

Electrical Test & Measurement Instruments





PIK Series

Primary Current Injection Kit.

The Motwane's Primary Current Injection kit MOT-PIK series is most reliable & effective kit for testing & commissioning of protecting system in electrical substation. The PIK series offer high output current up to 3000 Amps with relatively high burden up to 20kVA. It is designed with user friendly features to check operations of protection component system including Current transformer, Circuit Breaker, Current Sensor and Relays The Motwane PIK with high VA burden makes it possible to deliver desired current to high impedance object like Current transformer. It has optional feature to measure CT secondary current as well as polarity.

Ordering Information

MOT-PIK200/1	Primary Current Injection Kit : 200A with 1kVA Burden
MOT-PIK500/3	Primary Current Injection Kit : 500A with 3kVA Burden
MOT-PIK800/5	Primary Current Injection Kit : 800A with 5kVA Burden
MOT-PIK1000/5	Primary Current Injection Kit : 1000A with 5kVA Burden
MOT-PIK1500/10	Primary Current Injection Kit : 1500A with 10kVA Burden
MOT-PIK2000/15	Primary Current Injection Kit : 2000A with 15kVA Burden
MOT-PIK2500/15	Primary Current Injection Kit : 2500A with 15kVA Burden
MOT-PIK3000/20	Primary Current Injection Kit : 3000A with 20kVA Burden

Features

- ✓ Variable Output Current
- ✓ High VA burden to test high impedance objects
- ✓ Digital timer for measuring tripping time
- ✓ Zero Start Interlock for safety
- ✓ Auto Cut-Off upon Tripping Relay
- ✓ Current range (Low - 50% & High - 100% of full range)
- ✓ CT sec current measurement (Optional)
- ✓ CT Polarity Detection (Optional)
- ✓ Wheel mounted for easy transportation



Applications

The primary current injection method is usually a preferred method to verify the current sensors, wiring, and the current conduction path in the breaker. In order to identify sensor and wiring related problems, it is recommended that the primary current injection test is to be conducted separately on each phase through current transformer that ensures that the sensors and wiring of the breaker are working proper.

The primary current injection method is also useful for testing current transformer ratio. The secondary current of the transformer bears a known relationship with the primary current. Any change in the primary current is reflected in the secondary circuit. To verify the turns ratio and polarity tests on CT, current injected on primary side of CT and measured at secondary side of CT for relaying to ensure that they have the correct turn's ratio and relaying accuracy.

High current injection (primary current) used is recommended during commissioning of protection systems and also recommended during major repairs and component replacement in power substations.

Motwane's Primary Current Injection Kits are used to test Current Transformers, Circuit Breakers, Bus Bars, Relays, MCBs, MCCBs etc.

Optional Features

- Measurement of CT sec current & Polarity
- Auxiliary variable AC/DC voltage 0-250V
- Measurement of Open Circuit Voltage of o/p current terminals

Warranty: Standard one year warranty against any manufacturing defects.

Technical Details

PIK Series

Technical Specification

	Model	MOT-PIK200	MOT-PIK500	MOT-PIK800	MOT-PIK1000	MOT-PIK1500	MOT-PIK2000	MOT-PIK2500	MOT-PIK3000
	Output Current	0-200A	0-500A	0-800A	0-1000A	0-1500A	0-2000A	0-2500A	0-3000A
	O/P Accuracy	±1.5% of full scale reading ± 2 digits							
	O/P Resolution	1A							
	Burden at 100mA	5V	6V	6.25V	5V	6.67V	7.5V	6V	6.67V
	Burden	1KVA	3KVA	5KVA	5KVA	10KVA	15KVA	15KVA	20KVA
	Timer	0.0001 to 9999 sec Auto ranging, Digital timer							
	Timer Accuracy	±0.05% ±2 counts							
	Mains Power Supply	230V AC ± 10 %, Single Phase, 50/60Hz							
	Operation Mode	Manual				Motorized			
	Duty Cycle	10 min ON, 20 min Off							
	Display	LED Seven Segment type Digital Display							
	Indication	Bright LED for Test ON and Power ON operation							
	Protection & Safety	Protected by MCB & Fuse Zero Start Interlock Over Current Tripping							
	Unit	Combined control & loading unit				Separate control & loading units			
	Operating Temperature	0-55°C, 5-90% RH Non Condensing							
	Standard Output Cables	50 mm ² (2X5) meters	120 mm ² (2X5) meters	180 mm ² (2X5) meters	240 mm ² (2X5) meters	400 mm ² (2X7) meters	480 mm ² (2X10) meters	600 mm ² (2X10) meters	720 mm ² (2X10) meters

*We also provide customized primary injection kit as per requirement. Weight & dimensions can vary as per the kV rating.

Accessories

Standard

- Test Lead set : pair of cotton braided copper
- Cables with lugs at both end
- Mains Power Supply Cord
- Spare Fuse
- Short Link
- Instruction Manual
- Calibration Certificate
- Warranty Certificate

Optional

- C - clamp
- Interconnecting cables

Notes : **1.** The Instrument is accompanied with Test & Calibration sheet. **2.** Test Facilities can be provided at the factory with the available test set-ups only. **3.** The company's policy includes continuous improvement of its product. We, therefore, reserve the right of any deviation from illustration or specifications without notice. **4.** Stated accuracies are valid from 10% of the range to 95% of the range. **5.** Accuracy specified for temperature range of 25°C ± 5°C & 55% RH ± 10%.

Contact Details

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