

Unbalance test for three-phase devices

KEY WORDS

• AC power source • Three-phase difference • Voltage fluctuation test

PRODUCTS

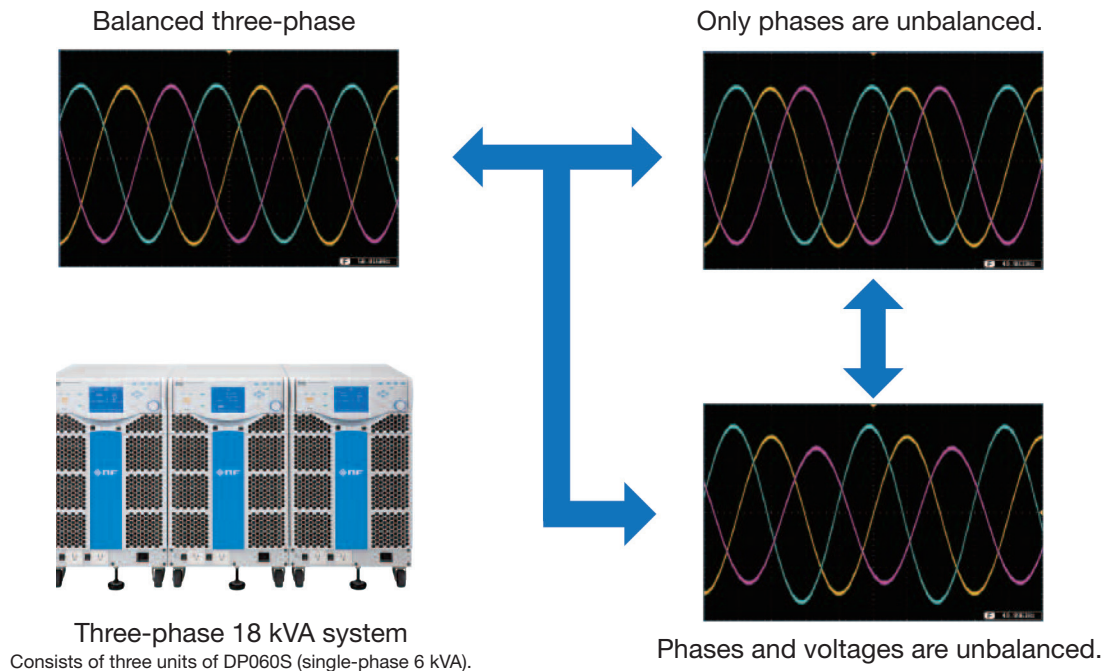
Programmable AC power source DP series

A three-phase power-distribution system has balanced three phases with each phase difference 120° . When a failure occurs in the power-distribution system, however, the system may go into an unbalanced three-phase state where voltages of the phases become inconsistent or the phase difference changes from 120° . Thus, devices operating on a three-phase basis require testing for verifying operations when unbalance occurs.

● By using the three-phase system of DP series

- ▶ In addition to a voltage value per phase or a line voltage value, you can individually set a phase difference per phase in an unbalanced state testing.
- ▶ The sequence function is equipped. The sequence editing software is included.
- ▶ You can change voltages and phases in an unbalanced state during the output enable state.

Example of unbalanced three-phase test with DP series



- You can switch between the balanced and unbalance mode.
- The voltage/phase setting for the unbalance mode is as follows.
Voltage setting resolution: 0.1 V per phase/0.2 V per line
Phase setting: between L1 to L2 $120.0^\circ (\pm 35.0^\circ)$, L1 to L3 $240.0^\circ (\pm 35.0^\circ)$
- In conjunction with the low frequency immunity test software DP0408, you can conduct testing when the international standard "IEC 61000-4-27 Unbalance, immunity test" is required.