

# SmartGen

MAKING CONTROL SMARTER

## PTM6940A TRANSFORMER MODULE USER MANUAL



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**CONTENTS**

1 OVERVIEW ..... 4

2 PERFORMANCE AND CHARACTERISTICS..... 4

3 SPECIFICATIONS..... 4

4 TERMINAL CONNECTIONS..... 4

5 TYPICAL APPLICATION DIAGRAM ..... 5

6 CASE DIMENSIONS AND PANEL CUTOUT ..... 6



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**Table - 1 Software Version**

Date	Version	Note
2023-07-27	1.0	Original release.
2025-07-14	1.1	Modify the subscript numbering in Table 3 "Terminal Connection of Input Port" to be consistent with the numbers shown in the figure above.

## 1 OVERVIEW

**PTM6940A** is a transformer module that converts the input voltage of 690VAC (rated) to the output voltage of 400VAC (rated), which can be used with controller for high voltage acquisition.

## 2 PERFORMANCE AND CHARACTERISTICS

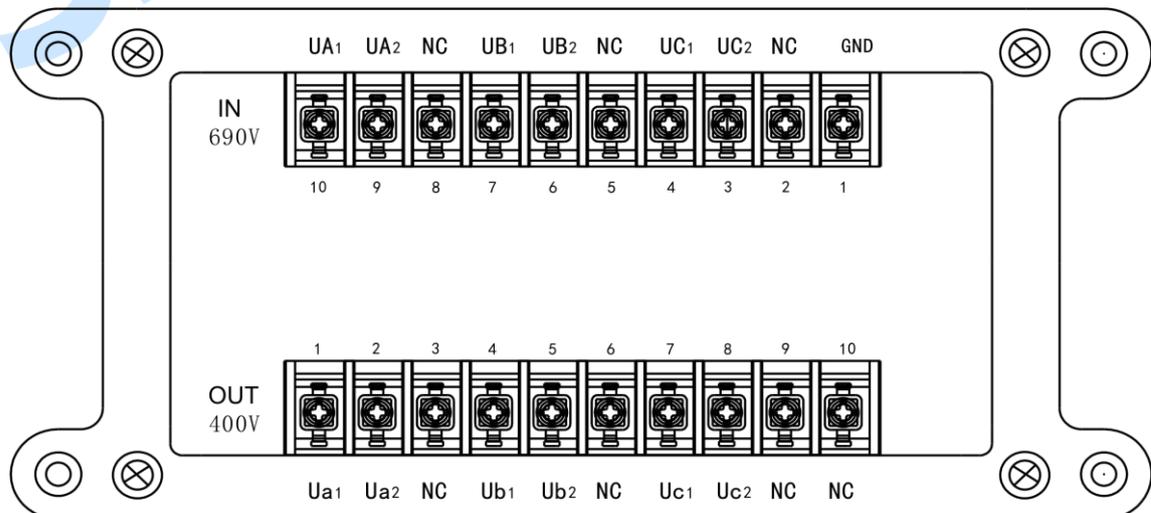
- Input voltage range: (0~828) VAC;
- Output voltage range: (0~480) VAC;
- Phase shift:  $\leq 2^\circ$ ;
- Accuracy:  $\leq 1\%$ ;
- Signal isolation;
- Applicable for 3P3W and 3P4W systems;
- Load power:  $>10VA$ .

## 3 SPECIFICATIONS

**Table 2 – Technical Parameters**

Items	Contents
Input Volt. (rated)	690VAC
Output Volt. (rated)	400VAC
Overall Dimensions	88mmx188mmx72mm
Working Temp.	(-25~+70) $^\circ$ C
Working Humidity	(20~93)%RH
Storage Temp.	(-30~+80) $^\circ$ C
Weight	2.839kg

## 4 TERMINAL CONNECTIONS



**Fig.1 – PTM6940A Terminals**

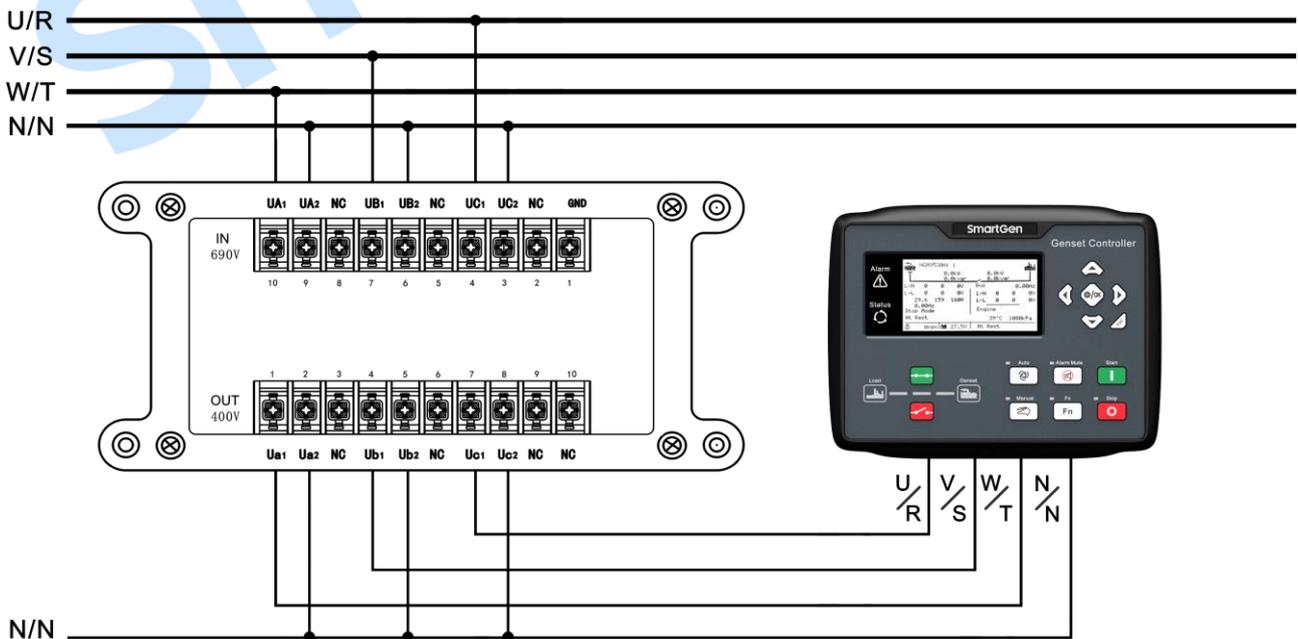
**Table 3 – Terminal Connection of Input Port**

