

GZDW-□

直流屏

GZDW-06 Direct Current Panel



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概述 General

GZDW-06 型镉镍蓄电池直流屏是我厂总结了多年的制造试验，搜集了数百个变电站的运行记录，广泛征求设计和使用单位意见，针对目前国内同类产品普遍存在的一些问题而设计更新换代型产品。适用于电力系统中小型发电厂、变电站及以下工矿企业配电室，作为高压断路器直流操作机构的分合闸电源及控制回路、继电保护、信号回路、事故照明的直流电源。

GZDW-06 direct current panel with cadmium nickel storage battery is the updating products for the result of many years of manufacturing experience, of collecting hundreds of substation operation records, of widely adopting the opinions from units of design and use, and of solving the problems for old type products. It is applicable to small and medium-sized power plants in power system, transformer substations, and the distribution of industrial and mining enterprises, as the switching power supply of high voltage DC circuit breaker operating mechanism, loop control, relay protection, signal circuit, and DC power supply of emergency lighting.

工作原理 Operating Principles

GZDW 型直流屏内装有 2-3 套高频开关整流装置。其中一套高频开关按稳压方式运行，直接向控制母线供电。另一套高频开关按稳流方式运行，承担对蓄电池组的主充及浮充任务。蓄电池组直接向合闸母线供电，蓄电池组经挂链降压向控母供电，以确保控制母线在任何情况下都保持电压连续。

GZDW type direct current panel is equipped with 2 or 3 sets of high frequency switch rectifier device. One set of high frequency switch supplies the power to the control busbar directly in the way of voltage stabilization. Another set of high frequency switch charges the storage battery mainly and floatingly in the way of current stabilization. So the storage battery can supply the closing busbar directly or the storage battery can supply the control busbar by lowering voltage through hanging chains to ensure that the control busbar can keep continuous voltage under any circumstances.

基本参数和技术指标 Specifications

- ◆ 额定输入交流电压 : $380V \pm 15\%V$ 、频率 : $50Hz \pm 10\%Hz$
Rated Input AC Voltage: $380V \pm 15\%V$, Frequency: $50Hz \pm 10\%Hz$
- ◆ 额定直流输出电压 : $220V$ 、 $110V$
Rated Output DC Voltage: $220V$ 、 $110V$
- ◆ 额定直流输出电流 : 8 、 12 、 15 、 20 、 30 、 40 、 $50A$
Rated DC Output Current: 8 、 12 、 15 、 20 、 30 、 40 、 $50A$
- ◆ 蓄电池额定容量 : 镉镍蓄电池高倍率额定容量 : $10Ah$ ~ $200Ah$
Rated Capacity of Storage Battery: High-rate Rated Capacity of Cadmium Nickel Storage Battery: $10Ah$ ~ $200Ah$
- ◆ 直流母线绝缘电阻不小于 $10MQ$; 绝缘强度工频 $2KV$, 耐压 $1min$ 内不击穿
DC Busbar Isolation Resistance $\geq 10MQ$; Isolation Strength Power Frequency $2KV$, Withstand Voltage in $1min$ will not breakdown.
- ◆ 稳定精度 $\leq 1\%$
Stabilization Accuracy $\leq 1\%$
- ◆ 稳流精度 $\leq 2\%$
Precision of Steady Current $\leq 2\%$
- ◆ 纹波系数 $\leq 2\%$
Ripple Factor $\leq 2\%$
- ◆ 噪声 $\leq 55dB$
Noise $\leq 55dB$
- ◆ 柜体尺寸
 $2200mm \times 800mm(1000、1200)mm \times 600(800)mm$
 $2300mm \times 800mm(1000、1200)mm \times 600(800)mm$
Cabinet Dimension:
 $2200mm \times 800mm(1000、1200)mm \times 600(800)mm$
 $2300mm \times 800mm(1000、1200)mm \times 600(800)mm$

结构特点 Structure Features

- ◆ 用高频开关代替了传统产品中的铁磁饱和式主充机，浮充机，克服了传统产品稳压、稳流精度低噪声大、温升高等缺点。
High frequency switch replaces ferromagnetic saturation type main charge machine and floating charge machine of the traditional products and overcomes low stabilization accuracy, low precision of steady, loud noise, and high temperature rise of the traditional products.
- ◆ 备用通道的调入施工采用无触点开关动投入。
The transferred part of the spare channel adopts non-contact switch to switch in.
- ◆ 本系列直流屏对蓄电池的充电采用最佳的充电方式，前期恒流，后期恒压，并可实现充电状态的自动转换。
This direct current panel uses the best way to charge the storage battery: constant current for earlier period, constant voltage for later period and these two periods can exchange automatically.
- ◆ 本系列直流屏设有自动稳流，动稳压、限流、短路保护及过压保护功能。
The direct current panel has such protection functions: stabilize current automatically, stabilize voltage dynamically, limit current, protect circuit, and protect over voltage.
- ◆ 整机可对外输出母线电压高低，母线接地，充电机故障等信号接点。
The whole cabinet can output signal contacts of busbar voltage, busbar grounding, and battery charger fault etc.