**CZC9P 系列智能充电机**CZC9P series intelligent charger

**充电机概述Charger brief introduction**

CZC9P 系列自动充电机将高频开关电源与嵌入式充电控制技术结合，采用成熟可靠的高频电源作为充电机功率模块，辅以先进的嵌入式控制器，通过PWM、PID控制方式，检测与控制充电过程，对充电参数进行智能动态调整，实现设定的充电特性曲线。

**CZC9P series auto-charger combines with high frequency switching power supply and embedded charging control technology ,using mature and reliable high frequency power supply as the charging module , and equipped with advantage embedded controller,by PWM、PID control method ,detect and control the charging process ,and adjust the charging parameters intelligently to fulfill the set charging curves.**

嵌入式充电控制器组成的充电控制系统，为充电机提供了简单、方便的人机界面，方便用户设置充电过程参数，或者显示充电过程数据，使用户可以直观了解蓄电池、充电机在充电过程的各种状态。

**The charging control system constituted of embedded charging controller provides single and convenient human machine interface ,the users can set the charging parameters conveniently ,or it can display charging parameters and the users can receive the state information of the battery and the charger during the charging process.**

该系列产品采用专利的外观设计，体积小、重量轻、可靠性高。

This series products use patented appearance design, with small size 、low weight and high reliability

最适合为各种铅酸蓄电池充电，包括为托盘车、叉车、搬运车、升降车、游览车等各种电动车辆上的铅酸蓄电池的充电。

**It is suitable for different lead-acid batteries ,including pallet truck 、fork lift 、lift truck、sightseeing bus and so on which have lead-acid batteries.**

**充电机功能 Charging functions**

1. 析气电压温度补偿：自动测试环境温度，根据环境温度，计算本次充电的恒压电压，按照设定的充电系数控制充电容量。

**The gas chromatography voltage temperature compensation: Test the environment temperature automatically, and calculate the constant voltage point of this charging process according to the environment temperature and control the charging volume by the set charging coefficient**

1. 充足控制方法：充电容量控制、充电时间控制等多种控制方式，确保了蓄电池充电效果。

**Sufficient charging method:Combine with time control and volume control to make sure the best charging effect.**

1. 保护与报警：开路、过载、过热等基本的保护功能；

**Protection and alert: open circuit protection 、over load protection 、over temperature protection and so on.**

1. 启动与关机：充电机自动检测充电条件，满足条件后延时启动充电机；启动时，充电电流逐步上升到额定电流，避免蓄电池产生冲击电流；充电机判断充足后，自动停止充电。

Start up and shut down: The charger detects charging condition automatically, the charger will start up delayed when meets the start condition to guarantee the safety of operator. when start, the charging current will rise to the rated current slowly to avoid plus current. When the charger is charged, it will be shut down automatically

1. 断电保护功能：充电过程中途断电时，充电机停止充电，充电机电源恢复后，充电机自动启动，继续充电，直到蓄电池充足关机。

Power off protect function: if powered off during the charging process ,the charger will be shut down ,when re-powered on ,the charger will restart automatically to keep charging until the battery is charged.

1. 充电数据记录：采用SD卡，记录充电过程数据、曲线，方便充电数据查询。

Charging datas record: using SD card to record the charging process datas and curves and inquiring the charging dates.

1. 具有保持充电功能：正常充电完成后，只有蓄电池与充电机仍然连接，充电机定时以脉冲充电方式对蓄电池进行充电，以补充充足后未使用电池自放电的损失；

Keep charging function: After normal charging process finished ,only the battery and the charger are still be connected ,the battery will be charged by pulse current to supply the lose of unused battery self discharge

1. 各种标准的充电模式选择：充电机具有自动均衡充电、手动均衡充电、脱硫充电、初充电模式，满足蓄电池生命周期需要的各种充电要求。

Different charging mode selection :Auto equalization charge、manual equalization charge、desulfurization charge 、initial charge mode to fulfill different charging demands

**主要技术参数 Main technical parameters**

CZC9P-Dxx/xx充电机系列：输入电源为三相AC(3/PE)，频率：50/60Hz。

CZC9P-Dxx/xx series charger :input voltage is three-phase AC(3/PE),frequency

50/60Hz。

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| 型号  规格[**product**](C:/Users/xzc/AppData/Local/Yodao/DeskDict/frame/20160312094300/javascript:void(0);)[**model**](C:/Users/xzc/AppData/Local/Yodao/DeskDict/frame/20160312094300/javascript:void(0);) | 输入功率  Input power KW | 输入电流input current AC A | 输出电流output current  DC A | 匹配  蓄电池battery volume  V/Ah | 外形尺寸**Dimension(width\*depth\*height)**  (宽×深×高)mm | 净重  weight  kg |
| 48V/60A | 4.0 | 8.5 | 60 | 48/(350-480) | 500×300×280 | 20 |
| 48V/70A | 4.7 | 10.0 | 70 | 48/(410-560) | 20 |
| 48V/80A | 5.4 | 11.4 | 80 | 48/(465-640) | 21 |
| 48V/100A | 6.7 | 14.2 | 100 | 48/(580-800) | 21 |
| 48V/120A | 8.0 | 17.1 | 120 | 48/(700-960) | 22 |
| 80V/60A | 6.7 | 14.2 | 60 | 80/(350-480) | 22 |
| 80V/70A | 7.8 | 16.6 | 70 | 80/(410-560) | 22 |

注：清单中列出了部分常规规格，根据客户要求，特殊规格，可以定制！

Its only list part of product models in the table, We do customized commissioned works to meet Special charging requirements and configurations