Pulse xenon lamp energy storage parameters

An energy storage capacitor and pulse xenon lamp technology, which is applied to battery circuit devices, circuit devices, current collectors, etc., can solve the problems of affecting the current stability of the discharge part, shortening the service life of energy storage capacitors, and difficulty in selecting switch tubes. The effect of improving the power factor of the power supply ...

The invention discloses the pulse pump supply unit that a kind of xenon lamp encourages high-energy laser, it includes charge and discharge electronic module, conflux busbar, harmonic inductance, xenon lamp and disconnecting switch, the charge and discharge electronic module for setting quantity is connected in parallel on an input for the busbar that confluxes, if the output ...

A multifunctional pulse xenon lamp power supply based on PLC control is composed of a charging circuit, a control circuit and a trigger circuit. The programmable logic controller is used for completing the quick charging of the circuit and the mutual conversion among different working modes. Through the operation of the touch screen, the required working parameters can be ...

Practical operation indicates that the pulse power supply can provide specific required pulse current and energy for the pulsed xenon lamp. The design method of the pulsed power supply can provide a reference for the design of the pulsed power supply, and lay a foundation for the higher capacitive energy storage application.

A Comparison of Light Sources 14 Xenon Pulsed Lamp Incandescent Bulb Mercury Lamp 1000W 100W 100W Gas Discharge (Xenon) Filament Heating Mercury Vapor Excitation High Voltage (1-10KV) Mains Driven (110V) Mains Driven (110V) Ballast Broad Spectrum UV Rich Visible and IR UV Instant On/Off Some Time Time to Heat Up

The use of xenon plasma radiation limited by a quartz shell (flask) as a source of UV radiation (flash lamp) has proven its effectiveness in the development of optoelectronic systems for disinfecting air and surfaces [1, 2].The advantages of a xenon flash lamp in comparison with other sources of UV radiation (low- and high-pressure mercury lamps, metal ...

The invention discloses a pulse xenon lamp light source, a control method and a test system for realizing square wave characteristic output, wherein a multi-level pulse forming network is adopted for the pulse xenon lamp light source, each level of the pulse forming network respectively comprises a capacitor and an inductor with the same parameters, the capacitor ...

sists of two lamp housings, a power supply and a pulse forming network. Each lamp system is capable of

pulsing two lamps at up to 500 Joules-per-pulse or one lamp at up to 1000 Joules-per-pulse. Spare lamp housings can be kept in an integrated storage cabinet for quick replacement. The modular design

2.2. The calculation and selection of the pulse xenon lamp"s main parameters In addiction to the working voltage, the following several main parameters should be paid attention to. (1) The maximum allowable input energy of the pulse xenon lamp If the input energy of the pulse xenon lamp exceeds the maximum, it will explode. The value is

The ratio of pump energy at the explosion energy is a crucial parameter for the lamp lifetime. ... possibly with a limitation of the applied electrical pulse energy. Some strobe lamps are available with a very short arc (small electrode gap), so that one approaches a point source. ... one may use a xenon flash lamp for exciting fluorescence in ...

the system automatically calculates and displays energy setting. Or, conversely, users can select voltage and energy, and the system sets the pulse duration. Lamp operating parameters (voltage and current) and pulse energy are monitored and displayed to confi rm system operation. Programming pulse profi les and sequencing is done on a single ...

The pulse xenon lamp setup is composed of a pulse xenon light, a boost module, a trigger module and a storage capacitor. It converts the electric energy into radiant energy and emits pulsed light covering a wide range of wavelength from 200 nm to 1100 nm.

Under the unified conditions of fashlamp explosion coefficient being 0.25 and current pulse width 480 ms, the calculated values of loop energy storage, voltage, peak current density and other parameters of each scheme are shown in Table 2 according to Formula (3).Among them, the pulse width and explosion coefficient of scheme 1 and Scheme 8 are ...

Intense pulsed light (IPL) is used in various applications in the field of electronic printing. Specifically, IPL is used to improve the curing, sintering, and printing quality of printed materials because light sources are strongly irradiated for short periods [1,2,3,4,5,6,7,8,9].The currently adopted xenon flash lamp is a type of gas discharge lamp that produces light by ...

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