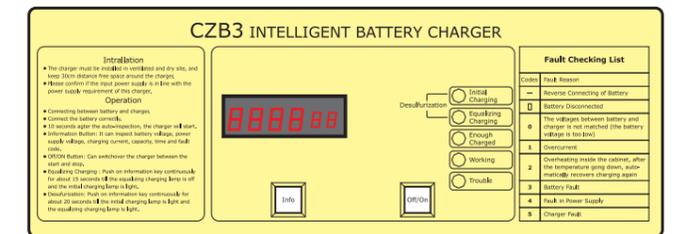
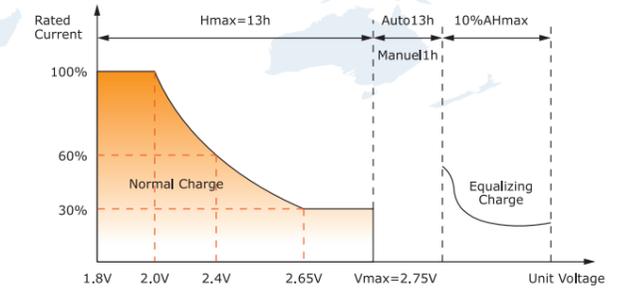
CZB3 Series Charger

CZB3 Series Intelligent Charger:

It is applied for charging the lead-acid batteries set on various kinds of electric fork trucks, lifting truck electric porters, electric tourist cars and other kinds of electric powered cars.



CZB3



Product Introduction

HWC1B series charger is specially design for electric forklift, electric sanitizer, electric yacht, electric club car as well as charging needed and so on. The charger adopts the SCM control to achieve the several-stage charging intelligent management, exactly checks out different states of the battery charging process, and with the temperature compensation function and balanced maintain function. It with these characteristics: small size, high efficiency, stable and reliable, long lift-time, and also be provided with the functions: connect reversal protection, short-circuit protection, low-voltage protection, over voltage protection and thermal protection.

HWC1B series charger technical parameters

- Input voltage: AC 220V±10% AC 220V±15%
- Output voltage: 12V 24V 36V 48V 60V
- Output current: 3A 5A 12A 15A
- Full load efficiency: 86%
- Shake proof level: SAEJ1378
- Operating temp: -20°C—+45°C
- Storage temp:-40°C—+85°C
- Weight: 2kg
- Enclosure dimensions: 204mm×140mm×65mm
- Power: 1000W
- Suit battery: lead-acid cell, lithium cell and so on

Protection feature

- Output short-circuit protection
- Battery reversal connect protection
- Full of battery auto power-off
- Timing power off
- Thermal shutdown protection
- LED indicates charging process
- Temperature compensation and balanced maintain function

Product Introduction

HWC2B series charger is specially design for electric forklift, power pallet trucks, electric fork lift truck, electric sanitizer as well as the electric equipment charging needed intelligence charger and so on. It uses the advanced high frequency converter technique, two-step constant voltage and one-step constant current charging mode. It with the characteristics: small size, high efficiency, stable and reliable, long life-time and so on; and possess the functions: connect reversal production, short-circuit protection, low-voltage protection, over voltage protection and thermal protection.

HWC2B series charger technical parameters

- Input voltage: AC 110V±10% AC 220V±15%
- Output voltage: 12V 24V 36V 48V
- Output current: 5A~15A
- Full load efficiency: 86%
- Shake proof level: SAEJ1378
- Operating temp: -20°C—+45°C
- Storage temp:-40°C—+85°C
- Enclosure dimensions: 204mm×140mm×65mm
- Weight: 2kg
- Power: 300W
- Suit battery: lead-acid cell, lithium cell and so on

Protection feature

- Output short-circuit protection
- Battery reversal connect protection
- Full of battery auto power-off
- Timing power off
- Thermal shutdown protection
- LED indicates charging process
- The complete charging process controlled by CPU
- Authentication: CE authentication

