



PW866i

Protection Relay Tester

Specifications



Voltage generators	
Setting range	
4-phase ac(L-N)	4×0~300V
1-phase ac(L-L)	1×0~600V
dc (L-N)	4×±0~300V
dc (L-L)	1×±0~600V
Power	
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)	4×100W at ±300V
Accuracy	error<0.08% rd.+0.02% rg. guar. at 0~300V error<0.03% rd.+0.01% rg. typ. at 0~300V
Ranges	300V
Resolution	10mV for 300Vac
Distortion	<0.05% typ., <0.1% guar.
Current generators	
Setting range	
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
Power	
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
Max compliance	
Voltage(L-N) (L-L)	21Vpk/42Vpk
Accuracy	error<0.15% rd.+0.05% rg. guar., at 0~32A error<0.05% rd.+0.02% rg. typ., at 0~32A
Ranges	32A
Resolution	1mA
Distortion	<0.05% typ., < 0.1% guar.
General	
Frequency	
Sine signal	DC, 0.001Hz~1000Hz
Transient signal	DC~10.0kHz
Accuracy	±0.3ppm
Resolution	0.001Hz
Phase	
Angle range	-360°~+360°
Accuracy	<0.05° typ., <0.1° guar. at 50/60Hz
Resolution	±0.001°
Auxiliary dc supply	
Voltage range	0~300V
Power	88W at 110V, 176W at 220V, 90W at 300V
Accuracy	error<0.1% rg. typ. <0.5% rg. guar.
Power supply	
Nominal input voltage	110~240Vac
Permissible tolerance	90~260Vac
Nominal frequency	50/60Hz
Permissible frequency	45~65Hz
Binary inputs group 1	
Number	8
Input characteristics	0~400Vdc/ac peak threshold or potential free
Sample rate	20kHz
Time resolution	50μs

Max. measuring time	Infinite
Debounce/deglitch time	0~25ms
Counting function	<3kHz at pulse width >150μs
Galvanic isolation	8 galvanically isolated

Binary inputs group 2

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

Binary outputs, semiconductor

Number	4
Type	semiconductor
Break capacity dc	Vmax: 300Vdc /Imax:0.5A/Pmax: 150W
Update rate	100μs
Imax	0.5A

Binary outputs, relay

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

DC voltage measuring inputs(optional)

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

DC current measuring inputs(optional)

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

In-built monitoring and recording

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

Low level outputs

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

IEC61850 Goose function (optional)

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

Environmental conditions

Operation temperature	0~+50°C
Storage temperature	-25~+70°C
Relative humidity	5~95% non-condensing
EMC(E&I)	EN/IEC 61326-1 EN/IEC 61000-3-2/3 EN/IEC61000-4-2/3/4/5/6/8/ 11/18
Environment	EN/IEC 60068-2-1/2/3/6/27
Safety	EN/IEC 61010-1/1-12/2-030 EN/IEC 60255-25/27
Others	FCC Part 15: Sub B ECS-001:2006 LVD EU

Developed and manufactured under an ISO 9001: 2015 registered system

Others

Control mode	PC, Local
2 USB Ports	USB-disk, mouse, keyboard
GPS interface	DB9/TTL
Ground Socket(earth)	4mm banana socket, top side
Weight	24kg
Dimensions (WxHxD)	364mm ×200mm×475mm