



# **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**

## **Technical Specification**

	Model	MOT- PIK3000	
	Output Current	0-3000A	
	O/P Accuracy		
	O/P Resolution		
В	Burden at 100mA	6.67V	
	Burden	20KVA	
	Timer	0.0001 to 9999 sec Auto ranging, Digital timer	
	Timer Accuracy	±0.05% ±2 counts	
Ma	ains Power Supply	230Vac ±10 %, Single Phase, 50/60Hz	
(	Operation Mode	Motorized	
	<b>Duty Cycle</b>	10 min On, 20 min Off	
	Display	LED Seven Segment type Digital Display	
	Indication	Bright LED for Test ON and Power ON operation	
Pr	otection & Safety	Protected by MCB & Fuse Zero Start Interlock Over Current Tripping	
	Unit	Separate control & loading units	
Оре	erating Temperature	0-55°C, 5-90% RH Non Condensing	
	Dimensions	1) Control unit	
		L*W*H=(580*410*990)mm	
		Approx.Wt 105 to 110kg	
		2) Loading transformer	
		L*W*H=(580*400*590)mm	
		Approx.Wt 95 to 98kg	
	Standard Output Cables	720 mm² (2X10) meters	
	*We also Provide customized Primary Injection kit as per requirement		

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# **Accessories**

Standard	Optional	
■ Test Lead set : pair of cotton braided copper	Short Link	C - clamp
Cables with lugs at both end	Instruction Manual	Interconnecting cables
Mains Power Supply Cord	Calibration Certificate	
■ Spare Fuse	<ul><li>Warranty Certificate</li></ul>	

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  $25^{\circ}\text{C} \pm 5^{\circ}\text{C} \& 55\% \text{RH} \pm 10\%$ .