

**FLASHLAMP DRIVER PS5140 SERIES FOR HIGH ENERGY SYSTEMS**

PS5140 model flashlamp driver is designed for single or multi-lamp pumping of high energy pump chambers usually based on phosphate glass rods. This is highly-customizable power supply containing one or two channel charging unit PS5140K and required quantity of one or two channel discharging units PS5140I. Each discharging channel is suited to drive one lamp. PS5140 has as many discharge channels as pump chamber has flashlamps. All discharging channels works synchronically. Description of PS5140 given here is only as one example of possibilities to built high energy powering system and it can be flexibly changed any time by ordering. All set of charging and discharging units can be mounted to 19" standard racks (sold separately).

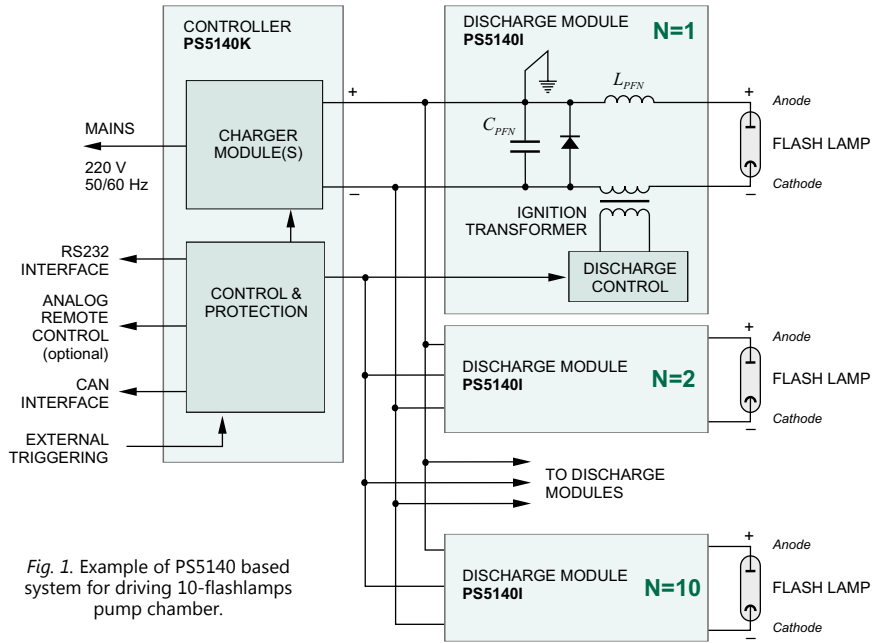


Fig. 1. Example of PS5140 based system for driving 10-flashlamps pump chamber.

**FEATURES**

- Up to 10 and more discharging channels with one charging channel
- Output voltage up to 3000 V
- Output voltage regulation better than ±0.3%
- Up to two discharge channels per one 19" case
- LCD display and menu user interface
- Built-in serial ignition circuit
- Internal/external triggering
- RS232/CAN computer interface

**APPLICATIONS**

- Glass amplifier pumping
- Intense pulsed lighting (IPL)



Fig. 2. Set of rack mounted PS5144K and PS5144I units

**GENERAL SPECIFICATIONS \***

Charging unit PS514xK				
Number of independent outputs	1 (2 as option)			
Number of charging modules	1	2	3	4
Max. average output power $P_{avg}$	0.8 kJ/s	1.6 kJ/s	2.4 kJ/s	3.2 kJ/s
Internal capacitor at output	10 $\mu$ F			
Max capacitor bank charging voltage $U_{ch}$	3000 V			
Load voltage regulation	0.1 %			
Pulse to pulse stability	0.1 %			
Voltage linearity	0.2 %			
Protection features	overvolt, overheat, interlock			
Remote control	RS232 / CAN (CANopen as option)			
Triggering mode	internal/external			
Mains	Single phase, 230 V (-10%, +6%), 47–63 Hz			
Power consumption, average	< 1.8 kW	< 3.2 kW	< 4.5 kW	< 5.8 kW
Power consumption, peak	2 kW	4 kW	6 kW	8 kW
Dimensions	19" x 7" front panel, 547(D) x 440(W) mm case			
Operation conditions				
Ambient temperature	0 to 40 °C			
Humidity	up to 90 %, non-condensing			

Discharging unit PS514xI	
Number of independent outputs	2 (1 as option)
Maximal capacitors bank voltage	3000 V
Maximal capacitors bank capacity at 3 kV	600 $\mu$ F
Output pulse energy at 3000 V	2700 J
Typical repetition rate	<1 Hz
Ignition pulse amplitude	30 kV
Triggering mode	controlled by charging unit
Simmer	N/A
Mains	N/A
Dimensions	
19" x 10.5" front panel, 547(D) x 440(W) mm case	
Operation conditions	
Ambient temperature	0 to 40 °C
Humidity	up to 90 %, non-condensing

\* Specifications are provided for illustrational purposes only. Please contact EKSPILA for quotation, tailored for Your requirements.