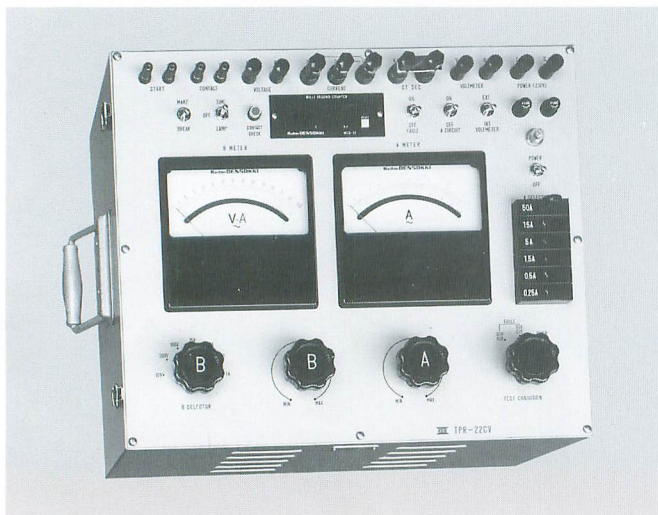


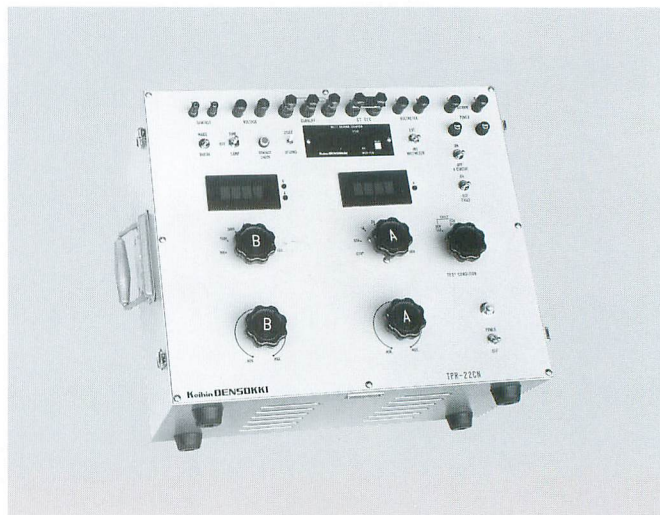
Protective Relay Test

For maintaining and protecting valuable electric machines and complicated transmission line networks, recently the protective relaying systems are so complex and delicate that there are various kinds of relays in use and every relay is required to play important role for the above purpose. Therefore, these relays must be tested periodically or when it is necessary, and always they have to be supervised to maintain the perfect performances of the relays. To cope with such various test conditions, the several types of test equipment are prepared and the adequate equipment are selected by customers in accordance with the scale of the relaying systems under test.

Protective Relay Test Set : Models TPR-22 series Current & Voltage Adjusters : Models TPR-22CV & TPR-22CN



Model TPR-22CV
500×420×270(H) mm, 33 kg



Model TPR-22CN
500×420×320(H) mm, 43 kg

- Model TPR-22 series are designed to meet the static and dynamic tests of relays with voltage and current elements, for instance, over-current relay, under voltage relay and differential relay.
- Such essential measuring instruments as voltmeter, ammeter and timer are mounted in adjuster, so that preparations for relay tests are very easy, and the correct test results can be obtained

at less efforts.

- Adjuster provides the unique circuitries to change-over the test conditions from the normal to a fault voltage or current instantaneously.
- When testing relays which require phase shifting capability, Voltage & phase adjuster model TPR-22VP is combined with model TPR-22 series.

Rating of models TPR-22CV & TPR-22CN

Model	TPR-22CV	TPR-22CN
Power supply	AC 220 V, 50/60 Hz	AC 220V, 50/60 Hz
Output ; circuit A	Current range: 0–50 A/750 VA with taps of 0.25, 0.5, 1.5, 5, 15, 50 A (30s for 50A)	same as model TPR-22CV but capacity 1 kVA
Output ; circuit B	Current range: 0–10 A/250 VA with taps of 1, 5, 10 A or voltage range: 0–300 V/30 VA with taps of 75, 150, 300 V	Current range: 0–10 A/150 VA with taps of 0.5, 1, 5, 10 A or voltage range: 0–300 V/70 VA with taps of 75, 150, 300 V
Quick-change	Change-over	from normal to fault by switch operation
	Contact	MAKE-contact (non voltage)
Current transformer	50–0.25 A/5 A, 3 VA 0.5 class 10–1 A/40 mA 0.5 class	100, 10, 1 A/1 A 3 VA 0.5 class 10, 1 A/0.1 A 0.5 class
Ammeter	5 A 0.5 class	1999 (4 digits) ±0.5% of FS ± 1 digit
Volt/Ammeter	75, 150, 300 V/10, 5, 1 A, 0.5 class	1999 (4 digits) ±0.5% of FS ± 1 digit
Millisecond meter Resolution	0–999.9999 sec. 7 digits LED 0.1 ms	0–999.9999 sec. 7 digits LED 0.1 ms