Terminal No.	Name	Function	Remarks
1	GND	Earth Terminal	Connect to cable shielding layer
2	NC	NC	/
3	UC <sub>2</sub>	C-phase Voltage Input	Primary coil of C-phase
4	UC <sub>1</sub>		
5	NC	NC	/
6	UB <sub>2</sub>	B-phase Voltage Input	Primary coil of B-phase
7	UB <sub>1</sub>		
8	NC	NC	/
9	UA <sub>2</sub>	A-phase Voltage Input	Primary coil of A-phase
10	UA <sub>1</sub>		

**Table 4 – Terminal Connection of Output Port**

Terminal No.	Name	Function	Remarks
1	U <sub>a1</sub>	A-phase Voltage Output	Secondary coil of A-phase
2	U <sub>a2</sub>		
3	NC	/	/
4	U <sub>b1</sub>	B-phase Voltage Output	Secondary coil of B-phase
5	U <sub>b2</sub>		
6	NC	/	/
7	U <sub>c1</sub>	C-phase Voltage Output	Secondary coil of B-phase
8	U <sub>c2</sub>		
9	NC	/	/
10	NC	/	/

**5 TYPICAL APPLICATION DIAGRAM**



**Fig.2 – GEN Voltage Sampling Connection**

6 CASE DIMENSIONS AND PANEL CUTOUT

Unit: mm

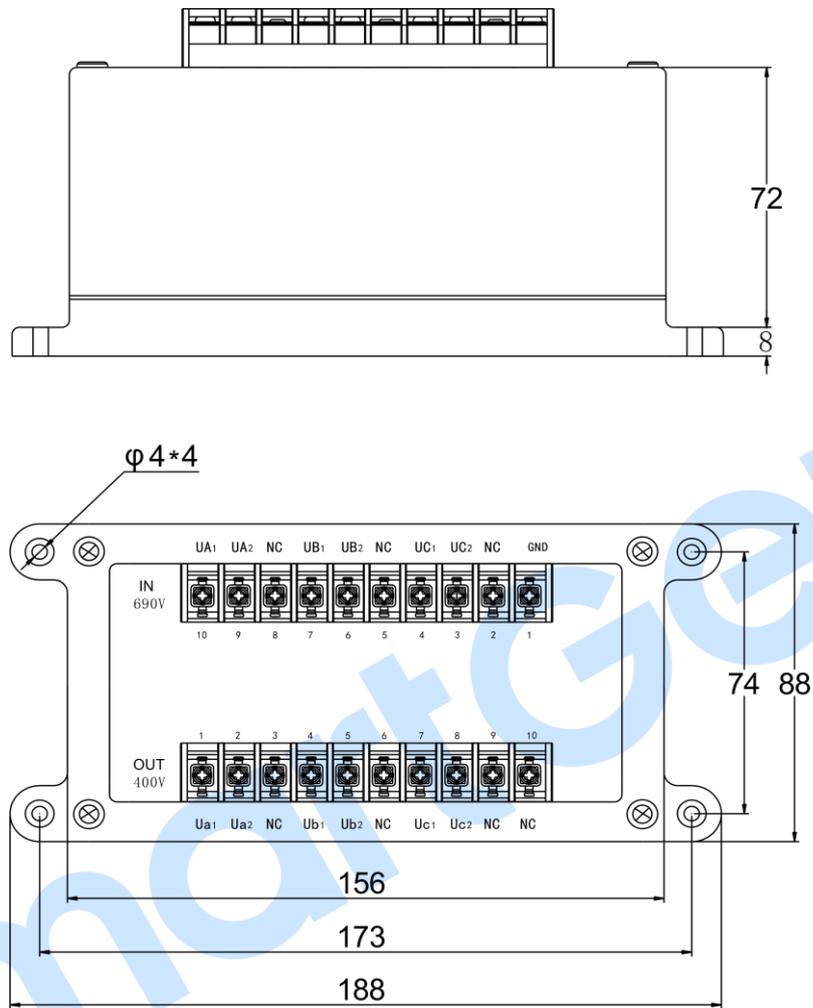


Fig.3 – Case Dimensions and Panel Cutout