



# PW636i

## Universal Test System

## Specifications

### Voltage generators

<b>Setting range</b>	
4-phase ac(L-N)	4×0~300V
1-phase ac(L-L)	1×0~600V
dc (L-N)	4×0~±300V
<b>Power</b>	
4-phase ac (L-N)	4×75VA typ., at 300V 4×50VA guar., at 300V
3-phase ac (L-N)	3×100VA typ., at 300V 3×85VA guar., at 300V
1-phase ac (L-L)	1×200VA typ., at 600V 1×170VA guar., at 600V
dc (L-N)	4×100 W at ±300 V
<b>Accuracy</b>	error < 0.08 % rd.+0.02 % rg. guar., at 0~300 V error < 0.03 % rd.+0.01 % rg. typ., at 0~300 V
<b>Ranges</b>	300V
<b>Resolution</b>	10mV for 300Vac
<b>Distortion</b>	< 0.05 % typ., (< 0.1 % guar.)

### Current generators

<b>Setting range</b>	
6-phase AC (L-N)	6×0~32A
3-phase AC (2L-N)	3×0~64A
1-phase AC (6L-N)	1×0~180A
dc (6L-N)	1×0~±180A
<b>Power</b>	
6-phase AC (L-N)	6×450VA typ. at 32A 6×400VA guar. at 32A
3-phase AC (2L-N)	3×800VA typ. at 64A 3×700VA guar. at 64A
1-phase AC (6L-N)	1×1200VA typ. at 180A 1×1000VA guar. at 180A
1-phase DC (6L-N)	1×1400W typ. at 180A 1×1000W guar. at 180A
<b>Max compliance</b>	
Voltage (L-N) (L-L)	21Vpk/42Vpk
<b>Accuracy</b>	error < 0.15 % rd.+0.05 % rg. guar., at 0~32A error < 0.05 % rd.+0.02 % rg. typ., at 0~32A
<b>Ranges</b>	32A
<b>Resolution</b>	1mA
<b>Distortion</b>	< 0.05 % typ. (< 0.1 % guar.)

### General

<b>Frequency</b>	
Sine signal	DC, 1~1000Hz
Transient signal	dc~10.0 kHz

<b>Accuracy</b>	±1ppm
<b>Resolution</b>	0.001 Hz

<b>Phase</b>	
Angle range	-360°~+360°
Accuracy	<0.05°typ., <0.1° guar. at 50/60Hz
Resolution	±0.001°

### Auxiliary dc supply

<b>Voltage range</b>	0~300V
<b>Power</b>	88W at 110V, 176W at 220V, 90W at 300V
<b>Accuracy</b>	error < 0.1 % rg. typ. (< 0.5 % rg. guar.)

### Power supply

<b>Nominal input voltage</b>	110~240Vac
<b>Permissible tolerance</b>	90~260Vac
<b>Nominal frequency</b>	50/60Hz
<b>Permissible frequency</b>	45~65Hz

### Binary inputs Group1

<b>Number</b>	8
<b>Input characteristics</b>	0~400Vdc threshold or potential free
<b>Sample rate</b>	20kHz
<b>Time resolution</b>	50µs
<b>Max. measuring time</b>	infinite
<b>Debounce/Deglitch time</b>	0~25ms
<b>Counting function</b>	< 3kHz at pulse width>150µs
<b>Galvanic isolation</b>	8 galvanically isolated

### Binary inputs Group2

<b>Number</b>	4
<b>Input characteristics</b>	0~+5Vdc or dry contact
<b>Sample rate</b>	25kHz
<b>Time resolution</b>	40µs
<b>Max. measuring time</b>	infinite
<b>Debounce/Deglitch time</b>	0~25ms
<b>Max. counting frequency</b>	25kHz
<b>Pulse width</b>	> 3µs
<b>Threshold voltage</b>	2V
<b>Voltage hysteresis</b>	0.8V
<b>Max. input voltage</b>	+5V

### Binary outputs, semiconductor

<b>Number</b>	4 (rear side)
<b>Type</b>	semiconductor
<b>Break capacity dc</b>	Vmax: 300Vdc /Imax: 0.5A/Pmax: 150W
<b>Update rate</b>	100µs
<b>Imax</b>	0.5A

### Binary outputs, relay

<b>Number</b>	4 (front side)
<b>Type</b>	Potential free relay contacts, software controlled
<b>Break capacity ac</b>	Vmax: 300Vac /Imax: 8A /Pmax: 2000VA
<b>Break capacity dc</b>	Vmax: 300Vdc /Imax: 8A /Pmax: 150W

### DC voltage measuring inputs

<b>Measuring range</b>	0~±10V
<b>Accuracy</b>	error < 0.02% rg. typ. (< 0.05% rg. guar.)
<b>Input impedance</b>	100KΩ

### DC current measuring inputs

<b>Measuring range</b>	0~±20mA
<b>Accuracy</b>	error < 0.02% rg. typ. (< 0.05% rg. guar.)
<b>Input impedance</b>	50Ω

### In-built monitoring and recording

<b>Monitoring</b>	currents and voltage outputs
<b>Recording</b>	analog outputs, binary inputs/outputs status
<b>Mode</b>	real time monitoring, no external wiring is required
<b>Recording length</b>	16s

### Low level outputs

<b>Setting range</b>	12×0~10Vpk
<b>Max. output current</b>	1mA
<b>Accuracy</b>	error < 0.025 % typ. (< 0.07 % guar.) at 1~10Vpk
<b>Resolution</b>	250µV
<b>Distortion(THD+N)</b>	< 0.05 % typ. (< 0.1 % guar.)
<b>Connection</b>	19 pin combination socket (rear side)

### IEC61850 upgrade

Interpretation hardware is in-built. Please contact the supplier for options to activate the IEC61850 software support function

### Environmental conditions

<b>Operation temperature</b>	0~+50°C
<b>Storage temperature</b>	-25~+70°C
<b>Relative humidity</b>	5~95% non - condensing
<b>EMC (Emission)</b>	IEC-61000-3-2/3
<b>EMC (Immunity)</b>	IEC 61000-4-2/3/4/5/6/11
<b>Safety</b>	IEC 61010-1

### Others

<b>PC connection</b>	Ethernet, 10M/100M
<b>External amplifier interface</b>	Circular connector
<b>Current booster interface</b>	Circular connector
<b>GPS interface</b>	DB9/TTL
<b>Ground Socket (earth)</b>	4 mm banana socket; front side
<b>Weight</b>	20kg
<b>Dimensions (W x H x D)</b>	360 mm× 157mm× 427 mm