Product Introduction

CZB3 series intelligent charger is most advanced intelligent charger in domestic China with unique advanced technology and superstable features. With the optimized Wa curves,with the application of microprocessor control technology and intelligent dynamic regulating charging technology, so the charging can penetrate into inside of battery plate to reach a complete charging and during the charging process, keep the battery in the state of micro scale bubbling to reduce the evaporating of electrolytic obviously to raise the charging efficiency and battery working life. The product has the feature of perfect function, smart outlook, new man-machine interface, high power factor, energy saving, it is an idea choice for wide range of customers.

Applied Range

It is applied for charging the lead-acid batteries set on various kinds of electric fork trucks, lifting truck electric porters, electric tourist cars and other kinds of electric powered cars.

Technical Features

- Integrates all the judging methods of minus voltage gaining (-ΔV), voltage rising rate (dv/dt), maximum charging capacity (AHmax), maximum charging voltage (Vmax), maximum charging time (Hmax) to ensure the battery charged sufficiently no under-charging, no over-charging.
- Auto-checking, time delay start, soft start.
- High brightness LEDs indicating charger's running state.
- Nixie tubes indicating battery voltage, power voltage, charging current, capacity, time etc.
- With the protection of open circuit, reverse connecting, over load, short circuit and over temperature and fault warning.
- During the charging process, frawing out the power plug to cause auto-shuttung down.
- Self-start and memory function when off the power during charging.
- Displaying fault code when there is fault.
- With desulfurizing function.
- Automatic initial charging function.
- Balanced charging to ensure the consistency of battery cell capacity.

Technical Data

Type/ Specification (A/V)	Rated Input Power Supply (V/Hz)	Rated Charging Current (A)	Charger Input Power (Kw)	Chargable Battery Voltage (V/Ah)	Battery Capacity Charging Time (Ah)		Size (Mm)	Weight (Kg)
					10h	13h		
CZB3-50A/48V	3Phase 380V 50-60Hz	50	2.9	48 / 290-400	290	400	460×380×780	70
CZB3-65A/48V		65	3.8	48 / 375-520	375	520		75
CZB3-80A/48V		80	4.6	48 / 465-640	465	640		82
CZB3-70A/80V		70	6.3	80 / 405-560	405	560	520×380×880	103
CZB3-80A/80V		80	7.2	80 / 465-640	465	640		110
CZB3-100A/48V		100	5.8	48 / 580-800	580	800		103
CZB3-100A/80V		100	9	80 / 580-800	580	800		120
CZB3-130A/48V		130	7.5	48 / 750-1100	750	1100		110



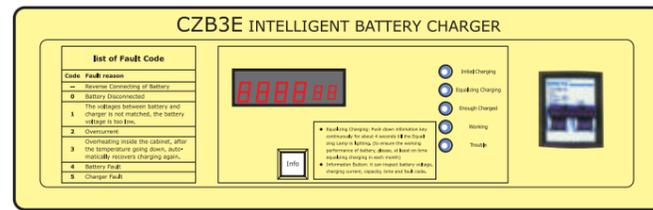
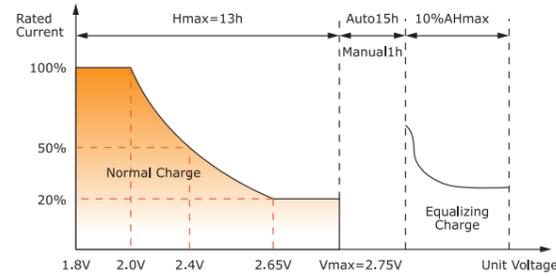
CZB3E Series Charger

CZB3E Series Intelligent Charger:

It is applied for charging the lead-acid batteries set on various kinds of electric fork trucks, electric porters, electric tourist cars and other kinds of electric powered cars.



