

The diagram illustrates the electrical control system for a 100-ton crane, divided into three main sections:

- Main Control Circuit (Top Left):** Shows the power supply and control elements. It includes a 33V and 45V power source, a "Пуск" (Start) button, a "Стоп" (Stop) button, and a "Выкл. Аварийный" (Emergency Stop) button. The circuit is connected to a 230V AC supply via a 230V/0.3A fuse. The main circuit is protected by a 100A circuit breaker and a 100A fuse. The control circuit is protected by a 10A fuse and a 10A circuit breaker. The main circuit is connected to the crane's motor via a 100A circuit breaker and a 100A fuse.
- Pre-amplifier Block (A3 - Блок предусилителя):** This block contains two vacuum tube stages. The first stage uses a 6X4 tube (VT1) and the second stage uses a 6X5 tube (VT2). The circuit includes various resistors (R1-R28) and capacitors (C1-C15) for biasing and timing. The output of the second stage is connected to the main control circuit via a 10A circuit breaker and a 10A fuse.
- Power Supply Block (A5 - Блок питания):** This block provides the DC power for the control system. It features a power transformer with a primary winding connected to a 230V AC supply and a secondary winding with multiple taps (1-10). The transformer is connected to a 100A circuit breaker and a 100A fuse. The secondary winding is connected to a 100A circuit breaker and a 100A fuse. The power supply block includes a 100A circuit breaker and a 100A fuse. The power supply block is connected to the main control circuit via a 10A circuit breaker and a 10A fuse.

Принципиальная электрическая схема ЭПУ типа G-602 блока предусилителя (A3) и блока питания (A6)