



Model PW460

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

Power

4-phase ac (L-N)	4×85VA at 300V
	3×120VA at 300V
1-phase ac (L-L)	1×170 VA at 600V
	(two generators in series)
dc (L-N)	4×100 W at ±300 V

Accuracy	error < 0.08 % rd.+0.02 % rg. guar. error < 0.02 % rd.+0.01 % rg. typ.
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Ranges	300V
Resolution	10mV for 300Vac
Distortion	< 0.05 % typ. (< 0.1 % guar.)

Current generators

Setting range

6-phase AC (L-N)	6×0~15A
3-phase AC (L-N)	3×0~30A
1-phase AC (3L-N)	1×0~90A
dc (L-N)	6×0~±10A
dc (3L-N)	1×0~±60A

Power

6-phase AC (L-N)	6×150VA at 15A
3-phase AC (L-N)	3×240VA at 30A
1-phase AC (3L-N)	1×450VA at 90A
1-phase AC (L-L)	1×450VA at 30A
Max compliance voltage (L-N) (L-L)	15Vpk/32Vpk
dc (L-N)	6×100W at ±10A
dc (3L-N)	1×540W at ±60A

Accuracy	error < 0.08 % rd.+0.02 % rg. guar. error < 0.02 % rd.+0.01 % rg. typ.
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Ranges	15A or 30A
Resolution	1mA
Distortion	< 0.05 % typ. (< 0.1 % guar.)

General

Frequency

Sine signal	DC, 1~1000Hz
Transient signal	dc~10.0 kHz
Accuracy	±1ppm
Resolution	0.001 Hz

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, 120W at 300V
Accuracy	error < 0.1 % rg. typ. (< 0.5 % rg. guar.)

Power supply

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

Binary inputs Group1

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

Binary inputs Group2

Number	4
Input characteristics	0~+5Vdc or dry contact
Sample rate	100kHz
Time resolution	10µs
Max. measuring time	infinite
Debounce/Deglintch time	0~25ms
Max. counting frequency	100kHz
Pulse width	< 3µs
Threshold voltage	2V
Voltage hysteresis	0.8V
Max. input voltage	+5V

Binary outputs, semiconductor

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

Binary outputs, relay

Number	4 (front side)
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 input

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

DC current measuring input

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

External analog recording unit (optional)

Channel	10
See details of optional accessory	AR-10

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 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

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

Others

PC connection	Ethernet, 10M/100M
External amplifier interface	Circular connector
Current booster interface	Circular connector
Synchronization control interface	Coaxial cable connector
GPS interface	RS232
Ground Socket (earth)	4 mm banana socket; front side
Weight	20kg
Dimensions (W x H x D)	360mm× 157mm× 367 mm