CZB3E



Product Introduction

CZB3E Intelligent Charger is applied for charging the lead-acid batteries set on various kinds of electric fork trucks, lifting truck, electric porters, electric tourist cars and other kinds of electric powered cars.

With the optimized Wa curves, the charging current automatically decreases with the rising of battery's charged voltage. The application of microprocessor control technology integrates all the judging methods of minus voltage gaining (-ΔV), voltage rising rate (dv/dt), maximum charging capacity (AHmax), maximum charging voltage (Vmax), maximum charging time (Hmax) to ensure the battery charged sufficiently no under-charging, no over-charging, with the dynamic following of charging parameters and automatic regulation and perfect protection.

Technical Features

- Integrating all -ΔV, dv/dt, AHmax, Vmax, Hmax sufficient charging methods as one.
- With the precondition of ensuring battery sufficient charging, it can reduce the battery temperature and bubble during the charging process, thus effectively prolong battery charging and discharging cycle life. High brightness LEDs indicating charger's running state.
- Nixie tubes indicating battery voltage, charging current, capacity, time etc.
- With the protection of open circuit, reverse connecting, over load, short circuit and over temperature and fault warning.
- Displaying fault code when there is fault.
- Auto-checking, time delay start, soft start.
- Balanced charging to ensure the consistency of battery cell capacity;
- Automatic initial charging function.
- During the charging process, drawing out the power plug to cause auto-shutting down.

Technical Data

Item	Type	CZB3E-55A/48V	CZB3E-65A/48V	CZB3E-80A/48V	CZB3E-65A/80V	CZB3E-40A/72V
Input Volt.	V/Hz	2Phase, 380V, 50~60Hz				
Input Power	Kw	3.2	3.9	4.7	5.9	3.2
Input Current AC	A	8.4	10.5	12.5	15.5	8.4
Output Current DC	A	55	65	80	65	55
Battery Cap.	V/Ah	48V, 300-450Ah	48V, 400-550Ah	48V, 500-700Ah	80V, 400-550Ah	72V, 210-350Ah
Size	Mm	460×380×780				
Net Weight	Kg	57	64	67	71	58

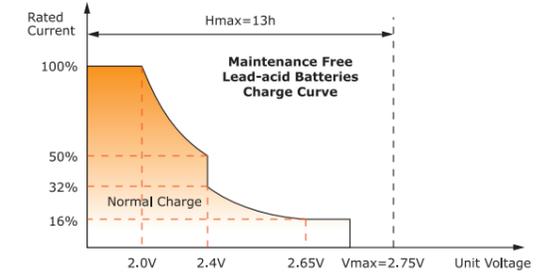
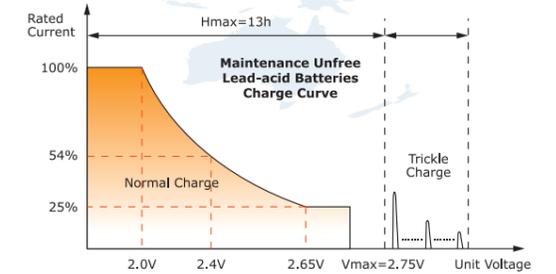
CZB3F Series Charger

CZB3F Series Intelligent Charger:

It is applied for charging for general/free maintenance lead-acid batteries on various kinds of electric cars such as pallet, mover, fork, lift and tourist car etc.



CZB3F



Product Introduction

CZB3F series intelligent charger is suitable for the electric car, fork truck and various kinds of electric powered vehicles lead-acid battery charging.

With the optimized Wa curves, the charging current automatically decreases with the rising of battery's charged voltage. The application of microprocessor control technology integrates all the judging methods of minus voltage gaining (-ΔV), voltage rising rate (dv/dt), maximum charging capacity (AHmax), maximum charging voltage (Vmax), maximum charging time (Hmax) to ensure the battery charged sufficiently. no under-charging, no over-charging; with the dynamic following of charging parameters and automatic regulation and perfect protection.

