

Intelligent Integrated Power Supply System

PSDB

PSDB series intelligent integrated power supply system is designed for a variety of large capacity users of AC and DC integrated power supply system. The integrated AC and DC power supply system adopts a layered distribution architecture. The station AC power supply, DC operation power supply, power special UPS and power special inverter (INV), DC/DC conversion power supply (DC/DC) and other equipment are designed and configured in an integrated way. Through a unified intelligent network platform, the centralized power supply and unified monitoring and management of the substation power supply are realized. Then the on-line state detection is realized. Its operating conditions and information data can be displayed and converted into standard model data through the integrated monitoring device, which is connected to the station control layer switch of the local automation system in the standard DL/T 860(IEC61850) format, and uploaded to the remote control center. The station AC power supply is composed of AC panel monitoring module, AC monitoring module, switch quantity monitoring module, automatic transfer switch ATS, incoming plastic-case switch, current transformer, intelligent power meter and feeder circuit breaker. It realizes the power distribution and protection from station power AC output to rectifier module, and fundamentally guarantees the safe and reliable switching of power supply. Dc operating power supply is a power supply that can reliably supply power to all control loads and various power loads in the substation under normal and accident conditions. The DC power system consists of DC panel monitoring module, rectifier module, buck module, battery inspection module, insulation monitoring module, switch quantity monitoring module, power distribution unit, and battery pack.

Suitable for power plants, hydropower stations, all kinds of substations, switching stations and other users using DC equipment, to provide a stable and reliable power supply for a variety of network communication instruments and equipment, and to ensure the safe and reliable operation of communication equipment.





Model Meaning

- ① SEE
- ② AC and DC integrated power supply
- ③ Battery capacity (Ah), two batteries ×2
- ④ DC screen rated output voltage (DC) :220V, 110V
- ⑤ UPS Code
- ⑥ UPS capacity: 2KVA, 3KVA, 5KVA, 10KVA, 15KVA, 20KVA, 30KVA
- ⑦ UPS rated output voltage (AC) : 220V, 380V
- ⑧ DC conversion module code
- ⑨ DC conversion module rated output voltage (DC) : 48V, 24V
- ⑩ DC conversion module output current: 20A, 30A, 40A, 60A, 80A, 100A, 150A

National Standards

DL/T 459-2017 DC power supply equipment for electric power;
DL/T 637-2019 Fixed valve-controlled lead-acid battery for electric power;
DL/T 724-2000 Technical specification for operation and maintenance of accumulator DC power supply device for power system;
DL/T 781-2001 High frequency switching rectifier module for electric power;
DL/T 856-2004 DC power supply monitoring device for electric power;
DL/T 857-2004 Technical conditions for rectifier inverters for batteries in power plants and substations;
DL/T 1392-2014 DC power system insulation monitoring device technical conditions;
DL/T 5044-2014 Power engineering DC power system design technical specification;
GB/T 19826-2014 Power engineering DC power equipment general technical conditions and safety requirements;
GB/T 17626.18-2016 Electromagnetic compatibility test and measurement techniques Damping oscillation wave immunity test.

Technical Parameter

Item	Parameter index
Rated input voltage	AC 380V±20%
AC input frequency	50Hz±10%
Rated AC output voltage	AC 380V、AC 220V
Rated AC output current	100A、160A、200A、300A、400A、630A
Rated DC output voltage	220VDC、110DC、48VDC、24VDC
Rated DC output current	30A、40A、60A、80A、100A、150A、200A
Accumulator capacity	100Ah、150Ah、200Ah、300Ah、400Ah、500Ah、600Ah、800Ah、1000Ah、1500Ah、2000Ah.....
Stable pressure accuracy	≤±0.5%
Stable flow accuracy	≤±1%
Ripple factor	≤±0.5%
UPS power rating	2KVA、3KVA、5KVA、10KVA、15KVA、20KVA、30KVA
UPS output voltage	AC 220V/AC380V±2%
UPS output frequency	50HZ±1%
The UPS output is required for the waveform distortion	5%(Linear load)
UPS dynamic response	5%(0%~100% load)
DC to transform the rated output voltage	48VDC、24VDC
DC conversion of the rated output current	20A、30A、40A、60A、80A、100A、150A
Insulation strength	>10MΩ 2kV AC for one minute, no flashover, no breakdown
Operate mode	Continuous long-term operation
Cooling-down method	Intelligent temperature control, air cooling, efficient and natural cooling