

# 1PHASE PHANTOM LOADING KIT

## Technical Specification:

<b>Type</b>	: Continuously Variable Type
<b>Model No.</b>	: SR-VPF-320/10-1P
<b>Input</b>	: 415V AC $\pm$ 10%, 50Hz, 3P 4W or 3P 3W
<b>Capacity</b>	: 150VA in Total
<b>Application</b>	: To test and calibrate Single Phase Active, Reactive, and Apparent Power Energy Meter, Voltmeter, Ammeter, PF Meter.
<b>Salient Feature</b>	: <ol style="list-style-type: none"><li>1. Variable 1Phase Output Voltage ( 0 – 320V AC, P-N ).</li><li>2. Variable 1Phase Output Current ( 0 – 10.0A AC ).</li><li>3. Variable Phase Angle (<math>0^{\circ}</math> - <math>360^{\circ}</math>).</li><li>4. Voltage Selection ( 110V AC / 220VAC(P-N) with Off )</li><li>5. Current Selection ( 1A AC /10A AC per Phase with Off )</li><li>6. Current Forward / Reverse Selection</li></ol>

## **Voltage Output:**

Voltage Range	: 0 – 320V AC (P-N)
Range Selection	: 110V / 220V / Off
110V Range	: 0 – 150V AC
220V Range	: 0 – 320V AC
Burden	: 100VA
Volt Adjustment	: By a manual Variac

## **Current Output:**

Current Range	: 0 – 10.0A AC
Range Selection	: 1.0A / 10.0A /Off
1.0A Range	: 0 – 1.5A AC
5.0A Range	: 0 – 10.0A AC
Burden	: 50VA
Amp Adjustment	: By a manual Variac

## Phase Angle :

Phase Angle : 2 Nos. of Selector Switches is provided to change Phase Angle as follows.

1. **Coarse Selection( A,B,C,D,E,F) :** Using this Switch, Phase Angle ranges A =  $0^{\circ} - 60^{\circ}$ , Y =  $60^{\circ} - 120^{\circ}$ , C =  $120^{\circ} - 180^{\circ}$ , D =  $180^{\circ} - 240^{\circ}$ , E =  $240^{\circ} - 300^{\circ}$ , F =  $300^{\circ} - 360^{\circ}$  are selectable.

2. **Fine Selection(X,Y) :** Using this Switch, Phase Angles will be selected in 4 ranges within the range selected by **Coarse Selection** Switch. For example, if A =  $0^{\circ} - 60^{\circ}$  is selected by Coarse Selection, by **Fine Selection** X =  $0^{\circ} - 30^{\circ}$ , Y =  $30^{\circ} - 60^{\circ}$  ranges will be selected.

Phase Angle will be continuously adjustable by a Manual Variac for  $30^{\circ}$  in the range selected by **Fine Selector** Switch.

### Phase Angle Selection Table:

Fine	X	Y
Coarse		
A = $0^{\circ} - 60^{\circ}$	$0^{\circ} - 30^{\circ}$	$0^{\circ} - 60^{\circ}$
B = $60^{\circ} - 120^{\circ}$	$60^{\circ} - 90^{\circ}$	$90^{\circ} - 120^{\circ}$
C = $120^{\circ} - 180^{\circ}$	$120^{\circ} - 150^{\circ}$	$150^{\circ} - 180^{\circ}$
D = $180^{\circ} - 240^{\circ}$	$180^{\circ} - 210^{\circ}$	$210^{\circ} - 240^{\circ}$
E = $240^{\circ} - 300^{\circ}$	$240^{\circ} - 270^{\circ}$	$270^{\circ} - 300^{\circ}$
F = $300^{\circ} - 360^{\circ}$	$300^{\circ} - 330^{\circ}$	$330^{\circ} - 360^{\circ}$

## Power Factor :

Range : Measurement of Power Factor range will be -ZPF to Unity to +ZPF

Forward / Reverse : Forward / Reverse selection Switch is provided for Output Currents.

Protection	: Glass Fuse is provided for Input Power, Voltage Outputs and Current Outputs.
Meter	: 1 No. Multi Function Meter is provided for the indications of Voltage, Current, Power Factor and Phase Angle.
Terminals	: For 1P Voltage Output R, N terminals are provided. For 1P Current Output R1-R2 terminals are provided.
Input Cable	: Suitable 3 Core ( 2mts ) input power cable of suitable size will be provided.
Output Cable	: Not in our scope of supply.
Enclosure	: Two types of enclosures will be provided.  <ol style="list-style-type: none"><li>1. Table Top Model</li><li>2. Portable Type ( Box Type )</li></ol> Customer should mention the type while ordering.
Test Certificate	: In-house Test Certificate will be provided along with Kit.
Guarantee	: Guarantee Certificate for 12 Months from the date of Supply will be provided along with Kit.
Manual	: Detailed instruction manual will be supplied along with Kit.
Spares	: One set of spare fuses will be supplied along with Kit.