Technical Feature

- Applying to charging for general lead-acid battery and free-maintenance lead-acid battery;
- With memory function of charging information, to inquire charging times and the whole charging process information of the latest 10 times;

Technical Data

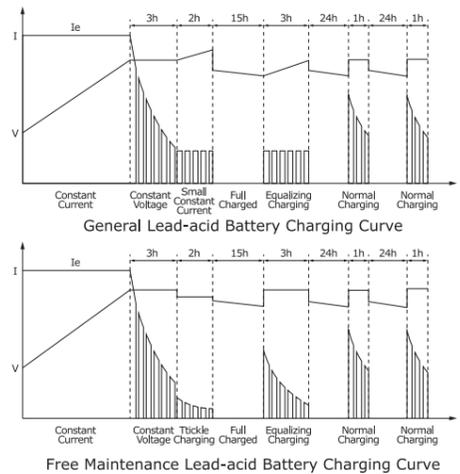
Item	Type	CZB3F-25A/24V	CZB3F-30A/24V	CZB3F-35A/24V	CZB3F-45A/24V	CZB3F-20A/48V	CZB3F-30A/48V	CZB3F-35A/48V	CZB3F-25A/72V	CZB3F-30A/72V	CZB3F-45A/48V	CZB3F-55A/48V	CZB3F-65A/48V	CZB3F-80A/48V	
Input Volt.	V/Hz	1Phase, 220~240V, 50~60Hz										2Phase, 380V, 50~60Hz			
Input Power	Kw	0.85	1	1.2	1.5	1.2	1.7	2	2.1	2.5	2.6	3.2	3.8	4.6	
Input Current AC	A	3.9	4.6	5.4	7	5.3	7.9	9.2	9.3	11.2	6.9	8.4	10	12.2	
Output Current DC	A	25	30	35	45	20	30	35	25	30	45	55	65	80	
Charged Battery	V	24	24	24	24	48	48	48	72	72	48	48	48	48	
The corresponding battery capacity to 9-12 hours charging	Ah	145-200	175-240	205-280	260-360	130-170	175-240	205-280	145-200	175-240	260-360	320-440	375-520	465-640	
Size	Mm	240×260×350							280×430×310			420×350×602			
Net Weight	Kg	20			24			26	30		45	55	58	60	



CZC5 Series Charger



CZC5



Product Introduction

CZC5 series automatic charger is a new generation hi-tech product with advanced technology, stable performance, smart outlook, high degree of intelligence, high efficiency of charging. It smartly combines high frequency and micro-processor controlling technology with advanced charging technology to reach the best charging effect for the battery and prolong the battery pile's working life effectively. It adapts to conventional, maintenance equalizing, initial, floating and forced activation charging for various kinds of battery, and it is the users' idea selection of charger for the battery on electric convey, lift, tray, pile, golf car, tour bus etc., small size vehicles and battery pile on motor car, tank and starting battery for medium and small size power generating set.

Technical Features

- Digital tube displaying charging parameters as voltage, current, capacity and time etc.;
- Mico-processor real time monitoring the changing rate of charging current/voltage, adjusting the charging curve automatically;
- Temperature compensation function for charging constant voltage point;
- Integrating multiple controlling methods of electric quantity, time, capacity etc., auto shut down at completion;
- After completion shutting down, automatic make-up cycling charging function;
- Automatic equalizing charging function to ensure capacity consistency of each cell of battery pile;
- Automatic initial charging function;
- Memory during power interruption and self starting again;
- Auto-checking, time delay start, soft start;
- With the protection of open circuit, reverse connecting, over load, short circuit and over temperature and fault warning.

