

The technical parameters of Pantograph monitoring camera

1.1 Function Description

The pantograph video monitoring system is used for real-time monitoring of the working state of the pantograph and contact network on the roof of the vehicle during operation, taking into account the operating state of the high-voltage equipment near the pantograph. The pantographs and high-voltage components are displayed in a polling mode, providing supplementary monitoring video and analysis images for the accompanying mechanics to deal with abnormal lowering of the bow and other bow network faults. Setting up the monitoring screen in the machinery room or cab's room. A camera is set up near the pantograph on the roof of the rolling stock, and a pantograph video monitoring server is set up in the carriage where the camera is located. The pantograph video monitoring system and the carriage video monitoring system of the rolling stock share the pantograph video monitoring server.

1.2 Specification Details

- 1) Type: HD camera.
- 2) Rated voltage: 24V.
- 3) rated power: $\leq 5W$ (heating function off, fill light power $10W \pm 15\%$), $\leq 25W$ (heating function on, fill light power $10W \pm 15\%$).
- 4) horizontal resolution (nominal): ≥ 700 TV Line, the measured error is not more than 10%.
- 5) signal-to-noise ratio: ≥ 48 dB.
- 6) lens focal length: 3.6mm, 6mm optional.
- 7) infrared irradiation distance: 10-30 m.
- 8) low illumination: 0.005 LUX can work normally.
- 9) cover requirements: aluminum alloy.
- 10) cover protection requirements: rust, corrosion prevention.
- 11) camera lens protection material: tempered glass.
- 12) camera housing color: can be customized.
- 13) protection level: IP 68 (including mounting surface, bolt rust-proof or using stainless steel bolts).
- 14) shape structure requirements: the whole open mold processing, into a streamlined, can not have sharp corners.
- 15) functional requirements: with fill light function, rain and snow anti-fouling function, heating glass function (can be set to open the temperature limit)
- 16) Visual field coverage requirements: can cover the space area from 200mm above the contact network to the insulator installation flange.

1.3 Size diagram

