



GDZL-3kA Customized 3000A DC Large Current Generator



General Information

At present, the DC large current generators produced by most manufacturers are based on the principle of voltage regulators and current rise transformers. The equipment produced by this principle is not tight and large in weight, and the process of rising current is slow and the control precision is low. Very inconvenient for on-site operation. In order to solve the need of DC large current generators on site, HV HIPOT developed a set of instruments suitable for DC large current generators for power system mobile use. Some manufacturers' test and calibration equipment mostly uses analog signals or super capacitor discharge methods to provide test signals for simulation of working state test and calibration. However, the on-state voltage drop of the high-current DC circuit breaker and the switch is not linear, and the test result does not match the actual working state because the operating current

cannot be supplied or the stable continuous operating current and the debugging current cannot be provided. The device does not reach the running effect, and there is a security risk. In order to ensure safe operation, some places take replacement measures for suspected switches, circuit breakers, etc., and equipment that can be completely used can be directly scrapped through inspection and calibration, resulting in unnecessary economic losses.

GDZL-3KA DC high current generator adopts the main high frequency transformer of nanocrystalline material, and imports high power insulated gate bipolar transistor "IGBT" module as the main power device, high quality material selection ensuring the quality, There is an incomparable superiority of the conventional ordinary DC large current generator. This DC high current device adopts smart quick intelligent power test system (soft dialing number 1010215, trademark registration number 14684481), HV HIPOT company introduces international advanced full bridge phase shift soft switching technology, PWM control, Closed-loop sampling, soft start, over-voltage, over-current, overheat protection ,and output efficiency and accuracy. Small size, light weight makes the power supply can work stably, reliably and safely.

Features

- Display control part adopts Siemens industrial grade PLC controller and 7 inch color LCD touch screen to display clear, friendly, intuitive and anti-interference ability.
- Positive and negative output electrodes, double-layer 10×120 brass copper row superimposed output, large contact area and small contact resistance, hot fast flow ability.
- Built-in 8 sets of DC powerful fans, Fast heat dissipation and low noise.

- The system has constant current, constant voltage and constant power output functions, which is safe and reliable.
- Complete protection with output over voltage, over current, over power, over temperature protection, when the system is working
- When an over-voltage, over-current, or over-temperature setting occurs, the system automatically cuts off the output to protect the system.
- Volume and weight are 1/5-1/10 of the risen mode of the traditional thyristor rectifier and the coupled regulator. Make move, maintenance and installation easy .
- The whole system adopts IGBT and high-frequency transformer, and the conversion efficiency is greatly improved. Under normal circumstances, SCR devices increase efficiency by more than 50%.
- The system has a fast response speed, is highly adaptable to grid and load changes, and has high output accuracy.
- When the grid fault causes the equipment to run out of phase, the system will automatically stop the output.
- Allow the power supply to change range of $380V \pm 10\%$, and automatically adjust the pulse width when the grid exceeds the allowable range. The device is operating normally.
- The system software adopts the fast-speed PLC programmable control system developed by HV HIPOT. The system has high scalability and high reliability, which is conducive to maintenance and upgrade.

Specification

Model		GDZL-3kA	
Input	Input method		3 phase 3 wire + ground wire
	Voltage		380V±10%
	Frequency		50Hz/60Hz±5 Hz
Output	Rated power		36kW
	Voltage adjust range		0V-12V
	Current adjust range		1A-3000A
	Voltage output accuracy		1.0%RD+1.0%FS
	Current output accuracy		1.0%RD+1.0%FS
	Voltage display accuracy		2.0%FS
	Current display accuracy		1.0%FS
	Source effect		≤0.1%FS
	Load effect		≤0.1%FS
	Display resolution	Voltage	0.1V

		Curr ent	100A
	Respond time		≤10ms (10%-90% load change)
	Effectiveness		≥90%
	Working characteristics		Output can working long time
Operating display			Color touch screen display and operate
Protective function			Input phase loss, over voltage and under voltage protection, output over voltage protection, output over current protection, etc.
Output interface			RJ45
Safety characteristics	Insulation resistance		≥20MΩ
	Withstand voltage		2000V DC test 60 seconds, no arcing, breakdown
	Earth resistance		≤100mΩ
Noise			≤65dB
Protection level			IP20

Cooling method		Forced air cooling
Working ambient	Environment temperature	-20℃～35℃
	Environment humidity	10%～90%(non-condensation)
	Altitude	≤2000m
Dimension(L*H*W)		600*1100*700 mm
Weight		About 200kg