Technical Data

Type/ Specification (A/V)	Rated Input Power Supply (V/Hz)	Output Power (Kw)	Rated Charging Current (A)	Chargable Battery Range (V/Ah)	Size (Mm)	Weight (Kg)
CZC5C-25A/12V	1Phase 220~240V 50~60Hz	0.45	25	12 / 125-250	170×250×75	2.4
CZC5C-15A/24V		0.54	15	24 / 75-150	200×360×140	5.6
CZC5C-30A/24V		1.08	30	24 / 150-300		
CZC5C-20A/48V		1.44	20	48 / 100-200	220×400×140	7
CZC5C-50A/24V		1.8	50	24 / 250-500		
CZC5C-30A/48V		2.16	30	48 / 150-300		
CZC5C-50A/48V		3.6	50	48 / 250-500	300×404×180	10
CZC5C-30A/72V		3.24	30	72 / 150-300		

We will provide the best service for user both during selling and after-sales. Welcome the customer to choose our products. Please inform us the type and specification of battery, we can recommend the most suitable charger for you.

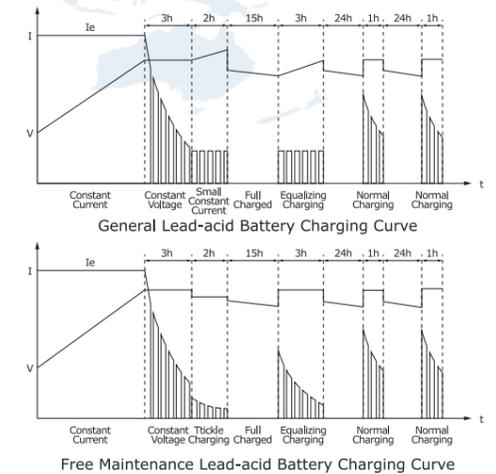
CZC6 Series Charger



CZC6



DC Articulator: 50A, 175A, 350A and Others



Product Introduction

CZC6 series automatic charger (regulated, a derive from CZC5 product) is a new generation hi-tech product with advanced technology, stable performance, smart outlook, high degree of intelligence, high efficiency of charging and wide range of application. It smartly combines high frequency and micro-processor controlling technology with advanced charging technology to reach the best charging effect for the battery and prolong the battery pile's working life effectively. It adapts to conventional, maintenance equalizing, initial, floating and forced activation charging for various kinds of battery, and it is the users' idea selection of charger for the battery on electric convey, lift, tray, pile, golf car, tour bus etc., small size vehicles and battery pile on motor car, tank and starting battery for medium and small size power generating set.

Technical Features

- One charger for multiple applications, for charging various specifications of battery;
- Digital tube displaying charging parameters as voltage, current, capacity and time etc.;
- Micro-processor real time monitoring the changing rate of charging current/voltage, adjusting the charging curve automatically;
- Temperature compensation function for charging constant voltage point;
- Integrating multiple controlling methods of electric quantity, time, capacity etc., auto shut down at completion;
- After completion shutting down, automatic make-up cycling charging function;
- Automatic equalizing charging function to ensure capacity consistency of each cell of battery pile;
- Automatic initial charging function;
- Memory during power interruption and self starting again;
- Auto-checking, time delay start, soft start;
- With the protection of open circuit, reverse connecting, over load, short circuit and over temperature and fault warning.

Technical Data

Type/ Specification (A/V)	Rated Input Power Supply (V/Hz)	Output Power (Kw)	Rated Charging Current (A)	Chargable Battery Range (V/Ah)	Size (Mm)	Weight (Kg)
CZC6-20A/24V	1Phase 220~240V 50~60Hz	0.72	7-20	12-24 / 50-200	200×360×140	5.6
CZC6-30A/24V		1.08	10-30	12-24 / 70-300	200×360×140	5.6
CZC6-50A/24V		1.8	17-50	12-24 / 150-500	220×400×140	7

We will provide the best service for user both during selling and after-sales. Welcome the customer to choose our products. Please inform us the type and specification of battery, we can recommend the most suitable charger for you.